REIGNITING LEARNING: STRATEGIES FOR ACCELERATING LEARNING POST-CRISIS

A REVIEW OF EVIDENCE

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LIST OF EXHIBITS

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ACRONYMS AND ABBREVIATIONS

AEWG	Accelerated Education Working Group
ADHD	Attention Deficit Hyperactivity Disorder
AEP	Accelerated Education Program
AEWG	Accelerated Education Working Group
ALP	Accelerated Learning Program
ASER	Annual Status of Education Report
BPS	BRAC Primary Schools
BRAC	Bangladesh Rural Advancement Committee
COVID-19	Coronavirus Disease 2019
EN	Escuela Nueva
ENLC	Escuela Nueva Learning Circles
IBE	UNESCO's International Bureau of Education
HIC	High-Income Countries
IEP	Institute for Education Policy, Johns Hopkins University
INEE	International Network for Education in Emergencies
J-PAL	Abdul Latif Jameel Poverty Action Lab
LIC	Low-Income Countries
LOI	Language of Instruction
LSYOU	Louisiana State Youth Opportunities Unlimited
MIC	Middle-Income Countries
MLC	Minimum Learning Competencies
MoE	Ministry of Education
NRC	Norwegian Refugee Council
PSS	Psychosocial support
RABEA	Radio Based Education for All
RCT	Randomized Control Trial
SAP	Student Achievement Partners
SD	Standard Deviation
SEL	Social-Emotional learning
SOEP	German Socio-Economic Panel
SPARK	Skills, Participation and access to Relevant Knowledge
SSIRI	South Sudan Interactive Radio Instruction

TaRL	Teaching at the Right Level (Pratham Program)
TCA	Teacher Community Assistant
TNTP	The New Teacher Project
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WWC	What Works Clearinghouse

EXECUTIVE SUMMARY

The COVID-19 pandemic presents an unprecedented global challenge. While it has disrupted education globally, millions of learners in developing and crisis- and conflict-affected contexts regularly experience such disruptions to their education. As such, a global imperative has emerged to help learners catch up on learning after educational disruptions. Despite its importance, however, the evidence on the teaching and learning components of *how* to accelerate the learning process is scarce.

USAID commissioned this evidence review is to aggregate, analyze, critique, and present existing evidence on how to effectively accelerate learning for all learners at the basic and secondary education levels, including the most marginalized. The acceleration of the learning process refers to helping students develop knowledge and skills more quickly, more deeply, and more effectively.[1] Accordingly, this evidence review is guided by the following question:

What teaching and learning strategies help to accelerate learning (to learn faster, deeper, more effectively) in an equitable and inclusive way?

Two sub-questions further elaborate the research aims:

1. What are effective strategies for **condensing curricula and adapting instructional time** to accelerate learning for all learners, including the most marginalized?
2. What are effective **pedagogical practices** (including the integration of psychosocial/social-emotional learning [PSS/SEL] and distance learning strategies and approaches) to accelerate learning for all learners, including the most marginalized?

Findings draw upon the literature from both developing and high-income country contexts. Findings provide insights into successful configurations of curriculum, instructional time, and pedagogy, but fall short of identifying one approach that has proven effective in multiple contexts.

STRATEGIES TO ADAPT THE CURRICULUM

Following periods of interrupted instruction, whether due to the COVID-19 pandemic or due to crisis and conflict, there is a need to cover both missed and new content when learning resumes. One key strategy is adapting the curriculum to promote learning that is faster, deeper, and more effective. Several effective strategies emerge for adapting the curriculum:

- **Maintain a focus on current grade-level standards,** with appropriate support for requisite skills to master the expected material.
- **Prioritize competencies, namely mastery of literacy and numeracy,** to bring learners up to speed.
- **Collaborate with local authorities to reduce repetition and focus on foundational skills.** One approach may be to eliminate review periods at the beginning of the year or streamline the curriculum to reduce overlaps between different grade levels.

STRATEGIES TO ADAPT INSTRUCTIONAL TIME

Adapting *when* and *for how long* learners are exposed to a curriculum is another strategy used to help learners catch up on lost learning. Based on the local logistical and resource constraints, adaptations to instructional time identified in the literature include:

- **Extending hours;**
- **Using a pull-out model during school hours;** and
- **Implementing intensive, periodic learning camps.**

While the literature was lacking on distance learning**, integrating distance learning techniques** with other strategies holds the potential for extending instructional time and accelerating learning.

EFFECTIVE PEDAGOGICAL STRATEGIES

While it can be difficult to "disentangle" pedagogical practices from other strategies used for catching up, certain learning activities and strategies used by educators can encourage or support faster, deeper, or more effective learning. Findings and conclusions relevant to pedagogical practices within the context of accelerating learning demonstrate that more successful programs:

- **Provide opportunities for learners to connect to prior knowledge and offer relevant materials and real-world content.**
- **Guide students to reflect upon their learning process and discuss their performance** in order to develop and reinforce learning-to-learn capacities.
- **Establish a supportive and enabling environment within the classroom** that features a positive teacher-student dynamic, sets high expectations for students, and provides adequate support to foster learning.
- **Organize learners into pairs and small groups, and frequently rearrange groupings to motivate students.** Small groups also offer the opportunity for differentiated instruction.
- **Use approaches that place students in groups according to competency levels.** This approach must acknowledge the challenges for inclusion.
- **Implement a tutoring strategy that fosters a nurturing and positive relationship between the learner and tutor.** Tutoring also offers a way to extend instructional time.
- **Provide instructors,** whether they be certified teachers, paraprofessionals, or trained community members, **with sufficient initial and in-service professional development opportunities and coaching to effectively implement a learner-centered and active pedagogical approach.**

Multiple variables other than curriculum, instructional time, and pedagogy, such as the background of teachers, location of classes, existence of counseling and other wraparound services, and the structure and content of the curriculum prevent strict causal linkages between these adaptations and program effectiveness. A more pragmatic approach takes into account logistical and resource constraints that must be addressed in order to allow effective instruction to take place. It is also important to note that the review concludes that there is a dearth of evidence on how best to accelerate learning inclusive of

all learners. More research and disaggregated analysis are warranted to develop targeted and effective pedagogical approaches that accelerate and deepen learning in core competencies for different subgroups of learners.

As a result of this literature review and consultation with an expert review panel, a series of key recommendations have emerged for USAID staff and partners, partner government education officials, and other donors. These recommendations offer pragmatic suggestions on how to integrate effective strategies for accelerating learning and catching up following education disruptions. In addition, this review presents opportunities for building the evidence base and strategies to improve the monitoring and evaluation of catch-up education and remedial education programs.

INTRODUCTION

The COVID-19 pandemic presents an unprecedented global challenge. In April 2020, approximately 1.6 billion learners, from pre-primary through tertiary education, were affected by COVID-19-related school closures in at least 194 countries[2]—approximately 91.3 percent of the world's enrolled students.[3] While countries have begun reopening education institutions, UNESCO[4] estimates that 24 million of these learners are at risk of not returning to school, with almost half living in South and West Asia, and Sub-Saharan Africa. The education response to the pandemic offers an opportunity to reimagine and transform education systems.

Within this context, there is a critical need for evidence to provide insights into how to best support learners who are resuming education or training after being absent for several months or longer. Learners who have been out of school for less than one year may need catch-up programs to help them recover missed content and lost learning, and some learners, particularly those who are now over-age, may need full accelerated education programs.[5] Regardless of the type of program, the majority of learners will need some way to speed up their learning and get back on track.

In addition, while COVID-19 presents its own massive educational disruption, significant numbers of global learners in developing and crisis- and conflict-affected contexts regularly experience disruptions to their education. The need to accelerate learning and help learners catch up after educational disruptions is an enduring challenge beyond the COVID-19 response.

The education in development/education in emergencies sub-fields offer limited evidence on the teaching and learning components of accelerating the learning process. The body of rigorous evidence and guidance for programming formally designated as "accelerated education" (see definition below) is similarly weak.[6,7,8] In recognition of this gap, the Accelerated Education Working Group[9] has made a concerted push to provide definitions of key terms, establish principles and guidelines, and rally practitioners to produce evidence to inform practice. The present review further extends that work in reaching out to various sub-fields within education and both Global North and Global South contexts to identify promising curricular and pedagogical practices that can enhance learners' core competencies within an accelerated or catch-up education program in crisis-affected contexts.

OBJECTIVE

The objective of this evidence review is to aggregate, analyze, critique, and present existing evidence on how to effectively accelerate learning for all learners, including the most marginalized. The primary audience for this review is the USAID COVID-19/Education Task Team as well as USAID Mission staff, ministries of education and higher education, and implementing partners. The review seeks to assist in the development of guidance on how to design and structure education interventions to accelerate the learning process and help learners catch up in response to COVID-19 and other disruptions. It is also likely that this review may be useful for the work of other education stakeholders, including higher education institutions, donors, other implementers, and researchers.

According to Charlick's[10] foundational piece linking accelerated learning theory and programming with international development education programming, the acceleration of the learning process refers to helping students develop knowledge and skills more quickly, more deeply, and more effectively.[11] This evidence review is guided by the following question: **What teaching and learning strategies help**

to accelerate learning (to learn faster, deeper, more effectively) in an equitable and inclusive way?

Two sub-questions further elaborate the research aims:

1. What are effective strategies for **condensing curricula and adapting instructional time** to accelerate learning for all learners, including the most marginalized?
2. What are effective **pedagogical practices** (including the integration of psychosocial/social-emotional learning [PSS/SEL] and distance learning strategies and approaches) to accelerate learning for all learners, including the most marginalized?

In order to delimit the review, emphasis was placed on basic and secondary education levels. The review also focuses on face-to-face modalities.

METHODOLOGY

Given the breadth of the inquiry, the research team employed an appreciative inquiry approach[12] to identify effective education programs and to draw out the strengths of their structure and strategies that support accelerating learning. The review team utilized a multi-pronged approach that included 1) review of known published resources and subsequent identification of potentially relevant resources through publication references, 2) searches of academic databases such as Elsevier, ERIC, ProQuest, and Google Scholar,[13] and 3) Internet searching for grey literature from websites of key organizations and repositories, including the USAID Development Experience Clearinghouse and Education Links repositories, What Works Clearinghouse (WWC), World Bank, and UNESCO.

The literature search was complemented with phone calls and emails with subject experts who directed attention to other available resources, specifically grey literature. (See Annex A for more information on individuals contacted.) A smaller expert panel also reviewed the initial first draft. This same group convened for a co-creation workshop on September 14, 2020, to validate findings and deliberate on initial high-level recommendations (see Recommendations section below). Insights from the panel offer additional information and fill in gaps in some sections of the report where information was scant.

SCREENING CRITERIA

Screening criteria initially prioritized more recent materials with a date of publication going back ten years (to 2010), though a dearth of existing documentation resulted in reviewing documents as early as 2004. Due to limited evidence in international development and crisis- and conflict-affected contexts, relevant literature from middle-income and high-income countries was sourced in order to address gaps. Similarly, the review drew across multiple sub-fields within education, including accelerated education, international development programs, community education, and remedial education.[14] Given the breadth of the review permitted by this contract, the search targeted useful literature that describes the curricular and pedagogical strategies from successful programs rather than an exhaustive review. Time constraints prevented a review of less successful examples using the same approaches, which could have provided greater insights into the conditions under which particular approaches are more or less effective.

Initial selection prioritized credible quantitative studies/evaluations, particularly more rigorous studies with a comparison group. Recognizing the limited examples available from low- and middle-income contexts, where necessary, more qualitative studies were also included in the review. This is especially true in cases where evaluation documents established program effectiveness but did not address curricular or pedagogical elements. To the extent possible, the team relied upon more descriptive studies of these programs to fill out the details of the intervention. In total, 73 studies were reviewed.[15] To the degree possible, assessments of the strength of evidence are included throughout the narrative.

ANALYSIS

An analytical matrix using Excel software provided the framework for collaborative analysis. Once studies met the screening criteria for providing information on effective programming, as well as insights into the curriculum and pedagogical strategies utilized by the program, the team logged the entries. Columns within the matrix allowed for notation of appropriate citation, country of study; income-level

(Lower-Income Country (LIC), Middle-Income Country (MIC), or High-Income Country (HIC)); crisis and conflict context; type of program (e.g., remedial, community education, accelerated education, other non-formal education), focus of content area; schooling level; age of learners; methodology; brief summary of general findings; study limitations; strength of evidence; responses relevant to each research question; and a column dedicated to information about social inclusion, if applicable. Once the team concluded the documentation collection phase, thematic analysis began, in which notes from entries were clustered around particular sub-themes relevant to the research questions. As applicable, the team also paid attention to outliers. Lastly, the team wrote up case studies to highlight particularly notable programs in order to present these programs holistically to the reader to complement the thematic presentation of findings by research question. Programs chosen for case studies were identified due to the evidence of strong effectiveness within the literature as well as the availability of descriptive information on their curriculum and pedagogical practices. This review is a foundational piece of analysis upon which future work can be built. The analytical matrix may serve as an effective tool for future teams.

CONCEPTUAL FRAMEWORK

In order to answer the research questions, this review draws heavily upon accelerated education literature but expands to investigate non-formal education programming[16] more generally, including alternative education, community education programming, and remedial education initiatives. Examples were only included in the review if they sought to accelerate learning in some way. The research team relied largely upon descriptions provided by program literature to determine if a program would be "accelerated," "remedial," or "community" education." The distinctions between these categories are often blurred. Community education programs, also called "complementary," operate in a unique context where limitations to formal public schooling result in a community-based approach to providing education. DeStefano, Shuh, Balwanz, and Hartwell[17] identify four unique features that support the success of community programs: 1) teachers are locally recruited, 2) management and governance of the school are based within the school and the community, 3) "schools are small and close to the communities they serve," 4) schools use local languages "to deliver a simplified curriculum devoted to basic literacy and numeracy skills." Remedial education, however, refers to programs that seek to address gaps in students' understanding.[18] The AEWG[19] defines remedial programs as "additional targeted support, concurrent with regular classes, for students who require short-term content or skill support to succeed in regular formal programming." Many community education and remedial programs face the same need to foster a learning process that is faster, deeper, and more effective for disadvantaged learners.

The AEWG articulates clear definitions and principles that provide critical framing to the evidence review. This review defines a catch-up program in accordance with AEWG's[20] definition:

> A short-term transitional education programme for children and youth who had been actively attending school prior to an educational disruption, which provides students with the opportunity to learn content missed because of the disruption and supports their re-entry to the formal system.

Similarly, the AEWG[21] defines an accelerated education program (AEP) as:

> A flexible, age-appropriate programme, run in an accelerated timeframe, which aims to provide access to education for disadvantaged, over-age, out-of-school children and youth. This may include those who missed out on, or had their education interrupted, due to poverty,

marginalisation, conflict and crisis. The goal of Accelerated Education Programmes is to provide learners with equivalent, certified competencies for basic education using effective teaching and learning approaches that match their level of cognitive maturity.

Several characteristics differentiate catch-up programs from AEPs. Catch-up programs typically focus on shorter periods of education disruption, typically less than one year. AEPs focus specifically on older learners (ages 10-18) who may have attended school previously or may have never enrolled, and who have been out of school for longer periods of time. In the context of the COVID-19 pandemic, many school systems will be facing a period of disruption of a year or less, making catch-up programs an appropriate response. Nonetheless, lessons from AEPs provide insights that may be applicable to accelerating the learning process more generally. Educational disruptions, like COVID-19, also provide an opportunity for education providers to attract out-of-school youth toward more formalized learning offerings, a consistent focus of AEPs.

Catch-up programs and AEPs help learners move through the target curriculum in a shorter time period than traditional education programs by condensing the curriculum and, ideally, using accelerating learning pedagogy. "Accelerated learning" refers largely to underlying theory and approaches to teaching and learning drawing upon research from the cognitive and neurosciences. This research conceives of acceleration not only in chronological terms as *faster* but also as *deeper* and *more effective*.[22,23,24] Foundational practices central to accelerated learning theory take into account multiple intelligences theory[25] and learner-centered, active pedagogies. While many AEPs and catch-up programs aspire to integrate accelerated learning approaches, the constraints of working in humanitarian and development contexts often restrict the extent to which pedagogies may fully diverge from more traditional practices (e.g., lecture-style and teacher-directed learning). Rather, many of these programs prioritize a condensed, integrated curriculum, focus on basic skills and competencies, smaller class sizes, and more "time on task."[26,27,28]

In addition, in HICs where there are fewer out-of-school children, the term "accelerate" takes on additional meanings. Accelerative practice may refer to strategies that challenge academically gifted students, such as allowing younger children to enter school earlier, skip grades, bypass previously mastered skills and content, enroll in Advanced Placement courses, and matriculate early into higher education.[29] Acceleration for struggling students refers to providing these learners with an opportunity to "jumpstart" their learning, often through remediation.[30]

In the context of education disruption, this review focuses on the latter purpose of reigniting learning and catching up. The notion of accelerated learning being *faster*, *deeper,* and *more effective* learning guides this review. *Faster* refers to learners acquiring basic competencies and knowledge, not just content, within a compressed timeframe (see Adapting Curriculum and Instructional Time section below). Evidence is included in this review based on the *faster* criteria if, for example, learners participating in an accelerated program acquired equivalent competencies at a faster pace than their peers in a non-accelerated program, or if learners in an accelerated program went farther in the curriculum (achieved higher level competencies) than their peers in a non-accelerated program over the same period of time.

Deeper and more *effective* are complex concepts. Within the literature, *deeper* refers often to more extensive engagement in learning. When students learn deeply, they are more actively and cognitively engaged in the learning process, and their needs for emotional, social, and physical safety are taken into consideration. *Deeper* engagement also means that learning is relevant and applicable to students' lives.[31,32 ,33,34] An example of *deeper* versus more *shallow* learning is not only memorizing the properties of water but examining sources of water, its uses, and disposal of water within one's community.[35] The

nature of the evidence reviewed, which most often focuses on the output level as well as learning outcomes, frequently stops short of demonstrating *deeper* learning. Program reports and evaluations do not often include information about how learners may be able to apply formal learning to other lived experiences or if learners retained their newly acquired knowledge and competencies for a longer period of time than if they had learned through more traditional methods. In the absence of this outcome information, the review points to the implementation of strategies that attempt to promote deeper learning.

Judging *effective* learning is challenging due to the complex situations in which programs seeking to accelerate the learning process operate. The importance of contextualization of programming cannot be underestimated and is a recurring theme in the findings below. For example, one review of AEPs shows that various programs operate in very different contexts and their objectives are highly dependent upon the complexities within which they function.[36] Similarly, while AEP results often show students out-performing mainstream (often government) schools, matched-age or grade comparisons are problematic as variables cannot be easily controlled and participating students may experience drastically different circumstances than formal school peers.[37,38] In the absence of appropriate comparisons, Shah[39] suggests referring to *effectiveness* more broadly, focusing on factors like access, conflict-sensitivity, community mobilization, connections with formal education, and teacher recruitment and training. In the absence of randomized control trials (RCTs) and other evaluations that compare different pedagogical strategies and curriculum designs, this review acknowledges these critiques and limitations, though does still rely upon learning and transition outcome data to identify effectiveness. Additional metrics, such as improved student confidence and ownership of learning, are also considered, when present.

STUDY LIMITATIONS & CONSIDERATIONS FOR APPLICATION

The findings from this evidence review provide insights into ways that interventions across multiple sub-fields may contribute to rendering learning faster, deeper, and more effective, both within the context of the COVID-19 response and beyond. The conclusions are practical and pragmatic in nature but require additional consideration and contextualization from program designers and implementers. For instance, strategies that are effective in high-income contexts, such as the personalized learning approach (see Exhibit 6) that requires significant resources, will necessitate substantial paring down and adaptation for use in lower-resource development and crisis and conflict contexts. In addition, many of the strategies presented in the review are modality-agnostic and may be adapted to distance learning.[40]

Conditions for implementing effective programming to accelerate learning are complex, multi-faceted, and numerous, and the scope of this review focuses specifically on condensed curriculum and pedagogical strategies. Examples draw largely from non-governmental organizations (NGOs); however, implementation at a larger scale within a government ministry will require significant additional considerations.[41] As our expert panel emphasized, additional conditions necessary to support effective programming to speed up learning include:

- National commitment from leadership to support catch up and accelerated programming for out-of-school, overaged children and youth, and for those who have missed up to a year of schooling due to interruptions, such as COVID-19.
- Use of languages that learners understand and can speak as the language of instruction (LOI) to support learner-centered pedagogy and learning to read and write.

- Limited class size (AEWG and INEE suggest class sizes of under 40[42]) and classroom space and furnishings that support interactive learning.
- An established system for the development, publication, distribution, and use of appropriate instructional materials.
- Scheduled "time on task" to focus on literacy and numeracy learning activities.
- Regular assessment of literacy and numeracy at the classroom, school, and national levels.
- Provision of alternative accelerated routes to teaching and certification for educators in these programs.
- Ability to design and provide a system of accelerated pre- and in-service professional development and supervision.
- Provision of adequate education sector financing to support these programs.
- Parental/guardian support of the education process.[43]

The absence or malfunctioning of even a few of these elements can devastate the implementation of programming (e.g., a high level of teacher absences, inadequate time on the schedule for literacy instruction, lack of funds for local supervisors to follow-up on short-term training, materials not distributed to schools for lack of transport from district headquarters) These systemic issues must be addressed for programs to achieve local buy-in, and in order for them to be sustained will require continued attention. Similarly, the scope of this review did not always allow for close scrutiny of the context in which programs operate (e.g., geographic scope, nature of the implementer, number of learners, type of disruption) nor the resources available to the programs.

An additional limitation for this study relates to publication bias, wherein better-resourced programs able to conduct rigorous research and publish or circulate it for dissemination are overrepresented. Publication bias remains a challenge for similar reviews.[44] The difficulties of systematically conducting high-quality data collection in emergency contexts, where schools and programs often do not meet the Inter-Agency Network for Education in Emergencies (INEE) minimum standards for class size, instructional materials, trained facilitators, also limit available resources for monitoring, evaluation, and research.[45] While documentation exists for many relevant programs, not many studies were highly rigorous and only a few programs make available detailed published information on their curriculums and pedagogical strategies. For this reason, for instance, the Speed Schools program figures prominently within this report, as the program has a strong and well-supported research mandate. While related information likely exists for similar programs within annual reports and other program documents, these were not readily available to the research team. In addition, even when studies may take care to compare outcomes between learners participating in interventions that seek to accelerate the learning process and other learners, the evidence rarely isolates specific strategies and approaches, leaving additional conclusions about causality wanting. The same holds true for assertions about different learner profiles, as disaggregation of the results of different learners (e.g., by gender, lifestyle—nomadic or sedentary, age, disability status) is not always present. The review includes this information when available, but it is limited.

Finally, as schools reopen under public health and physical distancing restrictions of the COVID-19 pandemic, learning will take various forms that include remote learning, hybrid models, and in-person offerings. To the extent possible, this review attempts to provide findings applicable to these various formulations.

FINDINGS

The findings section focuses on two critical factors occurring within classrooms and schools in order to identify the teaching and learning strategies that can help to accelerate the learning process: 1) adaptation of curriculum/instructional time, and 2) implementation of accelerated learning pedagogy. The first section begins with an exploration of what the available evidence can tell us about curriculum adaptation and approaches to instructional time. The second section addresses pedagogical approaches and strategies most relevant to accelerating learning, both during the COVID-19 response and beyond. To the extent possible, we provide programmatic examples from effective programs as illustrations of how practices can be implemented in varying contexts. The Exhibits throughout present overviews of programs that stand out as particularly successful and innovative. These pull-out descriptions present the programs as a whole, while the main narrative that follows provides thematic analysis. Evidence and strategies are addressed simultaneously to allow for greater contextualization.

ADAPTING CURRICULUM AND INSTRUCTIONAL TIME

Drawing across the literature from both developing and high-income country contexts, the sections below provide a review of available evidence on effective strategies to adapt curriculum and instructional time in order to accelerate learning. Although the definition of curriculum can be hotly debated and expansive[46], in its simplest form, curriculum refers to the competencies—skills and knowledge—that students are expected to learn[47]. Moreover, UNESCO's International Bureau of Education[48] (IBE) defines instructional time as the "amount of time during which learners receive instruction from a classroom teacher in a school or a virtual context." Instructional time does not include holidays or vacation time, or professional development time for educators. The time that learners actually spend focused on learning activities may also vary greatly from the established lesson schedule, as concepts of "time on task" and the "opportunity to learn" have asserted.[49,50,51] It is also worth noting the importance of context for the analyses below, as none of the studies presented followed a design that would allow for strict isolation of curriculum condensation or changes to instructional time as the only variable. Findings, therefore, provide insights into configurations of curriculum and instructional time that have been successful but they do not declare a definitive pathway forward.

ADAPTING THE CURRICULUM

In face of interrupted learning, whether due to the COVID-19 pandemic or learners already living within crisis- and conflict-affected contexts where learning had already been disrupted, there is an imperative to prioritize curricular content when learning resumes.[52,53,5455,56,57] Condensing curriculum has the potential to accelerate learning in a way that may be useful in response to COVID-19 and other disruptions to education. The Accelerated Education Working Group (AEWG) recently developed guidance suggests that a condensed curriculum:

> identifies and maps out the most important knowledge and skills that learners need so that they can achieve grade-level proficiency in a shortened time frame. To create a condensed curriculum, a standard curriculum is purposefully modified to focus on essential knowledge and skills in literacy and mathematics, including thinking and problem solving. Ideally, social-emotional learning is also an important part of a condensed curriculum (p. 2). [58]

Within the context of COVID-19, education stakeholders in high-income contexts, such as the United States, similarly call for schools to focus on a small number of competencies rather than covering all the content that students may have missed[59] or for standards that promote college and career-readiness.[60]

Previous analyses of accelerated education programs provide little precise information on how modifications are made to curricula.[61,62] This review similarly found few details from bodies of literature beyond AEPs suggesting the need for a further focused study. Information on compression rates, however, is readily available. The rate of compression for accelerated education programs is most commonly 2 years of curriculum in 1 year of condensed programming, with some notable exceptions including:

- Dadaab Alternate Education Strategy (Kenya): 8 years in 3 annual cycles[63]
- Dolo Camps (Southern Ethiopia): 4 years in 3 years[64]
- BRAC Primary School (BPS) (Bangladesh): 5 years in 4 years[65]
- BRAC[66] Afghanistan: 4 years in 3 years[67]
- Skills, Participation and Access to Relevant Knowledge (SPARK) (Zambia): 7 grades into 4 years[68]
- School for Life in Ghana: 3 years in 9 months[69,70]
- Speed Schools: 3 years in either 9 months (Burkina Faso, Mali, and Niger) or 10 months (Ethiopia and Liberia)[71,72,73,74,75]

According to discussions with AEWG experts, a recent mapping identified accelerating lower primary only, with a transition to upper primary as the most common model and the second most common being the acceleration of the entire primary cycle with a transition to secondary/ vocational/ livelihoods. While the rate of acceleration differs, these are the most common models.

STRATEGIES FOR ADAPTING THE CURRICULUM

Examination of programs aiming to help learners catch up demonstrates variety across program curricula. Despite recommendations to pare down the curriculum, previous analyses of accelerated education programs found that while programs may focus on key competencies, AEP curricula did not always cut subjects. In some cases, they increased them to incorporate emerging, contextually relevant issues (e.g., environmental education, HIV/AIDS, human rights, peace education, entrepreneurship).[76,77] These adaptations could have the possibility of rendering curricula heavy and preventing deeper learning.

Documents investigated for this review provide little information on processes found to be useful for condensing the curriculum. Close collaboration with ministerial partners to revise curriculum, however, is an important element. Many of the curriculums reviewed prioritized key competencies, namely literacy and numeracy. Reducing repetition and prioritizing integration across subject areas were also key strategies. An important finding from the review similarly points to the necessity of maintaining learning at the expected grade level, particularly when catching up after shorter disruptions. The sections below provide more details on these strategies.

CLOSELY COLLABORATING WITH MINISTERIAL COLLEAGUES

While precise details of decision-making processes are not present within available documentation, culling evaluation reports as well as additional pertinent studies of relevant education programming revealed collaboration with ministerial colleagues and administrative bodies as essential to condensing

curriculum. In a parallel fashion, although outreach to experts working in international development and crisis and conflict contexts as well as within North America did not lead to additional resources for this review, these experts underlined the complex and contextualized nature of curriculum development and the need to work closely with specialists within each local context. International experts cited a paucity of evidence, explaining that they lean heavily upon their ministerial colleagues as well as their own extensive experience as educators and curriculum designers to guide their work. Moreover, such a partnership is essential to buy-in and is often a form of capacity-building.

As an illustration of the collaborative curricular design process, Bilagher and Kaushik's[78] qualitative study on an accelerated education program in Iraq details collaboration between a committee of experts to eliminate topics considered to be less relevant and to retain only "core" concepts. Authors note that a successful design process also requires close coordination with the mainstream education system and thorough training and sensitization of teachers to deliver the compressed curriculum. Similarly, Speed School documentation from programs in Burkina Faso and Niger describe how the programs held meetings with MoE counterparts to establish frameworks for the curriculum.[79] A review of NRC accelerated education programming pointed to how NRC programs in Dolo Ado camps in Southern Ethiopia worked closely with Koranic schools to develop the curriculum for the Arabic and Islamic competency areas, in addition to collaborating with the Administration for Refugee and Returnees Affairs.[80]

PRIORITIZING COMPETENCIES

As indicated above, prioritizing learner's exposure to and mastery of literacy and numeracy is a recommended feature of programs hoping to bring learners up to speed. As an example, and noting overlap with findings below on instructional time, the review identified how within the 7-8 hours of daily instruction, Liberian Second Chance Schools dedicate 5 hours to literacy and 2 hours to numeracy.[81] Similarly, the Speed Schools Ethiopia model dedicates four times more time to reading than a typical formal classroom.[82] Moreover, remediation programs that are free from the constraints of following a rigid curriculum may offer further insights into the benefits of focusing on key competencies. Pratham implements programming using the Teaching at the Right Level (TaRL) approach that began in India[83] and has since inspired similar programming in Pakistan, Mozambique[84], Botswana[85], and Ghana[86]. The TaRL program focuses solely on reading and math instruction[87,88] and has several formulations (see Exhibit 1). The program expresses its goal as enabling "children to read fluently with understanding, to know numbers, and to be able to do basic mathematical operations. Completing the curriculum is not the objective."[89] In collaboration with the Abdul Latif Jameel Poverty Action Lab (J-PAL), TaRL conducted six randomized control trials between 2001 and 2014 in six states across India. While all evaluations displayed positive learning outcomes, one of the evaluations in the state of Uttar Pradesh in 2013 found that a learning camp model offering 40 days of instruction through various "intensive bursts" provided particularly high results. Throughout the year, learners who had participated in the "intensive bursts" model increased test scores by 0.70 standard deviations[90] in both language and math,[91] a considerably large effect, and the largest the authors found when comparing this implementation approach to others. The magnitude of these results supports the argument for a truly condensed curriculum.

Another important and effective approach is to integrate subject matter into the teaching of core literacy and numeracy competencies. In the case of math, this means using problem solving with real-world examples. The School for Life in Ghana, the Learning to Life project in Afghanistan, and Speed Schools all provide examples of such integration.[92,93] Ghana's School for Life (SfL) project was developed in 1995 in the Northern Region of Ghana and designed for children between the ages of 8-14 who rarely had the opportunity to attend school. The program lasts 9 months and covers 3 years of schooling,

allowing learners to join formal public schools in Grade 4. Findings from a 2007 impact study show that SfL had a huge effect on the levels of schooling and achievement reached by SfL learners who transitioned to the formal school system. The study found that over 90 percent of children who enrolled graduated from SfL classes, and of these, 65 percent successfully integrated into the formal system[94]. This rate significantly exceeds the Ministry of Education's statistics for the Northern Region, which show a retention rate from first to fourth grade of only 47.9 percent.[95] Additionally, once they transitioned to schools, former SfL students were frequently characterized as disciplined, confident, self-motivated, aware of their own learning, and often taking on leadership roles in their classes and schools.[96] Like other examples above, SfL prioritizes competencies in focusing only on three areas of instruction: language, mathematics, and environmental studies. SfL does not follow the national curriculum, rather the Lessons include themes relevant to students' lives (e.g., livestock, hygiene, sanitation, local geography) and students are encouraged to make important connections with their home lives.

FOCUSING ON PRESENT AND GRADE-LEVEL STANDARDS

Although counterintuitive, moving forward with the current academic year's grade-level content at the same time as solidifying missed prerequisite skills is more effective than reviewing all missed skills at the beginning of the year or term.[97,98] This helps maintain student motivation and interest in learning, which is a key factor to consider when adapting curriculum in the context of catching up. A leading publisher of teaching and learning materials in the United States, Student Achievement Partners,[99] cautions against trying to cover all missed content. Rapidly covering what has been missed in a stand-alone fashion and then rushing on to expected content and concepts under the pressure of time, they argue, will likely leave many students behind and will result in a shallow review of content, limit understanding, and require low cognitive demand.

As a preferable alternative, a mixed-methods study[100] of five diverse school systems in the United States over a 2-year period presents rigorous evidence to support concentrating on expected learning while scaffolding key skills, vocabulary, and concepts needed to successfully access the new content. The study found that when students who began the year behind were given grade-appropriate assignments[101], they were able to close learning gaps by more than 7 months, making significant gains compared to peers using material that was not grade-appropriate. Similarly, Terzian and Moore's[102] analysis of summer learning programs for low-income children and youth in the U.S. concluded that following grade-level curricular standards is one of the key elements for successful programs[103]. Their analysis reviewed 11 summer learning programs that were evaluated using experimental research methods.

REDUCING REPETITION

Menendez et al.[104] suggest that a curriculum can be compressed through review and rewriting that eliminates "overlap and revision, or deletion of subjects from the curriculum such that only core subjects are taught." One approach may be eliminating standalone review periods at the beginning of the year. The Speed Schools in Burkina Faso and Niger[105] provide a more nuanced example of how curriculum may be compressed by reducing repetitive content.[106] Within both formal education systems, the curricula are structured around 2-year competency cycles in which the first year provides an introduction to skills and competencies, while the subsequent grade level covers the same content as the previous year but in greater depth. For example, Grade 2 reviews what is learned in Grade 1 before developing Grade 2 content within the same topic areas. Grade 4 builds upon Grade 3 content, and Grade 6 builds upon Grade 5. Within this type of curricular model, teachers play a pivotal role in determining the appropriate scope and sequence for their learners. (See section below on instructor

qualifications for more discussion on educators' backgrounds and training).[107] The Speed Schools program adapted the curricula to cover the 2-year depth of content within the current grade-level material. The project also was able to focus during its third level on subject areas that only appear in Grade 3, including grammar, spelling, conjugation, history, geography, and natural sciences. In addition, because the national curriculum indicates examples of topics to cover but allows teachers freedom in their coverage of these topics (written expression, dictation, vocabulary, and reading), the Stromme Foundation has a degree of latitude in how it designs its curriculum in these countries.

MODELS THAT SUGGEST LESSER COMPRESSION

While condensing the curriculum is seen as an important strategy for catching learners up, not all effective programs reviewed espouse a compressed approach. For example, the Escuela Nueva Learning Circles (ENLC) program closely follows the national curriculum while still producing positive learning outcomes. Based originally on Colombia's Escuela Nueva community school model, which has been adopted by the Ministry of Education, the Learning Circles program aims to "provide high quality education for out-of-school children, hard-to-reach children in vulnerable social situations due to poverty, health, and natural emergencies or political conflict that forces displacement"[108]. Although no additional information was available to the review team[109], the Learning Circles program follows the same content as the regular curriculum but has a more robust life skills component. The program's outcomes are highlighted as noteworthy in the NRC meta-evaluation.[110] According to ENLC,[111] participating children increased their self-esteem by 18.5 percent and placed 13.9 and 17.3 points above the national average in language and math, respectively. Additional investigation into ENLC's level of compression is necessary to understand its approach and success.

Speed Schools in Ethiopia also closely follows the national curriculum, and although it compresses the first 3 years of learning into 10 months of instruction, the program materials state that the curriculum is not condensed. A 2018 longitudinal study by the University of Sussex showed that students who completed the program consistently demonstrated better performance in math, English, and the national language, Sidama;[112] see Exhibit 4 for a full overview of the program). Evaluators write that "content for each subject and year is not condensed or curtailed, but fully taught through the extended day and a faster pace, with other subjects taught in a cross-curricular manner through the pedagogy."[113] While the next section on instructional time and practices provides further detail on Speed Schools Ethiopia's approach, it is worth noting that the MoE's development of Minimum Learning Competencies (MLCs) on which the program bases its curriculum may already represent a limited number of subject areas in comparison to the list of needs-focused topics elaborated above; Speed Schools in Ethiopia focus on literacy skills, Amharic, English, environmental science, and mathematics. The next section turns our attention specifically to adaptions to instructional time.

Pratham has designed and implemented different programming using the TaRL approach to improve basic literacy and math skills in grades 3-5. The examples presented here demonstrate the effectiveness of TaRL strategies to improve struggling students' skills quickly. Their methodology is self-described as a remedial learning program with key components being 1) grouping children by learning level, rather than age or grade level, and 2) teaching children with materials, activities, and instruction appropriate for each level. The goal of the program is to enable children to read fluently with understanding, to know numbers, and to carry out basic arithmetic operations. However, completing the curriculum is not the objective.

Key to the program's implementation is engagement with the community and partnerships with the government. Since its first iteration in India in the late 1990s, the methodology has been implemented in more states in India and countries in Africa and South America.

Results

J-PAL conducted six randomized control trials (RCTs) between 2001 and 2014 in six states across India, each evaluating different iterations of TaRL programming, from proof of concept to evaluating the effectiveness of different implementation models and approaches. The first evaluation found that Pratham's "Balsakhi" program (which provided two hours of after-school support each day to children from Grades 2 and 4 in need of remedial support), found that the program improved children's learning outcomes by 0.14 standard deviation (s.d.) in the first year and 0.28 in the second year. A "summer camp" model (conducted in Bihar in 2008) and run by government teachers and assisted by volunteers, increased test scores by 0.07-0.09 s.d. compared to a control group.[114]

Another RCT compared three approaches (Bihar and Uttarakhand 2008-2010): 1) schools were provided with materials and no additional support, 2) schools were provided with materials and teachers were trained by Pratham, and 3) schools were provided with materials, and both teachers and volunteers were trained by Pratham. They found the third approach to be the only effective one.

Following this evaluation, two other models were tested. In the first, government teachers were trained by Pratham (Haryana 2012-2013) and implemented the program 1 hour each day for the whole school year, with officials who were also trained also by Pratham monitoring it. This first approach saw an increase in language scores (math was not implemented) of 0.15 standard deviations.[115] The second approach (Uttar Pradesh 2013-2014) used a "learning camp" model featuring intensive bursts of 10 days of learning activity. Volunteers grouped children by level for 2-3hours a day during the school day, supplemented with a 10-day intensive "summer booster camp" using school premises for about 1.5 hours of Hindi and math instruction led by Pratham staff. After about 40 days of instruction (3 to 5 camps throughout the year), test scores increased by 0.70 standard deviations in both language and math,[116] the largest effect of the different approaches the authors studied. Researchers argue that training and working with volunteers can be extremely effective in environments with low initial levels of learning.

A UNICEF-led implementation of a similar program in 10 percent of the schools in Botswana consisted of 1 or 2 hours of instruction per day after school using the existing infrastructure of public schools, led by facilitators trained with the TaRL approach. After 30 days of instruction, results show that "the majority of students shifted from lower levels to higher levels," 82 percent of the participants gained numeracy skills, and the percentage of innumerate children dropped from 13 to 1.[117]

In 2018, a TaRL program was implemented in Mozambique. Instruction consisted of one or two hours per day, during school time, integrated into the language or mathematics classes, with both Grade 4 teachers and facilitators trained with the TaRL approach. After 40 days of implementation, compared to baseline levels, children who could correctly perform addition problems more than doubled (from 23 to 50 percent), and children who could correctly perform subtraction increased from 1 percent to 26 percent. The number of Grade 4 students that could not recognize letters dropped from 56 to 30 percent in the first 15 days, the number of children that could read words increased from 15 to 25 percent, and the number of students that could correctly perform addition operations increased from 23 to 50 percent.[118]

Pedagogy and teachers

Across evaluations of the TaRL approach, careful implementation of the program and top-down support and monitoring remain critical factors to its success. In addition, help from volunteers has also been cited as critical in the classroom reorganization and in the program implementation.

Perhaps most importantly, grouping children with similar levels of learning is critical to the approach. "Grouping and re-grouping keeps momentum and enables children to learn from one another and spend much more time on task than is possible in a typical classroom". Classrooms are very active, and "every day, there are three or four activities in an hour span or so." Group discussions allow children to "connect what they know to what they have heard or read, ask questions, think of answers, disagree with one another, form opinions and expand their way of thinking". Reports also suggest that grouping keeps children engaged, as they change groups according to their progression.

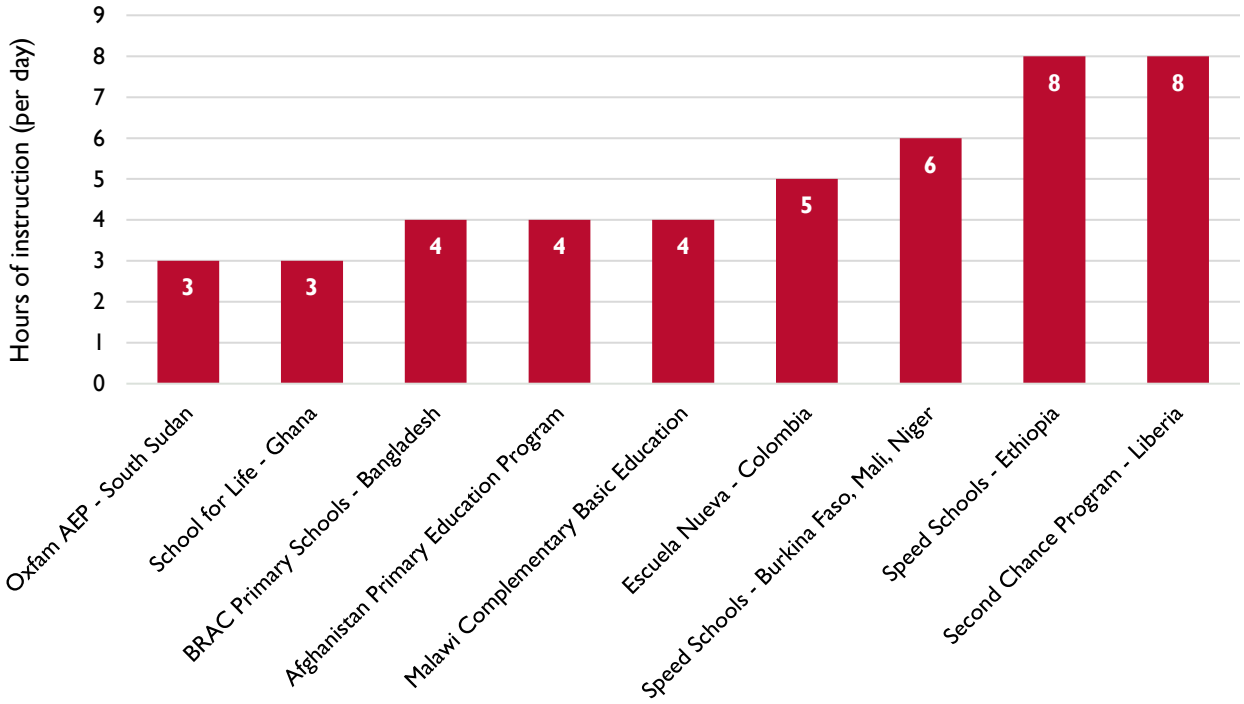
Broadly, the pedagogic model implemented in other countries uses learner-centered teaching methods to target students' basic skills, staying away from typical lecture-based schooling methods. Such a learning environment allows students to learn through engaging, targeted, and practical experiences with relevant examples, while grouping by level and discussions helps students learn along with their peers. In terms of specific pedagogic techniques, TaRL uses activities based on the specific learning level of children. For reading, activities include reading aloud, discussions, phonetic activities and word games, vocabulary exercises and writing, and a balanced or mixed approach using both language and phonetic methods. Children in more advanced levels write every day, with a focus on getting their thoughts on paper, without focusing too much on grammar or spelling. Reading materials are booklets with simple stories "based on familiar contexts" to increase children's sense of ownership of their reading. Activities also include mind mapping to help children grow their vocabulary and organize their thinking.

For mathematics, simple activities include daily counting games using material manipulation (e.g., counting aloud while picking up straws or rubber bands) to build number knowledge and strengthen the concept of place value. For more advanced children who have mastered the logic of numbers and operations, activities include operations with symbols. As in reading, strategies include using everyday problems to discuss and solve (e.g., using play money or currency notes

ADAPTING INSTRUCTIONAL TIME

When and *for how long* learners have exposure to curriculum is another factor to consider when designing initiatives to catch-up on lost learning. This review seeks to identify strategies related to instructional time that promote the acceleration of learning for all students. Instructional time can be curricular (when programming is integrated within the content of what is typically delivered within the school day), co-curricular (programming that is delivered within school but outside of the formal curriculum), or extra-curricular (beyond school activities)[119]. In the case of accelerated and community education programs, offerings are curricular in nature. Longden's[120] review of 12 AEPs concludes that most programs hold 3 to 4 hours of instruction per day. We found similar results in our review, although Speed School-based models are much more intensive in nature, with class time ranging between 6 and 8 hours a day up to 6 days a week. Escuela Nueva finds itself mid-range, with 5 hours of instruction per day. Although detailed information about scheduling was not available for all AEPs, the scheduling for Speed School models stands out. Both the Luminos model in Liberia and the Geneva Global Ethiopia model dedicate a significant portion of each day to foundational skills, as indicated above.

Exhibit 2: Maximum Instructional Time Per Day by Program[121]



The literature from select international remedial programs provides additional insights about co-curricular and extra-curricular scheduling that are relevant for initiatives that seek to render learning faster, deeper, and more effective. A 2012 review of international remedial programs found that they were "most effective as a complement to teachers' existing techniques rather than as a pure substitute".[122] The study argues that remedial education programs in low-income countries can have significant effects on low performers when implemented at school. Duflo and Kiessel's[123] experimental study investigated four different models of remedial programs within 500 government primary schools and 42 districts in Ghana. The intervention was based on the TaRL model and piloted in Grades 1, 2, and 3. The study established a control group and four treatment groups of schools with:

1. In-school remedial pull-out classes with a trained teacher community assistant (TCA), targeting the weakest pupils; or
3. After-school remedial classes with a trained TCA, targeting the weakest pupils; or
4. An assistant who randomly selects one class to assist every day by providing homework help to half of the class, thereby decreasing class size; or
5. Additional training to teachers on differentiated instruction.

The study found that the model that led to the best results was the first one, where remedial classes were provided to the lowest third of the class during school hours through a pull-out approach. According to the authors, "scores in During and After School groups are 0.08 and 0.09 standard deviations higher than the control for Literacy, but not statistically significant for Math" (p. 19).[124] Results are also higher for English than for local languages. The same study also found that, while overall results were better for students who participated in the program during school hours, there were significant differences when analyzed by gender. The study found that girls performed better when they participated after school rather than during school. The authors suggest that participating after school allows girls additional support at a time in the day when they likely would otherwise be burdened by chores at home. The study also found that schools with more conducive atmospheres (e.g., more space, extra furniture) were more likely to hold remedial classes than schools where logistical issues might cause barriers to remedial instruction.

The example of the IRC's Healing Classrooms in Niger provides more focused insights on two possible intervention models that extend students' learning time. In addition, tutoring may also take the form of a non-formal-style learning intervention that complements formal schooling[125]. The program initiated a remedial tutoring program during the 2016-2017 school year for Grades 2 through 4 students in two departments within the Diffa region, which has been badly affected by unrest. Based on ASER test scores for literacy and math, a random selection of lower-performing students received 22 weeks of Healing Classrooms tutoring. The program offered 6 hours of French reading and math instruction per week "designed to build the competencies needed to succeed in Nigerian public schools."[126] (p. 4). An additional group received 22 weeks of Healing Classrooms tutoring plus targeted SEL support. Findings showed that students participating in tutoring improved their literacy and math skills compared to children who did not receive any tutoring[127]. In addition, while it was surprising that students who benefitted from the additional SEL intervention did not show social-emotional functioning improvements compared to children who received only the basic tutoring, students who participated in the targeted SEL instruction obtained higher school grades, overall.[128]

Pratham's original TaRL program (see Exhibit 1) also provides evidence of a different instructional time configuration. Instructional time is organized in a series of learning camps, periods of 6 to 10 days at a time held throughout the year for up to 40 days. Students engage in 2 to 3 hours of working together each day, divided evenly between reading/language and numeracy. Students are grouped according to competency level, and they progress according to their achievements. Local volunteers run the classes, which take place in various locations, including occasionally on school grounds. As indicated above, this program has shown to be highly effective, with student scores exhibiting 0.70 standard deviations above the control group for both reading and math.[129] However, the results do not depend upon the scheduling alone, and it is impossible to fully disentangle results linked to instructional time configurations from other intervention factors. For instance, instructors undergo a rigorous training, and evaluators and Pratham agree that grouping students by level is most likely the key element to Pratham's success.

These examples demonstrate how multiple factors other than instructional time also impact program effectiveness, including the type of instruction, training of teachers, presence of a tutor or other paraprofessional support within the classroom, and student groupings. It is also difficult to distinguish the unique (versus cumulative) effects of such critical factors from results from high-income countries. Exhibit 3 provides an overview of two rigorous studies (one a meta-analysis and the other a systematic review) that address additional school-time programming in the United States as well as a quasi-experimental design of increased weekly instructional time (with overall reduced instructional time over the secondary cycle) in German public schools. Like with the Schwarz[130] review of remedial programming, the multiple and very different variables between the participants and delivery mechanisms prevent drawing broad conclusions. Nonetheless, the rigor of these studies invites additional interest, particularly given that the studies shed light on how various instructional time models may affect competencies and sub-groups differently. For example, Dahmann's[131] study in Germany found that male adolescents improved scores in numerical skills while female students experienced no skill gain at all. This finding complicates Duflo and Kiessel's[132] finding that girls demonstrated greater improvements with after-school programs. This discrepancy suggests that sensitivity may exist between different modalities for altering school time, while also underscoring the need to pay attention to cultural and contextual factors. While the present review is rapid and broad by necessity, future reviews on strategies to foster accelerating learning should continue to investigate how varying approaches impact girls and boys differently.

Exhibit 3: Three Studies from HIC Contexts on Variations of Instructional Time

The three studies below utilize rigorous research design and analysis methods to arrive at different conclusions about the effects of various instructional time modifications. Their disparate findings demonstrate mixed results that are contingent upon multiple variables and conditions. Additional research is needed to determine if it is possible to arrive at precise recommendations for a given context.

- Terzian and Moore's[133] meta-analysis of experimental evaluations of **summer learning programs** in the United States found that student participants were more likely to have improved reading outcomes than improved math outcomes. Only 11 studies met the rigorous screening criteria of the meta-analysis. Of these, seven focused on reading and three evaluated math outcomes. Of the seven studies on programs addressing reading that met screening requirements, six demonstrated positive learning gains. Improved math outcomes were less likely; only one of three studies that evaluated math outcomes demonstrated improvement, that being "increased math computation and understanding of concepts and applications." Only one study within the meta-analysis addressed both math and reading outcomes: Louisiana State Youth Opportunities Unlimited (LSYOU) program. The initiative served at-risk youth ages 14 to 16 during a 5 to 6-week residential dropout-prevention program. In addition to counseling services, participants took part in three hours of literacy and math instruction per day. Part-time work placement and optional recreational activities were also part of the program.
- A U.S.-based systematic review of **increased learning time programs** found a "small but statistically significant positive effect on the literacy and math achievement of elementary school students" (p. 16).[134] They also noted that there was a small but statistically significant negative effect on the literacy achievement for middle school students and no effect on math achievement at the middle school level. The study concluded that more needed to be known about the effect of increased learning time for middle school students. Similarly, the meta-analysis sought to identify other sub-group differences. Not surprisingly, the study found that struggling students participating in increased instructional time programs demonstrated a greater statistically significant positive increase in literacy achievement than their higher-achieving counterparts. It also identified that middle school students with Attention Deficit Hyperactivity Disorder (ADHD) that participated in after school activities demonstrated a statistically significant but small positive effect in their social-emotional skill development.
- A study from Germany explored the effects of an intensified curriculum when high schools shortened the total year of schooling from 13 to 12 years without any reduction in content.[135] The study was a quasi-natural experimental study as it took advantage of changes that had already happened to structure its design. Weekly instructional time did increase as a result. The study looked at results over a period of 6 years (2001-2007). Tentative results suggested a gender-specific impact, where males' experienced improved scores in numerical skills while female students experienced no skill gain at all. The study concludes that these "results may indicate the potential importance of instructional time as a mechanism in education improving cognitive skills, but also reveal its aggravating role in gender skill differences." (p. 36) The author further urges consideration of the effect of a learner's age relative to schooling duration, particularly when investigating the effect on cognitive abilities. The importance of learners' ages to mastery of content has been a constant factor in programming for developing and crisis contexts, specifically for accelerated education programs where learners are most often out-of-school children/youth and overaged.

The findings above provide useful insights but do not provide enough evidence for a clear conclusion on *how* to shift instructional time to best promote catch-up learning in all contexts. Given the causal difficulty in discerning whether curricular, co-curricular, or extra-curricular models are a stronger strategy for rendering learning faster, deeper, and more effective, a pragmatic approach to scheduling may make the most sense. International low-resource contexts are complex environments for interventions such as catch-up and accelerated education programs or other interventions to increase or maximize the effectiveness of instructional time. This is particularly true when teachers are already stretched thin and the likelihood of losing learning time to unforeseen circumstances is high.[136] Duflo & Kiessel's[137] conclusion after finding that remedial programs in Ghana offered during the school day were most effective (due to the logistical support and more adequate furnishings that a school can offer) provides us with one such pragmatic suggestion. They concluded that, "Ultimately, the recommendation should be that the class be organized according to the school context, in a way that maximizes the likelihood of the remedial class to happen." (p. 35).

DISTANCE LEARNING TO EXTEND INSTRUCTIONAL TIME

Distance learning techniques offer further opportunity to extend and amplify learning, particularly when face-to-face time is limited. USAID's *Delivering Distance Learning in Emergencies*[138] evidence review provides a thorough investigation of how four specific modalities (radio/audio, video/television, mobile phone programming, and online learning) can be effective when learning institutions are closed as well as to promote inclusion and increase access to quality teaching and learning.[139,140] Among key findings, the review provides a strong indication of how educational apps may promote learning both in complement to in-person instruction as well as without a teacher's support. Similarly, both feature phones and smartphones can be used for tutoring using a variety of apps to provide automated messages as well as more personalized support. These technologies can also be used to support small group learning through phone, text, or virtual conferencing, thereby increasing instructional time to foster catching up.

While not exhaustive, examples below provide an indication of how distance learning programs can be used to accelerate the learning process when catch up is necessary. Although distance learning remains rare, specifically for accelerated education programs in emergency contexts, South Sudan Interactive Radio Instruction (SSIRI) project provides a notable exception. The project ran from 2004 to 2012. As one of its interventions, SSIRI provided 180 Radio Based Education for All (RABEA) audio lessons via radio/audio player to the Accelerated Learning Program (ALP).[141] The recordings followed the primary school curriculum and also added in civic, health, and English-language content. Education Development Center (EDC) was the implementing partner for this project. The ALP programming was a smaller part of its overall intervention. While problems with quantitative data quality prevented statistical conclusions on the effectiveness of the radio programming for ALP learners, qualitative interviews with education officials and users of the radio programming demonstrated a belief that RABEA was providing effective basic education support for out-of-school youth. Nonetheless, this example provides an interesting model whereby a larger better-resourced project partner supports technological innovations to support AEP programming. This approach may be a feasible option for catch up programs, AEPs, and other situations where resource constraints and a more restricted scope may limit implementation. Distance learning modalities may also present opportunities to specifically address the needs of pastoral or migrant communities.

Can't Wait to Learn, a program of War Child Holland, provides a second example of how technology can extend learning time beyond the classroom. The program began under the name e-Learning Sudan and has since expanded from South Sudan to Lebanon and Uganda. Can't Wait to Learn uses games on tablets to improve learning for out-of-school children when formal learning is not available. The games use the national curriculum. Learners play individually and can move forward at their own pace as the software unlocks exercises based on their progress. War Child Holland has used children's life stories, participant feedback, and drawings from local designers as the foundation for the learning environment. Research from a rigorous two-phase study in South Sudan that included control groups shows that children find the game format to be compelling. Results from the pilot study phase showed that children's scores on oral mathematics tests doubled, while control group students did not increase their scores during the same period. Phase II results also showed significant gains in math scores between pre-test and post-test. Findings further revealed significant differences between the age groups, with younger children (age 7) scoring lower than older children (ages 8 and 9) but also demonstrating larger increases in their scores than older children. An external Early Grade Math Assessment (EGMA) with 210 children from all three states in South Sudan participating in the large-scale trial also demonstrated positive results with "the children in the experimental condition (ELS) had the highest percentage correct in three sub-tests of EGMA (Shapes I, Shapes II and Word problems) after only 6 months of learning, compared to children who had attended school for 2.5 years in Khartoum and Jordan"[142] (p. 146). No significant differences were noted between gender, suggesting that the Can't Wait to Learn model may provide equal opportunities to girls and boys. Similarly, reports suggest that the self-paced model may allow children with high-chore burdens and those with more mobile lifestyles to take part in learning programming which would not have been possible in a formal setting.[143,144 ,145]

Community education programs provide additional examples of technology more generally. Pratham, for instance, has used computer-assisted interventions in some of its programming with good results, though not specifically its Teaching at the Right Level (TaRL) program.[146,147,148] At present, adaptations to programming are required due to the social distancing and other community health requirements presented by COVID-19. Escuela Nueva Learning Circles use mobile phones to provide instructions and deliver some content.[149] Other pivots are surely also widespread and will provide a volume of research for review in the near future.

Exhibit 4: Promising Example: Speed Schools

Speed School is an accelerated education program model[150] developed first by the Stromme Foundation in 2004 for implementation in Burkina Faso, Mali, and Niger. It has since expanded to include Ethiopia, Lebanon, Liberia, and Uganda, with implementation and funding by Geneva Global and Luminos Fund. (The program is also known as Second Chance in Liberia). Of these programs, the program in Ethiopia is the best documented. The program focuses on out-of-school children between 8 and 14 years old[151]. Students cover the first 3 years of the national curriculum in 10 months in Ethiopia[152] or the first 2 years of the national curriculum in 6 months in Liberia (Street Child 2017). The program intends to prepare children to join formal schooling in fourth or third grades, respectively.[153]

In Ethiopia, the Speed School curriculum uses the same textbooks as government schools for Amharic, English, environmental science, and math. Speed Schools are mainly in rural areas and serve students from impoverished backgrounds with illiterate parents, emphasizing that all children can learn.[154]

During the COVID-19 pandemic, the Luminos Fund is supporting the Ministry of Education in Ethiopia to implement its national education response plan, which prioritizes accelerated education, drawing upon its Second Chance program experience.

Pedagogy and teachers

The strengths of the Speed School pedagogy includes group work, questioning, using a combination of meaningful teaching and learning materials; learning in students' first language; providing cultural relevance; activities that allow for maximized time on task; and teaching practices that center on demonstration, explanation, and dialogue between teachers and students. It also emphasizes in-classroom reading activities for about four times more than formal classrooms.[155]

In the Speed Schools model, students cover curriculum playing games designed to foster collaboration with peers and stimulate learning through both the mind and body.[156] Activities within and outside the classroom support students' sense of belonging to the school and the community. Speed School also encourages students to interact with their proximal environment, as physical movement can help "deepen and codify understanding."[157]

The model uses a small class size (25 students in Ethiopia, for example), and students are encouraged to learn independently in small groups with materials for each learner. In these smaller groups, students share reflections, discuss ideas, brainstorm, and present their own thoughts and questions. The model strives to support learners that are autonomous and resilient.[158]

Educators

Facilitators are not government-certified teachers. Usually, they have completed at least 10th grade themselves and are recruited from within each community. Training is in-depth and consists of a 21-day intensive course that is also accelerated as it intends to cover three college-level teaching courses. The training emphasizes the development of inquiry, discussion, and collaboration skills using cards, movement, singing, hands-on investigations, and other activity-based pedagogic techniques.[159] Evaluations have found that this training pedagogy fosters positive attitudes towards students, which, in turn, encourages teachers to pay attention, give personalized feedback, and create safe learning environments[160]. Speed Schools offers continued professional development to teachers after the intensive training.

Results from Ethiopia (A Case Study)

A study[161] from an iteration in Ethiopia that compared students from schools that were supposed to receive Speed School graduates with students from government schools who did not receive Speed School graduates found:

- Former Speed School students perform consistently higher than government school students: they score 10, 13, and 7 percent more points in math, Sidama, and English, respectively, than students in government schools.
- Former Speed School students are less likely to drop out of the formal education system: 75 percent of 2011 Speed School students were still in school in 2017, compared with 66 percent of students from government schools.
- Former Speed School students have higher education aspirations, which are a very strong determinant of learning levels.

PEDAGOGICAL PRACTICES

In addition to investigating the framing of the learning experience (instructional time) and the content (curriculum), this review seeks to identify pedagogical practices that support the acceleration of the learning practice. By pedagogical practices, we refer to the learning activities and strategies that educators use to encourage interaction with content. Burde et al.'s[162] rigorous review of the literature to support access to education in conflict-affected contexts rightly points out the multiple components of accelerated education programs that affect learning, including class size, teacher support, instructional approaches, materials and infrastructure, and community engagement. Typically, the details of pedagogical practices have not been the focus of more rigorous published documentation and grey literature. While Burde et al.[163] assert the difficulties in "disentangling" the most salient elements and the need for more rigorous research, the review team was able to draw out useful insights on several pedagogical strategies. As in the above section, comments on the evidence underlying the effectiveness of approaches are interwoven with presentations of the strategies. This section begins with a discussion of learner-centered pedagogy's relationship to accelerating the learning process and then moves on to demonstrate the evidence supporting the importance of establishing supportive and enabling learning environments. The final sections explore the emergence of strategies for fostering individual attention from the evidence reviewed and then close with a limited but important section on assessment strategies.[164]

LEARNER-CENTERED PEDAGOGY

A learner-centered approach is inherent to accelerated[165,166,167] and community education models[168] and also apparent in many remedial programs[169] suggesting its relevancy for promoting catch-up. Learner-centeredness describes an approach whereby students' personal characteristics, needs, and interests are dominant in guiding teaching, learning, and assessment.[170] This approach opposes a more teacher-centered banking model of education in which students passively receive content from instructors[171]. Recommendations for fostering *faster, deeper,* and more *effective* learning regularly promote a learner-centered approach, particularly in consideration of its centrality to accelerated learning theory. In order to achieve acceleration, the teaching methodology should be interactive and multi-modal, incorporating music, arts, and sports.[172,173,174] Nicholson[175] further suggests that such learning should include active learning techniques," (e.g., discovery and project learning, problem-solving, decision-making, and critical thinking activities) that involve the application and manipulation of facts in real life contexts." (p. 35). A broad systematic review of programming in high-income contexts to understand possible application for Sub-Saharan African contexts focused on alternative education programs for early learners and found that effective learning should be flexible and offer multiple pathways for youth, including a diversified curriculum that fosters a skills-based approach, student-centered learning and self-paced learning[176]. Expert panelists also emphasized the importance of learners' ages to the pedagogical strategies used. For example, with older learners, peer-to-peer learning and assessment are also key strategies that support learning.

This section offers a suggestion for understanding learning-centered pedagogy as a spectrum and closes with a summary of critiques from the literature of this approach. Strategies from the evidence are presented that undergird a learner-centered approach, including instructional activities, ensuring relevance for learners, and fostering a reflective learning mentality. A subsequent sub-section addresses the evidence for a supportive and enabling environment as well as mixed evidence on the importance of

professional teacher qualifications. The section ends with an overview of factors that further complicate the application of learning-centeredness while revisiting the notion of a continuum of practice.

STRATEGIES FOR LEARNER-CENTERED PEDAGOGY

A review of the evidence available for programs supporting an accelerated learning process demonstrated that all of the accelerated educations programs with detailed information on their pedagogical strategies described a learner-centered approach, while evidence from other contexts (e.g., community education, remedial programming, and other studies from high-income countries purporting to accelerate learning) also identified a learning environment that is active and learner centered[177]. Exhibit 5 provides multiple examples of active and learner-centered activities employed by educators within the evidence reviewed.[178,179,180,181,182,183]

Exhibit 5: Examples of Learner-Centered Activities from the Evidence

While constraints for implementing these activities will be unique for each context, and particularly limited for crisis and conflict settings, further analysis demonstrates that activities used across programs studied in LIC, crisis and conflict, and HIC contexts overlap significantly, with only nature expeditions and field trips being activities that may not be fully applicable to all environments[184]. In addition to these activities, Speed Schools Ethiopia incorporates the use of questioning as a key instructional strategy. Questions are featured throughout lessons and take place between the teacher and individuals, the teacher and the whole class, and between student groups. Evaluators conclude that that questioning helps students to stay engaged and motivated, and allows for sharing, debate, and co-construction of knowledge.[185] Questioning also serves as an informal assessment mechanism and, if various levels of questioning are used, represents a useful form of differentiation[186,187]. The evaluators also assert that an activity-based approach is a central feature of Speed School's success. Going beyond instructional practices, Longden's[188] review of accelerated education programs for UNESCO finds that limited class

sizes and high attendance rates are also critical to fostering learning because they allow for optimal conditions for learner-centered strategies and stimulate deeper learning.

Exhibit 6: Personalized Learning: An Overview

The personalized learning approach has garnered much interest from educators and administrators in the United States within the past decade, and it is supported by the 2015 Every Student Succeeds Act (ESSA). The Regional Educational Laboratory Central at the Institute of Education Sciences (IES)[189] suggests that personalized learning presents a strategy that could help to reduce achievement gaps that the COVID-19 pandemic may exacerbate. Personalized learning allows for "tailoring learning for each student's strengths, needs and interests—including enabling student voice and choice in what, how, when, and where they learn—to provide flexibility and supports to ensure mastery of the highest standards possible"[190] (p. 1). In this way, students are active co-constructors of their learning, working closely with teachers to identify the content and the pace at which they learn, while actively reflecting upon the process. Personalized learning often relies upon a blended environment that takes advantage of both a physical classroom, other institutions, and resources that could be of interest to students, and Web-based instructional opportunities[191]. In practice, the application of personalized learning strategies is varied, and schools have encountered many challenges in its implementation.[192,193,194] In some cases, schools may adopt a personalized approach but still retain traditional modes of large-group instruction, however, more schools are beginning to embrace more individualized models.[195] Research suggests that while promising, challenges could be amplified in low-resource international contexts. Nonetheless, findings from various studies, most notably a 2015 RAND mixed methods study that found positive effects on student achievements in reading and math for the lowest-performing students, invite continued investigation of this model.

ENSURING RELEVANCE

Purposefully integrating opportunities for learners to build off of prior learned material provides opportunities for accelerating learning[196,22], and as indicated above, is an important building block of accelerated learning theory. Prior learned material may include lessons that individuals learn while in the classroom or more informally in their everyday lives. According to Bransford et al.,[197] there exists:

> a good deal of evidence that learning is enhanced when teachers pay attention to the knowledge and beliefs that learners bring to a learning task, use this knowledge as a starting point for new instruction, and monitor students' changing conceptions as instruction proceeds (p. 11).

Linking learning to something students already know creates short- and long-term connections and mental maps within the brain that allow for the processing of materials. A recent literature review of the research on promoting social, emotional, and academic development recognizes that, not surprisingly, connecting to prior knowledge may look differently for students depending upon their backgrounds, and teachers need to be aware of students' skills and "reflect on how relevant and connected the material is to students of differing cultural backgrounds".[198]

The literature from community education programs, in particular, provides similar examples of instructional activities that make learning relevant. Escuela Nueva's Learning Circles in Colombia uses learning guides that include such activities as prompts for children to collect stories about their neighborhoods through interviews with community elders or to work with families to build homemade flashlights. A traveling notebook project allows classmates to share stories as families rotate the notebook and learners enter their family's stories of past experiences or future expectations. The students then share these stories with their classmates.[199] As indicated above, evaluations of Learning Circles showed that participating children scored higher on self-esteem, language, and math measures when compared to the national average[200.] While the evidence does not make a direct connection

between these exact instructional and learning activities and outcomes, it is possible that experiences like these, where students apply their skills to make meaningful connections, help enhance learning so students may learn more deeply, quickly, and effectively.

The synthesis of findings from Terzian and Moore's[201] review of summer programs in the United States suggests that summer learning programs can be effective and are likely to have positive impacts when they engage students in learning activities that are hands-on, enjoyable, and have real-world applications. Their study found that five of the nine experimental evaluations that incorporated lessons grounded in real-world context resulted in learning outcome improvements[202]. Examples of real-world applications include students going to a job fair to learn about different careers or participating in community storytelling events to learn how to write fiction. Discussions with expert panelists also strongly emphasized the necessity of recognizing life experiences, community knowledge, and previous work experiences for older learners and those who have been out-of-school for longer periods of time. Educators need to acknowledge these experiences and build upon them in the classroom.

REFLECTING ON THE LEARNING PROCESS

Helping students to reflect upon their learning experience and to recognize the ways they learn best is also an element of effective pedagogical strategies investigated in this review. Developing this awareness of learning is also a key component of accelerated learning theory[203] and finds its basis in neuroscience. This construct falls under many larger conceptual umbrellas that include metacognition[204,205] and learning-to-learn skills.[206] In writing about very young children in a review for the LEGO Foundation, Zosh et al.,[207] describe how learning-to-learn skills cover a broad range of skills that

> include the ability for children to be motivated drivers of own experiences. This involves focus and attention to avoid distractions that pop up, the curiosity and motivation to seek out new opportunities and information, the willingness to take risks, have confidence, and have a love of learning. Additionally, children benefit from having the skills necessary to be a self-starter—namely autonomy, persistence, and goal setting—and the ability to rise to meet new challenges. This requires imagining innovative and creative solutions to problems and adapting those solutions if the first try fails. (p. 10)

Similarly, Bransford et al.[208] describe how a metacognitive approach guides learners to monitor their own understanding and include strategies such as teaching learners "to predict outcomes, explain to oneself in order to improve understanding, note failures to comprehend, activate background knowledge, plan ahead, and apportion time and memory" (p. 18). Authors provide the example of reciprocal teaching, in which teachers model the behavior first for students, then students practice and discuss strategies with the eventual goal of being able to prompt their own self-reflection and questioning without teacher support.

Documentation of the Speed Schools Ethiopia model, in particular, portrays students becoming confident in their ability to learn as a critical ingredient to their ability to effectively transition to learning in government schools. Students are described as reflexive, autonomous, and resilient, knowing how to learn, problem solve, and work collaboratively in groups. According to project documents and results from a quasi-experimental evaluation and a subsequent longitudinal study,[209] Speed School's pedagogy improves students' overall capacity to learn by taking them through the processes of learning. This process includes frequent questioning between teachers and students, as well as among students.[210,211] Similarly, a study on the learning outcomes of students attending schools that implement a personalized

learning approach in the United States found that students' review and discussion of their own performance promoted learning gains for even the most low-performing students, as against a comparison group.[212] The authors further note that when reflections on the learning process are combined with appropriate groupings and adequate space, the three elements serve to highlight cases of successful schools (see Exhibit 6).

CRITIQUE OF LEARNER-CENTERED APPROACHES

Despite overwhelming arguments that support the effectiveness of learner-centered pedagogies, evidence supporting structured, teacher-centered instruction remains. Abadzi[213] is a well-known proponent of this argument. Kidron and Lindsay's[214] meta-analysis of additional instructional time programs in the United States provides a compelling example. Their analysis suggests that achievement in literacy and math improves only when a traditional instruction style is used, where the classroom experience is teacher-directed with students completing tasks as assigned. The authors note that these findings drew upon a close review of 30 rigorous studies.[215] Of these, nine literacy studies and four math studies demonstrated positive effects using a more teacher-centered approach. No improvement was noted in students' academic achievement in programs based on guided practice without initial, explicit instruction. Their meta-analysis also found that when an experiential instruction style was implemented, students' social-emotional skill development improved. This latter finding drew upon four studies. The authors added that the effects were small in all cases.

To help achieve a resolution to the tension between arguments for and against learner-centered pedagogies, Schweisfurth (2013) acknowledges the benefits of the approach while also recognizing the challenges for implementation in developing contexts due to cultural understandings of the positionality of learners and teachers as well as resource constraints. She suggests that:

> the only way through the impasse is to think of LCE [learner-centered education] as a series of continua, rather than seeing it as a single absolute that has only one international configuration. This means that some aspects of the pedagogical practice can be emphasized more strongly than others, to fit the cultural context.[216,217]

Expert panel opinions sought during the review process also emphasized this tension and similarly expressed the need to further explore the spectrum of teaching approaches. Experts urged taking into account the sort of content that may be best learned through explicit instruction versus learner-centered instruction. Additional factors to consider include the age of learners and the level of the competency to be mastered. The above evidence and these reflections invite additional rigorous research and provide reason for caution against fully dismissing a more traditional pedagogical approach in all contexts.

ESTABLISHING SUPPORTIVE AND ENABLING LEARNING ENVIRONMENTS

Learner-centered pedagogical approaches go beyond instructional activities to include the dynamic between teachers and students and between learners. Much of the evidence reviewed provides descriptions of how learning environments that are supportive and enabling speed up, deepen, and render learning more effective. Two key themes emerge from the review: 1) the importance of positive

teacher-student relationships, and 2) educators must be trained effectively and receive ongoing support to maintain their motivation and quality of instruction.

POSITIVE TEACHER-LEARNER RELATIONSHIPS

TNTP's[218] extensive study of a variety of primary and secondary classrooms in five large U.S. school districts identifies four common elements that produce the strongest results, including closing learning gaps by more than seven months making significant gains compared to their peers. These classrooms provide 1) students with grade-appropriate assignments, 2) instruction that requires students to perform most of the thinking, 3) deep engagement, and 4) teachers with high expectations. This last criterion is particularly important, as findings showed that students gained more than 4 months of learning when expectations were high and suggest that holding high standards for learners may help them more effectively catch up on learning. While these findings rest upon a study design developed to isolate teachers holding high expectations for students, other studies reviewed could not make such a causal link. Nonetheless, the examples below provide insights from programming that boast of strong results, suggesting that a positive rapport between student and teacher may be a critical element to success.

Within the accelerated education literature, Speed School models provide the most comprehensive documentation on positive teacher-student dynamics and how such dynamics affect learning. Evaluators of the Second Chance Schools in Liberia found that facilitators felt very connected to their students and expressed a notion of "loving" them. In interviews, teachers underlined the importance of building strong relationships with their pupils. Extensive classroom observations of four Speed School Ethiopia teachers similarly found that the model encouraged a positive classroom environment. Teachers who engaged students more often used body language, eye contact, light tapping of their fingers, and occasionally raising their voices to manage the classroom. Study authors concluded that, "underlying the approach is the idea that every child has the potential to learn, hence the whole learning experience appears to encourage positive self-image" (p. 10-11). More broadly, Longden[219] posits that programs where the teacher continues to work with the same students as they progress to different levels also promote and facilitate psychosocial support to students and deeper learning among students. A teacher who has followed his or her students is more aware of their prior learning and thus, more capable to outfit students with relevant and level-appropriate experiences.

EDUCATORS WHO ARE TRAINED AND SUPPORTED TO IMPLEMENT LEARNER-CENTERED PEDAGOGY

Across the spectrum of programs reviewed, instructors' background and support are a common theme, and several studies are unable to separate the identity of those who teach from the program pedagogy and results.[220] In general, conclusions differ for high-income and low-income contexts. U.S.-based resources reviewed directly connect certified teachers with strong outcomes over any other potential instructor identity. For example, Kidron and Lindsay's[221] meta-analysis of instructional time programs found that having a certified teacher serving as an instructor was the most significant variable for a positive result on learner outcomes. Another U.S.-based study that reviewed summer learning programs for low-income children found that having experienced teachers with at least a bachelor's degree and several years of teaching experience was more likely to encourage positive outcomes.[222] The authors concluded that programs were more likely to be effective when they are led by experienced teachers as well as "guided by grade-level curricular standards," when classrooms have "15 or fewer students and at least two adults, and complement group learning with individual support" (p. 1). This conclusion provides yet another example of the interdependent and complex nature of conditions critical for an

environment in which learners thrive. The review was a meta-analysis limited to experimental evaluations. It is likely that U.S.-based teachers are already trained in learner-centered pedagogy and receive regular professional development to support their practice, whereas teachers in many low-income contexts (LICs) are more familiar and comfortable with a traditional approach. Many teachers in LICs struggle to shift from the traditional paradigm that they knew as students to a learner-centered one, therefore, findings from the U.S. should be taken with caution. The discussion below suggests that teacher training and coaching in developing areas and crisis and conflict contexts may be more important than professional certification.

It follows that many programs in low-income contexts often rely upon community members to serve as teachers. Partly for this reason, programs often prefer the term "facilitator," also because it affirms a more learner-centered than teacher-directed approach. BRAC's model, used in Bangladesh and Afghanistan among other places, works with community members because they share the experiences and background with their students. Involving community members, too, has the advantage of quick mobilization and reduced cost.[223] Speed Schools also rely upon community members and require them to have at least a tenth-grade education. Not having formal training is sometimes seen as an advantage as facilitators are able to quickly assimilate more learner-centered approaches.[224]

Ghana's large-scale remedial program offers an intriguing compromise, with young Ghanaian volunteers working as teacher community assistants (TCAs) through the national Youth Employment program.[225] The experimental evaluation concluded that for every $100 spent, the program variation in which TCAs entered classrooms alongside full-time teachers to provide assistance to the lower-performing students generates 1 standard deviation improvement, a substantial increase. This result compares to 0.72 standard deviations when remedial sessions were offered separately by teachers and 0.80 standard deviations when they were run only by assistants. The evaluators concluded that the stronger results for the TCAs are likely due to greater fidelity of implementation as formally trained and certified teachers often reverted to traditional methods.

In sum, the issue is not necessarily instructor background or identity but rather the amount of training and support they are provided to adapt a learner-centered approach. Shah's[226] review of NRC programming found no direct correlation between the type of teacher recruited and student outcomes—rather ongoing teacher professional development and support was "a key enabler of programme effectiveness" (p. 38). BRAC, Escuela Nueva, and Speed Schools are all programs that seem to provide especially robust training and ongoing support to educators.

FACTORS THAT AFFECT LEARNER-CENTERED PEDAGOGY

While accelerated learning theory and proponents of accelerated education and community education programming, in particular, promote a learner-centered approach, available evidence also cites practical limitations. In-depth qualitative studies that included classroom observations in the Speed Schools in Ethiopia and Second Chance Schools in Liberia, as well as the randomized control trial of four variations of a TaRL-based remedial program throughout Ghana, found that teachers applied the espoused learner-centered model to varying degrees.[227,228,229,230] At Speed Schools Ethiopia, for instance, some of the teachers used more teacher explanation/whole class instruction than others.[231] In Liberia, evaluators identified a "tension" between the prescribed curriculum based on direct instruction and the Luminos training that fostered activity-based learning and child-centeredness that leads to challenges in curriculum delivery.[232,233] Shah's[234] review of NRC programming similarly found that teachers experience great pressure to cover curriculum and that assessment remains largely focused on recall and remote learning, preventing opportunities for deeper, more meaningful learning. Escuela Nueva's Learning

Circles are one of a few examples cited as an exception. (See Exhibit 7 for a full program description.) Expert panelists similarly spoke to the complex and lengthy process of helping educators to develop new understandings of their practice and strategies. They explained how most projects similarly exhibit a tension between the ideal and the reality.

At the same time, findings of less-than-textbook-perfect implementation of a learner-centered approach may signal that positive learning effects are still possible even when fidelity of implementation is hard to attain. Nonetheless, meeting the imperative for deeper and more engaged learning continues to be an aspirational goal that requires a concerted effort. To do so, Shah[235] reminds implementers to increase their knowledge of accelerated learning principles, "specifically the guidance provided to teachers, the texts utilized, the nature of the curriculum (subject-specific versus thematically-focused), and the internal assessment regimes utilized" (p. 11).

Exhibit 7: Escuela Nueva Learning Circles

Escuela Nueva (EN) is a child-centered community education model developed by the Colombian NGO *Fundación Escuela Nueva.* The model began in 1975, followed by the Foundation in 1987. Its approach has been adopted and implemented in other countries. By 2017, about three-quarters of Colombian rural primary schools were officially designed as EN schools.[236] This textbox provides an overview of the program and its results. While the evidence does not clearly link specific program characteristics to results, details provide insights into what works to help learners catch up and close learning gaps.

In 2001, EN developed its Learning Circles (ENLC) to work specifically with displaced children to help them transition into formal schools. Tutors work with groups of 16-20 students to facilitate learning and provide learners with personalized attention.

By, 2006, the model was adopted as a national policy, and the ENLC began to operate off-site formal schools (also called "mother schools"). Children are officially enrolled in "mother schools" but study with ENLC, taking classes in community centers, local churches, and family homes until they are ready to transfer to the "mother school." ENLC shares academic calendars, grading systems, and extracurricular programs with these mother schools. The model has been successful in advancing the integration of displaced and migrant out-of-school children into the education system.[237]

Results

General Escuela Nueva model:

There have been multiple studies that attempt to review the Escuela Nueva as a whole, but the most recent and comprehensive study of 21,235 schools across Colombia found that schools officially classified as EN score higher than non-EN schools in Spanish, mathematics, and civic competencies for students in 3rd and 5th grade, though the results are stronger for those in 3rd grade. When analyzing the differences between girls and boys, the study only found significant differences for Grade 5 math, where girls outperformed boys, and civic competencies, where boys outperformed girls. However, the study found strong evidence that the EN model is particularly beneficial for students from disadvantaged backgrounds and helps close the gaps between children from different socioeconomic levels.[238]

An impact evaluation of the Vietnam Escuela Nueva (VNEN) program, based on the pedagogic model of Escuela Nueva, compared the change from Grade 3 through to Grade 5 in education outcomes of children in the VNEN with those from a counterfactual group. The study found a significant and positive effect of the VNEN program, with effect sizes of 0.2 standard deviations, or about 15 points in Vietnamese and 18 points in mathematics)[239].

Learning Circles:

An evaluation of an ENLC pilot found that all the attending students later enrolled in formal schools and that they scored 13.9 and 17.3 points above the national average for both language and math. Children also increased children's self-esteem by 18.5 percent.[240]

Pedagogy and teachers

Escuela Nueva uses learner-centered pedagogies with a flexible, active, and project-based learning approach, and they make use of a combination of self-guided and peer-guided learning. Schools use materials such as learning guides with adapted national curriculum as well as fieldwork and community projects that allow students to deepen their connections with the community. For example, interviewing elders and neighbors to collect stories about their neighborhoods, or a "travelling" notebook project in which each student takes the notebook home and writes, along with their families, stories about their family's past or future, which they later share with other students[241]. Both Learning Circles and the original Escuela Nueva programs make emphasis on providing personalized socio-affective support to develop students' self-esteem and social skills, including conflict management, group work, and diversity acceptance.

Some studies link Escuela Nueva's success with the tutors, who are trained and experienced teachers and facilitators,[242] and who also make use of peer-learning and continuously engage and meet to share strategies, experiences, and best practices to implement in their programming.

STRATEGIES FOR FOSTERING INDIVIDUALIZED ATTENTION

Focusing on learners catching up often acknowledges that learners may be starting at different places in their understanding of various competencies as well as their experiences with schooling environments. Providing individualized attention to learners recognizes this diversity of needs and differences in what students may bring to the classroom. Within the evidence reviewed, three strategies for organizing students to offer individualized attention stand out as being effective: 1) organizing students into small groups, 2) grouping students by same-competency levels, and 3) offering tutoring approaches. Our focus then shifts to a discussion of assessment strategies, another way of assuring more individualized attention during the catch-up process.

SMALL GROUPS

Organization of students into pairs and small groups[243] with appropriate, engaging tasks and specified processes supports the acceleration of learning[244,245] and was a common feature of reviewed studies that provided sufficient detail on pedagogical activities. Pratham's TaRL remedial program fosters an approach where students are constantly grouped and regrouped. Evaluators argue that this approach "keeps momentum and enables children to learn from one another and spend much more time 'on task' than is possible in a typical classroom."[246] Pane et al.'s[247] study on successful cases of personalized learning also concluded that student groupings could be effective to deepening learning, especially when accompanied by appropriate learning spaces (e.g., where noises or activities of other groups are not distracting) and when students engage in discussions with teachers about their progress and personal learning goals (see Exhibit 6). Student grouping also offers the possibility of peer-to-peer learning. As an example, the Afghanistan Primary Education Project (2003-2006) used small groups to install peer networks so that students can help one another. Classroom observation confirmed teacher-structured group tasks were implemented in almost half of classes visited, and nearly all interviewed students confirmed having received assistance from classmates[248]. Yet another example is Mexico *Redes de Tutoria*, an intervention based in the peer-to-peer learning approach both for students and teachers that has been expanded to other countries around the world.[249,250]

Acknowledging the absence of similar detail for other projects, observations of Speed Schools classrooms in Ethiopia demonstrates how small groups may be organized by the type of output or synthesis that students are expected to produce, for example, a game, music, cards, or handicraft.[251] Students are tasked to represent the lesson they have just experienced using these various mediums and then report back out to the larger group. Students may teach a song about the lesson to others or develop a game, like passing a ball, and the student who catches it must name an important aspect of the lesson. During these deliberations, the Speed School method asks teachers to circulate, providing information to children, or responding to questions. The authors added that there was great variety in the extent to which facilitators actively supported group work. Breaking up tasks in this way and entrusting small groups to lead activities also provides an opportunity for differentiation in some of the classrooms observed. While small groups are presenting, non-presenting students may stay engaged by continuing with individual desk work.[252] Although the evidence is not specific enough to identify small groups as a key to the project's strong learning outcomes (see Exhibit 4), its prominence within Speed School's methodology suggests that it may be one of the critical ingredients to the project's ability to help learners catch up and learn faster, deeper, and more effectively.

DIFFERENTIATION AND GROUPING BY COMPETENCY LEVEL

The evidence reviewed provides weak support for differentiation as an effective strategy for accelerating the learning process as none of the studies specifically isolated for this practice. UNESCO[253] defines differentiation as:

> The process of modifying or adapting the curriculum according to the different ability levels of the learners in the classroom. It is a strategy that teachers can use with a view to providing meaningful learning experiences for all learners. Differentiation takes account of learner differences and matches curriculum content and teaching and assessment methods to learning styles and learner needs and characteristics. It may focus on input, task, outcome, output, response, resources, or support (paragraph 1).

A differentiated approach embodies the inclusion of all learners within the classroom and is a practice of many of the programs reviewed, though precise details are largely absent from the studies that met screening criteria.

The evidence on "tracking," however is much more rigorous and present within the literature, likely exhibiting publication bias (see Limitations section above). Generally, this specific form of student grouping forms homogenous class memberships based on ability, such as "gifted" classes, regular, and remedial classes. Tracking has encountered significant criticism in HIC contexts, as it fell into disfavor in the late 1990s and has been associated with exacerbating social and economic inequalities.[254,255] This criticism notwithstanding, the evidence on programs supporting learners catching up demonstrates strong evidence for a tracking approach that relies upon student assessments to place students who perform similarly within leveled groups. Tracking is very prominent within remedial education programs, though evidence suggests mixed effects.[256] Pratham's Teaching at the Right Level (TaRL) program provides a compelling positive example. As indicated above, both independent and randomized control trials have shown positive results.[257,258] In a popular "learning camps" variation of the model, relying upon intensive bursts of teaching-learning activity using the Pratham methodology, students are grouped by actual learning level and are frequently tested. Activities and materials are also leveled and are designed to move children to the next level on the Annual Status of Education Report (ASER) test, which is the principle method of assessment. (See Exhibit 1 for more detailed information about TaRL). TaRL frequently identifies tracking as one of the principle characteristics responsible for its success. The tension between differentiation within an inclusive classroom and leveled classes following a tracking approach suggests the need for additional rigorous research that examines and documents differentiation practices and circumvents publication bias.

TUTORING

Mainly present within the evidence reviewed at present concerning remedial and community education programs, tutoring can be a very effective method for improving learning outcomes in development, crisis and conflict, and HIC settings.[259,260,261] The notion of tutoring also overlaps with extending instructional time and offers the possibility of more contact with teaching and learning activities beyond formal instructional periods. One-on-one tutoring produces strong results and is a default approach in high-income countries, particularly for children with reading difficulties[262] but it is also expensive and may be out of reach for many families in low-income contexts.[263] Slavin's[264] analysis presents conclusions from the evidence presented in conference papers and finds that one-on-one tutoring is more effective than one-to-small group tutoring and that effect sizes were higher for students who worked with paraprofessionals rather than teachers. Results showed that "effect sizes were +0.53 for paras and +0.36

for teachers in one-to-one tutoring. For one-to-small group, effect sizes were +0.27 for paras, +0.09 for teachers" (paragraph 5).[265]

Similarly, and although not strictly limited to tutoring, Terzian and Moore's[266] meta-analysis of U.S. programs with increased instructional time found positive outcomes for three of five programs that offered individual support to complement group learning. This support took many forms: mentoring, tutoring, career counseling, financial aid advising, and homework assistance. Foreshadowing the discussion below on the importance of providing a supporting enabling environment, Slavin[267] concludes that tutoring works because the tutor not only individualizes instruction but because the tutor provides nurturing and attention. Stipends or pay for volunteers may help mitigate turnover and absenteeism that may hamper the effectiveness of this less costly option. Homework clubs, where older students work with their younger peers may be an alternative to more costly tutoring models.[268]

Exhibit 8: Redes de Tutoría

The community education program, *Redes de Tutoría* in Mexico, uses a similar model to Escuela Nueva Learning Circles and also demonstrates results promoting learner catch-up. Its approach moves away from traditional classrooms to small peer-to-peer learning groups that use inquiry-based projects driven by a central subject.

The program expanded from a couple of small rural areas at its inception to about 34,000 rural community and education centers (covering kindergarten through Grade 9) and 400 schools in nine states of Mexico.[269,270] After receiving funding from UNESCO and in collaboration with Princeton University, the model expanded to Thailand, Singapore, Chile, Indonesia, and the United States.

Results

The *Redes de Tutoría* model was implemented starting in 2009 in Mexico's *Telesecundarias*, rural multi-grade settings for secondary distance education. These schools operated under the program Learning Communities in Telesecondary Schools, between 2009 to 2012, in 9,000 of the worst-performing secondary schools across the country. In 2009 and prior to the program implementation, *telesecundarias* and other types of public schools had very low percentages (less than 10 percent) of students falling into the 'Good' and 'Excellent' proficiency levels (as defined by the federal Ministry of Education) for math compared to private schools that had, on average, 29 percent of students falling into the 'Good' and 'Excellent' math proficiency levels. By 2013, *telesecundarias* had as many top-performing students in math as private schools (32.6 percent and 35.5 percent respectively) and more than other types of public schools (which had an average of 17 percent of students in the top proficiency levels). On the Spanish assessment scores, *telesecundarias* went from performing below other types of public schools in 2009 to outperforming them from 2011 onwards.[271,272,] These results demonstrate that the *Redes* succeeds in decreasing learning gaps for struggling learnings, thus providing accelerated learning.

Pedagogy and teachers

Redes de Tutoría also uses learner-centered pedagogies that foster flexible, active, and project-based learning. Students mainly learn from peers that have mastered a certain topic with aid from the classroom teacher. Schools use materials such as learning guides and regularly implement fieldwork community projects that allow students to deepen their connections with the community, for example, a travelling notebook project or interviewing elders and neighbors.

INITIAL & FORMATIVE ASSESSMENT PRACTICES

When learning has been interrupted, the assessment of student learning is critical. According to UNESCO, learning assessments "gather information on what learners know and what they can do with what they have learned, as well as offer critical information on the process and context that enable learning, and on those that may be hindering learning progress."[273] Given the scope of the present review, this section focuses on initial (diagnostic) and formative assessment. Initial assessments are exercises that help educators to determine students' competency levels so that their needs may be best met. Formative assessment is the ongoing testing of and feedback on learners' abilities, and it helps teachers to mediate issues and provide appropriate differentiation. Both of these types of assessments can be highly informal (e.g., simple exercises in class) or more formal (e.g., classroom tests or quizzes). After the disruption of learning, the need for more formal initial assessments should be balanced against the desire to keep students engaged and motivated. Less formal assessments may take the form of exit tickets, review of student work, or student discussions,[274,275] as well as peer-to-peer assessments for older learners. When done well, assessments provide a powerful tool for educators to tailor learning to individual needs.

The evidence on assessment practices from education programs reviewed for this report is generally weak, in that there are no causal conclusions that particular assessment practices necessarily promote the acceleration of learning processes. At the same time, information on these otherwise effective projects provide insights into practices likely in need of improvement and others that are better established. Beginning with those that may need strengthening, while the Speed School models integrate assessment practices, evaluations from Liberia and Ethiopia show that they are not always effectively implemented. The Second Chance Schools in Liberia set aside Friday for individual assessments of students to gauge reading fluency and numeracy skills. Activities are semi-formal in nature, and students play a role in reviewing each other's work. In practice, teachers often find the assessments to be time-consuming, and the absence of comprehension questions from the exercise is also problematic.[276] Evidence from Speed Schools Ethiopia is contradictory but likely indicates inconsistent application of assessment techniques. While assessment is heralded as a key element to the success of the program[277] observations have shown that practice was inconsistent. In addition, teachers' corrections of student work were not always legible, which led to difficulties in students understanding their mistakes.[278] Additional study of assessment practices would be useful to provide further clarification.

On the other hand, Escuela Nueva and Teaching at the Right Level (TaRL) provide examples of assessment practices that may be more beneficial to learners.[279] Escuela Nueva's Learning Circles employ an initial assessment that includes home visits and interactions in the home and community. Tutors use that meeting to discern the knowledge, skills, and psychosocial needs of each learner, upon the basis of which they develop an individualized learning plan that will guide the student's progress.[280] Similarly, TaRL identifies assessment as the starting point and typically uses ASER, which includes four literacy tasks[281] alongside a numeracy assessment where the highest level is two-digit subtraction problems with borrowing.[282,283] Like with Escuela Nueva, the assessment is highly personalized, as TaRL instructors meet one-on-one with students. The time represents an opportunity for instructors and students to get to know each other and alerts the teacher quickly to areas where the student may need special support.[284] Individualized attention may be particularly meaningful for learners when their lives have been disrupted.

CONCLUSION

The learning interruption caused by the COVID-19 pandemic and other education disruptions presents an opportunity to reimagine education. In search of faster, deeper, and more effective learning, this evidence review investigated accelerated education, community education, and remedial program literature in search of evidence-based strategies on how to condense curriculum, adjust instructional time, and identify pedagogical strategies that are relevant for when education programming resumes during and after a crisis. The evidence review revealed a variety of promising strategies for helping learners reignite learning and catch up. It is our belief that by accelerating the learning process for all learners in the face of crises, education systems can become more resilient, equitable, and inclusive of all learners.

STRATEGIES TO CONDENSE THE CURRICULUM

- **Maintaining a focus on current grade-level standards with appropriate support for requisite skills** to master the expected material has demonstrated stronger results than beginning where learners had stopped prior to interruption. Such an approach also helps learners maintain their motivation.
- **Prioritizing competencies, namely mastery of literacy and numeracy,** is a recommended and common feature of many programs hoping to bring learners up to speed. While the evidence available does not draw direct causal conclusions between a focus on competencies and learning outcomes**,** evidence shows promising results for these programs with high levels of learning acceleration, strongly suggesting that prioritizing competencies is a critical approach for catching up learners.
- Condensing the curriculum can be achieved by **reducing repetition and focusing on foundational skills in close collaboration with local authorities and experts.** Contextualization is extremely important, and each process will be driven by local imperatives. Teacher training and sensitization is a key element in effectively supporting curriculum revisions.

STRATEGIES TO ADAPT INSTRUCTIONAL TIME

- The approaches AEPs and other programs have taken towards instructional time varies, with programs reviewed holding class between 3 and 8 hours per day. Multiple other variables**,** including the background of teachers, location of classes, existence of counseling and other wraparound services, and the structure and content of the curriculum prevent strict causal linkages between instructional time and program effectiveness. A more pragmatic approach **takes into account logistical and resource constraints.** In the context of the COVID-19 pandemic **integrating distance learning techniques** can speed up, deepen, and render learning more effective while also extending instructional time.

EFFECTIVE PEDAGOGICAL STRATEGIES

Nearly all of the program examples reviewed espouse **learner centeredness and active pedagogies.** This approach aligns with accelerated learning principles based on research from cognitive

and neurosciences. At the same time, significant critique exists accentuating the need to view instructional approaches along a teacher-centered/learner-centered spectrum that acknowledges that explicit teacher-led instruction may be beneficial in some contexts. The evidence available from some educational programs also indicates that, in practice, **partial implementation of wholly student-centered models is likely the norm rather than the exception.** This conclusion signals that positive learning effects are still possible, even when fidelity of implementation is difficult. In addition, findings point to the challenges of disentangling intervention elements to demonstrate effectiveness. Most likely, combinations of elements are required in order to produce learning that is faster, deeper, and more effective. Finally, programs seeking to accelerate learning processes that follow the curriculum and pedagogic guidelines outlined here are most likely to be effective if the other minimum conditions for learning are provided. These include class sizes, teacher preparation and support, appropriate safe space and furnishings, instructional materials, community engagement, and learning readiness.

As such, we conclude that the following pedagogical practices within the context of accelerating learning hold the most potential for more successful programs:

- Provide opportunities for learners to connect to prior knowledge and offer relevant materials and real-world content.
- Guide students to reflect upon their learning processes and discuss their performances in order to develop and reinforce students' learning-to-learn capacities.
- Establish a supportive and enabling environment within classrooms that features a positive teacher-student dynamic and sets high expectations for students with adequate support to foster learning.
- Organize learners into pairs and small groups and consider frequently re-arranging groupings to motivate students. Small groups also offer the opportunity for differentiated instruction. Combined with self-reflections on students' learning, such groupings can be particularly effective.
- While acknowledging challenges for inclusion, investigate an approach that would place students in groups according to competency levels.
- Provide instructors, whether they be certified teachers, paraprofessionals, or trained community members, with sufficient initial and in-service professional development opportunities and coaching to effectively implement a learner-centered and active pedagogical approach.

Lastly, the review concludes that there is a dearth of evidence on how best to accelerate learning inclusive of all learners. Only two studies[285,286] directly address how program design may impact girls' and boys' learning outcomes differently, but the results are contradictory and render findings inconclusive. The only other sub-group identified within the documents reviewed addresses the small but positive effects of additional instructional time on learners with ADHD.[287] More research and disaggregated analysis are warranted to develop targeted and effective pedagogical approaches that accelerate and deepen learning in core competencies for different subgroups of learners.

RECOMMENDATIONS

A co-creation workshop focusing on recommendations was the final critical step in the evidence review process. The 3-hour participatory workshop took place virtually on September 14, 2020. (See Annexes B and C for a detailed agenda and list of participants). Almost all workshop participants had reviewed the preliminary draft of the report, and the session made effective use of participants' time and capitalized on their expertise by focusing on one sole objective: to collaboratively develop a proposed list of actionable recommendations for the USAID COVID-19/Education Task Team, USAID Mission Staff, MoEs and implementing partners.

The following list of recommendations[288] emerged from both the evidence review and the expert panel. Care was taken for the recommendations to connect to findings from the evidence review. At the same time, the rich discussion with experts repeatedly revealed gaps in the evidence as well as linkages with important topical areas that were beyond the scope of this present review. The recommendations crafted by the expert panel drew upon pooled knowledge from specialists with years of established experience. The list also identifies the intervention level appropriate to the recommendation, either MoEs, donors (including USAID Washington)[289], USAID Missions, and/or implementing partners (IPs), including private education and training providers. Workshop participants also acknowledged that some of the recommendations below merited continued discussion and consolidation before confirming the best approach and the most appropriate actors to follow through on the action.

Exhibit 9: Recommendations Adapted from the Co-creation Workshop

	RECOMMENDATION	STAKEHOLDER LEVEL ADDRESSED (MOE, DONORS – INCLUDING USAID, USAID MISSIONS, IPS)
	Adapting a Curriculum for Catching Up	
1	When adapting a curriculum to help learners catch up after an education disruption, try to keep learners on grade level. If a previous skill is missed but is needed/essential, teachers may teach it explicitly in a shorter amount of time, then integrate, reinforce, and build on that skill throughout grade-level material. (Teachers should also be aware that some learners may experience difficulties moving through this content in a shorter period of time and be prepared to offer support accordingly.)	MoEs
2	Prioritize the most essential competencies when learning resumes to help learners catch up. Prioritize those competencies in critical content areas (e.g., for the primary level literacy, numeracy, and SEL) rather than all of the content that students may have missed during the disruption. Competencies can also be integrated and reinforced across content areas (e.g., integrating literacy and social studies, math, and science). Competencies prioritized should be the ones that are essential skills for success in the next grade level and for passing summative and high-stakes assessments. At secondary level/for youth, prioritize standards that promote higher education or job readiness.	MoEs, IPs
3	Ensure relevance of the revised curriculum to learners' prior knowledge, lives, and interests in order to maintain and maximize learner motivation so	MoEs, IPs

	RECOMMENDATION	STAKEHOLDER LEVEL ADDRESSED (MOE, DONORS – INCLUDING USAID, USAID MISSIONS, IPS)
	that acceleration is possible (learning faster, more deeply, and more effectively).	
4	Collaborate with education policy makers and administrative bodies at the central level to adapt the curriculum and to ensure that the adapted curriculum promotes equity and inclusion and that materials themselves are accessible to all learners. Discuss and explore "expedited approvals" processes of the final curriculum to assure greater time efficiency.	MoEs/USAID Missions/IPs
5	Identify processes necessary for adapting the curriculum in each context at the classroom and central levels, and make the processes clear to educators and administrators involved in catch-up programming. Donors and IPs may provide capacity building or technical support as necessary to support MoEs in these processes. If curricular adaptation can be made at the classroom level, empower teachers with skills necessary to adapt the curriculum to student needs. Possible strategies include training, coaching, and distance learning mechanisms.	MoEs/USAID Missions/IPs
	Adjusting Instructional Time	
6	Decisions on instructional time adjustments should be based upon what we know about a) how children learn different content, b) what time adjustments are possible in the context, and c) which adjustments are possible for different types of learners. Ensure an equity and inclusion lens in making adaptations to instructional time. Consult with and consider the needs of marginalized groups—such as girls, teen mothers, displaced learners, learners with disabilities, working learners, and religious and ethnic minorities. As necessary, take a pragmatic approach (example: schedule additional learning time when it is most likely that students can attend, with attention to the specific needs of more vulnerable learners (e.g., girls and learners with disabilities), and at times when an environment is accessible that will support and motivate learners).	MoEs
7	Incorporate one-to-one or small group tutoring as a way to extend learning time and make use of a learning strategy that has proven to be effective for improving learning outcomes and offering learners important connections during challenging circumstances. To the extent possible, use professional tutors such as teachers-in-training as results on the use of volunteers has been mixed. Providing adequate training to volunteers and offering incentives for consistent attendance of volunteers may help improve outcomes.	MoEs/USAID Missions/IPs
	Assessment	
8	In an iterative way, verify summative assessments align with the prioritized competencies identified in the adapted curricula and revise assessments accordingly[290]. Continue to aim for prioritizing competencies, integrating content within competencies, and reducing repetition.	MoEs

	RECOMMENDATION	STAKEHOLDER LEVEL ADDRESSED (MOE, DONORS – INCLUDING USAID, USAID MISSIONS, IPS)
	Teacher training	
9	Invest in teacher training in order to build long-term, systemic resilience, and assure all educators (formal and non-formal) receive pre-service training addressing specific pedagogical techniques/strategies[291] that are effective when catching up learners after school disruption: Establish a supportive and enabling environment Connect to prior knowledge Use relevant materials and real-world content Assist learners in developing their "learning-to-learn" capacities Organize students in pairs and small groups Consider organizing students by competency levels and, if classrooms are inclusive of all competency levels, train on differentiation and remediation strategies. Model instructional strategies in educator training that expect educators to implement within their classrooms (see Speed Schools for an example.) Provide continued support over a longer period of time.	MoEs/ Donors (including USAID)/IPs
10	Produce practical, actionable, simple guidance to support teachers with examples/ideas of successful strategies for catching up (see Exhibit 5 above as a handout—a one-page reminder for teachers to stick on their wall, reference, etc.)	MoEs/ Donors (including USAID)/IPs
	Building the evidence base	
11	Develop strategies to contribute toward the evidence base on adjusting curriculum and instructional time, as well as pedagogical strategies in situations where learners have experienced learning loss due to interruption. Include additional guidance and provide examples of effective curriculum adaptation and prioritization of learning competencies. Highlight areas where evidence shows guidance is not effectively adhered to (e.g., adapted curricula often tackle too many competencies and skills).	Donors (including USAID)
12	Determine strategies for growing the evidence base with monitoring and evaluation from the field, particularly aligned to guidance and learning agendas emerging from USAID and the AEWG on helping learners catch up. New products should have a particular focus on issues of equity and inclusion in the acceleration of skill acquisition, as well as how adaptations to curriculum and pedagogy serve as an opportunity to build the long-term resilience of education systems by better meeting the needs of all learners.	Donors (including USAID)
13	Given mixed findings on the effectiveness and appropriateness of learner-centeredness, further investigate the nuanced spectrum that unites teacher-centered and learner-centered practices to identify curricular/instructional time and pedagogical implications for contexts requiring the acceleration of skill acquisition. Pedagogies to review include structured pedagogy, balanced literacy, among others.	Donors (including USAID)
14	Recognizing the paucity of evidence specific to learners of various identities (gender, disability, and other marginalized groups), build the evidence through standalone studies that are designed to provide an adequate level of disaggregation and analysis. Assure a gender and equity lens guides future analyses of all studies on learning outcomes in accelerated contexts.	Donors (including USAID), MoEs/IPs

	RECOMMENDATION	STAKEHOLDER LEVEL ADDRESSED (MOE, DONORS – INCLUDING USAID, USAID MISSIONS, IPS)
15	At the implementation level, conduct situational analysis before making a determination of the level of learner-centered to target within instruction. This analysis should take into account skills to be learned as well as learning conditions (e.g., class-size, teacher background, capacity for implementation, and fidelity of implementation).	MoEs/IPs
16	Experts recognized the interdependency between pedagogy, curriculum, and assessment. Additional efforts should further investigate specific assessment strategies that best support learners that need to catch-up after learning has been interrupted. Develop a series of related recommendations as well as guidance notes.	Donors (including USAID)
	Monitoring and evaluation	
17	Develop indicators (that disaggregate by, at a minimum, gender and disability) that will identify the presence of pedagogies that support the acceleration of learning processes and promote positive learning outcomes for all learners (e.g., enabling and supporting conditions, capturing feedback loops, effective grouping strategies, incorporating learning-to-learn strategies).	Donors (including USAID)/IPs
18	Ensure programs are monitoring and evaluating student assessment (tracking progress in core competencies) through various mechanisms including self-assessment and continuing assessment and that assessment practices are inclusive.	MoEs/ Donors (including USAID)/IPs
19	Ensure monitoring and evaluation of the processes and outcomes of curricular and pedagogical adaptation explicitly analyzes issues of equity and inclusion in order to inform inclusive education strategies. Little evidence from this present review explicitly explored how different curricular and pedagogical strategies differentially impacted learners of different ages, sexes, (dis)ability statuses, displacement status, and other marginalized identities.	MoEs/ Donors (including USAID)/IPs

REFERENCES

Abadzi, Helen. *Efficient Learning for the Poor: Insights from the Frontiers of Cognitive Neuroscience.* Washington, DC: World Bank, 2006.

Abadzi, Helen. *Absenteeism and beyond: Instructional time loss and consequences.* Washington, DC: World Bank, 2007.

AEWG. *Guide to the accelerated education principles.* Geneva, 2017. https://inee.org/resources/accelerated-education-10-principles-effective-practice

AEWG. *COVID-19 Pathways for the return to learning: Guidance on condensing a curriculum.* 2020. https://inee.org/resources/covid-19-pathways-return-learning

Ali, Armando. "A comparative analysis of how the Teaching at the Right Level (TaRL) approach is implemented in Mozambique and Botswana. PAL Network," 2019. https://palnetwork.org/wp-content/uploads/2019/04/2019_PAL_How-Citizens-in-Mozambique-and-Botswana-are-Improving-Learning-Outcomes-of-their-Children.pdf

Aker, Jenny C., Christopher Ksoll, and Travis J. Lybbert. "ABC, 123: Can you text me now? The Impact of a Mobile Phone Literacy Program on Educational Outcomes." CORE, 2011. https://core.ac.uk/download/pdf/6332276.pdf

Akyeampong Kwame, Marcos Delprato, Ricardo Sabates, Zoe James, John Pryor, Jo Westbrook, Sarah Humphreys, and Asmelash H. Tsegay. *Speed School programme in Ethiopia: Tracking the progress of Speed School students: 2011-17.* Falmer, Brighton, UK: Centre for International Education, University of Sussex, 2018.

Allensworth, Elaine M., Camille A. Farrington, Molly F. Gordon, David W. Johnson, Kylie Klein, Bronwyn McDaniel, and Jenny Nagaoka. *Supporting social, emotional, & academic development: Research implications for educators.* Chicago, Illinois: UChicago Consortium on School Research, 2018. https://consortium.uchicago.edu/sites/default/files/2019-01/Supporting%20Social%20Emotional-Oct2018-Consortium.pdf

Arenge, Gabby and Perlman-Robinson, Jenny. "Taking education 'back-to-the-basics' at scale in Botswana." October 31, 2016. https://www.brookings.edu/blog/education-plus-development/2019/10/31/taking-education-back-to-the-basics-at-scale-in-botswana/

Azuma-Himura, Alicia. "Avances y logros de la telesecundaria en Mexico." 2015. https://redesdetutoria.com/descargas/

Banerjee, Abhijit, Rukmini Banjeri, James Berry, Esther Duflo, Harini Kannan, Shobhini Mukherji, Shobhini, Marc Shotland, and Michael Walton. "Mainstreaming an effective intervention:

Evidence from randomized evaluations of 'Teaching at the Right Level' in India." NBER Working Paper No. 22746. 2016.

Banerji, Rukmini and Madhav Chavan. "Improving literacy and math instruction at scale in India's primary schools: The case of Pratham's Read India program." Journal of Educational Change 17, (2016): 453-475.

Barder, Owen. "Evidence and Scale." 2014. http://www.owen.org/wp-content/uploads/2014-05-16-CIFF-Board-Dinner-Evidence-and-scale-as-delivered2.pdf

Betts, Julian R. "Chapter 7: The Economics of tracking in education." In Handbook of the Economics of Education, Volume 3, 341-381. Amsterdam: Elsevier, 2011.

Bilagher, Moritz and Amit Kaushik. "The potential of Accelerated Learning Programmes (ALPs) for conflict-ridden countries and regions: Lessons learned from an experience in Iraq." International Review of Education 66, (2020): 93–113.

Bransford, John D., Ann L. Brown, and Rodney R. Cocking, eds. *How people learn: Brain, mind, experience, and school.* Washington, DC: National Academy Press, 2000. https://www.desu.edu/sites/flagship/files/document/16/how_people_learn_book.pdf

Bruns, Barbara, David Evans, and Javier Luque. "Achieving World-Class Education in Brazil: The Next Agenda." World Bank, 2012.

Burde, Dana, Ozen Guven, Jo Kelcey, Heddy Lahmann, and Khaled Al-Abbadi. *What Works to Promote Children's Educational Access, Quality of Learning, and Wellbeing in Crisis-Affected Contexts.* Education Rigorous Literature Review. Department for International Development, 2015.

Casely-Hayford, Leslie. and Adom Ghartey. *The Leap to Literacy and Life Change in Northern Ghana: An Impact Assessment of School for Life.* Associates for Change, 2007. https://www.associatesforchange.org/complimentary-education.html.

Cerdan, Pedro, Eduardo Velez Bustillo, and Vicky Colbert. "The Escuela Nueva Learning Circles: learning in emergency situations." World Bank Blogs, 2020. https://blogs.worldbank.org/education/escuela-nueva-learning-circles-learning-emergency-situations

Charlick, Judith A. "Accelerating Learning for Children in Developing Countries: Joining Research and Practice." USAID (Basic Education and Policy Support). 2005.

Chondoka, Yezenge and Charles Subulwa. *Evaluation of the SPARK curriculum in community schools in Zambia 2000-2004.* UNICEF, 2004.

Cooperrider, David L., Frank Barrett, and Suresh Srivastva. "Social construction and appreciative inquiry: A journey in organizational theory." In Management and Organization: Relational Alternatives to

Individualism. Hosking, Dian, Peter Dachler, and Kenneth Gergen, eds., 157–200. Brookfield, USA: Avebury Press, 1995.

Coyne, Geoff, Bonnie L. Prince, and Eldora Burns Nielson. *Accelerated Learning Program for positive living and United Service: Mid term evaluation review.* Prepared for USAID. DevTech Systems, Inc., 2008.

Dahmann, Sarah C. "How does education improve cognitive skills? Instructional time versus timing of instruction." Labor Economics 47, (2017): 35-47.

DeStefano, Joseph, Audrey-Marie Shuh, David Balwanz, and Ash Hartwell. *Reaching the underserved: Complementary models of effective schooling.* Washington, DC: EQUIP 2, 2007.

Duflo, Annie and Jessica Kiessel. "Every child counts: Adapting and evaluating research results on remedial education across contexts through a nationwide randomized experiment in Ghana." 2014 https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=NEUDC2015&paper_id=538

Duflo, Esther, Pascaline Dupas, and Michael Kremer. "Peer effects, teacher incentives, and the impact of tracking: Evidence from a randomized evaluation in Kenya." American Economic Review, 101 no. 5 (2011): 1739-74.

Elmore, Richard. "What is Redes de Tutoría?" January 2016. https://hundred.org/en/innovations/redes-de-tutoria

Epstein, Andrew and Stuart Leigh. *South Sudan Interactive Radio Instruction Performance Evaluation Report.* USAID, 2012.

Farrell, Joseph P., Caroline Manion, and Santiago Rincon Gallardo Shimada. "Reinventar la escuela: Alernativas radicales exitosas del sur global." Revista Latinoamerica de estudios educativos, 47 no. 2 (2017): 9-40.

Freire, Paulo. *Pedagogy of the oppressed.* New York, NY: Bloomsbury Academics, 2000.

Gardner, Howard. *Frames of Mind: The theory of multiple intelligences.* New York, NY: Basic Books, 1983.

Gardner, Howard. *The Unschooled Mind: How Children Think and How Schools Should Teach.* New York, NY: Basic Books, 1991.

Gillies, John and Jessica Jester Quijada. *Opportunity to learn: A high impact strategy for improving educational outcomes in developing countries.* USAID, 2008.

Glatthorn, Allan, Judy F. Carr, and Douglas E. Harris. *Curriculum Handbook: Planning and organizing for curriculum renewal.* Association for Supervision and Curriculum Development. 2001. http://www.ascd.org/publications/curriculum-handbook/398.aspx

Gross, Betheny, Sivan Tuchman, and Susan Patrick. *A national landscape scan of personalized learning in K-12 education in the United States.* Vienna, VA: International Association for K–12 Online Learning, 2018.

Hammler, Katharina. "The Colombian Escuela Nueva School Model: Linking Program Implementation and Learning Outcomes." PhD diss. Tulane University, 2017.

International Rescue Committee & NYU Global Ties. "The impact of IRC's Healing Classrooms on tutoring on children's learning and social-emotional outcomes in Niger." 3EA, 2019. https://steinhardt.nyu.edu/sites/default/files/2019-09/3EA-Niger_Policy_Brief_updated_3.2019_A.pdf

Institute for Education Policy (IEP). *Don't remediate, accelerate! Effective catch-up learning strategies - evidence from the United States.* Developed for the Global education Coalition, UNESCO, 2012. https://unesdoc.unesco.org/ark:/48223/pf0000374029

Intili, Jo Ann, Ed Kissam, and Eileen St. George. "Fostering education for female out-of-school youth in Afghanistan." Journal of Education for International Development, 2 no. 1 (2006). http://www.equip123.net/JEID/articles/2/Afghanistan.pdf

Islam, Mir Nazmul and Arif Anwar. "BRAC in Afghanistan: Building South-South partnerships in teacher training." Prospects 42 no. 1 (2012): 55-70.

Ito, Hirotake, Keiko Kasai, and Makiko Nakamuro. *Does computer-aided instruction improve children's cognitive and non-cognitive skills?: Evidence from Cambodia.* RIETI, 2019. https://www.rieti.go.jp/jp/publications/dp/19e040.pdf

Kidron, Yael and Jim Lindsay. *The effects of increased learning time on student academic and nonacademic outcomes: Findings from a meta-analytic review (REL 2014–015).* Washington, DC: U.S. Department of Education, Institute of Education Sciences, 2014. https://ies.ed.gov/ncee/edlabs/regions/appalachia/pdf/

Linden, Leigh, Abhijit Banerjee, and Esther Duflo. "Computer-Assisted Learning: Evidence from a Randomized Experiment." *Building Better Social Programs.* 2003. doi:10.1093/oso/9780190945572.003.0010

Longden, Ken. *Accelerated learning programmes: What can we learn from them about curriculum reform?* UNESCO, 2013.

Lucas, Samuel R. "Tracking inequality: Stratification and mobility in American high schools." Sociology of Education Series. New York: Teachers College Press, 1999.

Luminos. "The Luminos Fund Second Chance Program: Program Model Summary." n.d.

Luschei, Thomas F. and Laura Vega. "Colombia: Educating the most disadvantaged students." Phi Delta Kappan 97 no. 3 (2015): 49-53.

Manda, Stella. *Evaluation of the Accelerated Learning Programme in Liberia: Final Report.* UNICEF, 2011.

Means, Barbara, Yukie Toyama, Robert Murphy, and Marianne Baki. "The effectiveness of online and blended learning: A meta-analysis of the empirical literature." Teachers College Record, 115 no. 3 (2013): 1-47.

Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.* Prepared for USAID. Chicago, IL: University of Chicago – NORC, 2016.

Miller, Sarah, Jenny Davison, Jamie Yohanis, Seaneen Sloan, Aideen Gildea, Allen Thurston. *Texting parents: Evaluation report and executive Summary (Rep.).* Education Endowment Foundation. 2017. https://eric.ed.gov/?id=ED581121

Morris, Emily and Ana Farrell. "Delivering Distance Learning in Emergencies: A Review of the Evidence and Best Practice." Prepared for USAID. EnCompass LLC and MSI, 2020. https://www.edu-links.org/sites/default/files/media/file/DELIVERING%20DISTANCE%20LEARNING%20IN%20EMERGENCIES.pdf

Ngware, M.W., Boukary, H., Wekulo, P., Mutisya, M., Zikani, K., Otieno, C.M.A. & Riechi, A.R.O. *Alternative education and return pathways for out-of-school youth. A background paper for the Secondary Education in Africa (SEA)*: Preparing Youth for the Future of Work. Nairobi: APHRC, 2018.

Nicholson, Sue. *Accelerated learning in post-conflict settings: A discussion paper.* Save the Children, 2006. https://inee.org/fr/node/7088

Nicholson, Sue. *Evaluation of Oxfam's Accelerated Education Programme in Greater Ganyliel, South Sudan 2014-2018.* Against Global Best Practice, 2018.

Pane, John F., Elizabeth D. Steiner, Matthew Baird, and Laura S. Hamilton. *Continued progress: Promising evidence on personalized learning.* Santa Monica, CA: RAND Corporation, 2015. https://eric.ed.gov/?id=ED571009

Pane, John F., Elizabeth D. Steiner, Matthew Baird, Laura S. Hamilton and Joseph D. Pane. *Informing progress: Insights on personalized learning implementation and effects.* Santa Monica, CA: RAND Corporation, 2017. https://www.rand.org/ pubs/research_reports/RR2042.html

Parandekar, Suhas. D., Futoshi Yamauchi, Andrew B. Ragatz, Elizabeth K. Sedmik, and Akiko Sawamoto. *Enhancing school quality in Vietnam through participative and collaborative learning.* Washington, DC: World Bank Group, 2017.

Randall, Jennifer, Francis O'Donnell, Sandra M. Botha. "Accelerating learning programs for out-of-school girls: The impact on student achievement and traditional school enrolment." FIRE: Forum for International Research in Education 6, no. 2 (2020): 1-23.

Rauchwerk, Susan I. *Learning through play in Speed School, an international accelerated learning program.* International Journal of Learning, Teaching and Educational Research, 16, no. 6 (2017): 52-63.

Redes de Tutoría. *Presentation for HundrEd.* 2017.

Regional Educational Laboratory Central at IES. *Webinar: Personalizing instruction to address COVID-19 learning gaps.* 2020. https://ies.ed.gov/ncee/edLabs/regions/central/pdf/REL-Centrl-PersnlzedLearn-508.pdf

Rogers, Karen. B. and Richard D. Kimpston. "The Acceleration of Students: What We Do vs. What We Know." Educational Leadership: Untracking for Equity, 50, no. 2 (1992): 58-61. http://www.ascd.org/publications/educational-leadership/oct92/vol50/num02/The-Acceleration-of-Students@-What-We-Do-vs.-What-We-Know.aspx

Rollins, Suzy Pepper. *Learning in the fast lane.* ASCD, 2014. http://www.ascd.org/publications/books/114026/chapters/Acceleration@_Jump-Starting_Students_Who_Are_Behind.aspx.

Rose, Pauline. *NGO provision of basic education: Alternative or complementary service delivery to support access to the excluded?* University of Sussex, 2007.

Sarfraz, Hamza and Zain ul Abidin. "Preparing for the new normal on Pakistan amid COVID-19: A case for accelerated learning." World Education Blog, August 21, 2020. https://gemreportunesco.wordpress.com/2020/08/21/preparing-for-the-new-normal-in-pakistan-amid-covid-19-a-case-for-accelerated-learning/

Schwartz, Analice. C. *Remedial education programs to accelerate learning for all. GPE Working Paper Series on Learning, No. 11*, 2012. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/564671468151507990/remedial-education-programs-to-accelerate-learning-for-all

Schweisfurth, Michele. *Learner-Centered Education in international perspective.* Journal of International and Comparative Education, 2 no. 1 (2013): 1-7.

Shah, Ritesh. *Norwegian Refugee Council's accelerated education responses: a meta-evaluation.* Norwegian Refugee Council, 2015. https://www.nrc.no/globalassets/pdf/evaluations/meta-evaluation-of-nrcs-accelerated-education-programme.pdf

Shah, Ritesh. and Liyun Choo. *Accelerated education evidence review: Strengthening the evidence base for accelerated education.* UNHCR: Accelerated Education Working Group, 2020. https://inee.org/resources/accelerated-education-evidence-review

Simpson, Alpha II. *Luminos Fund Second Chance Program, Liberia. Endline evaluation report.* 2019.

Skovgaard, Sara. "Bridging the post-conflict gap: Capacity development in countries affected by fragility - a case study of the ALP in Liberia." Master's thesis, University of Oslo, 2011.

Slavin, Robert. *New findings on tutoring: Four shockers.* Robert Slavin's Blog. 2018. https://robertslavinsblog.wordpress.com/2018/04/05/new-findings-on-tutoring-four-shockers/

Street Child. "Fighting the legacy of Ebola with Speed Schools." Street Child Uk, May 12, 2017. https://www.street-child.co.uk/blog/2017/5/11/fighting-the-legacy-of-ebola-with-speed-schools

Stromme Foundation. *Evaluation report of the Speed School in Mali, Burkina Faso and Niger.* 2014.

Stubbé, Hester, Aiman Badri, Rebecca Telford, Anja van der Hulst, and Wouter van Joolingen. "E-Learning Sudan, Formal Learning for Out-of-School Children" The Electronic Journal of e-Learning 14, no. 2 (2016): 136-149. www.ejel.org

Student Achievement Partners (SAP). *2020-2021 Priority instructional content in ELA/literacy and mathematics.* 2020.

Tanenbaum, Courtney, Kerstin Le Floch, and Andrea Boyle. *Are personalized learning environments the next wave of K-12 education reform?* Washington, DC: American Institutes for Research, 2013. http://www.air.org/sites/default/ files/AIR_Personalized_Learning_Issue_Paper_2013.pdf

Terzian, Mary and Kristin A. Moore. "Effective and promising summer learning programs for low-income children: Preliminary lessons from experimental evaluations of social interventions." Child Trends Fact-Sheet, 2009. https://www.wallacefoundation.org/knowledge-center/Documents/Effective-and-Promising-Summer-Learning-Programs-Fact-Sheet.pdf

The New Teacher Project (TNTP). *The opportunity myth.* 2018. https://tntp.org/assets/documents/TNTP_The-Opportunity-Myth_Web.pdf

Tukundane, Cuthbert, Alexander Minnaert, Jaques Zeelen, and Peter Kanyandago. "A review of enabling factors in support intervention programmes for early school leavers: What are the implications for Sub-Saharan Africa?" Children and Youth Services Review 52 (May 2015): 54-62.

U.S. Department of Education. *Personalized learning in progress: Case studies of four Race to the Top-District grantees' early implementation.* 2014. https://rttd.grads360.org/services/PDCService.svc/GetPDCDocumentFile?fileId=26401

UNESCO. "COVID-19 and the Educational Response." n.d. Retrieved August 20, 2020. https://en.unesco.org/covid19/educationresponse

UNESCO. *Afghanistan Learning for Life.* Paris: UNESCO Institute for Lifelong Learning. 2013. https://uil.unesco.org/case-study/effective-practices-database-litbase-0/learning-life-afghanistan

UNESCO. *Learning assessments.* 2019. https://en.unesco.org/themes/learning-assessment

UNESCO. "UNESCO COVID-19 education response: how many students are at risk of not returning to school? Advocacy paper," *UNESCO Digital Library,* 2020. https://unesdoc.unesco.org/ark:/48223/pf0000373992

UNESCO International Bureau of Education. *Curriculum.* 2020a. http://www.ibe.unesco.org/es/node/12149

UNESCO International Bureau of Education. *Instructional time.* 2020b. http://www.ibe.unesco.org/en/glossary-curriculum-terminology/i/instructional-time

UNESCO International Bureau of Education. *Learner centeredness.* 2020c. http://www.ibe.unesco.org/en/glossary-curriculum-terminology/l/learner-centredness

UNESCO International Bureau of Education. *Curriculum differentiation.* 2020d. http://www.ibe.unesco.org/en/glossary-curriculum-terminology/c/curriculum-differentiation

University of Sussex & Hawassa University. *Research into the Speed School curriculum and pedagogy in Ethiopia.* 2016.

University of Sussex, The Luminos Fund and Hawassa University. *Learning the Speed School way: Analysis of Speed School pedagogy in Ethiopia.* 2015.

War Child Holland, Ahfad University for Women, and TNO. *Research Report for Phases I and II e-Learning Sudan (2012 – 2015).* 2016.

Westbrook, Jo and Sean Higgins. *Report on the evaluation of the quality of the teaching and learning in the Second Chance program for out of school children in Liberia.* England: University of Sussex, England, 2019.

Winthrop, Rebecca, Timothy P. Williams, and Eileen McGiveney. "Accelerating progress in education with hands-on, minds-on learning." Brookings, Education Innovation Series, 2016. https://www.brookings.edu/blog/education-plus-development/2016/07/14/accelerating-progress-in-education-with-hands-on-minds-on-learning/

York, Benjamin N., Susanna Loeb, and Christopher Doss. "One Step at a Time: The Effects of an Early Literacy Text Messaging Program for Parents of Preschoolers. Journal of Human Resources, 54, no. 3 (2019): 537-566.

Zaalouk, Malak. *The Pedagogy of empowerment: Community schools as a social movement in Egypt.* Cairo: American University in Cairo Press, 2004. https://www.jstor.org/stable/j.ctt15m7m51

Zhu, Erping and Danilo M. Baylen. "From learning community to community learning: pedagogy, technology, and interactivity" Educational Media International 42 no. 3 (September 2005): 251-268. http://www.knowledgemobilization.net/wp-content/uploads/2014/02/From-learning-community-to-community-learning-.pdf

Zosh, Jennifer. M., Emily J. Hopkins, Hanne Jensen, Claire Liu, Dave Neale, Kathy Hirsh-Pasek, S. Lynneth Solis, and David Whitebread. *Learning through play: a review of the evidence (white paper).* The LEGO Foundation, DK, 2017. https://www.legofoundation.com/en/learn-how/knowledge-base/learning-through-play-a-review-of-the-evidence/

ANNEXES

ANNEX A: SUBJECT EXPERTS CONSULTED

#	LAST NAME	FIRST NAME	POSITION	ORGANIZATION
1	Bell	Brenda	Senior International Technical Advisor	EDC
2	Burns	Mary	Senior Expert	EDC
3	Hewison	Martha	Education Advisor, AEWG Chair	AEWG/UNHCR
4	Smith	Cristine	Associate Dean for Research and Engagement Professor of International Education	College of Education University of Massachusetts Amherst
5	Comings	John	Senior Technical Consultant at World Education; Adjunct Professor at CIE; formerly faculty at the Harvard Graduate School of Education; Director of the National Center for the Study of Adult Learning and Literacy (NCSALL)	Independent
6	Davis	Jeff	Practice Area Lead, Technical Director (Education)	MSI
7	Simon	Gaelle	Technical Manager	MSI
8	Saldanha	Kaitlynn	Senior Research Analyst	Luminos Fund
9	Evans	Norma	Consultant	Evans and associates
10	Torrente	Catalina*	Researcher	Previously with Mathematica
11	Jones	Stephanie*	Professor	Harvard Graduate School of Education
12	Simard	Suzanne	Curriculum Specialist	
13	Stitcht	Tom	Previously led training efforts during Vietnam War for the military when seeking to recruit individuals with low reading and writing competency levels, recommended by John Comings	Retired
14	Joslin	A'Ame	Cognitive faculty - to be completed	University of Indiana
15	Shah	Ritesh	Faculty of Education	University of Auckland
16	Sklar	Jennifer*	Deputy Director of IRC's Education Unit	IRC

#	LAST NAME	FIRST NAME	POSITION	ORGANIZATION
17	Hirsch Ayari	Susan	Director, Middle East & Asia Portfolio Education for Development Division	Creative Associates
18	Kawar	Rana	Education Specialist	UNICEF
19	Rollins	Suzy Pepper	Author, Founder Math in the Fast Lane	Math in the Fast Lane
20	Cyr	Stephane	Professeur	Département de mathématiques, Université de Québec à Montréal
21	Arvisais	Olivier*	Professeur	Département de didactique, Université de Québec à Montréal
22	Muskin	Josh	Senior Director of Programs and Education Team Leader	Geneva Global
23	Vega	Laura	Community Connections Coordinator	Escuela Nueva
24	Williams	James*	Professor, International Education & International Affairs	George Washington University
25	Chabott	Colette	Adjunct Professor	George Washington University
26	Margaret	Sinclair	School of Education and Social Work	University of Sussex/NISSEM
27	Conrad	Laura	Program Manager, Liberia Project	STS
28	Frisoli	Paul	Senior Programme Specialist	LEGO Foundation
29	Levin	Henry	William Heard Kilpatrick Professor of Economics and Education at Teachers College, Columbia University	Teachers College, Columbia University
30	Srikantaiah	Deepa	Senior Education and Research Specialist	World Learning

**Could not be reached for comment.*

ANNEX B: WORKSHOP AGENDA (SEPTEMBER 14, 2020)

TIME	ACTIVITY
8:00-8:15	Signing on Welcome Introduction of the Research Team Participant introductions Overview of workshop agenda
8:15-8:30	Group discussion: Insights from the review
8:30-8:40	Recommendations development – Presentation of activity
8:40-9:30	Recommendations Brainstorming – Round 1 Group A: Condensing the curriculum/instructional time; Group B: Pedagogical strategies
9:30-9:40	Break (as needed)
9:40-10:15	Recommendations Brainstorming – Round 2 Group A: Pedagogical strategies; Group B: Condensing the curriculum/instructional time
10:15-10:35	Large group plenary - Group report-outs on Round 2; Discussion
10:35-10:55	Next steps: Large group discussion
10:55	Closing

ANNEX C: NOTES FROM CO-CREATION WORKSHOP (SEPTEMBER 14, 2020) - VIRTUAL

Running Notes - Curriculum/Instructional Time discussion

First group:

- Prioritize curricular content when learning resumes
- Prioritize standards that promote college or job readiness
- Prioritize a few critical competencies rather than all of the content that students may have missed during the disruption
- Compress curriculum through review and rewriting so only core subjects are taught
- Maintain student motivation and interest in learning
    - Learner well-being is important too - SEL (see SEL policy brief).
    - If SEL is not a part of this paper, make an explicit link to the other DEEP paper focusing on SEL evidence as this is a critical precondition for children's abilities to learn, particularly during COVID and in crisis and conflict contexts
- Collaborate with education policymakers and administrative bodies to condense curriculum
- Group students according to competency level so they can progress according to their achievement
- USAID: develop strategies to contribute towards evidence base around curriculum and instructional time
- Provide examples of effective curriculum streamlining/condensing
- MoE: further establish links between policy, instructional time and enabling environment
- Task team: focus on key messages around condensing curricula with USAID staff
- AEWG guidance: determine how to conduct field research using USAID/AEWG and IPs on condensing curriculum and upcoming guidance emerging from AEWG
- IPs: Highlight issues where evidence shows guidance is not effectively adhered to - e.g. condensed curricula often tackle too many competencies and skills'
- MoE: When condensing curricula, keep learners on grade level, brief teaching of previous years' skills, but then integrate and teach throughout grade level material
- Really think about what you are going to be testing for - don't want assessment to drive all learning but when you're condensing the curriculum you really need to think about what you will be measuring later.
    - Curriculum has to be tied explicitly to assessment.
    - Verify summative assessments reflect minimum standards. Assessments could be used as a strategy for selecting curricular content.
    - In numeracy area, raging debate is the average amount of weeks a learner needs to understand multiplication tables. Policy alignment support and discussion on instructional time adjustments should be based upon what we know about how children learn different content
    - Strengthen evidence base on this? Strengthen link between implementation and existing evidence base
    - Integrate within the Crisis and Conflict team's learning agenda?

Second group's review and additions to first group's recommendations:

- What does 'expedited' process mean? If we're not discussing full accelerated education program, but simply a catch up program, might it be more effective to make decisions at a classroom level? Empower teachers with the skills necessary to catch up based on learner needs.
    - Teaching principles, teachers, and school administrators on how to prioritize competencies. It's a management burden to say teachers can just do this on their own.
    - Struggle between staying with curriculum recommendations but also condensing.
    - **Prioritizing and Integrating** may be better terms given we're discussing catch up programs and not full AEPs, and an existing tension between formal and nonformal space
    - Have to have examples of existing curriculum to demonstrate what it means to condense and prioritize curricular content
    - Don't want everything to be in an accelerated education program, nor does every program need to be an AEP.
    - Typical curriculum has 7-8 subjects - can shorten, condense curriculum by selecting a few subjects only. Need to make sure recommendations are directly tied to specific findings.
- New recommendation related to relevance of condensed curriculum to applied skills and to promote higher education (college, vocational training) and job readiness.
- Evidence - may be we need to rely on panel judgments, pooling knowledge based upon experts' opinions and years of established experience. We may not have the evidence we need to make these recommendations, so it's ok to say our recommendations emerge from both evidence and this panel approach.
- Curriculum has to be sequenced with pedagogy- can create entry points. Want to adjust instructional time based on children who are gaining competencies. Feedback from what children are learning should give you the information you need.

Running Notes - Pedagogical strategies discussion

First group:

Topic: Teacher training

- Focus on teacher training.
- Pull more from relevant evidence from Speed Schools and others (for instance, interactive radio).
- Other COVID paper in development that focuses on teachers and educators, how to support them? See how DEEP may be able to facilitate connections between the papers.

Topic: Context/cultural considerations

- Is having high expectations teacher-centered?
- Implementing teacher-centered approaches in some contexts is culturally relevant and necessary, or do we have to analyze what would fit best for each context.
- Is teacher-centered better? Maybe in certain contexts? African classrooms; Helen Abadzi's work in reading instructions, etc.
- Very specific guidance quick guidance (one-pager/poster) on effective strategies would be useful to teachers – if we are unable to provide nothing else; image with effective strategies from report is very helpful.

Topic: Relationship between fidelity of implementation and enabling and supporting conditions

- Fidelity of implementation and capacity of implementation
    - 50% of the success might be due to fidelity and implementation
    - How can it be effectively delivered in the conditions of each unique program?
    - Most effective programs are those that had more support (economic and follow-up)
- Link with monitoring and assessment – strong and supported mechanisms are essential

Second group:

Topic: Next Steps

- Is "pedagogy" the right word? Especially when talking about different levels and possibly young adult learners.
- Cross-reference group on what we say about strengthening pedagogy – USAID has multiple recent products including UBE Toolkit, SEL tools, etc.
- Need to emphasize the link between content knowledge (and initial skills) and how is that framed into this product or for future discussions.

Topic: Future inquiry

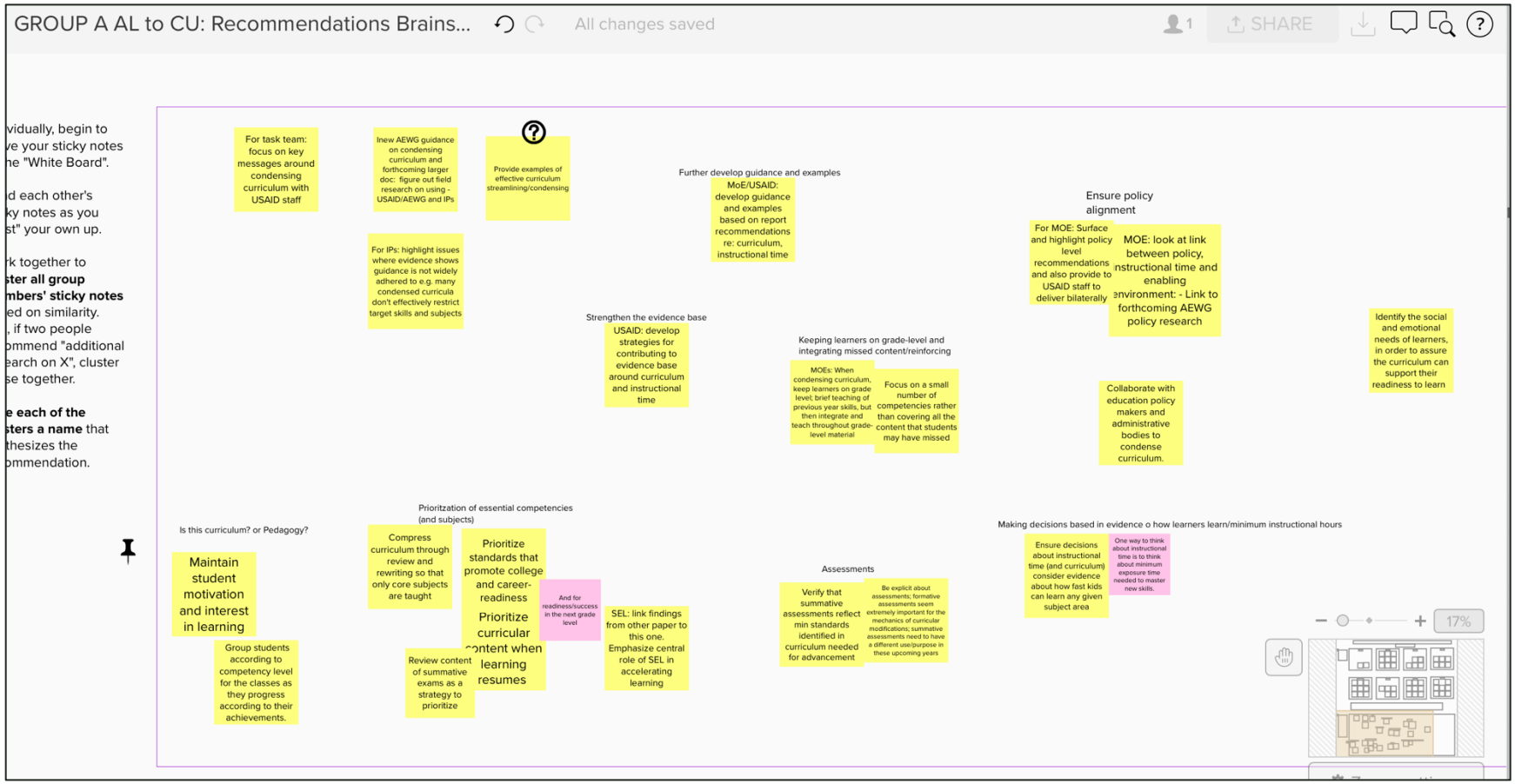
- Mixed findings within the report on the effectiveness of learner-centered approaches
    - Teacher-centered approaches can be best in certain conditions. What are these and why?
    - Nuanced spectrum of teacher-centeredness and learner-centeredness – We need to recognize the liminality within the spectrum between teacher-centered and learner-centered approaches. There are some activities where a teacher-centered approach makes best sense (example: learning the alphabet).
    - Certain skills start very teacher-centered and then move to learner-centered.
    - Can make the classroom more learner-centered quickly after building foundational skills.
- Structured pedagogy
    - This is how the structure looks like, will start teacher-centered and then it will move to learner-centeredness.

Topic: Assessment

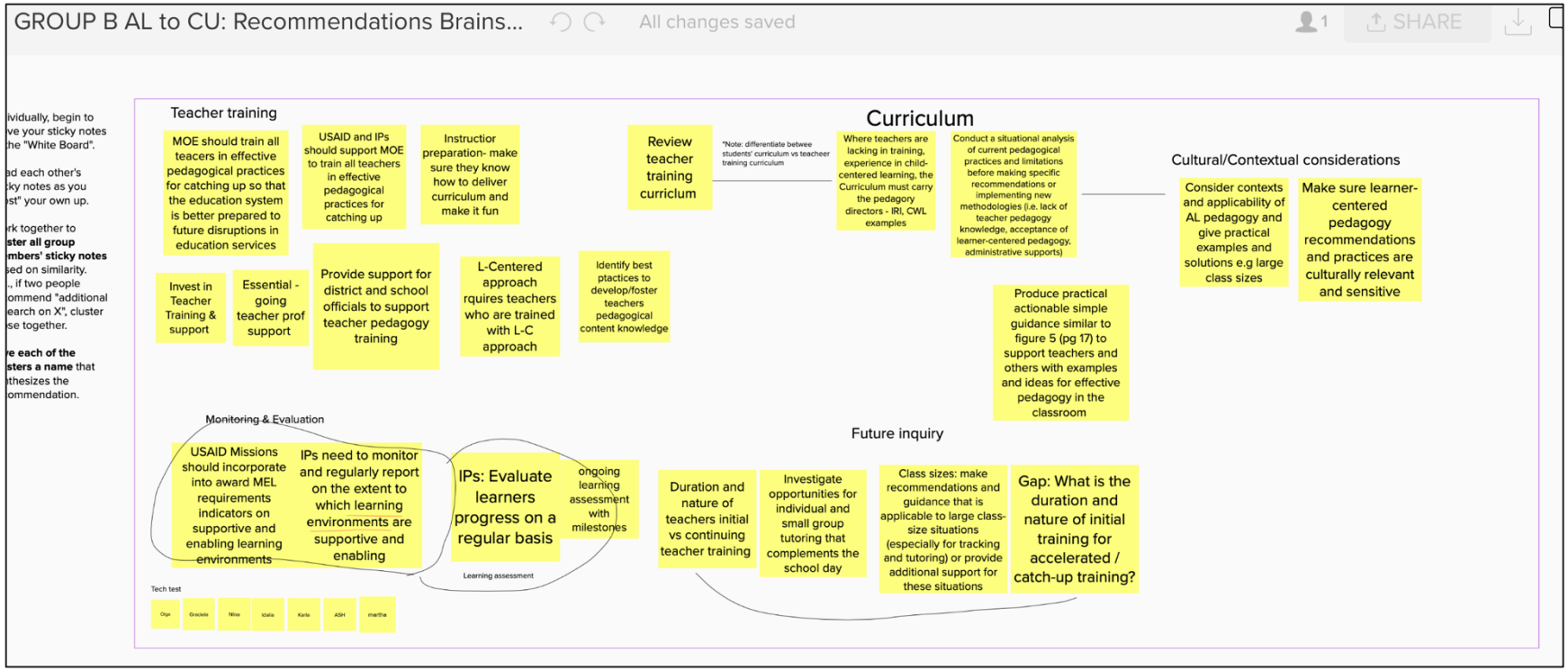
- Summative assessment
    - Might be a couple of different recommendations
    - Role and link with AL

Session 1: Group brainstorming – Affinity diagrams (Screenshot of Mural application)

Topic: Curriculum and Instructional Time



Topic: Pedagogical strategies



ENDNOTES

[1] Charlick, Judith A. "Accelerating Learning for Children in Developing Countries: Joining Research and Practice." USAID (Basic Education and Policy Support). 2005.
[2] Figures represent country-wide closures as of April 1, 2020.
[3] UNESCO. "COVID-19 and the Educational Response." n.d. Retrieved August 20, 2020. https://en.unesco.org/covid19/educationresponse
[4] UNESCO. "UNESCO COVID-19 education response: how many students are at risk of not returning to school? Advocacy paper," UNESCO Digital Library, 2020. https://unesdoc.unesco.org/ark:/48223/pf0000373992
[5] See Conceptual Framework section below for definitions of these types of educational programming.
[6] Shah, Ritesh. *Norwegian Refugee Council's accelerated education responses: a meta-evaluation.* Norwegian Refugee Council, 2015. https://www.nrc.no/globalassets/pdf/evaluations/meta-evaluation-of-nrcs-accelerated-education-programme.pdf
[7] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.* Prepared for USAID. Chicago, IL: University of Chicago – NORC, 2016.
[8] Shah, Ritesh. and Liyun Choo. *Accelerated education evidence review: Strengthening the evidence base for accelerated education.* UNHCR: Accelerated Education Working Group, 2020. https://inee.org/resources/accelerated-education-evidence-review
[9] The Accelerated Education Working Group is an inter-agency working group led by UNHCR and composed of a number of education partners supporting and/or funding Accelerated Education (AE) programming. The AEWG aims to improve the quality of AE through developing guidance and tools to support a more harmonized, standardized approach to AE provision.
[10] Charlick, Judith A. "Accelerating Learning for Children in Developing Countries"
[11] See Conceptual Framework section for detailed discussion of faster, deeper, and more effective learning.
[12] Cooperrider, David L., Frank Barrett, and Suresh Srivastva. "Social construction and appreciative inquiry: A journey in organizational theory." In Management and Organization: Relational Alternatives to Individualism. Hosking, Dian, Peter Dachler, and Kenneth Gergen, eds., 157–200. Brookfield, USA: Avebury Press, 1995.
[13] Keywords used in the search included: "alternative education," "community education," "accelerated education program," "accelerated learning program," "catch-up program" "remedial education." To focus our research on papers with evidence on the effectiveness of programs and/or activities, we also included search terms such as "results" OR "impact" OR "effectiveness" OR "effect."
[14] Accelerated education, development programs, and community education programs were most prominent within literature from LIC and MICs while remedial programs were relevant to LICs, MICs, and HICs.
[15] As some programs were featured in multiple sources, the number of programs reviewed is less than this number.
[16] See Boisvert & Fleming's (forthcoming) taxonomy on non-formal education for adolescents and youth in crisis and conflict situations for a more detailed description of the various categories of interventions that comprise non-formal and alternative education offerings. Distinctions between categories are indicative and, in practice, there is overlap and fluidity amongst them.
[17] DeStefano, Joseph, Audrey-Marie Shuh, David Balwanz, and Ash Hartwell. *Reaching the underserved: Complementary models of effective schooling.* Washington, DC: EQUIP 2, 2007.
[18] Rollins, Suzy Pepper. *Learning in the fast lane.* ASCD, 2014. http://www.ascd.org/publications/books/114026/chapters/Acceleration@_Jump-Starting_Students_Who_Are_Behind.aspx.
[19] AEWG. *Guide to the accelerated education principles.* Geneva, 2017. https://inee.org/resources/accelerated-education-10-principles-effective-practice
[20] AEWG. *Guide to the accelerated education principles.*
[21] AEWG. *Guide to the accelerated education principles.*
[22] Charlick, Judith A. "Accelerating Learning for Children in Developing Countries: Joining Research and Practice." USAID (Basic Education and Policy Support). 2005.

[23] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*
[24] AEWG. *Guide to the accelerated education principles.*
[25] Gardner, Howard. *Frames of Mind: The theory of multiple intelligences.* New York, NY: Basic Books, 1983.
[26] Because many AEPs are unable to effectively implement the pedagogical principles of accelerated learning theory, but rather focus on a condensed curriculum to speed up progression through the primary level (Shah 2015; Menendez et al. 2016), the AEWG uses the term "accelerated *education* program," rather than the formerly used term "accelerated *learning* program" (AEWG 2017).
[27] AEWG. *Guide to the accelerated education principles.*
[28] Randall, Jennifer, Francis O'Donnell, Sandra M. Botha. "Accelerating learning programs for out-of-school girls: The impact on student achievement and traditional school enrolment." FIRE: Forum for International Research in Education 6, no. 2 (2020): 1-23.
[29] Rogers, Karen. B. and Richard D. Kimpston. "The Acceleration of Students: What We Do vs. What We Know." Educational Leadership: Untracking for Equity, 50, no. 2 (1992): 58-61. http://www.ascd.org/publications/educational-leadership/oct92/vol50/num02/The-Acceleration-of-Students@-What-We-Do-vs.-What-We-Know.aspx
[30] Rollins, Suzy Pepper. *Learning in the fast lane.*
[31] Shah, Ritesh. *Norwegian Refugee Council's accelerated education responses.*
[32] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*
[33] Zosh, Jennifer. M., Emily J. Hopkins, Hanne Jensen, Claire Liu, Dave Neale, Kathy Hirsh-Pasek, S. Lynneth Solis, and David Whitebread. *Learning through play: a review of the evidence (white paper).* The LEGO Foundation, DK, 2017. https://www.legofoundation.com/en/learn-how/knowledge-base/learning-through-play-a-review-of-the-evidence/
[34] The New Teacher Project (TNTP). *The opportunity myth.* 2018. https://tntp.org/assets/documents/TNTP_The-Opportunity-Myth_Web.pdf
[35] Zaalouk, Malak. *The Pedagogy of empowerment: Community schools as a social movement in Egypt.* Cairo: American University in Cairo Press, 2004. https://www.jstor.org/stable/j.ctt15m7m51
[36] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*
[37] Longden, Ken. *Accelerated learning programmes: What can we learn from them about curriculum reform?* UNESCO, 2013.
[38] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*
[39] Shah, Ritesh. *Norwegian Refugee Council's accelerated education responses: a meta-evaluation.*
[40] For an in-depth discussion, see USAID's *Delivering Distance Learning in Emergencies: A Review of the Evidence and Best Practice* (Morris, Farrell, Encompass LLC, & MSI 2020).
[41] Barder, Owen. "Evidence and Scale." 2014. http://www.owen.org/wp-content/uploads/2014-05-16-CIFF-Board-Dinner-Evidence-and-scale-as-delivered2.pdf
[42] AEWG. *Guide to the accelerated education principles.*
[43] While parental/guardian engagement is not a focus of the report, evidence for the use of text-messaging strategies in the United States and the United Kingdom was found compelling by the research team and worth consideration when trying to maximize learning time. Two studies within the San Francisco Unified School District demonstrate positive results from text messaging programs for parents of preschoolers (York, Loeb, & Doss 2019) and kindergarteners (Doss, Fahle, Loeb, & York 2019) in enhancing parental engagement as well as early literacy. The second study, in particular, finds that participating kindergartners whose parents received messages according to a differentiated and personalized approach were 63 percent more likely to read at a higher level. A U.K. study (Miller, Yohanis, Sloan, Gildea, & Thurston 2017) similarly shows that grade 7, 9, and 11 students whose parents participated in a text-messaging program made 1 month of learning gains in math compared to students in the comparison group. As a low-cost intervention, this evidence urges consideration of how text-messaging initiatives may be integrated into educational programming to extend and accelerate learning progress.
[44] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*

[45] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*
[46] UNESCO defines curriculum as a "description of the what, why, how, and how well students should learn in a systematic and intentional way. The curriculum is not an end in itself but rather a means to fostering quality learning." (See http://www.ibe.unesco.org/es/node/12149). Because this definition expands to also include instructional practices, the focus of a separate sub-question of this review, we employ a more restricted definition—focusing on the "what" students should learn—for the purposes of this paper.
[47] Glatthorn, Allan, Judy F. Carr, and Douglas E. Harris. *Curriculum Handbook: Planning and organizing for curriculum renewal.* Association for Supervision and Curriculum Development. 2001. http://www.ascd.org/publications/curriculum-handbook/398.aspx
[48] UNESCO International Bureau of Education. *Curriculum.* 2020a. http://www.ibe.unesco.org/es/node/12149
[49] Abadzi, Helen. *Absenteeism and beyond: Instructional time loss and consequences.* Washington, DC: World Bank, 2007.
[50] Gillies, John and Jessica Jester Quijada. *Opportunity to learn: A high impact strategy for improving educational outcomes in developing countries.* USAID, 2008.
[51] UNESCO International Bureau of Education. *Curriculum.*
[52] Nicholson, Sue. *Accelerated learning in post-conflict settings: A discussion paper.* Save the Children, 2006. https://inee.org/fr/node/7088
[53] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*
[54] AEWG. *Guide to the accelerated education principles.*
[55] AEWG. COVID-19 *Pathways for the return to learning: Guidance on condensing a curriculum.* 2020. https://inee.org/resources/covid-19-pathways-return-learning
[56] Student Achievement Partners (SAP). *2020-2021 Priority instructional content in ELA/literacy and mathematics.* 2020.
[57] Institute for Education Policy (IEP). *Don't remediate, accelerate! Effective catch-up learning strategies - evidence from the United States.* Developed for the Global education Coalition, UNESCO, 2012. https://unesdoc.unesco.org/ark:/48223/pf0000374029
[58] AEWG. *COVID-19 Pathways for the return to learning.*
[59] Institute for Education Policy (IEP). *Don't remediate, accelerate!*
[60] Student Achievement Partners (SAP). *2020-2021 Priority instructional content.*
[61] Longden, Ken. *Accelerated learning programmes.*
[62] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*
[63] Shah, Ritesh. *Norwegian Refugee Council's accelerated education responses.*
[64] Shah, Ritesh. *Norwegian Refugee Council's accelerated education responses.*
[65] Longden, Ken. *Accelerated learning programmes.*
[66] The rate of compression of BRAC programs ranges from 1.25 to 3 (one year in a year and a quarter to three years).
[67] Islam, Mir Nazmul and Arif Anwar. "BRAC in Afghanistan: Building South-South partnerships in teacher training." Prospects 42 no. 1 (2012): 55-70.
[68] DeStefano, Joseph, Audrey-Marie Shuh, David Balwanz, and Ash Hartwell. *Reaching the underserved.*
[69] Longden, Ken. *Accelerated learning programmes.*
[70] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*
[71] Nine months of programming for the Speed Schools in Burkina Faso, Mali, and Niger while the Speed Schools program in Ethiopia and the Second Chance program in Liberia both run for ten months.
[72] Luminos. "The Luminos Fund Second Chance Program: Program Model Summary." n.d.
[73] Stromme Foundation. *Evaluation report of the Speed School in Mali, Burkina Faso and Niger.* 2014.
[74] Rauchwerk, Susan I. *Learning through play in Speed School, an international accelerated learning program.* International Journal of Learning, Teaching and Educational Research, 16, no. 6 (2017): 52-63.
[75] Akyeampong Kwame, Marcos Delprato, Ricardo Sabates, Zoe James, John Pryor, Jo Westbrook, Sarah Humphreys, and Asmelash H. Tsegay. *Speed School programme in Ethiopia: Tracking the progress of Speed School students: 2011-17.* Falmer, Brighton, UK: Centre for International Education, University of Sussex, 2018.

[76] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*
[77] Longden, Ken. *Accelerated learning programmes.*
[78] Bilagher, Moritz and Amit Kaushik. "The potential of Accelerated Learning Programmes (ALPs) for conflict-ridden countries and regions: Lessons learned from an experience in Iraq." International Review of Education 66, (2020): 93–113.
[79] Stromme Foundation. *Evaluation report of the Speed School in Mali, Burkina Faso and Niger.*
[80] Shah, Ritesh. *Norwegian Refugee Council's accelerated education responses: a meta-evaluation.*
[81] Luminos. "The Luminos Fund Second Chance Program"
[82] Akyeampong Kwame, Marcos Delprato, Ricardo Sabates, Zoe James, John Pryor, Jo Westbrook, Sarah Humphreys, and Asmelash H. Tsegay. *Speed School programme in Ethiopia.*
[83] The program has also gone by the name Read India (Banerji & Chavan 2016).
[84] Ali, Armando. "A comparative analysis of how the Teaching at the Right Level (TaRL) approach is implemented in Mozambique and Botswana. PAL Network," 2019. https://palnetwork.org/wp-content/uploads/2019/04/2019_PAL_How-Citizens-in-Mozambique-and-Botswana-are-Improving-Learning-Outcomes-of-their-Children.pdf
[85] Arenge, Gabby and Perlman-Robinson, Jenny. "Taking education 'back-to-the-basics' at scale in Botswana." October 31, 2016. https://www.brookings.edu/blog/education-plus-development/2019/10/31/taking-education-back-to-the-basics-at-scale-in-botswana/
[86] Duflo, Annie and Jessica Kiessel. "Every child counts: Adapting and evaluating research results on remedial education across contexts through a nationwide randomized experiment in Ghana." 2014 https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=NEUDC2015&paper_id=538
[87] Banerjee, Abhijit, Rukmini Banjeri, James Berry, Esther Duflo, Harini Kannan, Shobhini Mukherji, Shobhini, Marc Shotland, and Michael Walton. "Mainstreaming an effective intervention: Evidence from randomized evaluations of 'Teaching at the Right Level' in India." NBER Working Paper No. 22746. 2016.
[88] Banerji, Rukmini and Madhav Chavan. "Improving literacy and math instruction at scale in India's primary schools: The case of Pratham's Read India program." Journal of Educational Change 17, (2016): 453-475.
[89] Banerji, Rukmini and Madhav Chavan. "Improving literacy and math instruction at scale in India's primary schools"
[90] Standard deviation reflects the distribution of results in a dataset and specifically the distance between the observed value and the mean. When discussing scores like this, the higher the standard deviation, the stronger the improvement.
[91] Banerjee, Abhijit, Rukmini Banjeri, James Berry, Esther Duflo, Harini Kannan, Shobhini Mukherji, Shobhini, Marc Shotland, and Michael Walton. "Mainstreaming an effective intervention."
[92] University of Sussex & Hawassa University. *Research into the Speed School curriculum and pedagogy in Ethiopia.* 2016.
[93] DeStefano, Joseph, Audrey-Marie Shuh, David Balwanz, and Ash Hartwell. *Reaching the underserved.*
[94] Casely-Hayford, Leslie. and Adom Ghartey. *The Leap to Literacy and Life Change in Northern Ghana: An Impact Assessment of School for Life. Associates for Change,* 2007. https://www.associatesforchange.org/complimentary-education.html
[95] DeStefano, Joseph, Audrey-Marie Shuh, David Balwanz, and Ash Hartwell. *Reaching the underserved.*
[96] Casely-Hayford, Leslie. and Adom Ghartey. *The Leap to Literacy and Life Change in Northern Ghana.*
[97] Rollins, Suzy Pepper. *Learning in the fast lane.*
[98] Student Achievement Partners (SAP). *2020-2021 Priority instructional content.*
[99] Student Achievement Partners (SAP). *2020-2021 Priority instructional content.*
[100] The New Teacher Project (TNTP). *The opportunity myth.*
[101] As discussed further below, the study identifies three additional characteristics of classrooms that further support acceleration. In sum, TNTP (2018) identifies four resources essential to accelerating learning: "1) consistent opportunities to work on grade-appropriate assignments, 2) strong instruction where students do most of the thinking in a lesson, 3) deep engagement in what they're learning, 4) teachers who hold high expectations for students and believe they can meet grade level-standards." (p. 22).
[102] Terzian, Mary and Kristin A. Moore. "Effective and promising summer learning programs for low-income children: Preliminary lessons from experimental evaluations of social interventions." Child Trends Fact-Sheet, 2009.

https://www.wallacefoundation.org/knowledge-center/Documents/Effective-and-Promising-Summer-Learning-Programs-Fact-Sheet.pdf

[103] The other conditions are that programs "are led by experienced teachers, conduct classes with 15 or fewer students and at least two adults, and complement group learning with individual support" (Terzian & Moore 2009, p. 1).

[104] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*

[105] Stromme Foundation. *Evaluation report of the Speed School in Mali, Burkina Faso and Niger.*

[106] It was not possible to conduct this same analysis in Mali (Stromme Foundation 2014).

[107] This structure is very common to Francophone African education systems.

[108] Cerdan, Pedro, Eduardo Velez Bustillo, and Vicky Colbert. "The Escuela Nueva Learning Circles: learning in emergency situations." World Bank Blogs, 2020. https://blogs.worldbank.org/education/escuela-nueva-learning-circles-learning-emergency-situations

[109] UNICEF, the Colombia Ministry of Education, and the World Bank are planning an evaluation of Learning Circles and its COVID-19 adaptation (Cerdan, Bustillo, & Colbert 2020).

[110] Shah, Ritesh. *Norwegian Refugee Council's accelerated education responses: a meta-evaluation.*

[111] Cerdan, Pedro, Eduardo Velez Bustillo, and Vicky Colbert. "The Escuela Nueva Learning Circles."

[112] Akyeampong Kwame, Marcos Delprato, Ricardo Sabates, Zoe James, John Pryor, Jo Westbrook, Sarah Humphreys, and Asmelash H. Tsegay. *Speed School programme in Ethiopia.*

[113] University of Sussex & Hawassa University. *Research into the Speed School curriculum and pedagogy in Ethiopia.*

[114] Bilagher, Moritz and Amit Kaushik. "The potential of Accelerated Learning Programmes (ALPs) for conflict-ridden countries and regions."

[115] Bilagher, Moritz and Amit Kaushik. "The potential of Accelerated Learning Programmes (ALPs) for conflict-ridden countries and regions

[116] Bilagher, Moritz and Amit Kaushik. "The potential of Accelerated Learning Programmes (ALPs) for conflict-ridden countries and regions

[117] Rauchwerk, Susan I. *Learning through play in Speed School, an international accelerated learning program.*

[118] Stromme Foundation. *Evaluation report of the Speed School in Mali, Burkina Faso and Niger.*

[119] Schwartz, Analice. C. *Remedial education programs to accelerate learning for all. GPE Working Paper Series on Learning, No. 11,* 2012. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/564671468151507990/remedial-education-programs-to-accelerate-learning-for-all

[120] Longden, Ken. *Accelerated learning programmes.*

[121] Information on hours draws from relevant program-specific reports, with the exception of School for Life, BRAC, the Afghanistan Primary Education Program, and the Malawi Complementary Basic Education program. This information comes from DeStefano et al.'s (2007) review of community education programs.

[122] Schwartz, Analice. C. *Remedial education programs to accelerate learning for all.*

[123] Duflo, Annie and Jessica Kiessel. "Every child counts."

[124] Duflo, Annie and Jessica Kiessel. "Every child counts."

[125] There is an overlap between this program design designated as a remedial tutoring program and other remedial programs. More information is required in order to further assess the similarities and differences with other remedial programs.

[126] International Rescue Committee & NYU Global Ties. "The impact of IRC's Healing Classrooms on tutoring on children's learning and social-emotional outcomes in Niger." 3EA, 2019. https://steinhardt.nyu.edu/sites/default/files/2019-09/3EA-Niger_Policy_Brief_updated_3.2019_A.pdf

[127] No additional information on learning outcomes was available from this policy brief.

[128] International Rescue Committee & NYU Global Ties. "The impact of IRC's Healing Classrooms on tutoring on children's learning and social-emotional outcomes in Niger."

[129] Banerji, Rukmini and Madhav Chavan. "Improving literacy and math instruction at scale in India's primary schools."

[130] Schwartz, Analice. C. *Remedial education programs to accelerate learning for all.*

[131] Dahmann, Sarah C. "How does education improve cognitive skills? Instructional time versus timing of instruction." Labor Economics 47, (2017): 35-47.

[132] Duflo, Annie and Jessica Kiessel. "Every child counts."

[133] Terzian, Mary and Kristin A. Moore. "Effective and promising summer learning programs for low-income children."
[134] Kidron, Yael and Jim Lindsay. *The effects of increased learning time on student academic and nonacademic outcomes: Findings from a meta-analytic review (REL 2014–015).* Washington, DC: U.S. Department of Education, Institute of Education Sciences, 2014. https://ies.ed.gov/ncee/edlabs/regions/appalachia/pdf/
[135] Dahmann, Sarah C. "How does education improve cognitive skills?"
[136] Nicholson, Sue. *Evaluation of Oxfam's Accelerated Education Programme in Greater Ganyliel, South Sudan 2014-2018.* Against Global Best Practice, 2018.
[137] Duflo, Annie and Jessica Kiessel. "Every child counts."
[138] Morris, Emily and Anna Farrell. "Delivering Distance Learning in Emergencies: A Review of the Evidence and Best Practice." Prepared for USAID. EnCompass LLC and MSI, 2020. https://www.edu-links.org/sites/default/files/media/file/DELIVERING%20DISTANCE%20LEARNING%20IN%20EMERGENCIES.pdf
[139] Morris, Emily and Anna Farrell. "Delivering Distance Learning in Emergencies."
[140] Also see War Child Holland, Ahfad University for Women and TNO's (2016) study showing promising results from an app designing to teach numeracy to out-of-school children in Sudan.
[141] Epstein, Andrew and Stuart Leigh. *South Sudan Interactive Radio Instruction Performance Evaluation Report.* USAID, 2012.
[142] Stubbé, Hester, Aiman Badri, Rebecca Telford, Anja van der Hulst, and Wouter van Joolingen. "E-Learning Sudan, Formal Learning for Out-of-School Children" The Electronic Journal of e-Learning 14, no. 2 (2016): 136-149. www.ejel.org
[143] War Child Holland, Ahfad University for Women, and TNO. *Research Report for Phases I and II e-Learning Sudan (2012 – 2015).* 2016.
[144] Stubbé, Hester, Aiman Badri, Rebecca Telford, Anja van der Hulst, and Wouter van Joolingen. "E-Learning Sudan, Formal Learning for Out-of-School Children"
[145] Winthrop, Rebecca, Timothy P. Williams, and Eileen McGiveney. "Accelerating progress in education with hands-on, minds-on learning." Brookings, Education Innovation Series, 2016. https://www.brookings.edu/blog/education-plus-development/2016/07/14/accelerating-progress-in-education-with-hands-on-minds-on-learning/
[146] Schwartz, Analice. C. *Remedial education programs to accelerate learning for all.*
[147] Banerjee, Abhijit, Rukmini Banjeri, James Berry, Esther Duflo, Harini Kannan, Shobhini Mukherji, Shobhini, Marc Shotland, and Michael Walton. "Mainstreaming an effective intervention."
[148] Linden, Leigh, Abhijit Banerjee, and Esther Duflo. "Computer-Assisted Learning: Evidence from a Randomized Experiment." Building Better Social Programs. 2003. doi:10.1093/oso/9780190945572.003.0010
[149] Cerdan, Pedro, Eduardo Velez Bustillo, and Vicky Colbert. "The Escuela Nueva Learning Circles."
[150] Discussions with topical experts revealed mixed opinions as to whether or not Speed Schools programs may be categorized as accelerated education programs or catch-up programs. Because Speed Schools work specifically with out-of-school children and youth who never began school, and because they aim to achieve 2-3 years of instruction, a longer period than most catch-up programs, the research team identifies Speed Schools as an AEP for this review.
[151] In some countries, such as Burkina Faso, Mali and Niger, the age of learners is specified as 8-12 years old.
[152] Rauchwerk, Susan I. *Learning through play in Speed School, an international accelerated learning program.*
[153] Rauchwerk, Susan I. *Learning through play in Speed School, an international accelerated learning program.*
[154] Rauchwerk, Susan I. *Learning through play in Speed School, an international accelerated learning program.*
[155] Akyeampong Kwame, Marcos Delprato, Ricardo Sabates, Zoe James, John Pryor, Jo Westbrook, Sarah Humphreys, and Asmelash H. Tsegay. *Speed School programme in Ethiopia.*
[156] Rauchwerk, Susan I. *Learning through play in Speed School, an international accelerated learning program.*
[157] Rauchwerk, Susan I. *Learning through play in Speed School, an international accelerated learning program.*
[158] Rauchwerk, Susan I. *Learning through play in Speed School, an international accelerated learning program.*
[159] Rauchwerk, Susan I. *Learning through play in Speed School, an international accelerated learning program.*
[160] Westbrook, Jo and Sean Higgins. *Report on the evaluation of the quality of the teaching and learning in the Second Chance program for out of school children in Liberia.* England: University of Sussex, England, 2019.
[161] Akyeampong Kwame, Marcos Delprato, Ricardo Sabates, Zoe James, John Pryor, Jo Westbrook, Sarah Humphreys, and Asmelash H. Tsegay. *Speed School programme in Ethiopia.*

[162] Burde, Dana, Ozen Guven, Jo Kelcey, Heddy Lahmann, and Khaled Al-Abbadi. *What Works to Promote Children's Educational Access, Quality of Learning, and Wellbeing in Crisis-Affected Contexts.* Education Rigorous Literature Review. Department for International Development, 2015.
[163] Burde, Dana, Ozen Guven, Jo Kelcey, Heddy Lahmann, and Khaled Al-Abbadi. *What Works to Promote Children's Educational Access, Quality of Learning, and Wellbeing in Crisis-Affected Contexts.*
[164] This section builds upon and extends previous resources including USAID's Universal Design for Learning to Help All Children Read Toolkit, the Social and Emotional Learning and Soft Skills USAID Education Policy Brief, and resources from the Global Reading Network (GRN) critical topics series. These include: Promoting Successful Literacy Acquisition through Structured Pedagogy, Assessment to Inform Instruction: Formative Assessment, and Coaching in Early Grade Reading Programs: Evidence, Experiences, and Recommendations.
[165] Charlick, Judith A. "Accelerating Learning for Children in Developing Countries."
[166] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*
[167] AEWG. *Guide to the accelerated education principles.*
[168] DeStefano, Joseph, Audrey-Marie Shuh, David Balwanz, and Ash Hartwell. *Reaching the underserved.*
[169] Schwartz, Analice. C. *Remedial education programs to accelerate learning for all.*
[170] UNESCO International Bureau of Education. *Learner centeredness.* 2020*c*. http://www.ibe.unesco.org/en/glossary-curriculum-terminology/l/learner-centredness
[171] Freire, Paulo. *Pedagogy of the oppressed.* New York, NY: Bloomsbury Academics, 2000.
[172] Charlick, Judith A. "Accelerating Learning for Children in Developing Countries"
[173] Nicholson, Sue. *Accelerated learning in post-conflict settings.*
[174] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*
[175] Nicholson, Sue. *Accelerated learning in post-conflict settings.*
[176] Tukundane, Cuthbert, Alexander Minnaert, Jaques Zeelen, and Peter Kanyandago. "A review of enabling factors in support intervention programmes for early school leavers: What are the implications for Sub-Saharan Africa?" Children and Youth Services Review 52 (May 2015): 54-62.
[177] The programs reviewed that most stressed a learner-centered approach include (in alphabetic order) the Accelerated Learning Program of Positive Living and United Service (Coyne, Prince, & Nielson, 2008), Afghanistan Primary Education Project (Intili, Kissam & St. George, 2006), BRAC (Farrel, Manion, Rincon-Gallard, 2017), Escuela Nueva (Luschei & Vega, 2015), Oxfam Accelerated Education Program (Nicholson, 2018), Second Chance Schools Liberia (Luminos, n.d.; Westbrook & Higgins, 2019), and Speed Schools Ethiopia (University of Sussex & Hawassa University, 2016; Rauchwerk, 2017; Akyeampong et al., 2018).
[178] Luminos. "The Luminos Fund Second Chance Program"
[179] Terzian, Mary and Kristin A. Moore. "Effective and promising summer learning programs for low-income children."
[180] Shah, Ritesh. *Norwegian Refugee Council's accelerated education responses.*
[181] University of Sussex & Hawassa University. *Research into the Speed School curriculum and pedagogy in Ethiopia.*
[182] Nicholson, Sue. *Evaluation of Oxfam's Accelerated Education Programme.*
[183] These resources reflect programs in Liberia (Luminos, n.d.), the United States (Terzian & Moore, 2014), Colombia (Shah, 2015), Ethiopia (University of Sussex & Hawassa University, 2016), and South Sudan (Nicholson, 2018).
[184] In the context of certain crises and emergencies, like the COVID-19 pandemic, educators will need to determine if adaptations need to be made to such activities to make them safe and accessible to learners.
[185] Akyeampong Kwame, Marcos Delprato, Ricardo Sabates, Zoe James, John Pryor, Jo Westbrook, Sarah Humphreys, and Asmelash H. Tsegay. *Speed School programme in Ethiopia.*
[186] Note that the use of open-ended and probing questions requires that the teacher is using a language that learners understand and speak with fluency.
[187] University of Sussex, The Luminos Fund and Hawassa University. *Learning the Speed School way: Analysis of Speed School pedagogy in Ethiopia.* 2015.
[188] Longden, Ken. *Accelerated learning programmes.*
[189] Regional Educational Laboratory Central at IES. *Webinar: Personalizing instruction to address COVID-19 learning gaps.* 2020. https://ies.ed.gov/ncee/edLabs/regions/central/pdf/REL-Centrl-PersnlzedLearn-508.pdf

[190] Gross, Betheny, Sivan Tuchman, and Susan Patrick. *A national landscape scan of personalized learning in K-12 education in the United States.* Vienna, VA: International Association for K–12 Online Learning, 2018.
[191] Tanenbaum, Courtney, Kerstin Le Floch, and Andrea Boyle. *Are personalized learning environments the next wave of K-12 education reform?* Washington, DC: American Institutes for Research, 2013. http://www.air.org/sites/default/files/AIR_Personalized_Learning_Issue_Paper_2013.pdf
[192] U.S. Department of Education. *Personalized learning in progress: Case studies of four Race to the Top-District grantees' early implementation.* 2014. https://rttd.grads360.org/services/PDCService.svc/GetPDCDocumentFile?fileId=26401
[193] Gross, Betheny, Sivan Tuchman, and Susan Patrick. *A national landscape scan of personalized learning in K-12 education in the United States.*
[194] Pane, John F., Elizabeth D. Steiner, Matthew Baird, Laura S. Hamilton and Joseph D. Pane. *Informing progress: Insights on personalized learning implementation and effects.* Santa Monica, CA: RAND Corporation, 2017. https://www.rand.org/ pubs/research_reports/RR2042.html
[195] Pane, John F., Elizabeth D. Steiner, Matthew Baird, Laura S. Hamilton and Joseph D. Pane. *Informing progress.*
[196] Bransford, John D., Ann L. Brown, and Rodney R. Cocking, eds. *How people learn: Brain, mind, experience, and school.* Washington, DC: National Academy Press, 2000. https://www.desu.edu/sites/flagship/files/document/16/how_people_learn_book.pdf
[197] Bransford, John D., Ann L. Brown, and Rodney R. Cocking, eds. *How people learn.*
[198] Allensworth, Elaine M., Camille A. Farrington, Molly F. Gordon, David W. Johnson, Kylie Klein, Bronwyn McDaniel, and Jenny Nagaoka. *Supporting social, emotional, & academic development: Research implications for educators.* Chicago, Illinois: UChicago Consortium on School Research, 2018. https://consortium.uchicago.edu/sites/default/files/2019-01/Supporting%20Social%20Emotional-Oct2018-Consortium.pdf
[199] Luschei, Thomas F. and Laura Vega. "Colombia"
[200] Participating children increased their self-esteem by 18.5 percent and placed 13.9 and 17.3 points above the national average in language and math (ENLC 2020).
[201] Terzian, Mary and Kristin A. Moore. "Effective and promising summer learning programs for low-income children"
[202] This resource is a brief fact sheet providing high-level findings; it does not go into details of comparison data.
[203] Charlick, Judith A. "Accelerating Learning for Children in Developing Countries"
[204] Gardner, Howard. *The Unschooled Mind: How Children Think and How Schools Should Teach.* New York, NY: Basic Books, 1991.
[205] Bransford, John D., Ann L. Brown, and Rodney R. Cocking, eds. *How people learn.*
[206] Zosh, Jennifer. M., Emily J. Hopkins, Hanne Jensen, Claire Liu, Dave Neale, Kathy Hirsh-Pasek, S. Lynneth Solis, and David Whitebread. *Learning through play.*
[207] Zosh, Jennifer. M., Emily J. Hopkins, Hanne Jensen, Claire Liu, Dave Neale, Kathy Hirsh-Pasek, S. Lynneth Solis, and David Whitebread. *Learning through play.*
[208] Bransford, John D., Ann L. Brown, and Rodney R. Cocking, eds. *How people learn.*
[209] This longitudinal study (Akyeampong et al. 2018) is the only one completed for an accelerated education program to the knowledge of the review team and the thematic experts contacted. The study tracked Speed School students who completed the program in 2012 to their expected end of primary at grade 8. It also included individuals who entered government schools and dropped out.
[210] University of Sussex & Hawassa University. *Research into the Speed School curriculum and pedagogy in Ethiopia.*
[211] Akyeampong Kwame, Marcos Delprato, Ricardo Sabates, Zoe James, John Pryor, Jo Westbrook, Sarah Humphreys, and Asmelash H. Tsegay. *Speed School programme in Ethiopia.*
[212] Pane, John F., Elizabeth D. Steiner, Matthew Baird, and Laura S. Hamilton. *Continued progress: Promising evidence on personalized learning.* Santa Monica, CA: RAND Corporation, 2015. https://eric.ed.gov/?id=ED571009
[213] Abadzi, Helen. *Efficient Learning for the Poor: Insights from the Frontiers of Cognitive Neuroscience.* Washington, DC: World Bank, 2006.
[214] Kidron, Yael and Jim Lindsay. *The effects of increased learning time on student academic and nonacademic outcomes.*
[215] Only experimental and quasi-experimental studies met the screening criteria. The original over 7,000 studies identified were reduced to only 30.

[216] See Schweisfurth (2013) for a set of seven minimum standards for learner-centered education that apply across contexts (p. 6).
[217] Schweisfurth, Michele. *Learner-Centered Education in international perspective.* Journal of International and Comparative Education, 2 no. 1 (2013): 1-7.
[218] The New Teacher Project (TNTP). *The opportunity myth.*
[219] Longden, Ken. *Accelerated learning programmes.*
[220] Although an exhaustive review of instructor qualifications was not possible within the scope of the study, a short synthesis of available findings helps to further contextualize the use of pedagogical strategies as well as the characteristics of a supportive and enabling environment.
[221] Kidron, Yael and Jim Lindsay. *The effects of increased learning time on student academic and nonacademic outcomes.*
[222] Terzian, Mary and Kristin A. Moore. "Effective and promising summer learning programs for low-income children."
[223] Islam, Mir Nazmul and Arif Anwar. "BRAC in Afghanistan."
[224] Akyeampong Kwame, Marcos Delprato, Ricardo Sabates, Zoe James, John Pryor, Jo Westbrook, Sarah Humphreys, and Asmelash H. Tsegay. *Speed School programme in Ethiopia.*
[225] Duflo, Annie and Jessica Kiessel. "Every child counts."
[226] Shah, Ritesh. *Norwegian Refugee Council's accelerated education responses: a meta-evaluation.*
[227] University of Sussex & Hawassa University. *Research into the Speed School curriculum and pedagogy in Ethiopia.*
[228] University of Sussex, The Luminos Fund and Hawassa University. *Learning the Speed School way.*
[229] Duflo, Annie and Jessica Kiessel. "Every child counts."
[230] Westbrook, Jo and Sean Higgins. *Report on the evaluation of the quality of the teaching and learning in the Second Chance program for out of school children in Liberia.*
[231] University of Sussex & Hawassa University. *Research into the Speed School curriculum and pedagogy in Ethiopia.*
[232] The review team acknowledges that these comments may seem particularly critical of the Speed School model as no other accelerated learning programs are critiqued in this way. As identified within the methodology section, however, the Speed Schools approach is more highly documented which may create unintended bias. It is likely that were similar studies featuring classroom observation data available for other programs operating within similar constraints that a related pattern would likely also emerge.
[233] Westbrook, Jo and Sean Higgins. *Report on the evaluation of the quality of the teaching and learning in the Second Chance program for out of school children in Liberia.*
[234] Shah, Ritesh. *Norwegian Refugee Council's accelerated education responses.*
[235] Shah, Ritesh. *Norwegian Refugee Council's accelerated education responses.*
[236] Hammler, Katharina. "The Colombian Escuela Nueva School Model: Linking Program Implementation and Learning Outcomes." PhD diss. Tulane University, 2017.
[237] Cerdan, Pedro, Eduardo Velez Bustillo, and Vicky Colbert. "The Escuela Nueva Learning Circles."
[238] Hammler, Katharina. "The Colombian Escuela Nueva School Model."
[239] Parandekar, Suhas. D., Futoshi Yamauchi, Andrew B. Ragatz, Elizabeth K. Sedmik, and Akiko Sawamoto. *Enhancing school quality in Vietnam through participative and collaborative learning.* Washington, DC: World Bank Group, 2017.
[240] Cerdan, Pedro, Eduardo Velez Bustillo, and Vicky Colbert. "The Escuela Nueva Learning Circles."
[241] Luschei, Thomas F. and Laura Vega. "Colombia: Educating the most disadvantaged students." Phi Delta Kappan 97 no. 3 (2015): 49-53.
[242] Luschei, Thomas F. and Laura Vega. "Colombia"
[243] In addition, during a situation of insecurity or pandemic, a small group strategy of creating small distance learning groups may prove beneficial (IEP 2020). Teachers would develop strategies for working with smaller groups of learners rather than a larger class. For instance, it may work well for teachers who can only work remotely due to concerns for their health/safety, students who similarly remain at home even if face-to-face instruction is available, and for small groups of children whose parents have joined together as an alternative to face-to-face institutional instruction.
[244] Charlick, Judith A. "Accelerating Learning for Children in Developing Countries"
[245] Menendez, Alicia. S., Aparna Ramesh, Pamela Baxter, and Lindsay North. *Accelerated education programs in crisis and conflict.*

[246] Banerji, Rukmini and Madhav Chavan. "Improving literacy and math instruction at scale in India's primary schools."
[247] Pane, John F., Elizabeth D. Steiner, Matthew Baird, Laura S. Hamilton and Joseph D. Pane. *Informing progress.*
[248] Intili, Jo Ann, Ed Kissam, and Eileen St. George. "Fostering education for female out-of-school youth in Afghanistan." Journal of Education for International Development, 2 no. 1 (2006). http://www.equip123.net/JEID/articles/2/Afghanistan.pdf
[249] Redes de Tutoría. *Presentation for HundrEd.* 2017.
[250] Elmore, Richard. "What is Redes de Tutoría?" January 2016. https://hundred.org/en/innovations/redes-de-tutoria
[251] University of Sussex & Hawassa University. *Research into the Speed School curriculum and pedagogy in Ethiopia.*
[252] University of Sussex, The Luminos Fund and Hawassa University. *Learning the Speed School way.*
[253] UNESCO International Bureau of Education. *Curriculum differentiation.* 2020d. http://www.ibe.unesco.org/en/glossary-curriculum-terminology/c/curriculum-differentiation
[254] Lucas, Samuel R. "Tracking inequality: Stratification and mobility in American high schools." Sociology of Education Series. New York: Teachers College Press, 1999.
[255] Betts, Julian R. (2011). "Chapter 7: The Economics of tracking in education." In Handbook of the Economics of Education, Volume 3, 341-381. Amsterdam: Elsevier, 2011.
[256] Schwartz, Analice. C. *Remedial education programs to accelerate learning for all.*
[257] Banerji, Rukmini and Madhav Chavan. "Improving literacy and math instruction at scale in India's primary schools."
[258] Banerjee, Abhijit, Rukmini Banjeri, James Berry, Esther Duflo, Harini Kannan, Shobhini Mukherji, Shobhini, Marc Shotland, and Michael Walton. "Mainstreaming an effective intervention."
[259] Schwartz, Analice. C. *Remedial education programs to accelerate learning for all.*
[260] International Rescue Committee & NYU Global Ties. "The impact of IRC's Healing Classrooms on tutoring on children's learning and social-emotional outcomes in Niger."
[261] Institute for Education Policy (IEP). *Don't remediate, accelerate!*
[262] Slavin, Robert. *New findings on tutoring: Four shockers.* Robert Slavin's Blog. 2018. https://robertslavinsblog.wordpress.com/2018/04/05/new-findings-on-tutoring-four-shockers/
[263] Schwartz, Analice. C. *Remedial education programs to accelerate learning for all.*
[264] Slavin, Robert. *New findings on tutoring.*
[265] Slavin, Robert. *New findings on tutoring.*
[266] Terzian, Mary and Kristin A. Moore. "Effective and promising summer learning programs for low-income children."
[267] Slavin, Robert. *New findings on tutoring.*
[268] Schwartz, Analice. C. *Remedial education programs to accelerate learning for all.*
[269] Redes de Tutoría. *Presentation for HundrEd.*
[270] Elmore, Richard. "What is Redes de Tutoría?"
[271] Azuma-Himura, Alicia. "Avances y logros de la telesecundaria en Mexico." 2015. https://redesdetutoria.com/descargas/
[272] Elmore, Richard. "What is Redes de Tutoría?"
[273] UNESCO. *Learning assessments.* 2019. https://en.unesco.org/themes/learning-assessment
[274] Exit tickets are a technique teachers use at the end of the lesson to ascertain students' understanding of the lesson and to allow students to effectively "exit" the classroom or leave the lesson. A teacher prompts students with a quick activity requiring them to demonstrate something they learned from the lesson or to answer a question about the content from the lesson, for example. A review of student work is when a teacher looks at what students have produced to determine if they are understanding content and to make adjustments in teaching and differentiation accordingly. Opportunities for students to speak and share their understanding.
[275] Institute for Education Policy (IEP). *Don't remediate, accelerate!*
[276] Westbrook, Jo and Sean Higgins. *Report on the evaluation of the quality of the teaching and learning in the Second Chance program for out of school children in Liberia.*
[277] Akyeampong Kwame, Marcos Delprato, Ricardo Sabates, Zoe James, John Pryor, Jo Westbrook, Sarah Humphreys, and Asmelash H. Tsegay. *Speed School programme in Ethiopia.*
[278] University of Sussex, The Luminos Fund and Hawassa University. *Learning the Speed School way.*

[279] Expert panelists pointed to the Afghanistan Learning for Life program implemented for women between 2004-2006 as part of the larger USAID-funded Rural Expansion of Afghanistan's Community-based Healthcare (REACH) program. The project employed a competency-based "milestone" system of learner assessment and progression that was seen as novel and which relied upon women's internal self-assessment. When learners achieved a milestone, they moved up to the next competency level (UNESCO, 2013). The review team finds the example to be compelling and a useful addition to the review. At the same time, participants were adult women and therefore, the program did not meet the original screening criteria.
[280] Shah, Ritesh. *Norwegian Refugee Council's accelerated education responses.*
[281] The tasks are 1) recognizing letters, reading 2) everyday simple words, 3) a short four-line paragraph, and 4) a longer eight to ten-sentences story. On occasion, TaRL uses a version of the tool that has been modified by the government (Banerji & Chavan 2016).
[282] Banerji, Rukmini and Madhav Chavan. "Improving literacy and math instruction at scale in India's primary schools."
[283] Sarfraz, Hamza and Zain ul Abidin. "Preparing for the new normal on Pakistan amid COVID-19: A case for accelerated learning." World Education Blog, August 21, 2020. https://gemreportunesco.wordpress.com/2020/08/21/preparing-for-the-new-normal-in-pakistan-amid-covid-19-a-case-for-accelerated-learning/
[284] Banerji, Rukmini and Madhav Chavan. "Improving literacy and math instruction at scale in India's primary schools
[285] Dahmann, Sarah C. "How does education improve cognitive skills?"
[286] Duflo, Annie and Jessica Kiessel. "Every child counts."
[287] Kidron, Yael and Jim Lindsay. *The effects of increased learning time on student academic and nonacademic outcomes.*
[288] In addition to this list of recommendations, a final discussion among experts during the workshop identified additional themes that merit future consideration. These themes include how accelerating learning may take place through multi-modal formats (in-person, distance learning, and hybrid) and how programs can effectively use teaching and learning materials. Although beyond the scope of the evidence review, the consensus among experts indicated that programs seeking to accelerate learning can work with existing teaching and learning materials, especially when time prevents the lengthy development of new materials and their time-consuming distribution. They may do this by, for example, developing a short guide for educators on how to prioritize among available teaching and learning materials.
[289] The report recognizes the multiple donors working in the catch-up space, particularly in response to COVID-19. While USAID is the foremost audience for this report, USAID recognizes the importance of donors, generally, to provide adequate support for learning to accelerate.
[290] Such alignment is of extreme importance to high-stakes examinations for end-of-cycle completion and certification.
[291] In addition to these strategies below, also link to findings from other DEEP papers on teachers/educators.