

How-to Guide: Delivering High-Quality Radio Learning



RISING
ACADEMIES

EdTech^{Hub}

Clear evidence, better decisions, more learning.

About this document

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Notes

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Who we are

Rising Academies is one of the fastest-growing, quality-focused education companies in Africa and a Certified B Corp ®. Rising Academies uses high-quality structured curriculum content, intensive teacher coaching, and rapid feedback loops to bring quality to every classroom. At the start of the pandemic, Rising Academies developed the Rising on Air programme that repurposed their proven curriculum content for delivery via existing, widely available technologies: radio, phone, and SMS. This content has now reached over 10 million children in 25 countries.

EdTech Hub is a global, non-profit, research partnership with funding and support from the World Bank, FCDO, and the Bill and Melinda Gates Foundation. EdTech Hub aims to empower people by giving them the evidence they need to make decisions about technology in education.

In June 2020, Rising Academies and EdTech Hub established a partnership with the aim of:

- expanding and improving the Rising on Air web portal;
- developing a community of practice to facilitate collaboration between Rising Academies' partners;
- producing a practical guide on how to implement and evaluate radio-based education programmes.

The partnership formed part of EdTech Hub's small grants scheme that aimed to support organisations to advance and amplify the impact of equitable educational interventions for the most marginalised learners.

Why we made this ‘How-to-Guide’

The Covid-19 pandemic closed schools across the globe and forced 1.6 billion children out of school. Where connectivity permits, traditional instruction has moved online. However, in many contexts, access to the internet is not sufficiently widespread to make this a viable strategy. Fortunately, there are other technologies that are more accessible, even in low-resource settings, for delivering distance learning. This guide focuses on one of the most important: radio.

The purpose of this guide is to provide detailed guidance on how to reach children out of school through radio lessons and complementary SMS. We draw on our own experience in supporting governments and other partners with radio-based distance learning during the Covid-19 pandemic.

If Covid-19 has taught us anything, it is that there is no substitute for great teachers and great schools. A [recent report](#) from Save the Children (it surveyed 8,000 children in 37 countries) found that 8 out of 10 children learned little to nothing throughout the crisis.

But when in-person teaching becomes impossible, we need to find and deploy the best available alternatives — as quickly as possible. Through this guide, we hope to give partners, whether they are still struggling with the best way to support their students during Covid-19 or already looking ahead to the next crisis, the best possible head start.

Save the Children (2020), available at <https://resourcecentre.savethechildren.net/library/protect-generation-impact-covid-19-childrens-lives>



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- 9. Consider scalable and low-tech complementary strategies**
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- 10. Sample documents, tools, and other related resources**

A woman with dark skin and glasses is shown in a radio studio. She is wearing a white shirt and has a professional microphone with a pop filter in front of her. She is looking down at some papers. In the background, there is a blue curtain and a white umbrella light.

Delivering High-Quality Radio Learning

Plan, Adapt, and Tailor

1.1

Be realistic about what you can and can't achieve with radio

- It's important to acknowledge it's just not possible to deliver the same curriculum content children receive in school.
- Children are listening from home, often without visual aids and instructor interaction, and their schedules are impacted by home life and responsibilities.
- Meanwhile, trying to cover too many subjects or individual grade levels quickly drives up the cost and complexity of developing and recording content. Grouping programmes into age groups like 'Lower Primary' streamlines content needs.
- Also, available broadcasting time is scarce: if you fragment airtime across grades, any individual child will receive less content; similarly, if you fragment airtime across subjects, you may limit the depth of possible learning.
- Reflecting on desired outcomes is a key step in the process, and applies to complementary strategies like SMS too.



1.2

Focus on foundational literacy and numeracy skills that promote access and equity

- Many governments and non-governmental partners have opted to focus on doing a few things really well, rather than trying to do everything at once. Less is more.
- School closures can be an opportunity to step back from a typical school timetable and focus on what matters most.
- Many children, even in higher grades, struggle with foundational literacy and numeracy skills, but they are essential to unlocking greater learning and starting with them helps minimise potential student discouragement.
- Rising On Air, as one example, chose to focus on foundational maths and English components that are suited for delivery over radio: phonemic awareness, vocabulary building, and counting fluency (see Appendix for more). Radio (and SMS) can also support parents with reinforcing skills and scaffolding activities during / after lessons.



Foundational skills are universal and not tied to any one curriculum

Partner Stories:

Sierra Leone Ministry of
Basic and Senior
Secondary Education



What they did:

- Targeted grade bands: radio broadcasts were for lower primary and upper primary students as opposed to content-specific to each primary grade.
- Prioritised English reading and maths foundational skills: to support development rather than tying the lessons to specific curriculum content.
- Lesson length and format: lessons were approximately 40 minutes in length, with an additional 20 minutes for listeners to phone in to the broadcast studio to ask questions and give feedback on the lessons.
- Created 'Radio Broadcasting House', which serves as a hub for recording lessons.

2.1

Radio broadcasts can be an opportunity to address other challenges that families are facing

- When schools close, parents are concerned about their children's education, but also for their health and wellbeing. Previous school closures and health crises, such as Ebola, have shown how serious these risks can be.
- The home-based nature of Covid-19 also raised concerns around how else children's safety might be affected, particularly given the emphasis on staying within the home — reportedly, cases of violence within the home doubled.
- Radio lessons can contain messages to reinforce the importance of safety: protecting one's body, appropriate touch; and preventative health measures: hand-washing, social distancing, and wearing a mask.
- They can also be used to provide communities with updated facts and protocols about Covid-19, dispel myths, and increase awareness of safety risks.



AI SPARK

Beyond student learning, school closures also raised questions about teacher engagement and support

Partner Stories: Opportunity EduFinance



What they did:

- Once the highest priority content for students was being delivered, the broadcast schedule of many partners expanded over time to include teacher-facing content focused on their professional development.
- Utilised the Rising On Air teacher professional development scripts as the basis for their own virtual teacher professional development content.
- Used Chalkboard Education, a Learning Management System (online learning platform), to share the content across five African countries.

3.1 When it comes to content, don't reinvent the wheel

- When a crisis hits, time is of the essence. Every day a child spends out of school weakens their connection to the education system.
- To move quickly, look to leverage existing content where possible, keeping in mind that during a crisis this will need to be adapted for a home setting and cannot be kept the same as for a school setting.
- It will almost always be quicker and less costly to adapt materials that already exist than to develop everything from scratch. Look for content that can easily be adapted to the home setting, considering the differences in activities, content, and delivery style.
- Bring together education organisations and stakeholders — at home and internationally — to understand what content exists, what needs to be created, and divide roles and responsibilities.



3.1

Use your own existing content and supplement it with content from other organisations

Partner Stories: Akanksha Foundation



What they did:

- The Akanksha Foundation started a radio programme with a focus on social-emotional learning (SEL), including family safety and wellbeing; pieces from Rising On Air were selected to make the overall radio content more holistic.
- The SEL component included an ongoing series about four friends, one of whom was considering dropping out of school. Songs and activities, sound workouts, a 'number of the week' feature, and a pretend-play section — all modified for local context — were added from Rising On Air.
- Every aired episode ends with a 'call to action' for students and parents to engage in the learning activities and submit responses to teachers, however possible.
- Friday episodes highlight student voices via the responses and allow the host teacher to provide feedback.

3.1

Translating existing content can also help to shrink the time from development to dissemination

Partner Stories:

Innovate Educate &
Inspire (IEI)



What they did:

- IEI had to get lessons up as quickly as possible: they identified existing Rising On Air content and began immediate translation to Urdu, accounting for local context and radio flow.
- The way the original lessons were structured made it easy to adapt; IEI extracted all of the desired vocabulary from the lessons to vet it and match it to their students.
- Included health messaging, and pulled out story time (the story read-aloud section) to be stand-alone weekend segments, being mindful of radio lesson time thresholds (35–40 minutes each). See Appendix for audio example.
- Coordinated with Radio Pakistan to get the lessons distributed via local stations in rural areas.

3.1

Use existing content to allow teams to focus on the practical logistics of getting on the air

Partner Stories: Impact Network



What they did:

- Impact Network's primary goal was to maintain connection with families, and they chose to start with the existing Rising On Air content to achieve this objective.
- Tested out literacy scripts first since these took longer to adapt and translate; numeracy scripts went much quicker.
- Involved local radio stations to reach rural areas; Ministry coordination was required for national distribution.
- Teachers also conducted home visits to check on families and monitor student safety, and check on learning progress.
- Built radio scripts for their local context and language in Zambia — an initial set of 4 weeks of lessons built before they started airing, and radio lessons aired for a total of 20 weeks.

3.1

Develop a clear and repeatable structure to lessons that all content developers can and will follow

- Start by creating a lesson scope and sequence for the full programme so lessons build on each other appropriately.
- Repeatable structure makes it easier for those writing and recording lessons, and makes content easier to follow for listeners who know what to expect lesson to lesson. You can also recycle previous recordings of repeatable sections.
- Determine simple, engaging activities that can be done over radio and progress in difficulty as foundational skills are built.
- For example, to teach new vocabulary in ECE or Lower Primary, keep the same structure, and change the words: 1. Say word in a sentence 2. Clap number of words in a sentence 3. Clap syllables of new word 4. Have students act out word.
- Create opportunities where teachers model skills and then practice them on-air, and where students can try things on their own; address common errors later in the radio lesson(s).



3.1

Make lessons fun and engaging. Consider activities, breaks, and intentional interaction

- Script lessons to be interactive, with multiple teacher and student voices and exchanges; model good instruction, including chances for teacher feedback and student inquiry.
- Limit uninterrupted teacher speaking time and keep each piece of new information or instruction concise. Repeating instructions and / or adding in-script clarifications helps ensure understanding — allow children to use their listening skills and reinforce this via lessons.
- Include SEL activities in your lessons to build character development and coping skills.
- Provide mental breaks: be realistic about a child's attention span, and incorporate songs and activities; use movement to encourage active engagement (e.g., stand up if the answer is 'no', sit down if 'yes') and consider having special recognisable 'pause' music played during breaks where students complete a task.



3.2

Maintain teacher connections and improve readiness for school return with radio-based professional development

- Teachers are out of school too. Rather than allowing their skills to stagnate or diminish, this can be an opportunity to expose teachers to what high-quality, engaging lessons sound like and to equip them with practical strategies that they can use when they are back in the classroom.
- Teacher training broadcasts may help teachers to maintain their professional identity and sense of community.
- Provide an overview of a pedagogical techniques combined with explicit classroom examples.
- Radio broadcasts can present pedagogical knowledge, provide suggestions and tools for practice, and prompt reflection.
- Provide guidance for distance practice and share ideas for how they might access professional learning communities.



A woman with dark skin and glasses is speaking into a professional microphone in a radio studio. She is wearing a white shirt and has a focused expression. The background is a blue curtain, and a white umbrella light is visible behind her. The text 'Delivering High-Quality Radio Learning' is overlaid in the top right corner.

Delivering High-Quality Radio Learning

Implement and Execute

4.1

An organised approach is key to success

- Agree on a daily routine with your team (e.g., recording in the morning and editing and preparing scripts for the next day in the afternoon) and designate roles (e.g., writers, recorders, technicians, etc.).
- Decide or agree on a standard structure or template for the recording, including knowing where / when standard jingles or musical interludes will be used (if you are working with any partner(s), they should be involved in this planning).
- Print paper copies of the scripts to have on-hand for easy reference.
- Try to record without stopping - relax and don't worry about mistakes - you can use the printed scripts to make marks and indicate where editing will need to be done to correct those mistakes later.



4.2

Make the best quality recordings you can, but don't worry if you don't have a studio.

- Some Rising On Air partners had access to professional recording studios, but many didn't. With a little thought, you can find alternatives.
- Find a quiet room with no background noise. Reduce any echo in the room by stacking / hanging cushions, sheets, or any other soft materials next to the walls.
- If you're unable to outsource production to a team with the necessary equipment, use a phone voice recorder.
- Practise before you record. The importance of practice is especially relevant for content that focuses on foundational reading skills, like phonics: make sure you are confident with the sounds, blends and words in the lesson — a practice partner is especially helpful here.



4.2

Make sure to keep effective classroom practices in mind throughout the recording process

- The scope and sequence should include a new skill weekly. Each lesson should review previously taught content to make up for missed broadcasts. The repetitive lesson structure creates multiple chances for student engagement per skill.
- Be mindful of pace: a slower, clearly articulated pace is needed for children (particularly young ones) to understand radio lessons, especially if the on-air language is not their primary one. Pause after answering questions — allow students time to think about answers or share with others listening along.
- Use more than one voice in each recording, as multiple voices keep the content interesting for the listener and allows for breaks and more natural dialogue for those speaking.
- Use the same voices consistently across radio lessons, so that children become familiar with the presenters, and ensure a positive and excited tone to convey you're happy to be sharing the lesson with your listeners.



5.1

Maximise your reach by identifying your target audiences and the radio stations they listen to

- Take time to map radio coverage — national stations might have large-scale reach but can still have gaps.
- Partnering with local radio stations can be an effective way to reach communities and a means of more actively engaging with organisations in those communities.
- Local partnerships can also help create buy-in and engagement at a district- or community- level, especially when combined with community-driven marketing and awareness campaigns.
- Local stations allow for local language considerations specific to those communities, particularly for any public health- and / or safety-related messaging.
- Re-airing lessons across stations gives families an opportunity to tune into lessons they may have missed.



5.2

Consider a range of distribution channels once the content is developed and recorded

Partner Stories:

Schorge of Koudougou High School



What they did:

- Schorge of Koudougou High School broadened their reach and maximised the potential of high-quality audio content through use of multiple modalities, while students were out of school.
- Used scripts to create prompts / exercises that were sent to students and families by audio on WhatsApp.
- Printed the content and involved literate parents / neighbours in reading the scripts and overseeing exercises for children.

5.3

Enhance the effectiveness of radio learning through community-based teacher and senior student support

Partner Stories: Mango Tree Literacy Lab



What they did:

- Mango Tree assigned Listening Centre Coordinators (LCC) (teachers) to oversee radio listening centres in five villages.
- Listening centers are typically in community homes and house about 10 children of similar grade bands, along with two co-teachers, who use a shared radio.
- Older students in the community took on a 'co-teacher' role, similar to a student role in an earlier reading mentor programme.
- This approach has led to a rise in informal coaching touchpoints among students where co-teachers support younger students even outside their formal co-teacher role.
- LCCs and a guidebook for 'co-teachers' provided training and support for the co-teachers
- Community of practice meetings help 'co-teachers' prepare for supporting during lessons and honing leadership skills.

A woman with dark skin and glasses is shown in a professional recording studio. She is wearing a white t-shirt and a black headset with a microphone. She is looking down at a stack of papers in front of her. A large, gold-colored condenser microphone is positioned in front of her, protected by a black pop filter. The background is a blue curtain, and a white umbrella light is visible behind her.

Delivering High-Quality Radio Learning

Evaluate and Iterate

6.1

In the design stage, build content and solicit feedback quickly

- Use a rapid, iterative approach: seek feedback on scripts and recordings from government partners, other education organisations and teachers. Focus particularly on pace and other potential barriers to understanding.
- Seek feedback from children themselves: pilot or run a 'dress-rehearsal' with 3–5 students of an intended age group. Observe how they listen and engage with the lesson, and ask for their feedback.
- Simple approaches for testing and gathering feedback allow the iterative adaptive process to happen more quickly and efficiently.
- This approach to iterative feedback and revision can be applied to strategies that are complementary to radio programmes as well (see SMS Supplement, section 9).

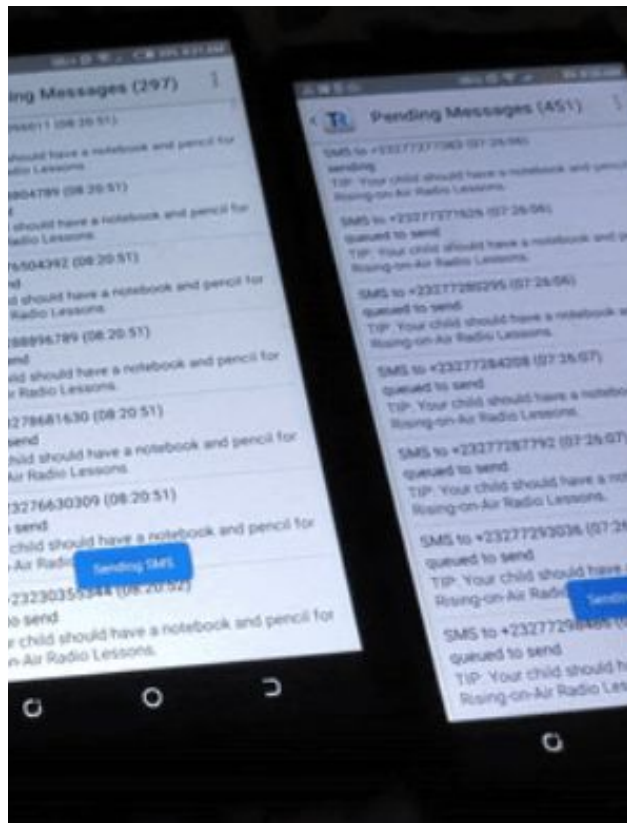


7.1

Improve interpretation of impact evaluation results and understanding of implementation via monitoring

Here is an important set of initial questions to consider with the delivery of radio lessons:

- Are families even listening to the broadcasts?
- If families are listening, how often are they listening?
- Is listening prompting them to do other educational activities, like reading?



7.2

Help build the evidence base for radio-based distance learning

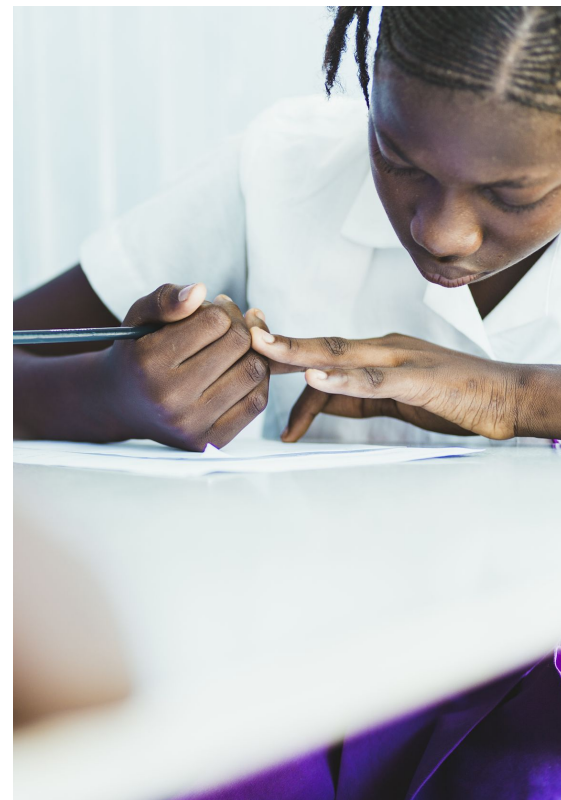
- Much of the existing evidence on radio-based learning focuses on its use alongside regular classroom instruction. Too little is known about its effectiveness in crisis settings.
- If you can, think about how you can evaluate the impact of your distance learning approaches — what is and is not working — not just to improve your own delivery but to contribute to building the evidence base for the future.
- Outcomes you might want to track are:
 - Student and parent engagement and satisfaction with lessons
 - Percentage of students accessing radio content
 - Listening comprehension
 - Learning gains (or reduced learning losses)
 - Re-enrolment and attendance when schools reopen



8.1

Assessments of student learning outcomes inform programme delivery and improve understanding of impact

- Prioritise ongoing monitoring and evaluation.
- If there is no recent data on student learning outcomes, then assess student learning as soon as possible to determine the baseline, or starting point from which future comparisons can be made.
- Plan the timing for future assessments, balancing the need to give time for student outcomes to change with the need to give feedback to adjust instruction.
- Keep assessment tools simple to administer to ensure cost-effectiveness: reduce the call time of phone surveys and avoid concerns with student concentration for extended periods.
- Practise and pilot!



A woman with dark skin and glasses is shown in a radio studio. She is wearing a white shirt and a headset with a microphone. She is looking down at a script or document. In front of her is a large professional microphone with a pop filter. The background is a blue curtain, and there is a white umbrella light visible behind her.

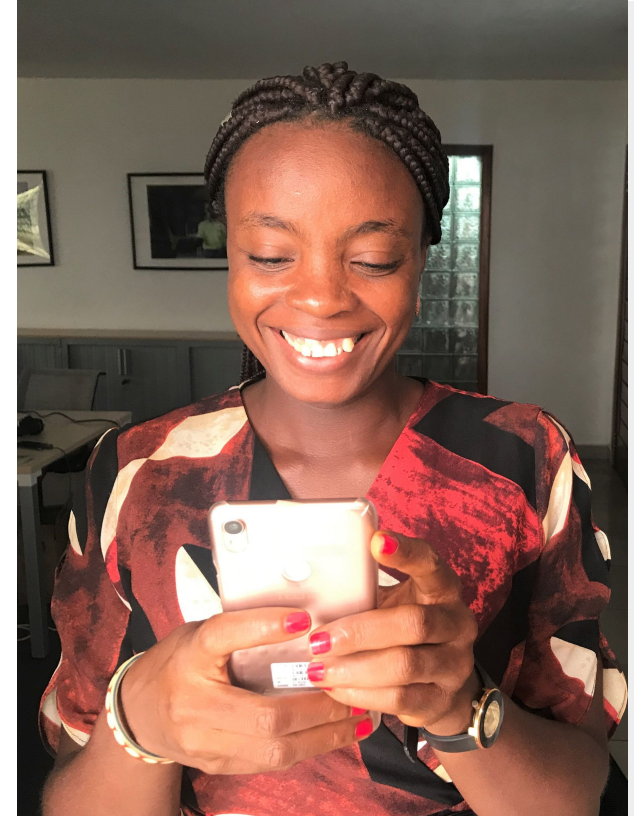
Delivering High-Quality Radio Learning

**Using SMS to
Complement Your Radio
Programme**

9.0

Consider other scalable, low-tech strategies to make radio more effective as radio alone is unlikely to be enough

- It's important to supplement radio lessons; consider using SMS as an opportunity to learn from stakeholders and iterate your approach.
- Before launching a full SMS series, piloting SMS content with parents provides a lot of key insights, including the degree of awareness around radio lessons already airing.
- Organisations can make adjustments to marketing and mass communication about available distance learning to address parent concerns about their children being out of school.
- Families experiencing higher levels of stress both generally and due to their children being home (e.g., "I'm yelling more than I was before"), further highlight the need for remote instruction.



9.1

It's important to think about the desired outcomes and whether SMS is a strategy to achieve those outcomes

Partner Stories: Results for Development



- R4D recommends using a causal chain approach (example on following slide) to test assumptions and iterate the design of SMS programmes.
- Consider whether the focus is educational outcomes (e.g., providing academic content while schools are closed) or informative outcomes (e.g., improving communications with families of your schools).
- Once clear on desired outcomes, conduct small pilots by sending test SMS messages to a sample of parents.
- A key step is conducting follow-up calls afterwards to ask stakeholders about their experiences.
- Team members can send test text messages directly from their phones, which doesn't require any special software and helps quickly gather results and feedback.

9.1

Causal chain diagrams help to map out and visualise expected outcomes

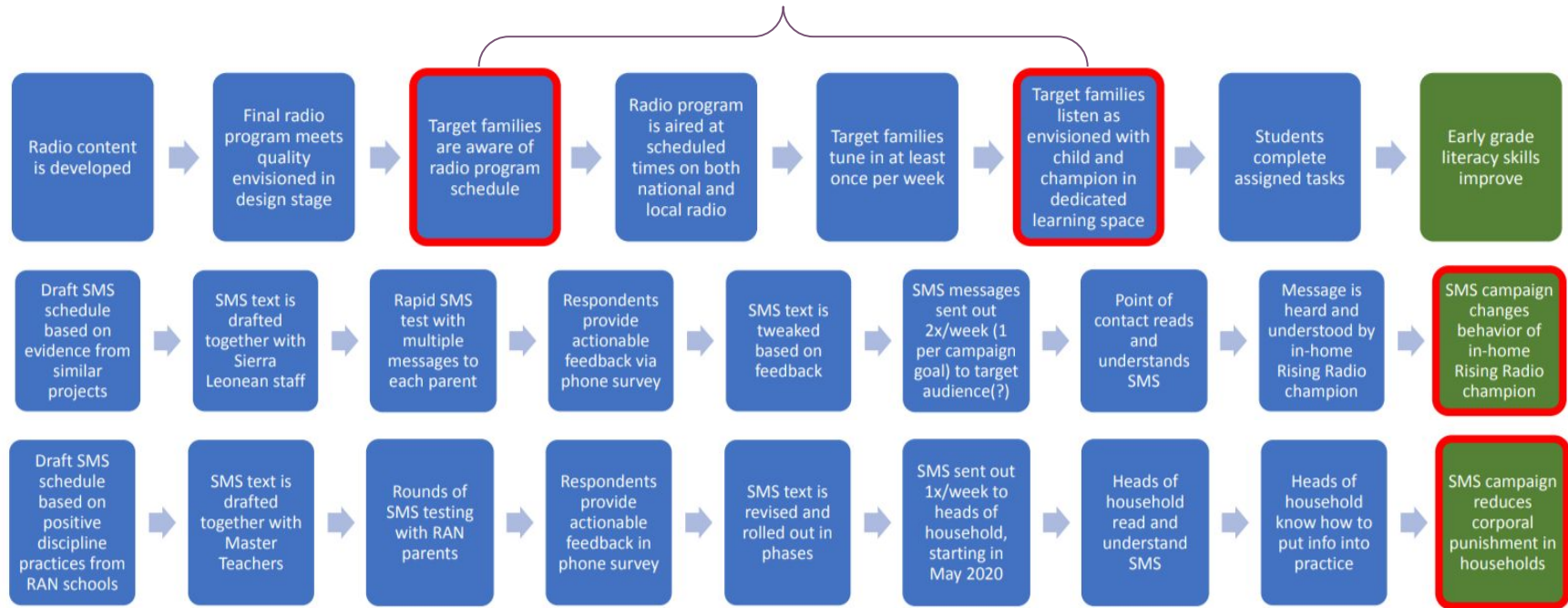


Strengthened by
SMS campaign



Project
goal

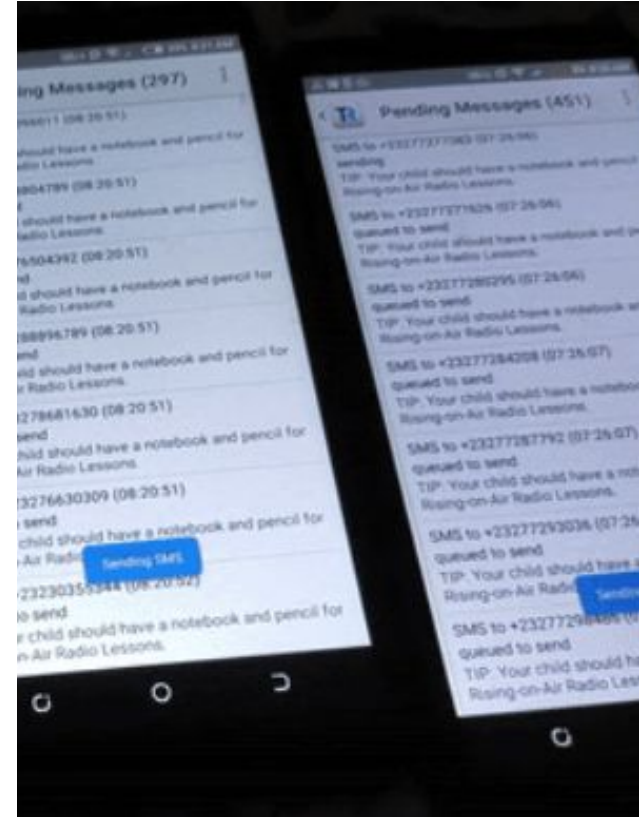
- Identify key instances where SMS will impact outcomes; here, it served to remind families of the radio lessons and encouraged parents (champions) to help their children, respectively.



9.2

After defining and validating your SMS purpose, it's necessary to build your SMS infrastructure

- Technical infrastructure is an important step as the right platform will depend on what is available in the country you are in and what type of functionality matters to you.
- Evaluate and compare different software platforms and tools (e.g., SMSGlobal, Telerivet, CommCare, Twilio, InfoBip) to determine how to efficiently send hundreds or thousands of text messages at a time.
- In many countries mobile network operators (MNO) also offer these services (fees may apply), but effective implementation depends on the time, experience and work schedule of the mobile operator.
- MNOs or online SMS platform services may be able to provide toll-free numbers for free family contact; virtual numbers and short-codes permit an organisation's name to display as the sender.



9.3

Develop and test content to determine what works for your audience

- Tests help familiarise your team with platform functionality and implementation challenges, and provide an estimation of resources required (time, money).
- Generate contact lists (electronic, ideally) by asking school principals and teachers to create a student roster, with contact numbers (two, ideally), school name, and grade level.
- Try out different content and message lengths (see sample content from mock 20-week plan in Appendix), and collect feedback from parents: what works and why?
- Try sending SMS at different times of the day to learn the best times to reach parents; be aware some parents only switch on their phones during the weekends.



9.3

Learn and improve as you go: monitor your progress weekly to allow for course correction as needed

- Monitoring will raise your understanding of the targeted families' needs and perception of the SMS programme.
- Some SMS platforms collect data for you (e.g., quantity of messages sent and received, quantity of calls, time and date, etc.), and if two-way communication is enabled, you can also download this data for analysis.
- Gather feedback from your network of teachers and school leaders: share SMS content internally and adapt content to the context of the student population.
- Calls and replies to SMS also generate valuable feedback from students and families.
- Conduct surveys with families, covering their child's wellbeing, academic activities, and general feedback.



A woman with dark skin and glasses is speaking into a professional microphone. She is wearing a white shirt and has a focused expression. The microphone is a gold-colored condenser mic with a black pop filter. In the background, there is a blue backdrop and a white umbrella light. The text "Delivering High-Quality Radio Learning" is overlaid in the top right corner.

Delivering High-Quality Radio Learning

Appendices

10.1

Sample content overviews: early childhood

English

Phase 1: 12 weeks

ECE Example Lesson Structure

Part	Title	Description	Focus Skills
Part 1	Sentence Warm up	Students listen to a sentence, determine the number of words, clap the syllables, and understand the meaning of new vocabulary	Oral language, phonological awareness, early language
Part 2	Mindfulness	Students engage in a calming and attention building activity such as breathing, balancing, stretching and focusing on a sound or color	social-emotional learning

Part 3	Sound Workout	Students compare and contrast letter sounds	Phonemic awareness and foundational phonics
Part 4	Pretend Play	Students participate in activities that build fine motor skills (such as tracing, drawing shapes and small hand movement) and gross motor skills (such as jumping, hopping and dancing)	Motor skill development
Part 5	Story time	Students listen to a story and review story elements	Oral language, vocabulary, reading comprehension

Maths

Phase 1: 20 weeks

ECE Example Lesson Structure

Part	Title	Description	Focus Skills
Part 1	Counting Warm up	Students practice counting 0-100 by 1s, 5s and 10s in a variety of ways	counting fluency
Part 2	Mindfulness	Students engage in a calming and attention building activity such as breathing, balancing, stretching and focusing on a sound or color	social-emotional learning
Part 3	Number of the week	Students build foundational	number recognition and

		mathematical skills with a new number each week such as one-to-one correspondence, addition, subtraction, writing and manipulation	manipulation, foundational addition, subtraction, comparison, one-to-one correspondence
Part 4	Pretend Play	Students participate in activities that build fine motor skills (such as tracing, drawing shapes and small hand movement) and gross motor skills (such as jumping, hopping and dancing)	motor skill development
Part 5	Shape Workout	Students learn about a new shape each week	shape geometry

10.2

Sample parent survey

1. Last week, did your child listen to the radio lessons?

If no: Why not? [e.g., no radio, not aware of lessons, not home]

- a. If yes: How many days did your child listen last week?
2. Typically how long did they listen to the radio lessons each day?
 3. Did your child listen alone or with others?
 - a. If with others: Who typically listens with your child? (e.g., adult, older sibling, younger sibling, neighbours)

4. Did you listen to any radio lessons last week?
 - a. If yes: From the last lesson you listened to, what did you like the most? What did you dislike the most? Do you have any suggestions for how the lessons can be better?
5. Do you think lessons on the radio are a good idea — are they helpful?
 - a. If yes, why?
 - b. If not, why?
6. Do you want the radio lessons to continue?

10.3

Sample student phone assessment

Assessments like this were developed to align with the basic skills progressions taught in the Rising On Air radio lessons

- Assessments were piloted with students and then validated against the students' literacy and numeracy scores assessed in-person a couple months prior, before the closure of schools.
- Essentially, this meant checking whether there was a sufficiently strong correlation between their literacy and numeracy levels on the two types of assessments.

Sample Assessment	
Literacy questions	
Enumerator Script	Enumerator Guidance
We are now going to do some reading and math activities ok? Are you ready? Make sure you have a pen/pencil and a notebook/piece of paper with you, as we will write things there!	Enumerator: Please be aware this part assesses the student's English reading and math levels. We want to be as precise as possible. Repeat the question if the student did not understand and make sure your English accent and pronunciation are correct. But do not help the student or lead to the correct answers, be neutral.
We are going to practice letters in the alphabet together. I will say four letters and then I want you to tell me which one comes next. Let's do an example: A, B, C,... which letter comes next? Yes! It is letter D!	
Now your turn: J, K, L, ... Which letter comes next?	Mark correct if student says M
Now I will say a word, and I want you to tell me which is the first letter of that word. Let's do a practice! What is the first letter of the word CAT. Yes, the first letter is "C".	
Now your turn! What is the first letter of the word: "TREE"?	Mark correct if student says T
I am going to name a letter and I want you to tell me the sound it makes. If I say a vowel, I want you to tell me the short vowel sound. Let's do an example together first with the letter F. The letter F makes the sound /f/. Are you ready to try?	
Enumerator: Read the following letters and wait for the child's response after each one: P, X, O	Mark the letter in the options ONLY if the student correctly sounded it out.

I am going to say a word and I want you to spell it for me Let's do an example together first with the word PAN. The word PAN has the letters P-A-N. Are you ready to try?	
Enumerator: Read the word out loud and with good pronunciation and wait for the child to respond with the letters one by one: BOT	Mark correct if the student name the letters B - O - T
Enumerator: Lets do another word. This time I want to tell me the letters in the word: RAM	Mark correct if the student name the letters R - A - M
I am going to spell a word for you and then I will ask you to read the word for me. Let's do an example together first. The word is spelled: T-R-U-N-K. Please write the letters T-R-U-N-K. Let's read the word together. /t/ /u/ /n/ /k/ trunk. Are you ready to try?	
Enumerator: Spell out the letters G - R - U - N - T and wait for the student to write the letters and then pronounce the word. Mark Correct if the pronunciation is correct. G-R-U-N-T	Enumerator: DO NOT READ THE WORD. Remember the student needs to write the letters you read, and then read the complete word for you
Next question! Let's do an example together first. I want you to spell the word CHOP for me. Please tell me how to spell the word. The word is spelled [read letters] C - H - O - P. Are you ready to try?	
Enumerator: Read out the word CRAB and wait for the student to spell it. Mark Correct if the student spell out the letters correctly. C - R - A - B	Enumerator: read out the WORD, and wait for the student to spell out the letters
Let's do an example together first. The word is spelled [read letters] N-O-T-E. Please write the letters [read letters] N-O-T-E. Let's read the word together. /n/ /o/ /t/ /e/. NOTE. Are you ready to try?	Enumerator: remember the students needs to write the letters you read, and then read the complete word for you
Enumerator: Spell out the word [read letters] B - R - A - K - E and wait for the student to pronounce it. Mark Correct if the pronunciation is correct. B-R-A-K-E	Enumerator: DO NOT READ THE WORD. Remember the students needs to write the letters you read, and then read the complete word for you
Let's do an example together first. I am going to say a word and we will spell it later. The word is [read word] CUBE. We spell it [read letters] C-U-B-E, cube. Are you ready to try?	

Enumerator: the word is TONE. Can you spell it for me? Mark correct if the student spell out the letters correctly: T - O - N - E	Enumerator: read out the WORD, and wait for the student to spell out the letters
Story	
I am going to read you a story. I will read the story two times and then I will ask you some questions about the story. Are you ready? "Kadi's pencil broke. She needed her sharpener. She got it out of her book bag"	Enumerator: read the story twice
Who got something from her bag?	Correct answer: Kadi
What did Kadi get from her book bag?	Correct answer: A sharpener
Why did Kadi get her sharpener?	Select the option that better reflects the student's answer. Note that the last option is more explanatory and requires students to make more sense of their answers.

Sample Assessment	
Math questions	
Now we will do a Math activity! Remember to use your pencil and notebook to help answer some of the questions!	
I will count forward three numbers and I want you to tell me which number comes next.	
Let's do one together. I will start counting 1, 2, 3... what number comes next? It is 4!	
Now your turn. I will start counting and want you to tell me which number comes after: Enumerator: Count 6, 7, 8, ... And wait for the student to say the number after 9	Correct Answer: 9 (nine)
I will count backwards three numbers and I want you to tell me which number comes next. Let's do one together. I will start counting 4, 3, 2... what number comes next? It is 1!	
Now your turn. I will start counting and want you to tell me which number comes after: Enumerator: Count 5, 4, 3, And wait for the student to say the number after 5.	Correct Answer: 2 (two)
Now I will tell you three 1-digit numbers. I want you to read the whole number for me. Let's do a practice example. Take your notebook and write the numbers 1, 3 and 5. Now we read them together. 135 (One hundred and thirty five). Ready to try?	
Write the numbers 1, 3, 9. Now read the whole number for me	Correct Answer: 139 (one hundred and thirty nine)

Now we'll do some problems relating to place value. Remember to use your notebook!	
Let's do one together. How many tens are in the number 20? There are 2 tens	
How many tens are in 87?	Correct Answer: 8 (eight) tens or 8 tens and 7 ones
Let's do another one together. How many hundreds are in the number 300? There are 3 hundreds	
Now your turn. How many hundreds are in 531?	Correct Answer: 5 hundreds or 5 hundreds, 3 tens and 1 one
Practice item: how many hundreds, tens and ones are in 422? There are 4 hundreds, 2 tens and 2 ones	
How many hundreds, tens and ones are in 643?	Correct Answer: 6 (six) hundreds, 4 (four) tens and 3 (three) ones
Now we will do some addition problem. Use your notebook! Let's do one together. What is $1+2$? $1+2 = 3$.	
Your turn now! What is $4+1$?	Correct Answer: 5 (five)
Now a bit more difficult. Let's do it together: What is $11 + 8$? It is 19	
Now your turn: What is $7+5$?	Correct Answer: 12 (twelve)
Last addition problem. First we do it together. What is $22 + 45$? Use your notebook. It is 67!	
Now your turn. What is $41+27$?	Correct Answer: 68 (sixty eight)
Now we will do a subtraction problem. Let's start together: what is $4-2$? It is 2	
Now your turn: what is $5-2$?	Correct Answer: 3 (three)

More subtraction. Let's practice another exercise: What is $24 - 5$? Use your notebook. It is 19!	
Now your turn. What is $14-7$?	Correct Answer: 7 (seven)
Last problem. Let's practice another exercise: What is $58-19$? Use your notebook. It is 39!	
Now your turn. What is $84-26$?	Correct Answer: 58 (fifty eight)
Thank you for staying with me and answering all the questions! I hope you enjoyed it. This is the end of the call. Have a very nice day and stay safe.	

10.4

Sample six-week SMS message schedule

Message Types

Introduction	Schedule reminder	Radio prep tip
Radio listening tip	After the lesson tip	Friendly encouragement

Week #	Monday	Tuesday	Wednesday	Thursday	Friday
1	A Radio Education Program is starting. Listen next week on 98.3.	Listen at 9AM and 10AM on 98.3. Radio Education Program starts on Monday.	Your child can learn at home. Listen to Radio Lessons. Next week on 98.3 9AM to 11AM.	98.3 Radio Schedule: G1-3-Reading & Math 9AM G4-6-Reading & Math 10AM	98.3 Radio Schedule: G1-3-Reading & Math 9AM G4-6-Reading & Math 10AM
2	Radio Lesson - 98.3 FM: G1-3 Maths and Reading - 9AM G4-6 Maths and Reading - 10AM		TIP: Prepare a quiet place in the house to listen to radio lessons.		TIP: Your child should start radio lessons on time.

Week #	Monday	Tuesday	Wednesday	Thursday	Friday
3	Radio Lesson - 98.3 FM: G1-3 Maths and Reading - 9AM G4-6 Maths and Reading - 10AM		TIP: Your child should have a friend or helper to listen to the radio with them.		Congrats! We have done 2 weeks of radio lessons! Thank you for helping your child!
4	Radio Lesson - 98.3 FM: G1-3 Maths and Reading - 9AM G4-6 Maths and Reading - 10AM		TIP: Your child should listen to radio lessons in a quiet place.		The teachers from [ORG.] say THANK YOU for helping your child with radio lessons.
5	TIP: Your child should have a notebook and pencil for radio lessons.		ASK: After the radio lesson, ask your child: "Please tell me about a story you heard".		Your child has listened to 1 month of radio lessons. Congratulations!
6	TIP: Tell your child you are proud of them for doing their radio lessons.		ASK: After the radio lesson, ask your child: "Show me how you count numbers".		[Person X] sends greetings. Thank you for listening to radio lessons.

10.5

Catalogue of example radio lesson activities

Activity	Description
Sound collage	Sort materials and objects gathered from around the household by the first sound the name of the object makes
Counting warm-up	Counting to 10, first using a call and response with the on-air teacher, starting with 0; then once all the way to 10, can do it in a whisper voice, quickly, using fingers, etc.
Writing about a subject	On-air teacher narrates a situation and then the students have to draw the situation and write about how it would make them feel
Sensory bin	Student and family gather materials from around the house (e.g., cloth, stones, beads, etc.) and create labels for each item, as sight words, and then race to find the right words and read them

10.6

Sample audio content from Liberia and Pakistan

Sentence Warm-up

Today our practice sentence is: **apples are delicious**

You will listen, while I say the sentences 2 times. Then, I will tell you when it is your turn to say it.

Ready? Listen first:

apples are delicious

apples are delicious

Okay, when I say "your turn", then we can all say it together. Ready? Your turn

apples are delicious

apples are delicious

Wonderful! Now we are going to count the words. You will listen, while I count the words 2 times. Then, I will tell you when it is your turn to try.

Ready? Listen first:

Clap each word **apples / are / delicious** - 3 words

Clap each word **apples / are / delicious** - 3 words

Okay, when I say "your turn", then we can all clap it together. Ready? Your turn

Clap each word

apples / are / delicious - How many words? **3** words

Again - **apples / are / delicious** - How many words? **3** words

Excellent! So we know our sentence has **3** words.



Liberia



Pakistan

