



Learning recovery and COVID-19 in **Pakistan**



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EXECUTIVE SUMMARY

In the wake of COVID-19, there is a global focus on learning recovery, emerging from the learning losses anticipated across the world due to school closures and disruptions in education caused by the pandemic. For Pakistan, this is an equally pressing concern not only due to the pandemic-induced learning losses, but also due to the reality that even the pre-pandemic era, Pakistani children had low learning levels.

This document summarizes the key insights from global research and interventions across the world being undertaken for students' learning recovery or remediation and adds contextualized recommendations.

Pakistan's federal and provincial education departments responded with quick adaptations during COVID-19 induced school disruptions with a core focus on mitigating negative effects on students. A national television broadcast, Teleschool, was launched to help students learn during school closures, examination calendar was adjusted and policies introduced to facilitate students with limited learning time in the year and the curriculum was shortened to facilitate student learning.¹ It will be important for state education departments to orient the education strategy for the upcoming academic year(s) towards learning recovery.

2. CONTEXT

This section lays out the need for Pakistani policy-makers and practitioners to focus on learning recovery in the short and medium-term

Students in Pakistan's classrooms are not where they need to be. Even before the COVID-19 pandemic, students' learning level was alarmingly low. The ASER 2019 Survey estimated that in Grade 5, on average, only 6 out of every 10 children could read a story in Urdu/Sindhi or Pashto, only 55% could read sentences in English and similarly only 57% could do 2-digit division in mathematics (a Grade 3 Student Learning Outcome).² COVID-19 has caused massive disruptions in education systems across the globe, including in Pakistan, exacerbating this existing achievement gap to disastrous proportions.

In the 2020-2021 academic cycle, due to COVID-19 induced school closures, students in Pakistan attended school for less than two months. While different approaches were implemented by government and non-governmental actors to push for learning continuity solutions, a large majority of Pakistani students have spent little to no time on learning activities over the course of this academic year.³

Research studies estimate that the time away from classrooms has created learning losses for students that, in the long term, will affect their learning and life outcomes unless serious mitigation is undertaken by those responsible for education policy development and implementation. According to global estimates, students in Grade 5 who lost about half their school year due to COVID-19 are at risk of accumulating a learning loss equivalent to a full year in the long term, if no mitigation takes place.⁴

Pakistani children spend 9.1 years in school, accumulate learning of only 5.1 years. This is expected to reach 4.3 years due to COVID-19

World Bank

The Punjab Education Commission conducted a study of students in Grade 5 by measuring their performance on assessments in March 2020 against their performance on the same assessments in September 2020 to estimate their learning loss during this period. According to the results, students, on average, lost approximately 12 percentage points in Science,⁵ 10 percentage points in Math's, 14 percentage points in English and 10 percentage points in Urdu. As part of Punjab's Literacy and Numeracy Drive Grade 3 students were assessed in September 2019 and again on September 2021 against the same 6 learning outcomes in English, Math's and Urdu. This data also shows a notable drop in students' mastery of the learning outcomes across all subjects.⁶

The recently published study by ASER and UNICEF also found learning losses in students in Pakistan due to COVID-19 induced school closures and these losses were most significant for government school students, particularly in primary grades, and for girls.⁷

According to World Bank (WB) estimates, Pakistani children currently spend about 9.1 years, on average, in school but only accumulate 5.1 years of learning during this time. Due to extended school closures because of COVID-19, the WB simulations suggest that actual learning could now fall to 4.3 years.⁸

These estimates only provide a conservative glimpse of the current situation but point towards a worrying reality. A focused diagnostic strategy is required to identify exactly what the current learning or achievement gap is for students in Pakistan so as to be able to fully understand the challenge ahead for our education departments and preparation of subsequent strategies to address them.

If this current learning gap is left unaddressed, it poses serious threats to learning equity and efficiency. Girls, children with disabilities, and lower income students are now, more than ever, likely to fall behind or leave school entirely.⁹ Without adequate means to identify and address learning losses, teachers may find themselves working with a wider range of learning levels than that found in the pre-pandemic period, when multigrade classrooms were already common.

In light of this, it is critical for federal and provincial education departments to prioritize learning recovery for the current and future academic years that allow for students' rapid and targeted growth in foundational learning. The following sections of this document provide recommendations and best practices from around the world to address the student achievement gaps, the need for which has become increasingly urgent due to the COVID-19 induced learning losses.

3. UNDERSTANDING LEARNING 'LOSS'

Human learning is cumulative. Low levels of learning over a sustained period of time accumulate as achievement or learnings gaps for children. This means that:¹⁰

01

Mastering foundational skills

Children have not mastered the foundational skills in early years of their schooling, particularly in literacy and numeracy, and as they progress these foundational gaps hinder their ability to learn new material in higher grades

02

Children's learning needs

Low learning continues to persist as classroom instruction and curricula is poorly aligned with the child's learning needs year on year. For example, a student in Grade 4, who has not yet mastered Grade 2 level learning outcomes will find the classroom and books too advanced and will continue to struggle to learn

03

Varied learning levels

In the same grade level, there will be a wide variation of learning levels among children. This hinders the teacher's ability to address all the students' needs in a typical classroom, therefore, exposing struggling students to the risk of being left behind

04

Learning retention

When schools are closed new learning does not take place and what has been learned is likely to be forgotten.

There are a number of targeted remedial or learning recovery strategies that follow some key principles to help children catch up and build the foundational skills necessary for them to keep learning.

4. LEARNING RECOVERY

Learning recovery approaches focus on identifying and remediating gaps in students learning according to their respective grade levels.

Typically, learning recovery or remediation strategies use a combination of the following approaches to close students' learning gaps:^{11,12}

More time

find ways of creating more 'learning' time for students within the academic year

Targeted instruction

Align instruction in this additional learning time to children's current learning levels and goals for their subsequent learning progress

Reduced content

Prioritize curricula and instruction to build students' foundational literacy and numeracy skills and limit the scope of the contents to be covered in the academic cycle

Higher quality teaching

Provide additional teaching resources (teachers and learning materials) to schools or help existing teachers improve teaching pedagogy to 'target' struggling learners

However, before an effective remediation strategy can be put together, it is critical to have an accurate diagnosis of students' specific learning needs at various age and grade levels. In absence of a diagnostic assessment framework that can identify exactly what learning outcomes students have mastered and what foundational learning outcomes have been 'lost' in former instructional years and during the pandemic, education departments will be unable to devise a targeted approach towards learning recovery for their children. The following section presents some recommendations towards a diagnostic strategy for education departments.

4.1 Diagnosis: pre-requisite for learning recovery strategies

Education departments across Pakistan currently do not have a standardized diagnostic framework that can allow educators to identify exactly what learning outcomes students have mastered and which ones they have not. Respective education departments conduct standardized examination in Grade 9 and 10. To identify and remedy learning loss for students, this is already too late in the academic trajectory of a child.¹³

In grades 5 and 8, education departments across Pakistan use varying strategies to measure student achievement of grade 5 and 8 learning outcomes. However, these examinations are not standardized and can vary in design methodology and content across schools even within a sector/district. Moreover, these examinations are meant to be summative, do not serve a diagnostic or formative purpose and cannot be used to identify, for example, which earlier grade-level learning outcomes have not been mastered by a student who sits for a grade 5 exam.

Education departments need to create a diagnostic strategy that can identify the following as a first step to creating a learning recovery strategy:

- a) For every individual child, what learning outcomes have been mastered and what learning gaps exist, according to grade and subject level, focusing primarily on foundational subjects and skills such as languages (English, Urdu and/or local language), Maths and Science;
- b) For a whole class, what are the various learning levels that exist within one class. This will allow the teacher to align instruction to students' learning needs.

There are multiple approaches for a diagnostic strategy and while the scope of this paper is not to detail those, UNICEF provides a simplified summary, presented in Figure 1.

Option	Direct assessment of all students	Direct assessment of sampled students	Teachers survey	Students / parents survey
Baseline availability	The system/school has a good understanding of the baseline and able to test all students effectively	Baseline available and can test a sample of students	Some baseline available and can assess all students indirectly	No baseline and can assess sample of students indirectly
Approach	Diagnostic assessment / test	Diagnostic assessment / test	Survey teachers after first week of school re-opening	Sample survey of parents and students via phone prior to school re-opening
Prerequisites to success	Baseline data available for every student Robust remote learning	Baseline data available for select student groups Robust remote learning	Strong teacher capabilities to assess students in first week of re-opening (through conversations, quizzes, etc.)	Access to parents and students
Pros	Personalised understanding of each students needs Accurate remediation strategies	Personalised understanding of select students needs Focus on students at risk or transitional grades	Teacher understanding of their students' needs to adapt remediation strategies Incorporates socio-emotional needs	Access to an estimated understanding of learning loss prior to school start Incorporates socio-emotional needs
Cons	Lack of preparedness & induced stress of assessments Does not provide understanding of the socio-emotional needs	Lack of preparedness & induced stress of assessments Does not provide understanding of the socio-emotional needs	Inaccuracies in teachers' approach	Inaccuracies in data gathered due to sample size

Figure 1: Summary of approaches to assess student learning loss¹⁴

Additionally, during the implementation of any learning recovery strategy, on-going or formative assessments are necessary to gauge student growth on intended outcomes of the strategy as well as to make adjustments as needed.

LEARNING RECOVERY: STRATEGIES

There is a global focus on learning recovery, as countries address COVID-19 induced challenges in their respective contexts. Learning recovery has also been a focus of experts and researchers for Low Income (LI) countries, particularly in the last decade as student achievement gaps or learning gaps has risen as a key issue in education discourse.¹⁵

The following section of the document aims to highlight learning recovery strategies that have shown impact and are contextually feasible for Pakistan.

Principle	Strategy	Key points	Advantages	Risks
Targeted instruction	In-class pedagogy: Mastery approach	Allow for in-class diagnostic assessment for prerequisite content knowledge before introducing new unit/chapter	<p>Customised approach towards remediation</p> <p>Takes into account variations across classrooms, schools, and districts</p> <p>Provides teachers with the flexibility to target 'learning losses'</p>	<p>The additional time taken for diagnosis and remediation might be a disincentive for teachers interesting in timely completion of the course content</p> <p>Wider outreach required to all teachers to equip them with the diagnostic / remediation tools</p>
More time	Increased School Time	Increase duration of school hours to enable teachers and students to slow the pace of learning in an academic year	<p>Allow teachers to better cater to diverse learning needs in one class</p> <p>Reduce pressure of 'syllabi completion' in limited time, allowing for more focus on comprehension as opposed to 'memorization'</p>	<p>Without Targeted Instruction, struggling learners in a class are likely to keep falling behind peers</p> <p>With double- shift schools, limited scope of application</p>
More Time Targeted Instruction Higher quality teaching	After school remedial program	Introduce after school program for struggling learners through which teachers can focus on growing 'foundational' skills and learning outcomes	<p>Allows struggling learners to build foundational skills that can enable rapid growth in grade-level learning outcomes</p> <p>Allows for smaller groups of similar skill levels to learn together</p> <p>Allows for lower student-teacher ratio and more dedicated time/student</p>	<p>Significant investment needed in teacher preparation, motivation and training to differentiate remedial learning from mainstream classroom learning</p> <p>Special curricula required with focus on foundational skills aligned to grade and subject level learning gaps</p> <p>With double- shift schools, limited scope of application</p> <p>Investments required to build parent partnership for success of program</p>

LEARNING RECOVERY: STRATEGIES

(continued)

Principle	Strategy	Key points	Advantages	Risks
<p>More Time</p> <p>Targeted Instruction</p> <p>Higher quality teaching</p>	<p>Summer Foundational Program</p>	<p>Introduce summer program (During June-July 2022) for struggling learners that focuses on growing 'foundational skills and learning outcomes</p>	<p>Allows struggling learners to build foundational skills that can enable rapid growth in regular academic year</p> <p>Allows for smaller groups of similar skill levels to learn together</p> <p>Allows for lower student-teacher ratio and more dedicated time/student</p> <p>Allows for 'remedial' learning to occur without pressures of examination and syllabi completion as in a regular academic cycle</p>	<p>Significant investments needed in teacher preparation, motivation and training to differentiate remedial learning from mainstream classroom learning</p> <p>Special curricula required with focus on foundational skills aligned to grade and subject level learning gaps</p> <p>Investments required to build parent partnership for success of program</p>
<p>Reduced content</p>	<p>Compressed Curriculum</p>	<p>Reduce syllabi for standard academic year to focus on key learning outcomes</p>	<p>Allows teachers to focus on core learning outcomes</p> <p>Reduce pressure of 'syllabi completion'</p>	<p>Without Targeted Instruction, struggling learners in a class are likely to keep falling behind peers</p> <p>'Exam' pressure will continue to push teachers and students to prioritize 'passing exam's as opposed to reducing foundational learning gaps</p> <p>Without partnership across higher-secondary examination boards and inter provincial and federal education departments, limited scope of application</p>
<p>Targeted Instruction</p>	<p>Foundational Skills Curriculum</p>	<p>Introduce dedicated time 'upfront' at the start of the academic year to focus on foundational skills</p>	<p>Allows struggling learners to build foundational skills that can enable rapid growth in the upcoming academic year</p>	<p>Special curricula required with focus on foundational skills according to grades and subjects</p> <p>Significant investments needed in teacher preparation, motivation and training to differentiate remedial learning from mainstream classroom learning</p> <p>Without additional time in the academic year or compressed content, this will increase pressure on remaining academic year</p>

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LEARNING RECOVERY: STRATEGIES

(continued)

Principle	Strategy	Key points	Advantages	Risks
More Time Targeted Instruction	After school 'Tutoring'	Utilize existing or additional (volunteer) teaching resources to provide students access to after school tutoring in small groups or one-on-one	Allows students to access targeted and individualized support in their respective learning needs	<p>Significant investments needed in teacher preparation, motivation and training to differentiate remedial learning from mainstream classroom learning</p> <p>Significant investments needed to incentivize an already 'overburdened' teaching staff to take on additional work or to set up a structured and high-quality volunteer program</p>
Targeted Instruction	In-School remediation	Set aside time in the existing school day 'period' 0 for teachers to focus on remediation	-Allows struggling learners to build foundational skills on an ongoing basis	<p>Significant investments needed in teacher preparation, motivation and training to differentiate remedial learning from mainstream classroom learning</p> <p>Without increasing time in the overall school day/academic year, or introducing compressed content this will increase pressures on teachers and students in an already constrained academic cycle</p>
Targeted Instruction	After school Peer Tutoring	Mobilize older grade students to tutor younger grade students in an after-school program	Allows students to access targeted and individualized support in their respective learning needs	<p>Limited learning recovery for older grade students</p> <p>Requires significant investment from student and parent body</p> <p>Variation in tutoring support can be expected as older grade students also have significant learning gaps</p>

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LEARNING RECOVERY: STRATEGIES

(continued)

4.2.1 'More Time' learning recovery strategies

To allow for a focus on learning recovery, dedicated time is required in the academic year for teachers and students to engage with remedial learning strategies. Pakistan education departments have already shown a willingness to utilize this principle in the COVID-19 strained academic year. Saturdays were included in the school week and schools were opened during June (2021), which is traditionally part of summer break, to make up for lost time in the academic calendar. During the academic cycle 2020-2021, this approach helped as a measure to keep learning going and salvage whatever was possible of the academic cycle. A similar orientation is required in the upcoming academic year to now allow for a learning recovery focus.

However, simply increasing 'learning' time in the academic cycle will have limited benefits for struggling students. This approach needs to be coupled with Targeted Instruction so that the *additional time* in the academic cycle can be utilized specifically to help students falling behind.

Existing evidence and approaches utilized by other countries support this approach.

In 1990, Pratham (an Indian NGO) partnered with the government to introduce the Balsakhi program, which contained a two-week remedial program at the beginning of the year and ongoing reinforcements of several hours during a regular school week.¹⁶ The Teaching At the Right Level (TaRL) approach was born out of this intervention, which focuses primarily on closing learning gaps for struggling students. A key component of this approach requires additional time to be created in a school day or academic year so that remedial strategies can be applied with focus and outside of the constraints and pressures of 'completing syllabi' or 'preparing students for an end-of-year examination' as is the modus operandi of a traditional school day/academic year.¹⁷ TaRL approaches have shown to have significant impact on closing students' learning gaps.¹⁸

Many countries, including the United States, are introducing extended school year programs, including summer programs, along with other measures to focus the upcoming academic years on learning recovery.¹⁹

4.2.2 'Targeted Instruction' learning recovery strategies

There is a large body of evidence which shows that *targeted instruction is a key pillar of any learning recovery strategy*.²⁰

To close pre-existing or new learning gaps in students, 'business-as-usual' or standard classroom instruction approaches do not work. Curricula and classroom instruction are overambitious and are targeted at the 'top' of the grade, therefore moving children too fast for them to keep up (particularly if they already behind) and

causing children to fall increasingly behind on learning outcomes or stop learning altogether.²¹

This approach requires a targeted focus on building children's foundational skills like literacy and numeracy. Existing data already indicates that Pakistani students have vast gaps in their mastery of these foundational skills, that are a cornerstone for student mastery across various subjects.²² If children do not master

LEARNING RECOVERY: STRATEGIES

(continued)

4.2.2 'Targeted Instruction' learning recovery strategies (continued)

foundational skills early on and the curriculum continues progressing, then they will not be able to engage in more advanced topics in later grades.²³

Therefore, this principle requires targeting (or aligning) instruction to the learner's actual learning level as opposed to grade level content.²⁴ There are multiple ways of aligning instruction to students' actual learning levels. However, this will require a) an accurate understanding of students' current learning levels through diagnostic and on-going formative assessments, b) specific, time-bound goals to identify learning targets, c) special (remedial) curricula that identifies pre-requisites or foundational learning outcomes that are crosscutting across grades for language,

mathematics and science subjects as per the notified curriculum. In addition, resource materials and teacher trainings will be required to help teachers navigate this remedial curriculum and adjust pedagogy with a focus on building student comprehension and learning, as opposed to memorization.²⁵

School education departments can choose implementation models according to resource and implementation priorities, however, each of these approaches requires significant investments, particularly to build resource materials, teacher motivation and skill as well as parent partnership, yet without this, there is limited hope of learning recovery and thus is recommended as an important priority for education departments to undertake.

4.2.3 'Compressed content' to aid learning recovery strategies

The above two sections already identify that a focus on learning recovery will be a significant and important undertaking for any education department in Pakistan.

This will be even more so for students and teachers. Students and teachers already struggling to keep up, require alleviation in the regular school year to a) create tactical room in the academic cycle to bring in the focus on learning recovery, and b) avoid risk of confused priorities and overwhelming objectives; simply to offer scaffolding to the learning process.

A compressed or reduced syllabus for the overall academic year, therefore, is an important component of a learning recovery strategy. Federal and provincial

education departments already recognized this need and reduced the syllabus in the COVID-19 affected school year of 2020-2021.

However, while that alleviated pressures slightly, the other limitations of the school year, primarily school closures and an ever-evolving COVID context that pushed for short-term decisions, a reduced curriculum for the current and upcoming academic year(s) will further strengthen the efforts towards learning recovery of Pakistani students. This is also a highly recommended approach by many education experts analyzing the post-COVID education scenario, including UNESCO and RISE and is an approach other countries are following in their own education recovery responses.²⁶

LEARNING RECOVERY: STRATEGIES

(continued)

4.2.4 Higher Quality Teaching: Preparing teachers for learning recovery strategies

Ultimately, the success of any learning strategy hinges on the quality of instruction and pedagogy teachers employ in service of helping students learn. It is the accumulation of system-wide gaps in classroom instruction that have led to learning gaps. COVID-19 induced effects on the education system, household incomes, and on teachers' and students' socio-emotional wellbeing have further exacerbated these gaps.

Adapting or targeting instruction to children's learning levels requires specialized pedagogy and is not a trivial undertaking. Any program that focuses on learning recovery will need to prioritize providing high-quality support for teachers.²⁷ Teachers will need to be trained in pedagogy that focuses learning on building student comprehension and mastery of foundational skills and learning outcomes in all school tiers, as opposed to rote-learning or memorization techniques.

In addition, teachers will need to be equipped to differentiate remedial curricula

from the standard or full-year curricula and on the use of formative assessment for on-the-spot adjustments in pedagogy (teaching style and content to maximize student understanding). Resources such as lesson plans, teaching guides or student learning resources provided to teachers to aid this effort will be meaningful support.

Successful approaches do not only provide training and investments early on or at the start of such initiatives, but build in models of ongoing support or coaching for teachers so that teachers receive continuous feedback for incremental improvement.²⁸

Moreover, additional teaching resources can alleviate some of the existing challenges of teacher workloads and can allow teachers to be motivated for and invest necessary time in learning required for effective adaptation to educating in the COVID and post-COVID era.²⁹

5. RECOMMENDATIONS

Pakistani students had low learning levels even before the pandemic and COVID-19 induced school closures have pushed them further behind, creating additional learning losses and exacerbating system inefficiencies and inequities. Learning loss has necessitated global focus on learning recovery. In light of this reality, Pakistan's federal and provincial education departments should prioritize learning recovery strategies for the current and upcoming academic cycles. State education departments will also have a key role to play in encouraging and supporting non-state education providers, particularly the low-cost private schools and non-profit schools, to prioritize and implement learning recovery strategies.³⁰

01 Diagnostic strategy

A diagnostic strategy to identify specific learning needs of Pakistani students with respect to their grades and across subjects, particularly languages, mathematics and science

03 Prioritizing recovery

A nation-wide focus and cross-departmental prioritization of learning recovery so as to adjust the goals expected from education departments and teachers for this and upcoming academic year(s)

04 Foundational curricula

Designing special 'foundational' curricula that matches the needs of students' actual learning needs and goals

05 Supporting teachers

A significant investment to prepare teachers for learning recovery initiatives. This will require, targeted teaching resources, pedagogical training that helps teacher adapt learning to meet students' learning needs, and ongoing support.

06 Supporting non-state actors

Provide necessary support to private/non-state education providers, particularly in areas of diagnostic strategy, diagnostic tools, and remediation strategies (including teacher training, resources, guidance on approaches)

02 Remediation program

A remediation program that aims to do the following:

- i. Target instruction to children's actual learning levels;
- ii. Focus on building students' foundational skills in literacy and numeracy
- iii. Focus on building student mastery of learning outcomes / skills as opposed to completion of 'content' and memorization;
- iv. Reduce content or 'curricula' for the standard academic year to create room for learning recovery or 'remedial' programs;
- v. Create additional time in the academic cycle to allow for struggling learners to get the targeted help they need and catch up to their peers; and
- vi. Prepare teachers to use pedagogical approaches in classrooms that can assess students' actual learning levels and then focus class-time to build students mastery on respective foundational learning outcomes

While this requires a reorientation of the priorities for this academic year, the federal and provincial education departments have already shown, in the last academic cycle, both the willingness to adopt new approaches and the intention that their core focus is ultimately students' success. It is with the same spirit that the recommendations made in this document hope to aid the government's existing efforts to ensure that all Pakistani students continue to learn and thrive.

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ANNEXURE

Potential long-term learning losses due to COVID-19, without mitigation:

Years of learning lost by grade 10, ..

Choose grade in which COVID-19 shock o..
5



Please cite as: Belafi, Carmen and Kaffenberger, Michelle (2020): Potential long-term learning losses due to COVID-19, without mitigation, RISE Programme, [access date].
Data source: PISA-D 2018.



Figure 2: Projections of learning losses for 5th grade students

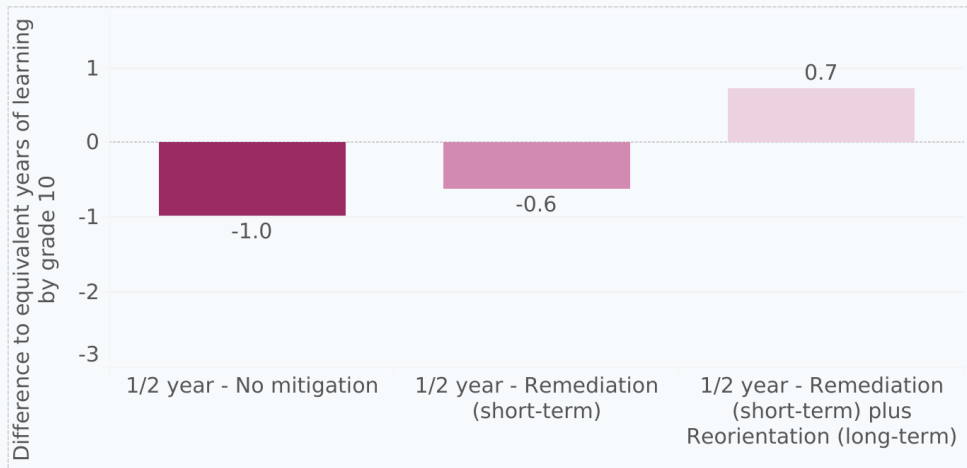
Long-term effects of different strategies to mitigate the COVID-19 shock:

Years of learning lost by grade 10, ..

Select magnitude of initial learning los..

- Initial learning loss: 1/3 year
- Initial learning loss: 1/2 year

Choose grade in which COVID-19 choc..
5



Please cite as: Belafi, Carmen and Kaffenberger, Michelle (2020): Long-term effects of different strategies to mitigate the COVID-19 shock. RISE Programme, [access date].
Data source: PISA-D 2018.



Figure 3 Projections of learning losses for 5th grade students if remediation strategies put in place

Learning recovery and COVID-19 in Pakistan

