

THF POLICY BRIEF NO. 11

Building Systemic Resilience in School Systems

The Way Forward



ADB



JANUARY 2021



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ISBN 978-92-9262-663-1 (print); 978-92-9262-664-8 (electronic)
DOI: <http://dx.doi.org/10.22617/BRF210007-2>

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On the cover: Students wearing masks in the classroom (photo by saravutpics/Shutterstock.com)

SECTION 1: INTRODUCTION

It started slowly, almost insignificantly. But in a mere few months, what most people thought of at first as a regional infection had evolved into a global nightmare. The coronavirus disease (COVID-19) pandemic has overturned every aspect of life as we know it, and its impact on global education is arguably one of the most critical. With schools closed and students confined in their homes, the restriction of access to learning has been devastating for children, their parents and schools alike.

This pandemic is not the first, nor will it be the last, to impact school systems. This crisis and the responses to it have exposed blind spots and weaknesses in educational systems, while creating opportunities to address rigidities and reshape school education making it more resilient and robust.

The solution lies in neither a top-down approach from policy makers, reactive changes to teacher preparation and in-service training, nor temporary makeshift arrangements by under-resourced principals and teachers. All parties need to be involved in developing strategies that can be implemented in the near-term as well as the long-term.

To create and stimulate dialogue amongst key stakeholders in education, The HEAD Foundation, in partnership with the Asian Development Bank, organised an online workshop in October 2020 for over 50 policy-makers, teacher educators and school leaders, from Bangladesh, Cambodia, the Lao People's Democratic Republic, the Kyrgyz Republic and Viet Nam.

A unique feature of this workshop was the bringing together of these three professional groups to achieve alignment and agreement on the way forward. Such coherent direction-setting is not a common occurrence in normal policymaking, where school leaders, teacher trainers and policymakers do not each have a complete picture or common perception of the issues.

Equity, Access and Resourcing Issues in the New Normal

Issues of equity and access in education, particularly basic education, are undeniably important. Inequality in education, if left unchecked, will not only have serious implications on a country's growth trajectory but can potentially lead to the unravelling of the social fabric. Education as the biggest enabler can help level the playing field and enhance opportunities for everyone.

All reforms proposed in this report, are premised on the importance of ensuring equity and access in education for all children. To ensure that children have a shot at a quality basic education, it is necessary that an education system is adequately resourced and its success prioritised by national governments.

The education system must raise all boats with the rising tide and be seen to do so. Technology can democratise access to education, but if deployed unequally, can exacerbate existing inequalities. The sudden shift to online learning due to school closures during the COVID-19 pandemic has exacerbated inequalities because of the lack of access to internet for many disadvantaged groups. To avoid the emergence of a digital divide, the adoption of e-pedagogy, enhanced teacher capacity-building, and equitable access to internet and devices will require additional resources. Education budgets will need to be enhanced and better targeted.

This policy brief sets out the workshop's overarching conclusions to anticipate, prepare and reform K-12 education systems for the 'New Normal' – a post COVID-19 world. It is in three sections covering the changes and reforms proposed for:

- (a) Short-term response
- (b) Mid-term recovery
- (c) Long-term rejuvenation

SECTION 2: SHORT-TERM RESPONSE

With a resurgence of COVID-19 in many countries during the tail end of 2020, and universal vaccination still some time away, the priority in all countries, particularly in poorer regions where home-based learning might not be feasible, is to (keep) open schools safely so that schooling and learning can continue.

Risk-Reward of (Re)-Opening Schools

In the short-term, the primary focus should be on getting students back to school safely and ensuring that there is necessary infrastructure and capacity to support a blended learning model. Parents need to be assured that going to school is as safe as or safer than not going to school, and that all steps are being taken to keep the school environment safe. The steps that are necessary would be:

SCHOOL OPERATIONS



- Split schools and reduced class sizes
- Daily temperature checking for students and staff before and after school
- Mandatory wearing of face masks
- Provision of masks, particularly in under resourced regions
- Face shields for teachers
- Regular cleaning/wipe-down of facilities (involve students)
- Frequent handwashing/sanitising
- Staggered breaks
- Reduced and re-designed co-curricular activities
- Emergency Standard Operating Procedures (SOP) in case of high temperature and/or breathing issues in staff and students
- Personal protective equipment (PPE) for emergencies

TEACHING AND LEARNING CONTINUITY



- Train teachers in basic e-learning and e-pedagogy
- Create shared e-resources across schools and districts
- Implement basic hybrid learning
- Install off-grid power supply
- Educate and involve parents
- Ensure access to appropriate teaching delivery channels (radio, television, Wi-Fi), connectivity (in common spaces if not at home) and devices
- Engage relief teachers or teacher aides for off-location classes
- Negotiate with authorities to reduce academic testing and/or high stakes examinations with provisions for feedback and practical formative assessment

COMMUNITY RESOURCES AND SUPPORT



- Strengthen engagement with and involvement of parents to support their children and parent-teacher committees to ensure a safe learning environment
- Work with civil society organisations
- Negotiate with Telcos for last-mile connectivity to schools and homes
- Engage community/religious leaders
- Partner with private providers that can provide cost-effective practical e-learning solutions
- Engage business and industry leaders

SECTION 3: MEDIUM-TERM RECOVERY

Once the pandemic is brought under control and widespread outbreaks unlikely, countries should begin to crystallise their education reform agenda. Most countries in developing Asia already had a reform agenda conceived before COVID-19. However, the pandemic has shone a bright and uncomfortable spotlight on the inadequacies of many education systems and their intended reforms. Despite the devastation caused, COVID-19 has presented us an opportunity to comprehensively reform these systems, not only to ensure that students are better prepared for tomorrow's jobs but to also ensure the resilience of education systems against future catastrophes.

Any comprehensive national education reform agenda should look closely at the issues discussed below, and where appropriate address them in the medium-term.

3.1 Lesson Delivery

The pandemic has shifted the focus to a hybrid model of curriculum delivery – combining school-based learning with self-paced learning at home; this – is plausibly the more resilient model for delivery of learning. Systems which are adept in both aspects will be able to switch from one to the other as circumstances demand.

A range of mid-tech platforms, based on synchronous learning and intermediate technologies which are affordable and accessible, can be considered for this phase. To build the necessary infrastructure for blended learning, policy makers need to build long term partnerships with the private sector; Big Tech and Telcos, by emphasising that supporting basic education not just enhances their corporate social responsibility (CSR) practices but also strengthens their business growth.

The GIGA initiative to connect all schools, launched by UNICEF and International Telecommunication Union in 2019, is gaining traction, underscoring the criticality of affordable, reliable and stable internet connectivity along with cost-effective devices to eliminate the digital divide.

3.2 Building Teacher Capacity

In the medium-term, greater emphasis needs to be placed on building the capacity of educators in the

correct and impactful use of technological tools that are freely available.

To support hybrid learning, teachers have to be trained in e-pedagogies, reskilling them in new ways of lesson planning and delivery. It is best that teachers have access to learning platforms and devices for a period so that they can become familiar and acculturated to the technology. This helps them design lessons and innovate to meet their students' needs. Teachers' digital skills and enhanced confidence will need to be the first areas to be addressed when moving to a hybrid model of schooling. These will increase as they gain competence in developing more interesting and visual lessons.

As it would be difficult to undertake centralised training for teachers, the option of having a pool of floating trainers going from school to school and conducting in-service training in the field can be considered through a cluster approach and within a framework that provides flexibility while ensuring standards. These trainers can be drawn from a list of accredited providers from the EdTech and information and communication technologies (ICT) sectors, with different companies assigned to different districts.

3.3 Common Digital Resources

To reduce overlap and wastage, a central repository of digital resources and lessons by grade and topic should be established. Teachers can be incentivised to deposit their work here, and receive credits if these are used by others. While different countries are already doing some of this, it needs to be more systematic and organised around key principles such as competencies, digital literacy, collaboration, cost-effectiveness, and linkages between short-term, medium-term and long-term thinking to make it enduring.

As the school education system moves towards placing greater emphasis on learning rather than schooling, more activity-based materials need to be produced to replace standard textbooks. These materials can be in both print and digital formats with better provision for continuous formative assessment for teachers, and self-paced learning by students. Since some of these materials are already available in other educational systems as well as in the private education space, education authorities can negotiate for the use of existing materials rather than re-invent the same. However, this may require aligning with the national

curriculum while reducing the loaded content in the existing curriculum wherever needed.

“ As the school education system moves towards placing greater emphasis on learning rather than schooling per se, more activity-based materials need to be produced to replace standard textbooks. ”

3.4 Communities of Practice

It is also important to establish communities of practice (COPs) among teachers so that they both share and learn from each other as they move into the digital space. The learning runway could be long for some and shorter for others, and COPs can speed up the learning curve as the demand on teachers' time will continue to be high. As teacher training institutions may or may not have the qualified personnel to lead this move to e-pedagogy, it will be important to explore, wherever feasible, private-public partnerships to bring about synergies in training arrangements.

3.5 Addressing the Rural-Urban Divide

A common challenge faced by many developing Asian economies is the rural-urban divide in the quality of education. Rural schools rarely attract enough qualified teachers who are willing to relocate to the countryside. Financial and other incentives such as accommodation, school facilities and infrastructure, and career progress can be studied to make the transition easier for relocating teachers. There are good lessons from countries that have done this successfully.

LESSON DELIVERY

- Hybrid model of curriculum delivery
- Range of affordable and accessible mid-tech platforms

BUILDING TEACHER CAPACITY

- Training in e-pedagogies.
- Pool of floating EdTech trainers for in-service training, in schools
- Access to learning platforms and devices

COMMON DIGITAL RESOURCES

- Central repository of digital resources and lessons
- More activity-based materials to replace standard textbooks

COMMUNITIES OF PRACTICE (COP)

- Establish COPs for teachers to share and learn from each other

ADDRESSING THE RURAL-URBAN DIVIDE

- Study financial and other incentives to attract more teachers to rural schools

PREPARING FOR SKILLS

- Rebalance academic emphasis in school curricula
- Position TVET as an attractive option for students

3.6 Preparing for Skills

In the medium-term, education authorities should also be looking at making technical and vocational education and training (TVET) more attractive in order to rebalance the academic emphasis in school curricula. Certain vocational subjects can be included as part of a secondary school curriculum for all students, not just academically weaker ones. Drawing on good practices, such subjects could include

electrical wiring and troubleshooting, coding, web-designing, toy-making, horticulture, etc. which give students a positive experience of TVET and technical skills. Regardless of what later pathway they may choose, such skills would be useful later in life.

SECTION 4: LONG-TERM REJUVENATION

School systems which have successfully implemented short-term responses and embraced medium-term recovery strategies will be ready for the next level of building resilience and education reform.

4.1 Moving to 21st Century competencies

The first among reforms to be prioritised would be in the area of curriculum and assessment. A standardised and rigid curriculum with its concomitant high-stakes examinations is less resilient to disruptions, not just in the logistics of schooling but also in meeting the rapid changes in the technology of knowledge creation and dissemination.

For reform to be sustainable, the volume of teachable curriculum needs to be re-examined with new emphasis on the process of learning, through activities in school as well as out-of-school. A problem-finding and problem-solving approach replicates real world challenges more closely; with information and knowledge available freely, the skill of critical analysis and verification will become more important. The Singapore experience with its “Teach Less, Learn More” initiative could hold useful lessons. Additionally, several countries are emphasizing STEAM (science, technology, engineering, arts and mathematics) education in order to promote inquiry-based and project-based learning.

4.2 Reducing and Localising Curriculum

The long-term education reform agenda could also embrace greater decentralisation of governance authority to districts and municipalities. This would include some localised curriculum over and above the core national curriculum. Municipalities provide promising opportunities to develop innovative schools that could also support rural schools through networks. More importantly, a radical change from a didactic approach in teaching to one that is more student-centric has to be a key component of school education reform.

Teach Less, Learn More (TLLM)

Initiated in Singapore in 2005, the TLLM initiative resulted in a more streamlined academic curriculum and a 25% cut in curriculum content. The two thrusts of TLLM were to provide support for ground-up initiatives by teachers and school leaders, and to give students greater flexibility and choice in subjects.

Schools could hire additional support staff, allowing teachers to spend more time customising lessons and engaging in research, to develop curriculum innovations based on unique learners’ profiles. Students were also allowed time to participate in non-academic enrichment such as character building and pastoral care. A diversity in school curriculum also allowed students more choice in subjects, outside of the usual classes offered in their stream.

Findings show that TLLM has made learning more exciting, interesting, and enjoyable, while creating more attentive learners, and improved open communication and innovation amongst teachers.

4.3 Moving from Summative to Formative Assessment

Assessment can then move from examinations to a more continual format, assessing different competencies. The new generation adaptive learning technologies are increasingly driven by data and evidence on learning and teacher effectiveness. Since students have been attuned to preparing for examinations, the move to assessment of competencies will steer students in developing those skills needed to become more employable; and progress in their careers and in life with greater confidence and fulfilment.

4.4 Entrenching In-Service Teacher Development

The key to these changes is continuing professional development of the teaching force until this becomes firmly grounded as a standard process of teacher development. Every teacher should be entitled to retraining at regular intervals, even if this means that trainers have to visit teachers in their school districts,

instead of the other way around. New training designs need to be considered to ensure that professional development is timely, relevant and has impact on student learning.



4.5 Downstream Effects

However, these reforms would hit a roadblock if the college entry requirements do not respond to the new realities. Post-secondary educational institutions would need to broaden their entry criteria beyond academic grades and consider student portfolios and achievement across a broader range of abilities, talents and competencies.

4.6 Promoting Skills Through TVET

Finally, no reform would be complete if the TVET infrastructure is not also upgraded to meet the new knowledge and skills requirements of business and industry. The curriculum has to be more closely aligned and adapted to the economic growth areas of each country.

TVET has to be emphasised as a viable and attractive option leading to good jobs and careers. Entrepreneurship takes root more easily when skills are developed and honed in the marketplace. A virtuous cycle of economic growth and job creation can then be realised.

4.7 Appropriate and Reliable Infrastructure

The education technology needed to support this reform agenda has to include reliable high-speed internet connectivity, which is taken as a given in most advanced countries. This includes power supply, regular maintenance and upgrading of systems and devices every three to five years.

SECTION 5: WORKING TOGETHER IN ALIGNMENT

The phased reform process described in this policy brief allows for a gradual progress to a new normal in post-pandemic school education. The end objective is a more resilient education system capable of withstanding future disruptions. From opening schools safely in the short-term, to building teacher and digital capacity in the medium-term and realising a hybrid system of blended learning in the long-term, the proposals provide a roadmap of measured progress in accordance with planned outcomes and benchmarks, yet with the opportunity for corrective actions along the way.

The workshop also demonstrated that when policymakers, teacher trainers and school leaders work together towards a common purpose and vision, a joint plan of action can be achieved. It also paves the way for speedier execution of policies. Government support for the reform of teacher training integrating with the digital world will probably be the most critical aspect of this transformation. Together with reductions in curriculum load and changes in teaching methods and assessments, reform agendas will have a high probability of succeeding.

The pandemic provides all those involved in education the motivation and impetus to speed up reform so as to prepare future generations to be both productive and resilient. The key to moving forward is building system-wide resilience so that lessons from the current pandemic response will help to build crisis response systems against future disruptions that may come from natural disasters, conflicts, closures of public facilities and strikes; not just health-related disruptions. The close working relationship and partnership established between school leaders, teacher trainers and policymakers gives much hope for the future.

About This Policy Brief

This policy brief is a product of *Meeting the Challenges of the New Normal in School Education*, a professional development programme co-organised by the Asian Development Bank (ADB) and The HEAD Foundation (THF). It presents short-, medium-, and long-term actions to anticipate, prepare and reform K-12 education systems for the 'New Normal' – a post COVID-19 world. It was written by Dr N Varaprasad, Principal Consultant; with contributions from Professor S. Gopinathan, Academic Advisor, THF, Dr Brajesh Panth, Chief of Education Sector Group, ADB, and Mr Vignesh Naidu, Director, Operations, THF.

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