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SINDH READING PROGRAM

FINAL REPORT

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Cover photo: A newly enrolled out-of-school learner at a non-formal education center in the district of Dadu, 2016. (Credit: Mona Siddiqui, Chemonics International)

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ACRONYMS

ICT	Information and Communications Technology
STS	School-to-School International
CPD	continuing professional development
DCAR	Directorate of Curriculum, Assessment and Research
ECE	early childhood education
EGMA	early grade math assessment
EGR	early grade reading
EGRA	early grade reading assessment
FA	formative assessment
JICA	Japan International Cooperation Agency
NFBE	non-formal basic education
OTJ	on-the-job
PEACE	Provincial Education Assessment Center
PITE	Provincial Institute for Teacher Education
PMIU	project management implementation unit
PRP	Pakistan Reading Program
RSU	Reform Support Unit
SBEP	Sindh Basic Education Program
SCDP	Sindh Capacity Development Project
SE&LD	School Education and Literacy Department
SEF	Sindh Education Foundation
SLO	student learning outcomes
SRP	Sindh Reading Program
TCF	The Citizens Foundation
TLM	teaching and learning materials

EXECUTIVE SUMMARY

The Sindh Reading Program (SRP) is a five-year United States Agency for International Development (USAID)-funded education project launched to improve early grade reading, and establish formal and nonformal systems capable of continuing long-term support for reading. The project covered seven districts of the Sindh province (Larkana, Qambar-Shahdadkot, Kashmore, Jacobabad, Khairpur, Sukkur, and Dadu) and five towns of Karachi (Orangi, Layri, Kemari, Bin Qasim and Gaddap). SRP is one of three complementary USAID projects within the Sindh Basic Education Program (SBEP), a multi-faceted USAID initiative designed with the government of Sindh’s School Education and Literacy Department (SE&LD) to upgrade and implement basic education.

The larger SBEP initiative supports the construction of 106 schools affected by the catastrophic 2010 floods and the Sindh government’s policy of consolidating, merging, and upgrading schools throughout the province. The SBEP plan states that 280 schools will also be upgraded to improve efficiency and student performance. Within the overall SBEP mission to increase the availability of education for young students in primary, middle, and secondary schools in targeted districts in Sindh by developing a school environment favorable to teaching and learning, SRP aimed to address critical issues in early-grade reading through ongoing teachers’ professional development, improving assessment, distributing supplementary materials, and encouraging community participation.

Over the past five years (2014-2019), USAID’s SRP worked with the government of Sindh and the SE&LD to improve reading instruction at the formal classroom level and to develop policies and systems to mainstream and sustain improvements in learning outcomes. This intensive effort was designed to dramatically improve reading instruction and assessment practices at the school and provincial levels. SRP also worked to promote a culture of reading in Sindh outside of the traditional classroom through collaboration with public libraries and communities, and through ongoing support to the Directorate of Literacy and Non-Formal Education and select partners to improve learning outcomes for out-of-school children in designated districts.

“SRP has developed pedagogical processes and teaching manuals which will be adopted by the education ministry.”

— DR. FAZLULLAH PEHCHUHO, SECRETARY OF SE&LD, GOVERNMENT OF SINDH

Overall, SRP worked in 5,027 schools across eight districts — including five towns in densely populated areas of Karachi. SRP supported 15,000 teachers and 432,000 students in Grades 1 and 2 at the classroom level. SRP reached an additional 28,340 learners in 305 non-formal education centers, in close collaboration with SRP’s non-formal basic education (NFBE) partners UNICEF and Japan International Cooperation Agency (JICA), local organizations, and the Sindh government. According to an evaluation of student learning outcomes (SLOs) across reading skills, students showed significant increases in oral reading fluency and non-word

fluency in both Sindhi and Urdu languages with the introduction of SRP-supported reading instruction. While students assessed at baseline were taught by teachers with no SRP training, students at endline had teachers who had received SRP training in any of the three cohorts of SRP interventions and received a maximum of one school year of SRP-supported reading instruction. Of the three cohorts, more teachers in Cohort 3 classrooms had the opportunity to utilize formative assessment practices in their classrooms.

To mainstream, scale, and sustain the formal education initiatives, SRP worked closely with USAID's Pakistan Reading Program (PRP) to support the government of Sindh in developing a policy framework for reading improvement strategies, to share supplementary materials, and to promote a sustainable overall system to support the acquisition of reading skills. Policies and initiatives that support reading instruction included: 1) instructional time for reading allocated within the official primary education scheme of studies, 2) revisions to the Sindhi and Urdu language curricula to include reading-focused SLOs, 3) the design and distribution of teaching and learning materials (TLM) for early grade reading (EGR) incorporated in new textbooks, 4) the adoption of reading standards, and 5) an enhanced model of continuing professional development (CPD) for teachers.

SRP built the institutional capacity of counterpart organizations — including the Provincial Institute for Teacher Education (PITE); the Directorate of Curriculum, Assessment, and Research (DCAR); the Provincial Education Assessment Center (PEACE); regional/district-level departments; and the Directorate of Literacy and Non-Formal Education — by engaging government staff in a learn-by-doing approach to developing reading-focused interventions and strategies. SRP provided capacity building and training to 300 government education officers on material development for formal and non-formal schooling, and jointly delivered teacher training on reading instruction and on ICT-supported formative assessment.

Working in partnership with JICA and UNICEF, SRP introduced and tested the first NFBE curriculum and materials in Sindh, and worked with the Directorate of Literacy and Non-Formal Education to develop a policy framework and a short- and long-term implementation matrix for the Sindh government. SRP supported nearly 30,000 out-of-school children and tested approaches to provide foundational skills, and helped the Directorate of Literacy and Non-Formal Education create a mechanism for children who have dropped out, or who have never attended school, to complete their primary education either by continuing through three levels of nonformal education or by being mainstreamed back into formal classrooms at the end of any of the three levels. Providing access to education for the millions of school-aged children who are not in school remains one of the greatest challenges facing the education system in the province. This is the first-ever set of teaching and learning materials in Sindh contextualized to the unique needs and requirements of NFBE teachers and learners. This foundation represents a taking-off point for scaling up NFBE outreach to millions of out-of-school children across the province.

The SRP team built a high level of trust with SE&LD department heads over the course of the project. This trust allowed SRP to work with departments over the final two years of the program to build school-based teacher professional development, formative assessment processes and tools, and teaching and learning materials that were embedded in annual

departmental budget requests for the 2019 government funding cycle. SRP worked through the provincial government’s Project Management Implementation Unit (PMIU) and the secretary of education’s office to ensure a revised government financing plan for SBEP, which included a mandate for SE&LD to adequately fund activities to sustain EGR approaches. Further, SRP created language for the financing plan — referred to as the PC-I — to include accountability measures to ensure that departments report against improvements in EGR practices and outcomes as part of the SBEP monitoring and evaluation system. With these measures institutionalized into the planning process, even with leadership changes, the reading priorities introduced by SRP would not depend on SRP’s or USAID’s ongoing presence. At the time of preparation of this report, the revised PC-I has been approved by the government of Sindh, with approval pending from the federal government and the Economic Affairs Division.

Finally, in an effort to maximize sustainability, SRP established partnerships with the Sindh Education Foundation (SEF) and The Citizens Foundation (TCF) to leverage USAID’s investment in early grade reading instructional approaches and assessment to reach hundreds of thousands of additional learners after the project closes. SRP also helped the SE&LD and the SEF utilize annual standardized early grade reading assessments and customize monthly early grade reading formative assessment into the classroom to assist administrators and teachers make the most informed decisions about delivering effective reading instruction.

Highlights of SRP’s achievements are as follows:



BACKGROUND AND CONTEXT

BACKGROUND ON THE SINDH EDUCATION SECTOR

The 2011 launch of USAID’s Sindh Basic Education Program (SBEP) and the introduction of the Sindh Reading Program (SRP) could not have happened at a better time. According to the 2012 Annual Status of Education Report, 60 percent of Grade 5 students could not read a Grade 2-leveled story, and more than half could not perform two-digit subtraction. SRP’s baseline early grade reading assessment (EGRA) study conducted in 2014 demonstrated that 41 percent of third-graders could not read even a single word of their local language — Sindhi or Urdu. Many families preferred to keep their children out of school, believing that they would be more productive working than attending school. Two-thirds of children who were enrolled attended non-governmental or private schools. According to the Sindh education census report for 2016-17, as many as 7.4 million children — a staggering 45 percent of all school-aged children — were still out of school. This low level of school attendance resembles the situation in far poorer countries, such as Chad, Burkina Faso, and Liberia.

Despite a cadre of educators and policymakers engaged with schooling, the education system in Sindh was not reaching its potential. Incentives for quality improvement on a large scale were often misaligned, and teacher assessment focused more on policing than on addressing the underlying challenges of improving teaching and learning processes. Educational materials were not widely accessible or well-utilized. Often school heads kept books under lock and key rather than integrate them into the learning process — lest staff be punished for failure to account for the full inventory. High quality assessment systems, instructional materials, and teacher training in key subject areas — such as early grade reading and math — were not available or institutionalized within the Sindh education system, leaving teachers and school directors unsupported and unprepared.¹ Enrollment and attendance in school was uneven, making student-teacher ratios and the delivery of education services highly irregular and overcrowding an issue — with approximately 80 percent of students attending 10 percent of schools. In the Lyari and Orangi towns of Karachi, overcrowded public schools run in shifts, providing only three or four hours of instructional time for students each day. High absentee rates further reduce instructional time. Rural schools in nearly all districts have the reverse problem. With low numbers of students, they use a multi-grade strategy to fill classes — otherwise they risk having the abandoned buildings be used for storage, serve as barns, or be occupied for other non-educational purposes. While some schools burst at the seams to meet the demand, vast resources are wasted on empty or “ghost” schools.² All of these conditions put enormous stress on teachers tasked with delivering quality instruction.

¹ Critical Analysis of the Problems of Education in Pakistan: Possible Solutions; International Journal of Evaluation and Research in Education (IJERE) <https://files.eric.ed.gov/fulltext/EJ1091681.pdf>

² Early Childhood Care & Education (ECCE) Policy Sindh 2015, page 14; http://asarpakistan.org/document/learning_resources/2017/ece/ECCE-Policy-Sindh-2015.pdf

USAID’S SINDH BASIC EDUCATION PROGRAM AND SINDH READING PROGRAM

In 2014, USAID launched SRP, a key component of USAID’s \$165 million SBEP. SBEP had been designed to increase and sustain the enrollment of students in primary, middle, and secondary schools in eight target districts in northern Sindh and five towns of Karachi by constructing 106 schools and developing a school environment favorable to teaching and learning. The SBEP umbrella included three complementary projects. SRP was a \$24.6 million project designed to improve educational quality. It had two sibling projects. The first was the Sindh Community Mobilization Program, which was designed to enhance community mobilization through school management committees, with an emphasis on girls’ enrollment and retention. The second was the Sindh Capacity Development Project (SCDP), which was created to build the overall capacity of the Sindh government’s PMIU and SE&LD through research and capacity building in policy development. All SBEP activities were implemented in the same geographic areas to support the larger goals of improving early grade education.

As part of the greater SBEP effort, SRP focused on addressing critical issues related to early-grade reading through four key components:

Component 1: Improve teacher competencies for effective early grade reading. SRP promoted activities to help establish a strong reading culture at the classroom and school levels, with the goal of ensuring that children learn to read in Grades 1 and 2. The approach provided students with a rich set of age-, language-, and level-appropriate reading materials, coupled with well-structured 35-minute daily scripted lesson plans for teachers covering the five key areas of reading instruction.

Component 2: Improve early grade reading and assessment practices. SRP used data-informed practices, grounded in ongoing assessment and impact evaluation. This approach took assessment to be a key driver for the design of SRP’s technical activities and SE&LD’s decision making. Activities brought Sindhi and Urdu educators and policy officials together for a dialogue around reading standards, with the objective of embedding activities to promote reading skills and assessment more broadly within the government of Sindh’s curriculum.

Component 3: Expand Reading Materials and Reading Spaces. One of SRP’s strategic objectives was to identify innovative ways to encourage children to read in communal spaces and to utilize libraries to facilitate their intellectual development. To achieve this objective, SRP contributed to SBEP by upgrading 106 multi-campus school libraries, 30 school reading spaces, and 10 public libraries in Sindh. Model libraries were designed to serve as social access points, offering young readers much more than just books.

Component 4: Increase Opportunities for Reading for Out-Of-School Children. SRP aimed to strengthen NFBE in Sindh by generating opportunities for deeper community responsiveness

“When we talk out-of-school children, an important strategy is to see how they can be brought into the formal system through a non-formal education setup. We have never had a mechanism for mainstreaming these children before.”

— DR. FOUZIA NAEEM
KHAN, HEAD,
CURRICULUM WING,
SE&LD, GOVERNMENT OF
SINDH

and by opening opportunities for children at-risk of not attending school and for school dropouts to learn to read. To integrate out-of-school children into educational opportunities, SRP worked at the policy level and provided technical assistance to the Directorate of Literacy and Non-Formal Education to design and finalize an NFBE and literacy framework, programs, and instructional materials.

SINDH READING PROGRAM AND PAKISTAN READING PROJECT: PROGRAMMATIC APPROACHES

Although both SRP and PRP are USAID-funded projects with a common mandate to improve reading instruction for children in Sindh in collaboration with SE&LD, the two projects operated separately, targeted different districts within Sindh, and were different in their design. PRP is a large national project with interventions in early grade reading across the country, including in the province of Sindh. SRP was a smaller project exclusively in Sindh designed to complement the other two SBEP activities, the Community Mobilization Program and SCDP. SRP worked closely with the provincial government to institutionalize activities through the PMIU, a Sindh government unit created for advising the government and providing guidance to external partners.

The first two components of SRP — both focusing on classroom-based early grade reading instruction — overlapped with PRP. This involved the introduction of a scientifically sound approach to early grade reading implemented through teacher professional development, scripted lessons based on five key areas of reading instruction, improved assessment systems, and materials development. While PRP was designed to deliver and assess reading instruction in two levels of primary school, SRP tested three different packages of intervention over a maximum of one year of exposure to measure increases in reading skills in the classroom. Through the framework of SBEP, SRP also focused heavily on working with the provincial and district governments to build capacity, introduce supportive policies and practices, and institutionalize appropriate systems at different levels of government and community that could sustain successful efforts. SRP's engagement with the provincial government in both formal and nonformal education through the PMIU also opened up possibilities for the long-term institutionalization of early grade reading and continued dialogue with SE&LD.

Unlike the shared goal of improving early grade reading in schools, the last two components of SRP — enrolling out-of-school children in centers providing reading and other educational programming, and opening new spaces for reading in the community to help reading skills gain traction in regular life — did not overlap with PRP. Here, SRP aimed to foster a more supportive environment for reading outside the classroom. It did this across the seven districts of Sindh and the five areas of Karachi in which the project operated. Because Sindh's population of out-of-school children was so high — especially among girls — and opportunities and spaces for reading had been so limited in recent decades, activities in these two components highlighted non-formal education, and promoted programmatic alignments between nonformal education and formal education. This approach gave out-of-school children the option of learning to read in nearby community centers, and later enter public school at a level closer to the one corresponding to their age.

Despite differences between SRP and PRP, the common attention to early grade reading prompted the two projects to coordinate, in order to minimize confusion and maximize effectiveness. That collaboration benefited both efforts.

COMPONENT I: SCHOOL-BASED SUPPORT FOR EARLY GRADE READING

PROGRAM DESIGN

From the beginning, SRP faced challenges. In addition to the low levels of student performance measured by the EGRA at the baseline, the Annual Status of Education Report and other provincial assessment research conducted with support from USAID revealed that teachers and school officials had an alarming lack of awareness about — and a troubling lack of support for — what it would take to deliver reading instruction. Moreover, there was a dearth of locally relevant reading material for children in either Urdu or Sindhi. To address these conditions, SRP needed to focus on demonstrable, replicable, and cost-effective practices that the Sindh government could easily adopt and sustain. SRP’s classroom interventions — and the development of Sindhi- and Urdu-language teaching and learning materials — followed a well-established global evidence base in building literacy and USAID’s strategy to teach children five basic reading skills:

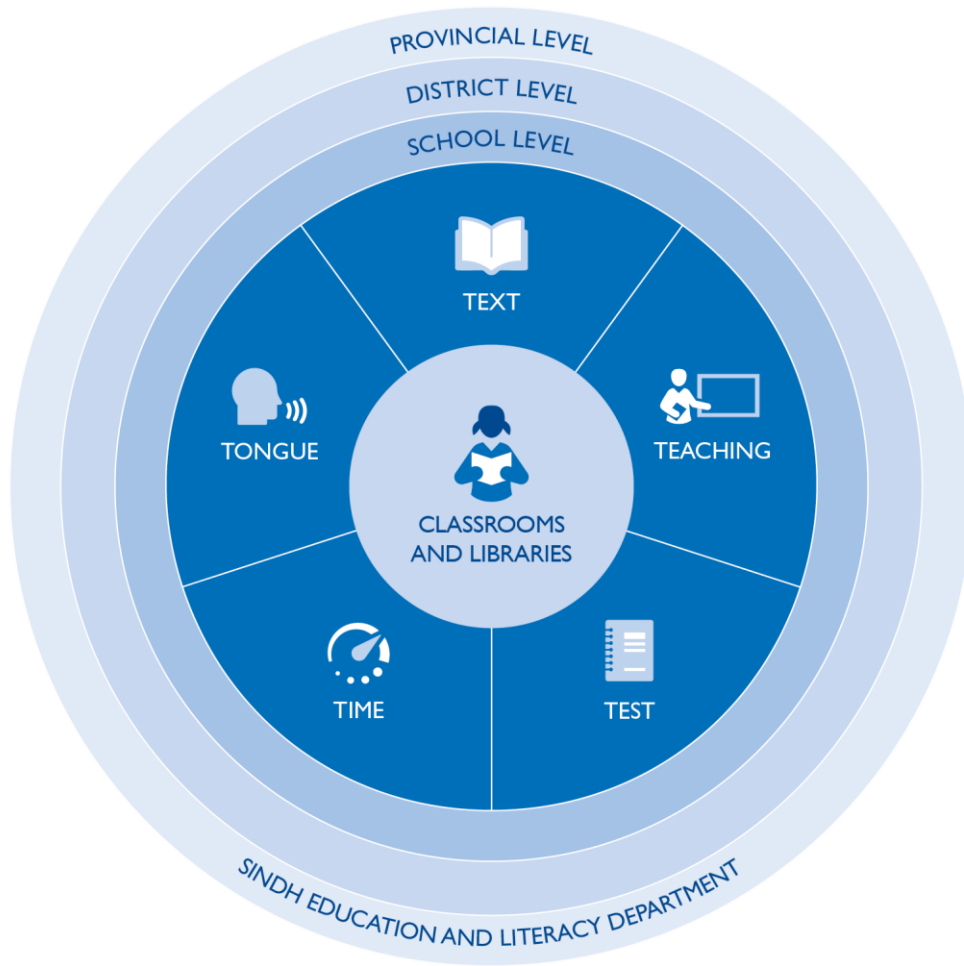
- *Phonemic awareness*: ability to manipulate, break apart, and put together sounds
- *Alphabetic principles (phonics)*: ability to recognize the relationship between a specific letter and its corresponding sound
- *Vocabulary*: ability to know and understand both oral and written words
- *Fluency*: ability to read with speed, accuracy, and expression
- *Comprehension*: ability to understand what is heard or read






Instructional support and the use of scripted plans was determined to be the most effective hands-on approach in Sindh, where the vast majority of teachers had a poor base in reading instruction. SRP’s classroom support models and policy interventions followed the five T’s of evidence-based early grade reading programming (see Exhibit I, next page).

SRP interventions related to the five Ts are as follows:

- *Text*. In addition to scripted lesson plans, SRP developed 54 books as supplemental reading materials that are decodable and leveled to the skill of early readers. SRP collaborated with PRP, SE&LD, and the Sindh Textbook Board to develop new textbooks that include early grade reading instructional approaches. New textbooks will be rolled out in 2019 after SRP’s closeout.
- *Teaching*. SRP focused on strengthening training in core components of reading including phonemic awareness, phonics, vocabulary, fluency and comprehension, and in-school coaching and mentoring support to teachers. SRP collaborated with PITE, DCAR, and the Curriculum Wing of SE&LD over the course of several hands-on workshops to engage

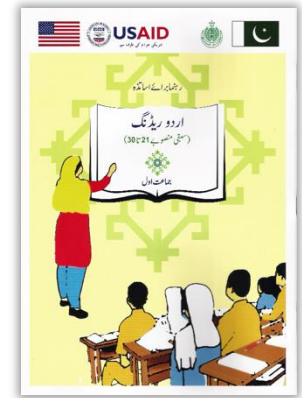
EXHIBIT I. IMPLEMENTATION OF THE FIVE T'S OF READING INSTRUCTION



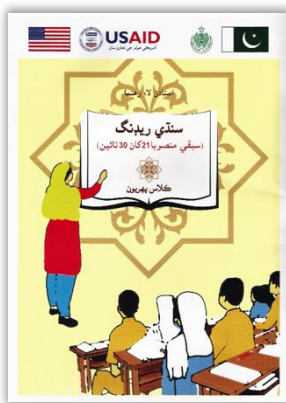
 TEXT	 TEACHING	 TEST	 TIME	 TONGUE
<p>DIRECTORATE OF CURRICULUM, ASSESSMENT AND RESEARCH</p> <ul style="list-style-type: none"> · Development of curriculum framework · Development of classroom materials · Review and approval of classroom materials 	<p>PROVINCIAL INSTITUTE OF TEACHER EDUCATION</p> <ul style="list-style-type: none"> · Reform of teacher training policy · Implementation of teacher training · Development of teaching and learning materials 	<p>DIRECTORATE OF CURRICULUM, ASSESSMENT AND RESEARCH PROVINCIAL EDUCATION ASSESSMENT CENTRE</p> <ul style="list-style-type: none"> · Setting of reading standards · Formative and summative assessment · Use of technology in student assessment 	<p>CLASSROOMS</p> <ul style="list-style-type: none"> · Creation of lesson plans, leveled readers, read-alouds, and reading corners · Provision of low-cost classroom materials 	<p>SCHOOL</p> <p>Introduction of interactive teaching and learning</p>

government officials in learning to develop and test scripted lesson plans. SRP developed 100 scripted lesson plans for Grades 1 and 2 in each language (Urdu and Sindhi) with explicit, step-by-step instruction on guiding the development of the five component skills. Each lesson plan was vetted and reviewed by departments within SE&LD and tested through formative evaluation so that it could be included in a final curriculum.

The coordination with local government and local authorities was significant from the beginning. To ensure that the materials would be accepted, owned, and used in both Sindhi and Urdu languages in the future, SRP engaged with SE&LD to form committees for development and review of materials. The committees consisted of members from government-allied institutions — including PITE, DCAR, school directorates, and the Sindh Language Authority — as well as Urdu- and Sindhi-language writers and experts from the private sector. SE&LD organized two separate committees to work on the project: 1) a material development committee with 32 members, and 2) a material review committee with 18 members. Both committees worked rigorously over a three-year period, in various phases, to develop material and review and revise content and language based on feedback received from implementing teachers and head teachers in the classroom.



Teaching and learning material in Urdu



Teaching and learning material in Sindhi

The material development committee mapped and examined the existing curriculum and textbooks to identify gaps and begin preparation of reading material for Grade 1 and Grade 2 students that would complement instructional lesson plans for teachers in both languages. The committee used SRP/PRP-developed reading standards and aligned the TLM with existing ministry of education-prescribed SLOs. Prior to preparing TLM, the material committee developed scope and sequences for both Sindhi and Urdu languages, to address the respective languages' complexities of letter- and sound-recognition patterns and sequences in the lesson plans and to prepare several activities books, including “read alouds” and “leveled readers” accordingly. Upon the successful piloting and approval from the material review committee, DCAR, SE&LD, and the government of Sindh validated the TLM.

Memoranda of understanding were signed with SEF and TCF to continue to print and utilize them broadly.

- **Test.** SRP introduced information and communications technology-based monthly formative assessments for the first time in Sindh primary schools. The model evolved to include Teacher Advice, a tablet-based application customized to both Sindhi and Urdu reading skills that helped teachers understand the gaps in skill acquisition occurring in their classrooms. After a simple assessment of a student’s learning, the application provided the teacher with teaching tips customized to each child’s assessment results. This enabled teachers to receive instant feedback on where children were doing well and where remedial support was

needed. The tablet-based system also allowed SRP to aggregate snapshot data across schools and districts to understand the progress toward standards as the year progressed. SRP collaborated with DCAR and PEACE to develop assessment forms and analysis of data following each cycle of formative assessment.

- *Time.* SRP collaborated with PRP and SE&LD to develop a revised scheme of studies that included daily focus on the teaching of reading skills. This involved four hours of reading instruction per week, complemented by two hours per week of library time. SRP supported communities and libraries to promote reading outside of school and develop a culture of reading, building on the rich history and cultural value placed on literature in Sindh.



SRP produced teaching and learning materials including 56 titles of read aloud books and leveled readers in Sindhi and Urdu.

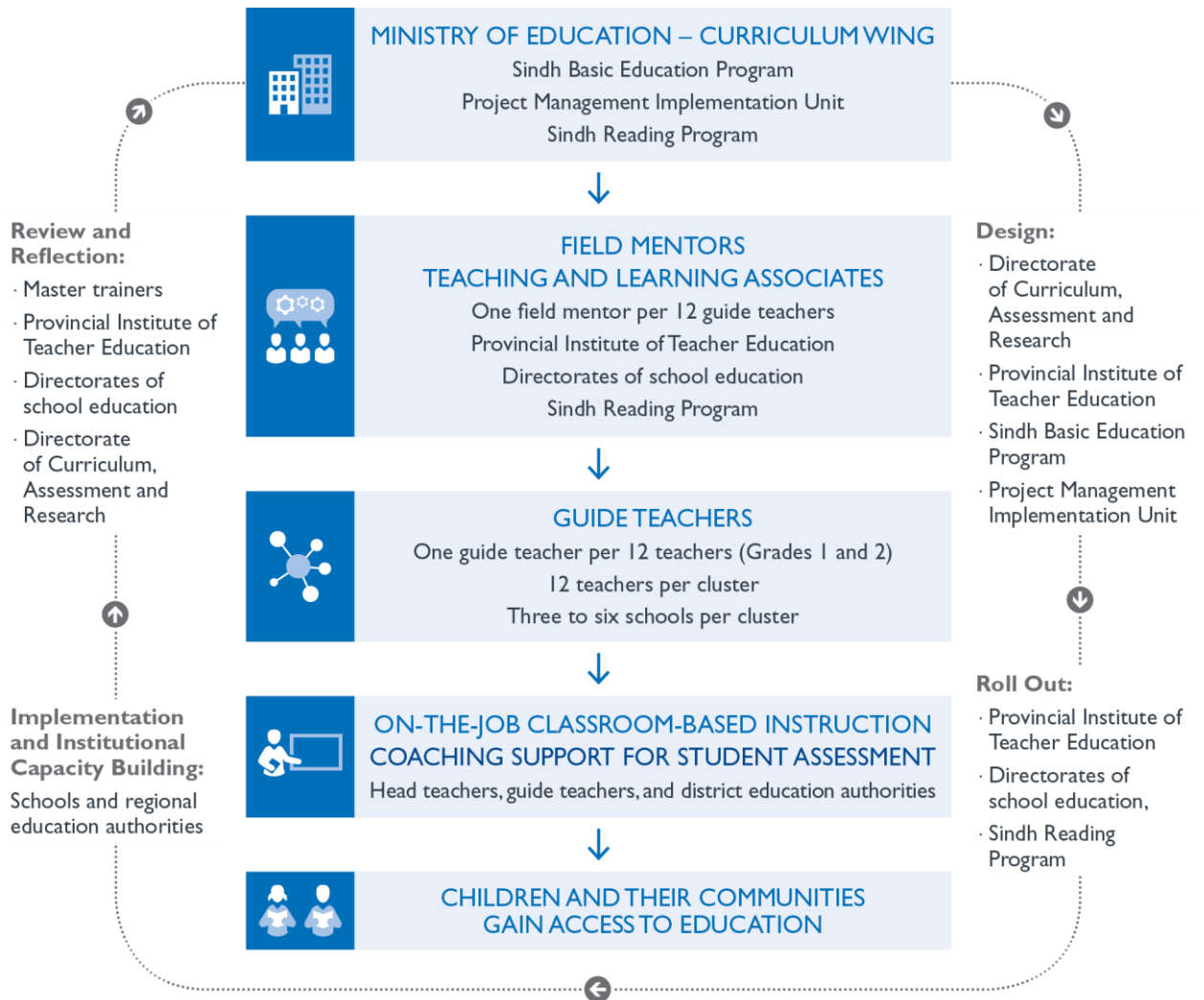
- *Tongue.* SRP produced TLMs in a language (Sindhi and Urdu) familiar to the child. Because the private market contained a limited selection of reading material for young learners, SRP developed the first sets of leveled readers in Sindhi language.

SRP also collaborated with DCAR to develop the first-ever reading standards and student learning objectives for each grade in the Sindhi language. This helped to frame the scope and sequence of lesson plan development and curriculum.

In-School On-the-Job (OTJ) Support. Following face-to-face training, SRP deployed teaching and learning associates as well as field mentors to the classrooms, using a scheduled approach. This involved providing in-school OTJ support — including time designated to helping teachers develop additional lesson plans and their own low-cost learning aids — and reinforced the five basic reading skills in the school environment. This strategy was set in place to support teachers and head teachers who had an incomplete understanding of the breadth of competencies students needed to become fluent readers, and who otherwise would likely revert to more familiar practices of rote memorization and recitation. In this context, OTJ support reinforced skills from the reading framework. It ensured frequent interaction with teachers, and helped teachers measure their students' progress against skills in the framework. Similarly, SRP created a system of structured follow-up support and refresher training with head teachers and government officials to provide reviews and feedback about students' skills and progress, and to keep reading front-and-center.

Because professional development and hands-on support for quality reading instruction had not been institutionalized across the educational system in Sindh before 2014, SRP worked with SE&LD at the departmental level, as shown in Exhibit 2 (below), to introduce a system of reading instruction, training, and coaching that could provide ongoing instructional support.

EXHIBIT 2. CLUSTER-BASED SUPPORT FOR ON-THE-JOB COACHING



PILOT (2014-15 ACADEMIC YEAR)

SRP's contract Year 1 coincided with the 2014-15 school year. The project's original scope of work included Grades 1 to 5 in both reading and mathematics. During the pilot stage, SRP developed a pilot teacher-training intervention that included 12 hours of direct training and 60 hours of OTJ follow-up support. The original cohort of 2,400 teachers was drawn from reading and math teachers for Grades 1 to 5, although the SRP contract was later modified to focus solely on reading in Grades 1 and 2.

Introducing a sound evidence-based approach to reading instruction in Sindh required considerably more support than originally envisioned. The EGRA baseline showed — among other things — that 41 percent of third graders could not read a single word. Such a large proportion of zero scores suggested not only a lack of awareness about how to strengthen the quality of reading and mathematics, but also that gaps existed within the system, leading to a failure for students to understand even the basics of how to read a single word. In response, USAID adjusted the scope of work. It narrowed SRP’s focus to supporting reading in Grades 1 and 2, and dropped math. After further psychometric analysis, SRP derived more realistic targets based on the evidence and added a formative assessment activity to the intervention in order to track progress incrementally and introduce a mechanism to inform stakeholders across levels — including districts, schools, and classrooms — about whether students were acquiring individual skills, and if not, how elements of the total system could provide greater support to teachers and students. This reorganization of the scope recognized that acquisition of reading skills in Grades 1 and 2 predicts performance throughout the rest of a child’s education. It acknowledged that greater returns would be achieved with a more targeted focus on the early grades and an emphasis on the mechanics of reading instruction. Target districts and towns, and a concentration on both Urdu and Sindhi languages, remained unchanged.

LEARNING TO FAIL FAST

In the spirit of USAID’s Collaborate, Learn, Adapt framework, projects are encouraged to experiment. Nonetheless, recognizing and changing course when an experiment fails can be challenging. SRP introduced an interactive SMS platform to push reminders and tips to teachers. It offered teachers helpline services related to implementing reading strategies in the classroom. Because teachers in rural areas of Sindh share phones with other family members and change phone numbers often, the system was not sustainable given the amount of follow-up required to keep the database of phone numbers up to date. Despite an award-winning design in the ICT4D arena, the technology was not feasible in the context of Sindh.

THE COHORT MODEL

The stocktaking — coupled with the desire of USAID and the government of Sindh to learn and adjust based on evidence — led to a shared culture of flexibility and partnership and adaptive management on the project. The project designed in-service and classroom-based teacher training and coaching interventions that changed with each school year. Cohort 1 (school year 2015-16) involved intensive donor support that gradually gave way through Cohort 2 (2016-17) and Cohort 3 (2017-18) to more and more government-led training and coaching. Cohort 3 also incorporated a more comprehensive model of formative assessment with guide teachers and teachers assessing classroom reading gains periodically and making adjustments in instruction. The Sindh government’s commitment and investment of its own resources grew over time. In parallel, SRP worked with PRP and the government to develop a policy framework to support a focus on early grade reading at the system level, and promoted communication between education department leaders and the finance department to incorporate the priorities of early grade reading into the annual budget cycle.

Exhibit 3 (next page) provides an overview of how the cohort model evolved over the life of SRP.

EXHIBIT 3: COHORT COMPARISON

	IN-SERVICE TRAINING AND SCHOOL-BASED OTJ SUPPORT	TLM	FORMATIVE ASSESSMENT
PILOT (2014-15)	<ul style="list-style-type: none"> • 2 days of face-to-face training of master trainers • 6 days of face-to-face training of teaching and learning assistants • 10 hours/month of OTJ training 	Under development: <ul style="list-style-type: none"> • 8 lesson plans in math • 8 lesson plans in reading • 100 supplemental readers (not leveled) • Teacher-developed low-cost learning aids 	<ul style="list-style-type: none"> • None
COHORT 1 (2015-16)	<ul style="list-style-type: none"> • 2 days of face-to-face face training of master trainers • 6 days of face-to-face training of teaching and learning assistants • 10 hours/month of OTJ training for SMS-based teacher support system 	<ul style="list-style-type: none"> • 30 reading lesson plans for Grades 1 and 2 • 7 titles of readers and read-alouds • Teacher-developed low-cost learning aids 	<ul style="list-style-type: none"> • 3 cycles of ICT-based formative assessment administered by project staff
COHORT 2 (2016-17)	<ul style="list-style-type: none"> • 2 days of face-to-face training of master trainers • 3 days each face-to-face training of field monitors and guide teachers • 3 days of face-to-face training of teachers • 5 hours every other month of OTJ coaching 	<ul style="list-style-type: none"> • 100 lesson plans for Grades 1 and 2 • 10 titles of leveled readers and 10 titles of read-alouds • Classroom support guide for mentors and guide teachers • Teacher-developed low-cost learning aids 	<ul style="list-style-type: none"> • 3 cycles of ICT-based formative assessment administered by guide teachers and field mentors
COHORT 3 (2017-18)	<ul style="list-style-type: none"> • 3 days of face-to-face training for project-funded staff to deliver OTJ in Cohort 1 • 2 days of face-to-face training of head teachers and Cohort 2 master trainers • 1 day of face-to-face training of teachers by school heads • 1 day of refresher training by project staff • 20 hours/week OTJ training by head teachers • 2 2-hour sessions of OTJ training by project and master trainers 	<ul style="list-style-type: none"> • 100 lesson plans for Grades 1 and 2 • 10 titles of leveled readers and 10 titles of read-alouds • Classroom support guide for mentors and guide teachers • Short video aids for teaching phonics and phonemic awareness • Teacher-developed low-cost learning aids 	<ul style="list-style-type: none"> • 3 cycles of ICT-based formative assessment using the Teachers' Advice app, administered by guide teachers and teachers

POLICY SUPPORT TO GOVERNMENT OF SINDH READING IMPROVEMENT STRATEGY

The area of policy support benefited from SRP and PRP collaboration to ensure a consistent and evidence-based approach. SRP worked closely with PRP, which is a national reading project, to engage and support the Sindh government in developing a strategic policy framework for reading improvement. Policies and initiatives focused on: 1) instructional time devoted to reading; 2) revised reading curriculum; 3) reading and learning materials for early grade reading and integration into textbooks; 4) adoption, sensitization, and understanding of reading standards; and 5) an enhanced model of CPD for teachers.

Instructional time devoted to reading. During the rollout of Cohort 1 training, SE&LD issued a notification of a required 35-minute daily reading period for all SRP- and PRP-supported

schools. After two years of implementation and evidence gathered from SRP’s experience in schools suggested that the statute had benefit, SE&LD expanded the mandate to make reading periods a requirement in the scheme of studies across all primary schools in the province. The new scheme of studies, as approved by SE&LD, includes four 35-minute periods per week dedicated to reading instruction and two library periods per week.

Reading Standards. In 2015, the SRP and PRP projects collaborated again to provide technical assistance to the government to set standards in reading. The standards defined the goal of language instruction at each grade level to ensure that students acquire the knowledge, skills, and disposition to be successful readers. The reading standards were aligned to the overall goals of the 2009 national curriculum. The performance standards were derived from student results in the 2013 EGRA, conducted throughout Pakistan. These standards cover both Urdu and Sindhi languages from early childhood education (ECE) to Grade 5 for performance measurement and provide guidelines for the development of leveled texts for young children. The standards were intended to be a work in progress — to be piloted by the government through SRP and PRP interventions and to be adjusted based on further evidence from subsequent EGRA results.

Reading standards development process — a USAID success story. SRP and PRP jointly supported SE&LD to develop the first-ever reading standards for the Sindh province basic education system, with SRP coordinating the activity in Sindh. In May 2015, SE&LD established a Reading Committee with representatives from its Curriculum Wing; Bureau of Curriculum; PEACE; PITE; Sindhi Language Authority; Faculty of Education at the University of Sindh; and teachers, writers, and academic staff of some prominent private schools’ systems; along with representatives from SRP and PRP. The Reading Committee’s mandate was to “Coordinate activities related to the establishment of reading standards in Sindh Province in phases: first in Grades 1 and 2, then in Grades 3 to 5.”

Reading Committee members met over a period of six months to examine data on students’ reading abilities and explore avenues to improve performance by setting reading standards for government schools in Sindh. SRP and PRP provided technical assistance to SE&LD-allied institutions (i.e., DCAR, PEACE, Curriculum Wing, and PITE) for the development of reading standards from ECE to Grade 3 in the first phase. They did this by examining results of recent primary students’ assessment on reading skills, establishing preliminary performance standards based on those results, and aligning with SE&LD and the 2006 National Urdu Curriculum’s goal of ensuring that students have the knowledge, skills, and dispositions to be successful readers. The nine-step process to finalize standards at the provincial education department followed the stakeholders across these institutions through a two-year process of developing a committee, participating in multiple workshops on how to set standards and benchmarks, approval processes, consultative processes with teachers and head teachers in the field, and eventual approvals from the Curriculum Council and Final Authority that would leave in place reading standards and benchmarks in Sindhi and Urdu. Participatory and exhaustive, the process set the stage for a system that could be maintained and institutionalized across the province.

Revised curriculum. The Curriculum Wing and DCAR, in collaboration with PRP and SRP, initiated a review of the reading curriculum for ECE through Grade 5. The purpose of this

activity was to update and add missing elements, such as alignment to reading performance standards and SLOs. The language, curriculum, and means of instruction for reading were introduced as part of the revisions. Drafting the revised reading curriculum was a major milestone for Sindh as it became the first province to adopt such a revised curriculum since enactment of the 18th Amendment in 2010.

Reading materials. Historically, textbooks have been the only resource for teachers and students in the public education system. Private sector publishers have produced extracurricular storybooks for children in English and Urdu languages, but these are generally only procured and used by private schools. In order to broaden the availability and demand for non-textbook reading materials, SRP conducted an analysis of over 1,000 such books in 2014 and found that most of them were not in line with reading standards. As a next step, SRP created 54 new titles of leveled readers in accordance with reading standards. These materials became part of the foundation of SRP's school-based approach.

In addition to supporting the provision of reading materials, SE&LD agreed to improve primary-level textbooks to ensure that reading instruction would become embedded in daily classroom practices. SRP and PRP worked with the Sindh Textbook Board to develop improved textbooks based on the revised curriculum and standards. Major improvements in the new textbooks included user-friendly layout, instructional guidance for teachers, use of more high frequency sight words, a reduction in the number of words in each unit, revision and resizing of illustrations, resizing of fonts, and adaptation of new units based on SRP and PRP reading materials. SRP provided more than 800,000 copies of TLM over the life of the project, as well as soft copies of all titles and scripted lesson plans. SRP also formulated an agreement with SEF to continue to print and distribute these materials.



Grade 2 students of Girls Primary School, Gadap carrying SRP-developed leveled readers and exercise slate, 2016. (Credit: Mona Siddiqui, Chemonics International)

Teacher continuing professional development. SE&LD adopted a new CPD model with support from SRP, based on the new OTJ coaching support models and the recently adopted SE&LD policies for school clustering and consolidation. The professional development activities for teachers under the framework will be managed through a central elementary and high school (referred as Cluster Hub School in the framework). Roles and responsibilities were delineated for different individuals in the system and guide teachers will assigned and trained to provide teacher coaching and mentoring. SRP provided training on reading instruction to a cohort of guide teachers. SRP engaged 385 public school teachers as guide teachers during Cohort 2 implementation, with the aim of developing SE&LD human resources to continue with the

rollout of the CPD program. Under the administrative control and responsibility of PITE, the CPD includes manuals for guide teachers.

COMPONENT 2: EARLY GRADE READING ASSESSMENTS AND STANDARDS

BASELINE ASSESSMENTS

SRP positioned assessments as a means to inform teachers and administrators about how to improve reading instruction and reach SLOs and reading standards. SRP conducted a baseline evaluation in September 2014, during which it administered the EGRA and Early Grade Mathematics Assessment (EGMA) to students in Grades 3 and 5. Since the baseline was administered at the beginning of the school year, students were used as a proxy for students in Grades 2 and 4. The baseline assessments included interviews with students, teachers, and head teachers to capture contextual variables that might be associated with strong reading and mathematics outcomes. This original baseline assessment informed many of the decisions and activities that followed.

Methods used during the EGRA (and the EGMA conducted at baseline) included the following.

Sampling. The EGRAs and EGMAs were administered to 12,793 students in Grades 3 and 5 in 560 schools across the eight districts in Sindh participating in SRP.

Instrument development. SRP developed the baseline EGRA and EGMA tools to measure the core reading and mathematics skills targeted in SRP teacher trainings, instructional materials, and parental-involvement interventions. Six reading subtasks were tested via the EGRA: phonemic awareness, phonics, vocabulary, fluency, reading comprehension, and listening comprehension. Seven mathematics subtasks were tested with the EGMA: number identification, number discrimination, missing number, addition, subtraction, word problems, and multiplication (Grade 5 only). With both tools, fluency rates were calculated for timed subtasks, and sum scores were calculated for untimed subtasks. EGRA and EGMA tools were developed in test adaptation workshops, and then piloted and revised prior to baseline data collection.

SRP baseline study in 2014. SRP conducted a baseline study to assess students' reading abilities in all targeted districts. This study provided a basis for the program to develop strategies to improve students' reading skills over the next four years. The baseline study provides insight into student performance on key reading skills prior to SRP interventions. Grade 3 students could read 23 correct words per minute of Grade 2 level text, while Grade 5 students could read 54 correct words per minute of Grade 2 level text. Grade 5 students could read 66 correct words per minute of Grade 4 level text.

At baseline, 65 percent of students in Grade 3 did not answer one question correctly of the Grade 2 level text and were considered to be non-readers or zero scores. Surprisingly, 40

percent of Grade 5 students did not answer one question correctly of the same Grade 2 level text. These results indicate that a large percentage of students were passing through the system without learning how to read with understanding, despite their ability to decode and read words correctly.

MIDLINE ASSESSMENTS AND FINDINGS

Immediately following the baseline assessment, USAID and SRP shifted the project's focus to upgrading early grade reading for the first two levels of primary school and testing reading skills after one year of intervention at the end of grade 2. As such, numeracy assessments for Grade 3 students were dropped, as were all assessments — literacy and numeracy — for Grade 5 students.

A midline evaluation data collection was conducted in October and November 2016. As with the baseline, the midline evaluation sought to capture both the level of reading skills and contextual variables that might be associated with strong reading outcomes. Questionnaires for students, their teachers, and head teachers were included to capture perceptions and environmental context. The midline was designed to highlight links between learning gains and both instructional and contextual factors that might contribute to learning to read.

The final midline sample of students who were administered the EGRA included 7,075 Grade 3 students across the eight districts. Within each school, 12 Grade 3 students were assessed.

In December 2017, SRP's selection criteria for Cohort 3 were finalized. Cohort 3 schools in the midline report consisted of all schools in districts not included in Cohorts 1 and 2. These remaining schools were presumed to be the population of schools that SRP's interventions would reach in the final year of the project. These schools were not included in the midline evaluation, although they did participate in formative evaluation activities that grounded formative assessment at the classroom level so that teachers could adjust their practice to address gaps in reading.

The following findings emerged from midline assessment.

Sindhi-medium schools. Students in Cohort 1 Sindhi-medium schools made notable gains from baseline to midline in reading fluency, decoding (nonword reading), and expressive vocabulary. While students made a significant gain on the reading comprehension task, they continued to struggle with the task, with an average of only 1.4 correct responses out of 5. Students also continued to struggle with the phoneme isolation task although the proportion of students with zero scores declined by half from baseline to midline (i.e., twice as many students were able to correctly answer at least one item on the task at midline as at baseline). Students' scores on the listening comprehension task remained relatively stable from baseline to midline, on average.

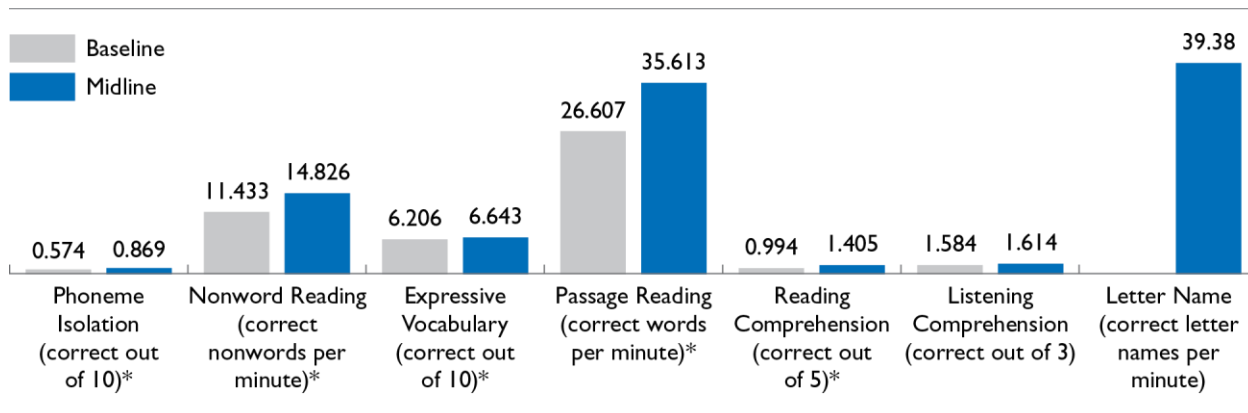
Overall, there was a statistically significant difference in mean scores among Cohort 1 students on five of the six tasks common to both the baseline and midline assessments: phoneme isolation, nonword reading, expressive vocabulary, passage reading, and reading comprehension. In all cases, the midline scores represented a gain over baseline results. In

addition, there were increases in the proportion of students who met or exceeded the SRP standard on all tasks, except on listening comprehension.

During the midline, SRP also analyzed contextual relationships between reading outcomes and SRP interventions for Cohort I students in Sindhi-medium schools. Oral reading fluency rates based on a passage reading task were higher among students who reported a stronger disposition towards reading, better attendance, higher levels of parental literacy, more reading resources and support in the home and at school, and greater access to and use of SRP-provided materials. Oral reading fluency rates were also higher in those schools where teachers reported having more positive perceptions of SRP intervention effectiveness. The evidence that certain conditions and perceptions may contribute to greater gains in oral fluency and should be included in program design.

Exhibit 4, below, shows a comparison between baseline and midline results for Sindhi learners, after a four-month instructional intervention.

EXHIBIT 4. COMPARISON BETWEEN BASELINE AND MIDLINE FOR SINDHI LEARNERS



Urdu-medium Schools. Students’ performance on the EGRA in Cohort I Urdu-medium schools remained unchanged from baseline to midline in Karachi. Across all six EGRA tasks common to both assessments, there was no statistically significant difference between student performance at baseline and midline. Similarly, there was no significant reduction in the proportion of students receiving zero scores, a finding that was cause for concern. SRP knew in advance that the schools in Karachi were in some of the most difficult areas, but wanted to delve deeper into the conditions there. Interviews with parents and teachers showed that many of the teachers and students in these schools were native Pashto speakers, and not proficient in Urdu. SRP’s EGRA revealed a complex governance dynamic at work in these Urdu-medium schools in Karachi that apparently had not been widely documented or reported to policymakers. Almost all the SRP-supported Urdu schools were in Karachi in densely populated areas with crowded schools, which may have also influenced the lack of progress from baseline to midline. At the time of the midline, SRP recommended that further research be conducted to determine how to improve reading instruction in these schools, or how to adjust for other factors contributing to the lack of progress among students.

Student responses on the survey showed some variability in contextual factors associated with reading ability in the Urdu-speaking schools. Students with higher reading scores came from environments with more reading support at home, and were assigned reading homework more frequently. However, student reports of increased access to library facilities were inconsistent with responses given by their teachers, suggesting that students and teachers may not have been fully aware of the resources at their disposal or were not using them. Either way, the discrepancy warranted further investigation.

ENDLINE ASSESSMENT

In 2018 USAID contracted a separate entity to conduct the endline evaluation for the SRP project, thereby making it possible for SRP to expand its activities in supporting formative assessment tools and providing support to the government of Sindh. This decision was the result of a collaborative learning approach that provided SRP and the government of Sindh the flexibility to build out activities where there was immediate demand and traction. Examples included the addition of district-level formative assessment processes, capacity building in the area of assessment, and the development of a formative assessment app that would help teachers, school directors, and other stakeholders customize reading instruction. Unfortunately, the trade-off was that the endline assessment was narrowed and some of the research questions that had emerged were dropped.

The scope of work for the endline evaluation was streamlined and awarded through USAID's Pakistan Performance Management Support Project (PERFORM) mechanism and was being finalized at SRP's closing. The evaluation did not compare the results between cohorts or further investigate the complexities of the Karachi schools. Instead, the endline aimed to compare baseline with endline, using the following criteria. Students assessed at baseline had teachers who had received no SRP training and students at endline had teachers who received SRP training in any of the three cohorts of SRP interventions. Students of the trained teachers had a maximum of one school year of SRP-supported reading instruction, and sometimes much less. The baseline and endline comparison was designed to be considered a measure of learning for students at the end of Grade 2, though the assessments were conducted with students at the beginning of Grade 3. Assessed students had a Grade 1 or a Grade 2 teacher who had received the six-month intervention either as part of Cohort 1 (December 2015 to May 2016), Cohort 2 (December 2016 to May 2017) or Cohort 3 (2018/Year 5 of the project).

While final evaluation results were not ready at the end of SRP, preliminary data were shared with the project. In sum, early evidence showed that there was a significant increase in oral reading fluency, non-word fluency, and reading comprehension in both Sindhi and Urdu speakers in all three cohorts from baseline to endline. In Urdu, there was also a significant increase in performance in phonemic awareness. Strangely, there was a significant decrease in vocabulary in both languages, although it is not clear what caused this drop. The exposure times and elements of the intervention for each cohort varied, with none receiving more than a school year of exposure to teachers in schools where SRP conducted training. While the endline study was not exhaustive, these results suggest a trend in the right direction for learning to read regardless of the type of school, length of service of the teacher, amount of formative evaluation provided, the multi-lingual nature of the student and teacher population, or other variables that varied across the two language groups and three cohorts.

In other areas of the analysis, in Sindhi language the proportion of zero scores (i.e. not a single item correct) decreased significantly in phonemic awareness, non-word fluency, oral reading fluency, and reading comprehension and increased significantly for listening comprehension from the baseline to the endline. In Urdu language, the proportion of zero scores decreased significantly in phonemic awareness, oral reading fluency, and reading comprehension and increased significantly for vocabulary and listening comprehension. The proportion of students who met the benchmark for oral reading fluency increased significantly in both languages, although the increase did not extend to all the other areas of reading acquisition.

The report on SRP's endline evaluation with more information will be released at a later date by the PERFORM project.

FORMATIVE ASSESSMENT: A SYSTEM AND A PROCESS

The introduction of formative assessment systems and tools within SRP's Component 2 provided an opportunity to increase the quality of instruction through the hands-on continued professional development of teachers. The SRP activity included a broad set of formative assessment (FA) activities tailored to building the capacity of institutions at different levels of the education system (i.e., provincial, district, cluster, school, and classroom) to gather information about progress in reading in a single classroom or school, and the structural adjustments that can improve reading instruction. While the purpose of FA activities was not to examine improvement over time on an aggregate level, the FA activities provided an opportunity for student-performance snapshots that teachers and others could use to adjust instruction and inform the need for professional development. SRP also hoped that FAs would engender a culture of transparency and responsibility at the school level by sharing results on an ongoing basis with stakeholders at the classroom, school, community, and district levels.

The primary purpose of the FA activities was to support teachers in making informed instructional decisions during the academic year. To accomplish this, FA data were shared with teachers by the guide teacher, field mentors, or head teachers as part of the teachers' in-class support model. FA results also helped teachers identify specific instructional areas, strategies, and lesson plans to address student weaknesses. To document these coaching and support sessions, printed teacher-advice booklets and an instant-feedback form were used three times during the school year. By embedding the FA activity within a professional development model, teachers received guidance and support based on data in a constructive manner over time.

The purpose of the strategy was to introduce a process of teacher-led FA to enable a school to assess students' reading performance regularly, collect data in schools, provide real-time feedback to teachers, and help teachers identify specific strategies and lesson plans to address students' learning needs. During data collection, teachers conducted the tablet-based, EGRA-like FA for every student in their classrooms, which took six to 12 minutes per student. Teachers had one week between March 3 and April 20, 2018 to complete the assessments in their classrooms. Upon completing the assessments, the teachers discussed their students' strengths and areas of development with their head teachers.

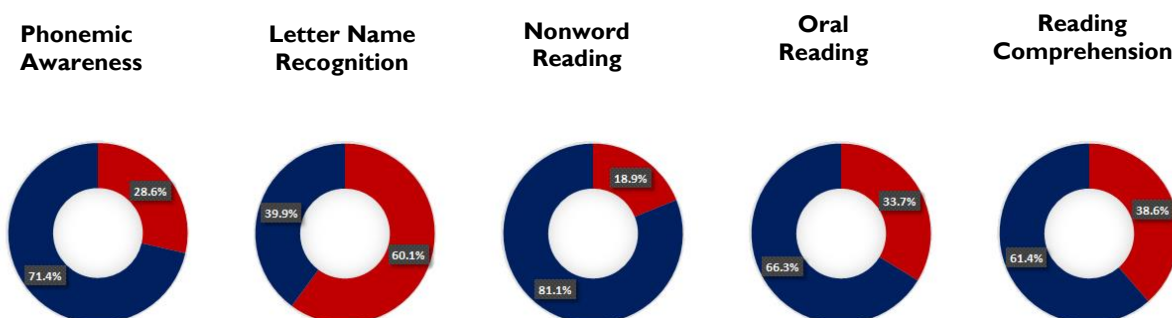
The model of FA implementation gradually progressed from SRP-led to ministry-led. In the first two years (FA1 and FA2), external assessors measured Grades 1 and 2 students’ reading skills every two to three months, then provided feedback to SRP concerning uptake of its content and materials by teachers and students in the targeted schools. While the primary purpose of the FA activity was to support teachers’ instructional decisions, not assess progress toward an end-of-year goal, results were shared with the government to demonstrate the context of students’ development and the FA process.

For the first two cycles of FA, external assessors conducted data collection and SRP cleaned and analyzed the information and presented it at the provincial and district levels in order to demonstrate the value of classroom-based research for improving instructional practice. In the third cycle during the 2017–18 school year (FA3), FA increased in regularity, with SRP aiming to implement monthly rounds of tablet-based FA. While instructional needs and school calendars made monthly assessments difficult, the Year-3 SRP teachers successfully implemented five rounds of FA over a period of six months. This cycle of FA represented the first time teachers assessed the students themselves using tablet-based FA, rather than using hired assessors. Teachers and schools could see visual representations of how students were doing in each skill and sub-skill area, and what proportion were reaching the national standards in that grade level. The standards used in these FA results demonstrated the expected learning levels of students at the end of each school year.

For teachers who had received very little hands-on professional development support in any subject — and for government counterparts who had not captured this type of snapshot data before — the process was a real eye-opener. They could immediately see where the majority of students were struggling and what was needed to move forward. With this feedback, students’ performance in classrooms using the FA tools in a sample of Cohort 3 schools began to jump up quickly from one month to the next.

Exhibit 5 (below) provides an example of a snapshot of teacher-administered FA during Cohort 3, based on formative assessment results from Grade 1 in Urdu-speaking schools. This particular chart shows the proportion of students who meet the end-of-year standard at a single moment in time. Other visualizations show a snapshot of individual skill categories important to reading instruction.

**EXHIBIT 5: EXAMPLE OF AGGREGATED FA SUMMARY – URDU GRADE 1
PROPORTION OF STUDENTS MEETING END-OF-YEAR STANDARDS**



In the graphs above, the proportion of students at a single point in time who meet the SRP standard is shown in blue; the proportion who do not meet the SRP standard is shown in red.

In this snapshot:

- More than seven in 10 Urdu Grade I students met the phonemic awareness end-of-year standard
- Almost four in 10 Urdu Grade I students met the letter name recognition end-of-year standard
- Eight in 10 Urdu Grade I students met the nonword reading end-of-year standard
- More than 6 in 10 Urdu Grade I students met the oral reading fluency end-of-year standard
- Six in 10 students met the end-of-year standards in the reading comprehension sub-task

The FA data showed that most Urdu Grade I students in the sample of schools in Cohort 3 met end-of-year standards in four of the five subtasks: phonemic awareness, nonword reading, oral reading fluency, and reading comprehension. To break it down further, this indicates that these students demonstrated knowledge of middle-sound phonemes, could accurately read at least 15 nonwords per minute, could read stories/passages at 30 words per minute, and could correctly answer at least three reading comprehension questions. In addition, the FA data indicated that something unusual was occurring with Urdu Grade I students' letter name subtask. Further investigation is needed to understand why Urdu Grade I students struggled on this subtask compared to all other subtasks.

BUILDING CAPACITY FOR ASSESSMENT AND EVIDENCE-BASED PROGRAMMING

To build local capacity, SRP organized a series of workshops and hands-on exercises among key members within the government to clean, analyze, and report on EGRA-like data. SRP engaged a small group of nine individuals from SE&LD, SEF, and PRP to participate in a five-day initial workshop, which provided an overview of the process as well as hands-on experience in programming assessment items for the tablet-based application.

Following the workshop, SRP identified several participants to attend three subsequent workshops. Participants were selected based on their familiarity with data analysis and reporting as well as the role their institution would play in future rounds of FA. School-to-School International engaged a small group of nine people from various government departments, SEF, and PRP to participate in a series of webinars. The first webinar provided a brief review of the initial workshop material as well as hands-on practice working with datasets using statistical analysis software. Following the first webinar, each participant was asked to complete several assignments related to data cleaning and analysis. A second webinar reviewed the process for using the data to compare against standards and the basics of writing the methods and results sections of a report. A third and final webinar included time for participants to share or ask questions before they submitted their results. They discussed various findings, provided feedback on each other's work, and discussed next steps for FA. Following the third webinar, the participants had the option to contribute to one of the Year-3 FA reports. This approach allowed them to apply their learning to one set of FA data, while

also encouraging them to apply the analysis to the results-writing process. In addition to these webinars, various “how-to” handouts and guidance were provided and additional support was given to two governmental officials who were eager to learn how to write syntax and perform item-level analysis.

Aggregation of FA data also provided snapshot information on trends in the proportion of students meeting end-of-year benchmarks throughout the year, and helped inform adjustments to the in-school professional development model. For example, based on FA data, SRP identified the need for refresher training for head teachers during Cohort 3; this was targeted to areas of greater concern.

TEACHER ADVICE APPLICATION

All FAs were conducted on tablets using a version of the Tangerine software adapted for Sindhi and Urdu. However, in the last round of FA, SRP introduced its software customization called Teacher Advice. It included additional features in Sindhi or Urdu that allowed users to immediately understand classroom performance and receive advice on how to adjust instruction to address gaps.

Across all cycles, FA provided Grades 1 and 2 teachers with immediate feedback on the reading abilities of their students. FA was integrated into the professional development model described above. While the real value of FA lies in the process of sharing such data with teachers, the results also conveyed the value of the overall FA activities to the government of Sindh. Producing data provided the credibility that the project needed to build political will among partner SE&LD departments for the Sindh government to invest more of its own resources in implementing and sustaining SRP. The FA activities and Teacher Advice app were powerful motivators.

TEACHER ADVICE APP

SRP created a formative assessment app called Teacher Advice for use on tablets. It built upon a Tangerine platform. Teacher Advice provided real-time assessment results at the individual and classroom level. Depending on the details of the scores in each reading skill, the teacher receives advice on teaching techniques to improve performance.

Teacher Advice. Teacher Advice is a customized tool embedded in Tangerine EGRA software. SRP developed the Teacher Advice tool to easily assess foundational reading skills using a tablet. Teacher Advice was designed to measure individual reading skills across the five skill areas of reading development in either Urdu or Sindhi and provide guidance on follow-up activities that can be introduced to respond to specific skill gaps in the language of instruction. The Teacher Advice app allows the teacher or guide teacher to see individual student or classroom results while offline with just the click of a button, and then show the percentage of the class that is reaching milestones in each area. These levels of feedback allow the master teacher and classroom teacher to understand where remedial support is needed individually and where classroom-wide activities would be a better choice. The feedback can thus be used for lesson planning, remedial instruction, or broader assessments of instructional support at the school, classroom, or individual level. All teacher feedback and follow-up activities are presented in simple local language so teachers and others can comprehend the dynamics of reading performances and implement suggested guidelines. The following features are included:

- Bar-graph that summarizes class performance in each assessed reading skill and offers a simple interpretation of what the information means
- Simple description of each targeted reading skill and why the skill is important to build mastery in reading and improve reading performance
- Feedback and guidelines for the teacher to identify problem areas for students, with a reference to the instructional material that can strengthen the skills and address the issue
- Teaching activities that the teacher can implement in the classroom to improve student performance in a reading skill



Screenshot of Teacher Advice app on a tablet. (Credit: Hasham Haqqi, Chemonics)

SE&LD and SEF immediately saw the value of the Teacher Advice tool and FA system. SRP provided training and worked closely with them to fine tune it. At the end of the process, SRP guided members of the SEF assessment unit through the process of setting up a local account with Digital Ocean, a cloud-based service, and transferring the app onto their server. The interest in sustaining the use of the formative evaluation system and the Teacher Advice tool represented a milestone for the SRP project.

COMPONENT 3: READING MATERIALS AND READING SPACES

SRP worked closely with government and community institutions to strengthen libraries in SBEP districts. To achieve this goal, SRP engaged with the Ministry of Culture, local district and municipal administrations, and civil society organizations to advocate for the revival and rehabilitation of existing government libraries and helped government and local NGOs promote a reading culture in their respective communities. SRP facilitated the development of subcommittees and taskforce groups to provide basic amenities at libraries, such as drinking water, child-sized furniture, toilets for female visitors, electricity, internet connectivity dongles, and separate seating arrangements for female visitors where such arrangements were necessary to respect the local cultural context. Advocacy meetings included community-led dialogues about what reading culture means to their communities, and awareness walks within communities and among students to identify barriers to accessing libraries.



The Campus School - Government Boys High School Modern, Sukkur. (Credit: Hasham Haqqi, Chemonics)

As an example of activities by a community-level, government-based civil society organization, the Larkana Assistance Commissioner convened a series of collaborative meetings with the Sindh Education Alliance and the library management committees of Ghulam Mustafa Jatoi Public Library at Dokri, District Larkana. Plans were developed jointly to further improve the existing library facilities, especially to encourage female participation at the library. Another local organization, Alif Ailaan Larkana, organized an advocacy session with community leaders, as well as high school and college students, on educational challenges and issues that persist in District Larkana. SRP facilitated an energetic dialogue with the community to mobilize youth and children to use the library as a safe public space, and ways students can benefit from available resources by engaging and assisting other library visitors to create an environment conducive to reading.

SRP also supported events and activities that promote the revival of a thriving local literature community that had grown dormant in many rural areas. SRP engaged literary writers of Sindhi

and Urdu languages at the local level in the libraries to encourage visitors to read literature produced and published in the mother-tongues of Sindh. SRP also interacted with various literacy personalities of Sindh to promote a culture of reading and the significance of reading spaces available through libraries.

Since the province already enjoys a significant number of literacy clubs formed in all districts of Sindh, SRP targeted these groups to leverage community assets in literature and connect writers and readers through the public space of libraries.

An example from Khairpur district illustrates this community-led literacy promotion. The head librarian of Dr. Atta Muhammad Hami Library located at Sohu, Kanasara, Tando Masti Road, Khairpur, coordinated with the Ministry of Culture, Tourism, and Antiquities, and conducted a planning meeting to commemorate the anniversary of the death of the famous Sindh/Urdu author, Dr. Atta Mohammad Hami, after whom the library is named. The event was held at the library with the deputy commissioner of Khairpur and other community leaders. The head librarian briefed the deputy commissioner on the facility of a separate section for ladies and children, coupled with the complete support package installed in these spaces by SRP. The librarian highlighted the activities that have been conducted at the library space after the SRP intervention.



Grade 1 and 2 students in a reading session at the SBEP Campus School – GB Elementary School, Khouhro Goth, Khairpur, 2016. (Credit: Mona Siddiqui, Chemonics)

The library organized an essay-writing and drawing competition by inviting local government schools to the library. Students were randomly divided into groups and asked to write an essay on one thing that they liked about their country. The essay had to be supported by an illustration. SRP distributed branded mugs, pens, and canvas bags to the top five winners, along with appreciation certificates. All other participating students were awarded participatory certificates. This activity was a step in the direction of SRP’s continued support of public libraries’ outreach to schools in their respective communities.

In another example, an event called the Walk to Raise Your Voice for PEACE and De-Weaponization in the Orangi town of Karachi demonstrated how libraries could provide safe spaces for communities to engage around issues important to them. The “de-weaponization” event was organized by the Citizens Against Weapons consortium. Members of the community convened 100 students from schools supported by the NGO Development in Literacy in Orangi town, Karachi, to promote the de-escalation of violence. Children developed pop-out cards, banners, and other creative material with respect to the theme. After the walk, SRP conducted an interactive reflection session with about 50 children on current social issues affecting their

lives and educational learning paths, and on how library spaces can be used on a regular basis to promote dialogue on social issues at the community level. Communal and ethnic violence in Orangi and other parts of Karachi impedes education by restricting children to indoor spaces during the days of violence and conflict, thereby limiting their regular access to learning spaces such as schools and libraries.

SRP's goal was to establish library and reading spaces in all 106 SBEP campus schools upon completion of school construction, and hand them over to education management organizations. Because of delays in school construction, SRP was only able to provide library packages to 23 schools. The remaining 83 schools remain under construction or are in varying stages of being handed over to education management organizations. The final schools will be completed by 2020, well beyond the end date of the project. USAID is exploring alternative strategies to ensure it carries through on its commitment to equip all SBEP campus schools with child-friendly library spaces. SRP recommended that USAID use another contract mechanism such as the Community Mobilization Program or PRP to procure and deliver library materials to these schools, as construction concludes and education management organizations take over management. To support the process, SRP signed memoranda of understanding for the continued printing and reproduction of materials after the life of the project.

COMPONENT 4: READING FOR OUT-OF-SCHOOL CHILDREN

Many of SRP's greatest contributions occurred within Component 4. There, SRP worked to support the Non-Formal Basic Education Directorate, SE&LD with regard to development of NFBE policy, curriculum, TLM and teachers training strategies and manuals to address one of the major challenges of providing basic literacy skills to millions of out-of-school children of Sindh province. There are 7.4 million children of school age in Sindh living without basic education. This continuing crisis required donors and the government to think outside the box to create a mechanism for mainstreaming or providing an equivalency program for the millions of out-of-school children. While there have been community-based organizations working with out-of-school children over the years, they have lacked materials and a reading curriculum targeted to the specific needs of these children. SRP worked closely with the Directorate of Literacy and Non-formal Education over the life of the project to develop a new NFBE framework, a mechanism for the delivery of NFBE for out-of-school children, and appropriate materials for learners to either catch up and enter the mainstream formal education system or to receive an alternative certificate for primary education.

Through an intensive consultation process, SRP and partners provided technical assistance to develop the first provincial NFBE policy, design and prepare curriculum, upgrade textbooks, and establish assessment and monitoring systems. SRP coordinated with the Directorate of Literacy and Non-Formal Education; JICA; UNICEF; and SBEP's sister program, SCDP, to create the first-ever policy framework, NFBE, and TLM packages devised to meet the needs of out-of-school children. For the first time, the government has a plan to begin addressing the crisis and encourage out-of-school children to return to the education process and eventually to long-term learning by getting them mainstreamed in the formal schooling system. The NFBE will enable out-of-school children to gain foundational literacy and math skills and offer a pathway to be mainstreamed in the formal education system.



NFBE learner reads a book at a NFBE Center in Karampur, District Kashmore, 2016. (Credit: Mona Siddiqui, Chemonics)

Early in the project, SRP organized an agreement with JICA and UNICEF to build on their new NFBE model and to partner in the creation of materials and delivery of instruction for out-of-school children in SRP priority districts and towns within Karachi. The idea was to build in the parents an awareness of the benefits of education — especially for girls, who were disproportionately out of school — and to encourage the parents to enroll their children. JICA, UNICEF, and SRP collaborated throughout and worked closely with the Directorate of

Nonformal Education to develop a framework that could be replicated easily throughout the province. To pilot the intervention and provide delivery of services, SRP provided support to 305 NFBE centers in seven SBEP districts and five towns of Karachi. Although the total number of learners enrolled in NFBE centers across the province are far greater when non-SRP districts are counted, SRP supported NFBE programming to 28,340 learners — 660 learners short of SRP’s 30,000 targeted learners. Through subcontracts to local NGOs, SRP piloted teacher training, the use of TLM, and curriculum to demonstrate the effectiveness of NFBE for 10,011 children and provided TLM, training, or support to an additional 18,329 learners newly enrolled in the consortium member centers in SRP districts. The teachers’ training program and TLM were developed to be consistent with the evidence-based methods of early grade reading delivered through in Component I and were organized to coincide with the Sindh primary curriculum so that students who completed an accelerated learning package would be on-track to enter the public school system at a recognized level. Older children in the eight to sixteen years age group could also enter a technical and vocational training and skills development track.



NFBE center in Kashmore, 2018 (Credit: Andrew Lewis, Chemonics)

The NFBE approach divided coursework into three accelerated learning packages (see Exhibit 6, below): Package A covers ECE and Grade 1 (eight months); Package B covers Grades 2 and 3 (ten months); and Package C covers Grades 4 and 5 (12 to 14 months). The NFBE provides an opportunity for children to complete a compressed version of the government’s primary education in 32 months and reenter mainstream school upon completion of one of the packages at an established point in the public school curriculum. SRP designed all three levels and delivered Packages A and B to out-of-school children in Sindh. Due to delays in implementation, Package C was being finalized when SRP ended and no students had yet reached that level of the program.

EXHIBIT 6: FEATURES OF THE NFBE PACKAGES

	TRAINING AND NFBE CENTER-BASED OTJ SUPPORT	TLM
Package A: ECE to Grade 1	<ul style="list-style-type: none"> • 3 days of training-of-trainers for master trainers • 5 days of teachers’ induction training • 2-day teachers’ refresher training • 4 visits per month by academic coordinators for center-based support to teachers and learners • 2-day trainings on use of the non-formal education management information system for academic coordinators • 2-day trainings on social mobilization 	<ul style="list-style-type: none"> • Teacher’s guide and textbooks tailored to NFBE curriculum of Sindhi/Urdu, Math and English subjects (3 hours per day) • Center kits: learners’ kits, paper, pencils, chalkboard, and slate boards for children • Teacher-developed low-cost learning aids
Package B: Grade 2 to Grade 3	<ul style="list-style-type: none"> • 3-day training-of-trainers for master trainers • 5-day teacher induction training • 1-day refresher training course for teachers 	<ul style="list-style-type: none"> • Teacher’s guide and textbooks tailored to NFBE curriculum of Sindhi, math, and English (3-4 hours per day)

	TRAINING AND NFBE CENTER-BASED OTJ SUPPORT	TLM
	<ul style="list-style-type: none"> • 4 visits per month by academic coordinators for center-based support to teachers and learners 	<ul style="list-style-type: none"> • Center kits: learners' kits, paper, pencils, chalkboard, and slate-boards for children • Teacher-developed low-cost learning aids

To initiate the NFBE program, SRP provided a five-day induction training for newly appointed NFBE teachers. The training included an orientation on the literacy approach, customized for out-of-school learners, with a special focus on phonics-based literacy instruction and the TLM developed by SRP. Training also included assistance to teachers to develop their own low-cost materials. SRP engaged master trainers who had previously worked with SRP on TLM development and were experienced in the use of the materials and instructional approaches. Master trainers and NFBE academic coordinators facilitated the sessions.

The following topics were introduced during the five-day training sessions:

- NFBE philosophy and approach — a condensed curriculum framework of three packages covering five grades over a three-year period. It includes the phonics-based methodology and is designed for the context of community-based learning facilities and circumstances of out-of-school children
- NFBE materials, integrated curriculum, and learners' learning needs
- Role of NFBE teachers to guide instruction
- Introduction of Sindhi, English, and mathematics textbooks and teacher guides
- Instructional approach and method
- Importance of phonics methodology for reading
- Basics of phonemic awareness and decoding
- Introduction of language and math teaching methods
- Child-centered and activity-based teaching methodology
- Pre-reading strategies for Sindhi and/or Urdu
- Lesson planning
- Storytelling and roleplay
- The importance of mainstreaming into formal schools whenever possible

OUT OF SCHOOL AND OUT OF THE BOX

While NFBE centers often operate in a public facility, when things go wrong teachers may teach class in whatever environment they can find. Teachers are typically volunteers who hold school in whatever community home or facility is available on a given day. Sometimes sessions might be conducted in a private home with only a sheet to block off space for school. As such, the teachers rely heavily on the training and materials that they receive to make their programs effective. The unusual adaptations of nonformal education demonstrate the broader need for a mindset shift among donors and policy-makers to understand ways to support out-of-school children and the caregivers who go to extraordinary lengths to educate them.

The implementation of NFBE instruction was designed to be a partnership among donors and government. Because of programmatic delays, SRP's contribution was not fully completed at the end of the project. Only 30 percent of the centers completed both packages A and B, for grades ECE through grade 3 basic equivalency. Government and SRP partners were in the process of finalizing Package C NFBE materials for Grades 4 and 5 as SRP was closing out.

ACHIEVEMENTS

PROJECT ACHIEVEMENTS

At the end of the project, SRP worked in 5,027 schools across eight districts of Sindh and five towns of Karachi to support 15,551 teachers and 432,124 students of Grades 1 and 2 at the classroom level. SRP reached an additional 28,340 students in 320 non-formal education centers. To mainstream, scale, and sustain these initiatives, SRP worked closely with PRP to help the Sindh government develop a policy framework for reading improvement strategies. Policies and initiatives taken within the framework of reading improvement strategies focus on: 1) reading instruction time; 2) revised reading curriculum; 3) learning materials for early grade reading incorporated into textbooks; 4) adoption, sensitization, and understanding of reading standards; and 5) enhanced model of CPD for teachers.

As a result of the reading improvement strategies framework, SE&LD adopted early grade reading standards, including a revised scheme of studies incorporating reading instruction time, and helped develop a new CPD policy for teachers. The Sindhi and Urdu language curriculum is currently under review, so that reading-focused SLOs can be embedded into the curriculum and textbooks. Exhibit 7 (below) summarizes project achievement of required indicators against the contract's targets.

EXHIBIT 7: PERFORMANCE AGAINST PROJECT INDICATORS

No.	INDICATOR	LOP TARGET	LOP PROGRESS
1	Goal-b-Number of out-of-school children newly enrolled or re-enrolled in education system with U.S. government assistance (MSF 4.1-a)	30,000	28,340
2	Sub-Obj-1.1-c Number of newly constructed school libraries and refurbished libraries functional (MSF)	10 public libraries and 106 campus School Libraries	10 public libraries and 23 campus school libraries
3	4.2a. Percent of learners who demonstrate reading fluency and comprehension of grade level text at the end of grade 2 with U.S. government assistance	50%	15% of cohort 1 learners
4	4.2d. Number of primary school students who show improved reading skills due to U.S. government interventions	200,000	70,760
5	4.2.2-a Number of learners receiving reading interventions at primary level (U.S. government standard indicator/SBEP PMP indicator) (MSF)	400,000	432,124
6	4.2.2-b Number of in-service teachers/educators/teaching assistants who successfully completed training or received intensive coaching or mentoring with U.S. government support (U.S. government standard indicator/SBEP PMP indicator)	15,000	15,551
7	Number of teaching and learning materials provided with U.S. government assistance (MSF 4.2.2d; F 3.2.1-33)	830,118	807,203
8	4.3.2-a Number of administrators and officials successfully trained with U.S. government support	300	311
9	Obj 4-e Number of education officials trained to administer early grade reading assessments	200	229

Additionally, SRP delivered 807,203 copies of TLM to teachers and children. To support a sustainable program, SRP also entered into two separate memoranda of understanding with the SEF and TCF to allow the government to continue to print and distribute the materials in the future. The memoranda of understanding outline commitments from each organization to use TLM, including teacher professional development, lesson plans, and supplemental reading materials. SEF reprinted and applied the TLM and instructional approaches in 915 schools with 3,182 teachers, supporting 106,122 children. SEF adopted SRP's Teacher Advice formative assessment tablet-based application and has begun customization to expand its use across all primary grades and subjects.

Several deal breakers were critical to institutionalizing activities that promote early grade reading in Sindh.

Deal breakers

- Supportive reading policies, such as dedicated time in school for reading
- Development of Scheme of Studies
- Production of TLM for Grade 1 and Grade 2 students and teachers
- Development of reading standards
- Recognition of the value of evidence and the systems needed to gather it
- Introduction of hands-on FA system to improve instruction and enhance teacher professional development
- Production of NFBE policy, curriculum, and TLM

IMPACT ON INSTRUCTIONAL QUALITY AND LEARNING OUTCOMES

Teacher observations. Based on SRP research and independent research of SRP schools by the Aga Khan University's Institute for Educational Development, teachers' use of scripted lesson plans, leveled readers, and instructional approaches in the classroom varied widely. An estimated 40 percent of teachers were observed applying reading strategies introduced by SRP in their classrooms in their study, a level that was suggested to be a marked improvement over the original observations. Teachers reported lack of time as the most significant barrier to greater use of the lessons, and expressed concern that approaches were an extra duty or were not yet aligned to head teachers' expectations of them. While disappointing for current teachers and students, this finding was not unexpected and the new textbooks and curricula should better integrate the instructional approaches introduced by SRP into the school day.

EGRA findings. Early evidence on SRP's midline and preliminary data from the external endline suggest that improved reading instruction is making a difference in children's literacy skills. The improvements in oral reading fluency for both Sindhi and Urdu children after less than one year of intervention suggests that that learning gains are trending in the right direction.

The immediate influence of classroom-based formative assessment practices. The enthusiasm and the integration of formative assessment practices and putting the Teachers Advice tool into practice represents a success for coaching methods and professional teacher development. Focus and attention by SE&LD departments will be required to continue progress toward this

standard. We believe that even modest investments in a school-based coaching model are affordable given the Sindh government's current resources and would result in improved learning outcomes. Like any skill, practice is important — this is true for teachers, administrators, policymakers, and early learners.

Nonformal education system. SRP and partners provided technical assistance to develop the first provincial NFBE policy, design and prepare curriculum, contextualize appropriate textbooks, and establish assessment and monitoring systems. Special attention at all levels and in the enrollment process with community members was given to enrolling girls and providing them with equitable education opportunities. The development of this new policy and program that will continue to reach and enroll out-of-school children in nonformal education programs creates new possibilities to engage out-of-school children across Sindh.

SUSTAINABILITY

One of the central approaches of USAID's SBEP program centered on creating complementary and sustainable systems designed to strengthen education in Sindh. The coordination with the Sindh government's PMIU and key donors such as UNICEF and JICA in Sindh set the SRP project up from the beginning to have greater possibilities for sustainability. As part of the governmental partnership in the overall SBEP effort, the PMIU was tasked with serving as a management and reporting link between the SE&LD and the SBEP projects in key areas affecting institutionalization: organizational development and implementation, reporting and systems leading to results, and budget line items that were needed to sustain key activities. As civil servants, the members of the PMIU were committed for the long-term, and were available to analyze and present options to both the government and the SBEP implementer.

Even with direct relationships and support from government, challenges to sustainability for new programs in education can be significant. Not only were the conditions for many children in SRP-supported schools extremely difficult, both for girls and boys enrolled in public schools and for those out of school, but many also lacked the social and physical infrastructure to support reading and were born into a history of instability in their communities that created the perception that the returns to reading would be inaccessible or irrelevant. In addition, government schools were the poor step sister to private schools and schools in poor urban areas are crowded and occupied by large populations of children from multiple mother tongues. In an effort to find ways to break through to communities and understand how to introduce and sustain reading, SRP chose some of the most difficult schools and communities to work in within the seven districts and five towns of Karachi in order to create programs that could work anywhere. Some of the schools were in areas that even the police did not enter.

Alongside the challenging environments of the communities and children, administrative, and bureaucratic constraints can sometimes unravel successes on ambitious projects. After painstakingly encouraging reluctant parents to enroll their girls in community-based nonformal education programs, for example, administrative barriers such as new vetting procedures or capacity deficiencies among local NGOs have the power to cause delays, which prompted parents to backtrack and cut those numbers in half. Even with good planning, it is easy to be ambitious and hard to develop sustainable systems that can continue to make a difference over time.

Building sustainable systems is often a function of three elements, all of which play out at different levels and among different audiences:

- An institutional backbone
- The capacity
- The will

AN INSTITUTIONAL BACKBONE

Without the SBEP framework and PMIU support at the field level, it would have been a difficult task to bring together the necessary stakeholders to support SRP activities. These agreements supported an unified institutional backbone and made it possible to develop activities and strengthen capacities that could be knit together into a comprehensive and coherent system that could be coordinated by the government over time, with SRP support in the short-term. As a provincial effort, SRP gained significant long-term traction through a consistent approach of coordinating across the SE&LD and its multi-level departments and entities, nongovernmental organizations, and in collaboration with other projects and donors with compatible goals. The design of SBEP and positioning of the PMIU required ongoing coordination, and provided an entry point to shape policies and institutionalize successful activities to support an evidence-based program across the system. With this in mind, SRP worked with a variety of consistent stakeholders around the institutional core that impacted whether children and youth would have the support to learn to read and keep reading. Because of the broad body of research on what works in early grade reading, SRP's focus was not primarily on reinventing and retesting those formulas. Instead, SRP activities adapted established methods and concentrated on finding ways to introduce them effectively into the institutional and cultural apparatus of the provincial government, multiple district governments, local communities, and nonformal and alternative spaces that might support reading. It was a project focused on local systems which benefitted from a local institutional backbone.

SRP embodied its role of local coordinator and the goal of strengthening the local institutional system that supported early grade reading. The strong collaboration between SRP and SE&LD enhanced the capacity of allied institutions to support initiatives to institutionalize reading initiatives at various levels. The positive cooperation between PRP and SRP was instrumental in setting a coherent framework for reading that did not foster competition and confusion. In addition to implementing activities across the four components, SRP served as the coordinating body to convene local committees to develop the guidance that would become critical policies for reading and nonformal education in Sindh. The fact that the Reading Implementation Strategy for the province of Sindh was developed, approved, and piloted within the life of SRP is a testament to the importance of consistent local coordination and strengthening of the institutional backbone.

Missing links in the coordination among government education institutions responsible for the implementation of education reform in Sindh province with donors' assistance can produce challenges to long-term institutionalization. For example, the lack of coordination between SBEP-PMIU and the Reform Support Unit (RSU) presented an obstacle to sustainability. While SRP kept the reform support unit abreast of its program design and activities in an effort to incorporate SRP reading-focused activities and goals into the next education sector plan for 2019-2023, the same level of joint ownership and commitment was not established within the RSU and so the way forward is a little bumpier.

THE CAPACITY

From the outset, SRP pursued an approach across components to engage counterpart staff in actively participating in the development of policies, standards, materials, and instructional and

assessment practices. This approach not only helped promote ongoing buy-in among counterparts, it built a stronger base for sustainability. SRP's hands-on approach also served to build capacity within key departments within SE&LD. SRP took care and time to strategically identify and solicit workshop participants from the range of counterpart departments — including DCAR, Sindh Teacher Education Development Authority, PITE, district officers, NFBE, the Curriculum Wing, and others. The cross-departmental and consensus building process produced the frameworks and policies needed through a capacity-building workshop approach. Here are some examples:

- All TLM and reading standards were developed during workshops with Sindhi and Urdu language experts, alongside staff from various counterpart departments of SE&LD.
- SRP organized workshops engaging language and subject experts from PITE, Government Elementary Colleges of Education, DCAR, the Sindh Teacher Education Development Authority, the Sindh Text Book Board, teachers, and head teachers to develop the formative assessment system and the customization of the formative assessment application to provide feedback to teachers. Participants received an orientation about SRP's FA model and the Tangerine application. They worked both as experts and participants to develop and review the tools. Participants developed and finalized FA tools and suggested additional activities to improve teaching strategies.
- Directorate of Literacy and Non-Formal Education staff and DCAR experts were involved in developing the curriculum and creating the NFBE materials through each of the multiple workshops each year. This active participation and contribution by government staff built capacity and helped increase the likelihood that institutional knowledge of customized approaches to teaching and learning for out-of-school children will remain within the NFBE staff after SRP ends.
- Training in assessment was provided for key individuals across multiple departments and institutions to ensure that different skills related to item development, data collection, cleaning, and analysis were strengthened and institutionalized.

In addition to capacity development at the SE&LD, SRP strengthened the capacity of the SE&LD, teachers, and stakeholders within the larger community to foster support for a stronger culture of learning. They did that in the following ways.

- SRP created and delivered extensive training for teachers, mentors, guide teachers, and other education staff on how to deliver high quality scripted reading instruction
- SRP built the capacity of evaluators, enumerators, data collection, cleaning and analysis teams, and school staff at all levels of government to introduce an evidence-



Developing prototype solutions to encourage teachers to use the formative assessment application during a training on how to choose appropriate technology for the Sindh Education Foundation, 2018. (Credit: Hillary Eason, Chemonics).

- based system of assessment and decision making
- SRP generated community awareness and demand for their children’s education through training and awareness sessions with parents and community members on the importance of education and reading for their sons and daughters.

Finally, SRP’s tools for quality control and systems for continuous assessment became opportunities for sustainability because they allowed counterparts to go through a process of making evidence-informed decisions and adjusting their own inputs to sustain or improve outcomes in the future. The assessment tools that SRP customized were developed on open source platforms and transferred to an SEF server in Pakistan.

THE WILL

Despite the institutional backbone and capacity building, sustainability does not occur without the will to make it happen. The will to push something forward might be achieved through the persistence and charisma of local champions, the consolidated hard work of many people across a system, the new knowledge of what worked based on evidence, or the demand by a group such as teachers and parents who want to see their girls and boys better educated. SRP worked hard to develop demand, create viable systems for good reading instruction, and foster the will to sustain it. Elements of sustainability can be fragile and depend on a few people to sign guidance into policy or fund the line items necessary to make it happen.

Throughout the final two years of SRP, the project team worked closely with government of Sindh counterparts on departmental budget proposals to sustain the early grade reading instructional approaches introduced by SRP. The team worked closely with SE&LD on proposals developed in the first half of project Year 5 for inclusion in the annual government of Sindh budget request. While proposals were accepted at the departmental level by PITE, DCAR, and the Directorate of Literacy and Non-Formal Education, the budget cycle was interrupted by the July 2018 elections. When the new government was sworn in, a new budget was developed, leaving the tentative budgetary agreements in question. During the transition process, despite internal advocacy, none of the budget proposals promoted by SRP were included in the 2018-2019 departmental regular budget allocations. The provincial government’s finance department instructed SE&LD to wait for the appointment of the new government’s minister of education and secretary of SE&LD and the 2019-2020 budget cycle. In the interim, the departments were instructed to seek what is known as block allocation — funds outside of SE&LD core funding that are drawn from a general pool of money for special projects and require a separate application process.

With the appointment of a new minister of education and secretary of SE&LD, SRP provided briefings to new department heads and the secretary to revive the work done, so that the government would be in a position to allocate the necessary long-term funding to sustain SRP activities. While the secretary of education opposed making changes to individual budgets, and department heads seemed hesitant to take risks to promote their EGR plans, persistence and the quality of the work began to shine through. After a programmatic review, the new secretary of education became interested in SBEP and its overall sustainability and accountability measures. He requested that the PMIU revise and update the original internal government funding document, the PC-I proposal, which covers all SBEP activities, including

line items that would sustain successful implementation of reading activities launched by SRP. The 2019 revised PC-I will request another round of funding for the government's contribution to SBEP school construction. This action opened a new opportunity to adjust the approach to helping counterparts obtain funding for sustainability. The project negotiated with the PMIU to include language in the revised PC-I that grants permission to the departments to implement proposals in the context of a wider reform program being promoted by the new secretary.

At the time of this report, the revised SBEP PC-I process is likely to result in a mandate from leadership that will include departmental requirements for sustaining the early grade reading approaches, and political support for departments that they would not have been able to achieve on their own. SRP staff continue to work closely with the PMIU to ensure language in the PC-I related to early grade reading sufficiently provides the mandate needed for future annual departmental budget allocations. Committed partners continue to track progress to ensure that the language includes accountability measures to ensure departments report against improvements in reading practices and outcomes even when the current heads are reassigned, thereby leveraging SRP's trust and relationships. As a result, even with the leadership changes and changing relationship dynamics, SRP's reading priorities are not dependent on SRP's constant follow-up.

INITIATIVES TO PROMOTE EXPANSION AND SUSTAINABILITY VIA PARTNERS

In addition to the many products and processes that bolster the success of a reading program, SRP's attention to developing formal long-term partnerships and memoranda of understanding in places that would strengthen the long-term delivery of services — and ensure that TLMs, for example, could be replicated and delivered to schools across Sindh after the life of the project — are also an indication of sustainability. Beyond the adoption of ownership and procedures within the SE&LD itself, SRP partnerships included organizations with a long-term presence working in formal and nonformal education in Sindh and with the capacity to extend and sustain activities. Many of the opportunities for continued support and delivery of services are listed below:

SINDH EDUCATION FOUNDATION

The SEF is a semi-autonomous entity of the government of Sindh established in 1992 to expand access to education in Sindh, particularly among marginalized populations. It operates a network of 2,100 schools across the province through an innovative mechanism in which it partners with school operators — generally NGOs that work in networks of schools of varying sizes and are paid on a per student basis. This model is designed to ensure accountability and quality with more flexibility than the more centralized, less flexible SE&LD system. The SEF was an active partner and enthusiastically worked to institutionalize good practices in their affiliated schools, and to support the transfer of the Teacher Advice app to a local server for continued use.

SRP signed a memorandum of understanding with SEF in 2017 to adopt SRP-developed TLM and an OTJ model for teachers in the same districts where SRP worked. SRP engaged government-employed master trainers that had previously provided training to teachers under the SRP school-based support activity. SRP provided a five-day training event for SEF's training team and trainers on reading instruction and assessment. SEF reprinted and applied the TLM

and instructional approaches in 915 schools with 3,182 teachers, benefiting 106,122 children in Grades 1 and 2. The agreement included soft copies of all TLM that SEF can continue to reprint and expand across its network of schools in other districts.

SEF adopted SRP's Teacher Advice formative assessment tablet-based application and has begun customization to expand its use across all primary grades and subjects. SEF reports that for the first time its assessment team will begin to incorporate data on student learning to help both teachers improve instruction and the training team design training more closely connected to what learners need. SEF reports that in the past, their teacher training was largely disconnected from student learning and, being more generalized, was less efficient.

THE CITIZENS FOUNDATION

TCF is one of the largest privately-owned networks of low-cost formal schools in Pakistan. The foundation operates a network of 1,482 school units, educating 220,000 students through 12,000 teachers and principals, with over 17,400 employees. TCF aims to bring about an enduring positive change for communities most in need through quality education; enabling moral, spiritual, and intellectual enlightenment; and creating opportunities to improve quality of life.



Memorandum of understanding signing with The Citizens Foundation, 2018 (Credit: Andrew Lewis, Chemonics)

TCF maintains a balanced gender ratio; close to 50 percent of students are female. To achieve this goal, TCF hires female teachers to make parents comfortable with the idea of sending their daughters to school. Each school hires support staff from within the community, who also help convince parents to send their children, especially girls, to school. TCF has won numerous international awards in recognition of its groundbreaking social enterprise model and large scale of influence in improving education in Pakistan. Through its outreach efforts, SRP promoted the importance of focusing on improvement of reading skills in the early grades and the efficacy of school-based OJT for teachers. As a result, TCF has shown interest in using SRP-developed TLM and its professional development approach. SRP provided soft copies of its TLM for TCF to adopt and distribute throughout its 800 primary school units in Sindh.

NFBE PARTNERS

USAID, UNICEF, and JICA came together to offer a unified series of support to SE&LD in developing reform of the NFBE system for lifelong learning. This partnership, known as the Consortium of Development Partners, includes a comprehensive approach to NFBE on a lifelong learning continuum. The partners collaborated to support the NFBE directorate to address key priority areas for Sindh such as teacher recruitment and professional development, curriculum development, teaching learning and supplementary materials, learning assessments for different programs, accreditation and equivalency systems, and institutional strengthening and financing options for the subsector. It also provided funding for innovations and pilot

programs in NFBE with the potential to scale up and mainstream activities such as those implemented directly by SRP.

SRP provided technical leadership on behalf of SBEP partners, with policy support and research sponsored through USAID's SCDP program. UNICEF provides a multi-year needs-based support program and manages the \$66 million Global Partnership for Education grant program. JICA, through its Advancing Quality Alternative Learning project (2014-2019), provides technical assistance in policy, institutional strengthening, standards, curriculum, assessment, material development, and data-driven management.

REFORM SUPPORT UNIT

SRP supported the RSU of SE&LD to impart reading-focused trainings to 1,054 head teachers newly appointed on merit across almost all districts of the province. SRP provided an additional day of training to the RSU's master trainers, who then provided two training events to newly appointed head teachers on the importance of reading, and usage of SRP-developed TLM for Grade 1 and Grade 2. Finally, SRP provided training on classroom-based reading assessment for Grade 1 and Grade 2.

SUPPORTING SUSTAINABILITY IMMEDIATELY AFTER SRP

SRP-PRP COLLABORATION: EXTENDING CONTINUOUS SUPPORT TO SRP DISTRICTS

A strategy to sustain reading gains is to extend additional support to selected schools in SRP districts under the USAID initiative. PRP and SRP have developed a plan for PRP to continue monitoring support to Grade 1 and 2 teachers and students upon the SRP closeout. Per the plan, PRP will work with up to 250 schools with high enrollment in SRP districts to provide reading improvements. The SRP and PRP projects worked together on the selection of at least 250 schools according to the following criteria:

- 1) Sindhi-medium schools in seven districts with high enrollment;
- 2) High priority schools with designated head teachers, preferably head teachers appointed by the provincial education department;
- 3) Schools constructed through SBEP that have been handed over to education management organizations;
- 4) Schools where MSI conducted EGRA2;
- 5) Schools located in security-cleared areas and easily accessible from the PRP intervention districts in northern Sindh; and
- 6) Schools with at least one designated Sindhi teacher to teach Grade 1 and Grade 2.

PRP will continue to provide support to SE&LD and the government of Sindh through the SBEP-PMIU as final decisions are made regarding budget allocations and teacher professional development. It will follow the proposed activities' updates and progress in SRP districts.



**Government of Sindh
School Education and Literacy Department**

Karachi, dated: 3rd January 2017

Notification

No. SED/SO (G-III)/144/2017:- In compliance of Sindh School Education Standards and Curriculum Act No. IX of 2015, the School Education and Literacy Department, Government of Sindh, is pleased to approve Reading Performance Standards and Compliance of Sindhi and Urdu Languages for early grades (ECE to Grade V), developed by the School Education and Literacy Department with the technical support of Pakistan Reading Project and Sindh Reading Project.

SECRETARY TO GOVERNMENT OF SINDH

Karachi, dated: 3rd January, 2017

No. SED/SO(G-III)/144/2017

A copy is forward for information & necessary action to:-

1. The Principal Secretary to Governor Sindh Karachi.
2. The Principal Secretary to Chief Minister, Sindh
3. The Special Secretary, School Education Department, Govt. of Sindh, Karachi
4. The Directorate for Curriculum, Assessment and Research (DCAR) SE&LD, GoS, Jamshoro
5. The Executive Director, Sindh Teacher Education Department Authority (STEDA)
6. The Chief Program Manager, RSU, SE&LD, Govt. of Sindh, Karachi
7. The Director General PITE, Government of Sindh, Shaheed Benazirabad
8. The Chairman, Sindh Textbook Board, Government of Sindh, Jamshoro
9. The Director General/Directors (all) School Education and Literacy Department, GoS.
10. The Program Director, PMIU-SBEP
11. Mr. Anjum Pervaiz, Head of Office USAID funded Pakistan Reading Project.
12. Mr. Fawad Shmas, Chief of Party USAID funded Sindh Reading Project.
13. Mr. Aamir Latif Siddiqui, Senior Coordinator Policy and Systems, USAID funded PRP
14. The Deputy Secretary (Staff) to Chief Secretary Sindh, Karachi
15. The P.S to Minister, Education and Literacy, Govt. of Sindh, Karachi
16. The P.S to Secretary, School Education and Literacy Department, Govt. of Sindh, Karachi
17. The P.A to Additional Secretary(All) School Education Department, Govt. of Sindh, Karachi
18. The In-charge, Website, School Education Department, Govt. of Sindh, Karachi.



SINDH EDUCATION &
LITERACY DEPARTMENT



(Handwritten signature and date)
03/01/2017

(MUHAMMAD QASIM ABBASI)
SECTION OFFICER (G-III)

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