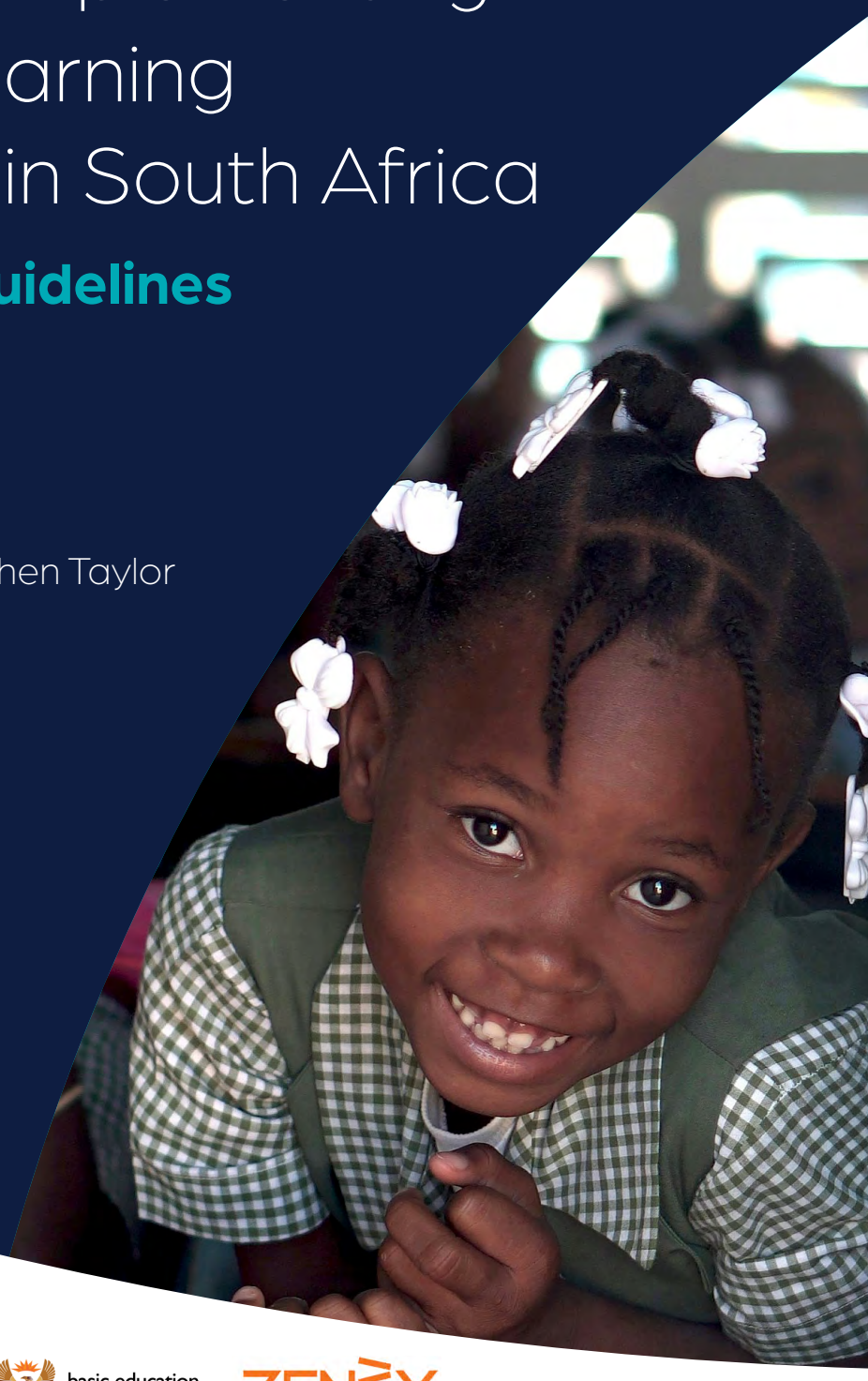
What Works Hub for Global Education

Evidence and Practical Insights from Implementing Structured Learning Programmes in South Africa

Implementation Guidelines



Bianca Böhmer, Anna Murru, Nompumelelo Mohohlwane, Kholosa Nonkenge and Stephen Taylor

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Implementation Guidelines

Nompumelelo Mohohlwane
Department of Basic Education, South Africa
Mohohlwane.N@dbe.gov.za

Kholosa Nonkenge
Department of Basic Education, South Africa
Nonkenge.K@dbe.gov.za

Stephen Taylor
Department of Basic Education, South Africa
Taylor.S@dbe.gov.za

Bianca Böhmer
Consultant
bohmer.bianca@gmail.com

Anna Murru
Consultant
murrua@hotmail.com

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Table of Contents

List of Tables

List of Figures

ABBREVIATIONS and ACRONYMS

3ie:	Initiative for Impact Evaluation
CA:	Curriculum Advisor
CAPS:	Curriculum and Assessment Policy Statement
CPD:	Continuous Professional Development
CRC:	Community Reading Champions
DBE:	Department of Basic Education South Africa
EFAL:	English as a First Additional Language
EGRA:	Early Grade Reading Assessment
EGRP:	Early Grade Reading Programme
EGRS:	Early Grade Reading Study
GPLMS:	Gauteng Primary Language and Mathematics Strategy
HL:	Home Language
HSRC:	Human Sciences Research Council
IRT:	Item response theory
ITT:	Intention to treat
JITT:	Just-in-time training
JPAL:	Abdul Latif Jameel Poverty Action Lab
KPI:	Key Performance Indicator
LTSM:	Learning and Teaching Support Materials
NECT:	National Education Collaboration Trust
NGO:	Non Governmental Organisation
ORF:	Oral Reading Frequency
PMT:	Project Management Team
RCME:	Research Coordination, Monitoring, and Evaluation Directorate
RCT:	Randomized Control Trial
RCUP:	Reading Catch-up Programme
RSP:	Reading Support Programme
RTI:	Research Triangle Institute International
SACE:	South African Council of Educators
SADTU:	South African Democratic Teachers' Union
SD:	Standard Deviation
SLP:	Scripted lesson plans
UJ:	University of Johannesburg
WWHGE:	What Works Hub for Global Education

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Introduction

Since the mid-1990s, the quality of primary education in South Africa has received more attention as several local and international large-scale standardised assessments[1] all showed that most students perform well below curriculum expectations.[2] Children were in school but not learning critical literacy and numeracy skills by the end of the Foundation (Grade 3) and the end of the Intermediate Phase (Grade 6). Functional literacy and numeracy remain below the levels attained by international peers.[3] High levels of inequality in learning outcomes and resourcing; weak instructional practices; and a complex language landscape in primary schools further contribute to these challenges.[4]

Given these challenges, the country has invested in finding solutions and has a rich history of implementing literacy interventions, including undertaking research in this field.

Over the past decade, the Early Grade Reading Study (EGRS) series of research studies has been one of the major contributors to local knowledge and practice in early grade literacy. This work has taken place within the context of robust research capacity in education more broadly. The Department of Basic Education (DBE) has a dedicated research unit called the Research Coordination, Monitoring, and Evaluation (RCME) Directorate which is responsible for guiding and coordinating research within the basic education sector and has been at the forefront in the design and implementation of the EGRS series.[5] These programmes and their evaluations were conducted within the specific context of South Africa.

The findings and momentum from the EGRS studies have contributed to a deeper understanding of effective interventions in the country but have also driven substantial investments aimed at addressing the significant literacy challenges.

Purpose and navigation

The purpose of this document is to provide comprehensive guidelines, with specific examples of effective early grade reading programmes in South Africa. However, some of the lessons learned may be relevant or necessary considerations when implementing similar interventions in different contexts.

This document also offers direction to the process of generating evidence and an overview of the methods and approaches that have been followed to work towards scaling some of these evidence-based programmes.

By offering insights and recommendations rooted in contextually relevant research findings, this guideline aims to:

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[1] Including the Annual National Assessments (ANAs), Southern and Eastern Africa Consortium for Monitoring Educational Quality (SEACMEQ), Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS) assessments.

[2] Spaull, N. (2013). *South Africa's Education Crisis: The quality of education in South Africa 1994-2011.* Centre for Development and Enterprise.

[3] Angrist, N., Djankov, S., Goldberg, P. K., & Patrinos, H. A. (2019). *Measuring Human Capital* (Working Paper 8742; Policy Research Working Paper). World Bank Group. https://openknowledge.worldbank.org/entities/publication/511fdead-a4c9-5634-898f-ee9a6a26f2e4.

[4] Spaull, N., & Pretorius, E. (Eds.). (2022). *Early grade reading in South Africa*. Oxford University Press.

[5] The department sets the sector-specific research agenda, provides guidelines for research protocols; maintains a repository of sector-specific research, dating from 1996; hosts research roundtables, seminars, and workshops to engage stakeholders, and shares research findings. https://www.education.gov.za.

1. **Guide Educational Stakeholders.** Provide non-governmental Organisations, implementers, and donors of educational interventions with guidance on effective programming strategies and choices to enhance early grade reading in South African schools.
2. **Promote Consistency.** Encourage a unified and consistent approach to early grade interventions across the country.
3. **Support Evidence-Driven Investments**: Stimulate informed investments in impactful professional development interventions aimed at improving learning outcomes.
4. **Share good practices**: Provide educational practitioners and researchers with insights into South Africa's journey in evidence-based implementation.

Rather than summarising the key research findings, this document provides background on the research, focusing on the operational details, practical insights, and best practices, developed through the research series. It also provides recommendations, and outlines some of the complexities around scaling the programmes. Each section is divided into: **What was tried, Lessons,** and **Recommendations**.

A Synthesis Report produced in 2025 summarises the key research findings (*link here*).

How to Use This Document

This document is divided into two sections: **Implementation Guidelines** and **Evaluation Guidelines**. The Implementation Guidelines focus on the day-to-day aspects and decisions involved in designing and running an early grade reading programme, while the Evaluation Guidelines share insights and lessons learned from evaluating such programmes.

The document is not meant to be read cover to cover. Instead, it is intended to serve as a reference guide—to dip into for specific guidance, practical examples, and implementation ideas as needed. Readers are encouraged to go directly to the sections most relevant to their current interests or challenges.

However, there are two suggestions. First, it is recommended that readers start with the **Introduction**, which provides useful background information on the programmes. Second, some sections are best read together to offer a fuller picture of how the components interlink in practice. In particular:

Daily Lesson Plans and **Additional Learning and Teaching Support Materials (Sections 1 and 2)** should be read jointly, as these are integrated by design and in delivery.

- **Teacher Training** and **Coaching (Sections 3.1 and 3.2)** are also interdependent and should ideally be considered together to understand how ongoing support builds on initial teacher skills development and preparation.

This flexible structure is designed to support a wide range of users—from programme designers and implementers to policymakers and funders—who may be at different stages of their engagement with early grade reading initiatives.

Links to the What Works Hub for Global Education

These guidelines are developed as part of the What Works Hub for Global Education (WWHGE)[6] initiative, which helps governments implement education reforms at scale and bridge the gap between research and practice to achieve learning at scale.

[6] The What Works Hub for Global Education is an international partnership working on improving education outcomes in low- and middle-income countries. The WWH is a collaborative effort involving organisations, such as the Blavatnik School of Government (University of Oxford), the UK government's Foreign, Commonwealth & Development Office (FCDO), the Bill & Melinda Gates Foundation, the British

The WWHGE is built on three pillars: **Evidence translation, Evidence use, and Implementation science**. This document supports **Implementation science**, serving as a practical tool for governments and stakeholders to apply evidence-based interventions with a focus on scale and sustainability.

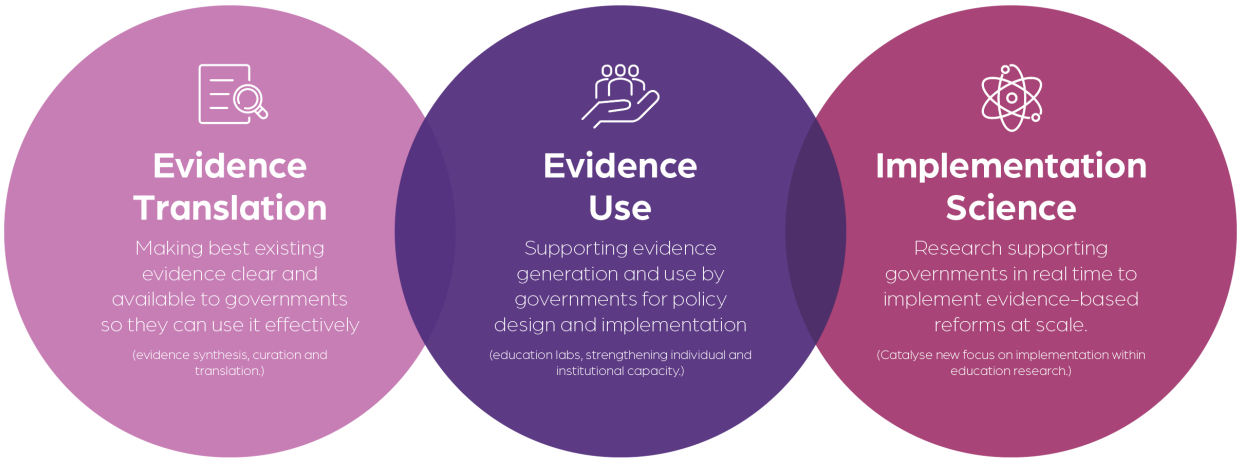

Figure A1: Three Pillars of the What Works Hub for Global Education

The Early Grade Reading Study Research Programmes

The EGRS series was launched by the Department of Basic Education (DBE) in 2015 in response to the growing awareness of the need to develop contextually relevant evidence on how to improve reading in the country, given the core and strategic role that reading plays in early and later learning. Several programme designs were initially explored and, in some cases, tested. In the first Early Grade Reading Study (EGRS) the chosen interventions included a parental involvement intervention, as well as two different variations of a structured learning programme.

Evaluations of these programmes used a mixed-methods approach, blending randomised experiments with more detailed classroom observations and case studies. This approach provides quantitative estimates of the impact of each intervention on Home Language and English as First Additional Language (EFAL) as well as nuance on what components of the programme did or did not work. As a result, it has underlined the importance of literacy instruction in early grades, particularly in home language, to facilitate comprehension and decoding; laying a foundation for future language acquisition and learning.

The EGRS research studies have leveraged previous large-scale interventions aimed at enhancing early grade reading outcomes, such as the Gauteng Primary Language and Mathematics Strategy (GPLMS) and the KwaZulu-Natal based Reading Catch up Programme (RCUP). Both interventions included **curriculum-aligned daily scripted lesson plans**, provision of **additional learning and teaching support materials (LTSM)**, **face-to-face training** and **on-site coaching of teachers.** The learning from these two interventions informed the design and implementation of the EGRS series.

Council, and many others. The WWH focuses on Evidence Translation and Implementation Science aiming to reach up to 3 million children and influence up to 17 million more through its impact on education systems. www.wwhge.org.

The first EGRS also reconfirmed that a combination of **Daily Scripted Lesson Plans**, additional **Learning and Teaching Support Materials** and targeted **Training of Teachers,** with additional **in-person on-site teacher coaching**, led to improved reading outcomes in home language literacy,[7] with children in this group learning an additional 40% of a normal year's worth of schooling (0.24 standard deviations).[8] The combination of elements that make up this intervention is referred to as the **education triple cocktail,**[9] referring to a combination of components that comprised a programme that was *effective* in improving reading outcomes.

Below is an overview of all the EGRS studies, their timeframe of implementation, the methods used, their focus and coverage.

[7] South Africa champions home language instruction for students in Grades 1, 2, and 3, recognising the evidence that reading acquisition is more effective when conducted in a familiar language.
[8] Cilliers, J., Fleisch, B., Prinsloo, C., & Taylor, S. (2020). How to improve teaching practice? An experimental comparison of centralized training and in-classroom coaching. *Journal of Human Resources*, *55*(3), 926–962. https://doi.org/10.3368/jhr.55.3.0618-9538r1
[9] An analogy with the health triple cocktail which helped to slow mortality of HIV-sufferers. In Fleisch, B. (2022). *The education triple cocktail: System-wide instructional reform in South Africa.* UCT Press/Juta and Company (Pty) Ltd.

Table A1: Overview of the Early Grade Reading Studies

Name of study	Implementation Timeframe	Research Timeframe	Research Method	Intervention Focus	School coverage
Early Grade Reading Study I (EGRS I)	2015-2017	2015-2021[10]	RCT, Qualitative & Case Studies	Grade 1-3 Setswana HL Literacy	230 schools in the North West province
Early Grade Reading Study II (EGRS II)	2017 - 2019	2017-2020	RCT, Qualitative & Case Studies	Grade 1-3 English (EFAL) Literacy	180 schools in Mpumalanga province
Reading Support Programme (RSP)	2019 - 2020	2019-2020	RCT& Qualitative	Grade 1-3 Setswana HL and EFAL Literacy	258 schools in the North West province
Early Grade Reading Programme I (EGRP I)	2021-2023	2021-2023	RCT, Qualitative & Case Studies	Grade 1-3 Setswana HL and EFAL Literacy	140 schools in the North West province
Early Grade Reading Programme II (EGRP II)	2024-2025 (Ongoing)	2024-2025 (Ongoing)	RCT, Qualitative & Case Studies	Grade 1-3 Setswana HL and EFAL Literacy	131 schools in the Northern Cape province

Notes: HL – Home language; EFAL – English as a First Additional Language

While each EGRS research programme had unique aspects, they all shared a common focus on targeting learners in Grades 1 to 3. By Grade 4, students in South Africa should be transitioning from learning to read to reading to learn. From Grade 4, learners no longer receive explicit reading instruction to teach them to read. Ensuring strong reading skills are built by this stage is crucial for their future academic success: addressing reading skills early allows for timely interventions and support for struggling readers, helping to prevent long-term academic difficulties.

Nearly all the EGRS interventions included the **"base programme"** consisting of **daily scripted lesson plans, additional LTSM, and teacher training**. This package equipped teachers with the materials and guidance needed to improve literacy instruction.

In some interventions, **literacy coaches** were deployed to support teachers in adopting the new literacy programme. Much of the research explored alternative models through which teacher coaching could be provided. Three different coaching models have been tested: **In-person coaching**, **Virtual coaching** and **In-person Department Head (DH)-led coaching**.

A **Parental Engagement** intervention was included in EGRS I and focused on increasing parental involvement in children's reading development. For this intervention, no direct intervention was provided at the school to teachers.

[10] To further evaluate the sustainability of the EGRS, a fifth wave of data was collected in 2021.

The studies all made use of **formal Impact Evaluations** such as randomized control trials (RCTs), to assess the effectiveness of the interventions. The studies also employed **mixed methods**, including classroom observations, implementation fidelity evaluations, and detailed case studies, to provide both quantitative and qualitative insights.

These guidelines give a detailed overview of components of the interventions—what was done, what worked, what didn't, why, and key lessons learned along the way.

Part A. Implementation Guidelines

This section outlines key design and implementation lessons from structured early grade reading programmes trialled as part of the EGRS series. The guidelines cover the components of structured learning programmes with teacher coaching, and a parent engagement intervention. Rather than focusing on impact findings, these guidelines distil practical insights from the field: what was tried, what was learned, and what is recommended going forward.

Based on research in South African schools, this document shares practical, context-specific strategies that may be relevant to programmes seeking to strengthen foundational literacy in other settings.

1. Daily Scripted Lesson Plans

Daily Scripted Lesson Plans (SLPs) are resources that provide detailed instructions for daily activities; methods and materials to be used and tips on effective classroom management.

Lesson plans also ensure continuity and consistency in teaching, for example by making it easier for substitute teachers to step in without disrupting the learning process.

The development of the SLPs for the EGRS series has been a joint effort by educational experts and researchers. This process also involved a thorough review, incorporating valuable feedback and corrections from district-based Subject Advisors[11] to ensure accuracy and relevance. Changes were also driven by evidence-based practices specifically focused on enhancing reading skills. The SLPs were designed to be adaptable and were regularly updated based on feedback and new research findings to ensure they remained effective.

Deliberate effort was made to iterate wherever possible, leveraging system experiences and enhancing efficiencies in both development and costing.

What was tried

Daily Scripted Lesson Plans provided in the programmes were designed to feature activities aligned with skills and topics in the Curriculum Assessment Policy Statements (CAPS),[12] and allow for curriculum coverage over the course of the term. Effort was made to also incorporate state-provided resources, such as the DBE Rainbow Workbook, which is supplied to all schools.

Daily SLPs provided teachers with step-by-step guidance on how to teach reading effectively. This guidance helped ensure that all teachers followed the same teaching methods and adhered to a consistent routine, reducing variability in instruction quality.

SLPs in the EGRS studies had these features:

- **Included culturally relevant reading and learning materials,** with activities and texts adapted to the language and context—crucial for developing literacy skills.

[11] Subject Advisors are tasked with ensuring accountability, including through school visits, and providing subject-specific support to teachers across the provinces.

[12] The South African national curriculum is often referred to as the CAPS curriculum. The official name is the *National Curriculum Statement Grades R-12*. It consists of three aspects, with the CAPS aspect specifying the scope and sequence to be taught per subject.

- Included interactive and engaging activities that **promote active learning**.[13] The interactive activities encouraged learners to participate actively in their reading lessons, making learning more enjoyable and effective.
- **Incorporated the full spectrum of recommended teaching practices**, especially **small group and individual activities** that help teachers give focused attention to learners—beyond the usual whole-class approach.
- **Promoted regular monitoring and assessment of learners' progress.** This continuous assessment helped teachers identify areas where learners needed additional support and allowed for timely interventions.
- **Included suggestions and practical guidelines on classroom management** techniques and practices**.**

SLPs were provided to teachers either in **hard copy or digital**, loaded on a tablet.

Lessons

- **A high degree of structure is essential in resource-limited contexts**, helping teachers plan curriculum coverage, allocate time for activities and skills in each lesson, and manage physical resources, such as textbooks, digital materials, and classroom supplies.
- **SLPs helped to structure and guide learning.** Based on the EGRS formal impact evaluations, **teachers expressed a general appreciation for the SLPs as they guided teachers in their work**, helping them to cover the curriculum as well as structure their time with their learners.[14] Some teachers, however, expressed feeling pressured to rush through the curriculum.[15]
- **Daily lesson plans need to be delivered to teachers on time.** During the EGRP I (2020-2023) programme, there were significant delays in distributing lesson plans. This impacted the more organised teachers, in particular. Some even resorted to making use of SLPs from other programmes, resulting in confusion and loss of learning time for learners.[16] This was an important lesson for stakeholders.
- **Technology use did not affect efficacy.** Providing the SLPs on tablets did not appear to affect the impact of the intervention. Teachers appreciated the digital format, making use of technology and receiving additional materials in digital form. However, many still preferred using hard copies in the classroom. Several teachers reported transcribing the digital lesson plans onto paper to reference while teaching.
- **Lesson plan format advantages and disadvantages**: Tablet-based lesson plans allow for ongoing updates at a low printing cost but require ongoing technical support for software and hardware replacement. Hard-copy lesson plans allow long-term use without recurring costs, except if reprinting is necessary.

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[13] Taylor, S., Fleisch, B., Cilliers, J., Kotze, J., & Mohohlwane, N. (2022). *EGRS after ten years: Summary of evidence to date.* National Department of Basic Education.
[14] Classroom observation study, Early Grade Reading Study, (2017). Department of Basic Education. p.32; and in Zhou, T., Shilakoe, L., Polzer Ngwato, T., Ting (McClelland), L., & Prew, M. (2024). *Early Grade Reading Programme I Evaluation Findings Summary Report*. Department of Basic Education, Tshwane, p. 28.
[15] *Early Grade Reading Program Evaluation: Case Study Report (*2021). Department of Basic Education. p. 30.
[16] *Classroom Observation Study, Early Grade Reading Study (2017).* Department of Basic Education. p.18.

Recommendations

- **Align SLPs to the curriculum.** In the context of teachers with poor capacity, well-structured curriculum-aligned SLPs, including interactive activities and an integrated set of materials, should be a key component of any intervention aimed at enhancing reading outcomes.
- Build lesson plans **upon existing good ones** rather than creating them entirely from scratch.
- Ensure that there is **explicit incorporation of learning support materials provided through the programme**.
- Ensure that any **materials expected to be found in classrooms,** such as state-provided workbooks, **should also be explicitly incorporated in the SLPs.**
- Ensure that materials mentioned in the SLPs are owned by the state/DBE.
- **Provide SLPs to teachers on time:** These need to be delivered to the teachers well in advance to allow them adequate time to prepare.
- **Strive to make lesson plans accessible also online, in digital format, for teachers to use and print as needed.** However, tablets are not indispensable for SLPs delivery: printing is a more cost-effective alternative.

2. Additional Learning and Teaching Support Materials (LTSM)

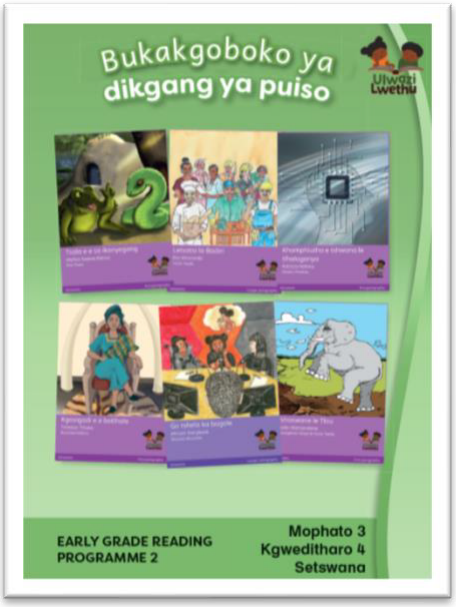
The additional LTSM was a set of reading materials for use in the classroom to enhance and facilitate teaching and learning of reading. The materials were directly linked to the SLPs, providing detailed guidance to teachers on their use during the lessons.

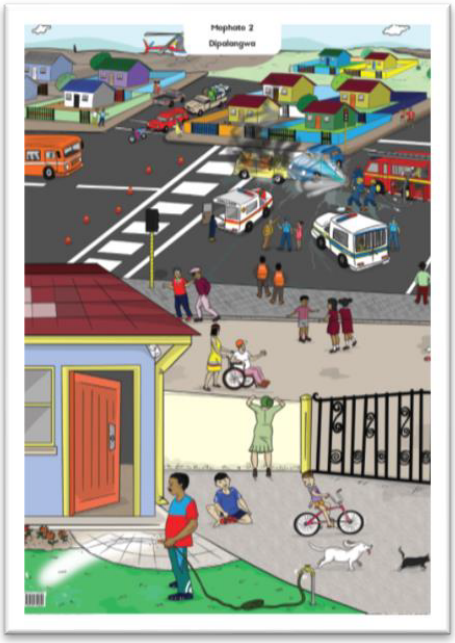
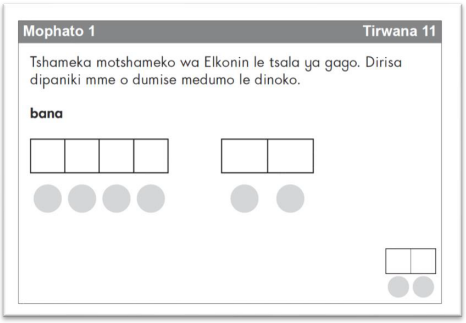
Additional materials were provided to teachers in digital form—on the tablets, such as: digital storybooks and reading passages; tools for evaluating students' progress, including quizzes, tests, and reading assessments; instructional videos; digital games to engage learners and reinforce reading skills; and materials for teachers' professional growth, including training modules and instructional guides.

What was tried

Examples of the major types of additional LTSM that were provided, are shown in the table below. Types of additional LTSM included: graded readers, big books, posters, phonics friezes, flash cards, worksheets, writing frames, curriculum trackers and teachers guides (methodology book).

Table A2: Table with descriptions and examples of types of additional LTSM

Material	How Used	Picture
Graded Readers - Vula Bula/Ulwazi Lwethu	These are in HL and EFAL. Each child receives a book (at their level) for group-guided reading	
Big Books	These are big books that the teacher uses for shared reading, and teaching of initial reading.	

Phonics friezes / sight word flashcards	These visual aids can be used for example to show letters and sounds during a phonics lesson or to practice sight words	
Posters	These were used as visual aids to increase engagement and interest in young learners.	
Writing frames & Worksheets	The writing frames are specific templates linked to the SLPs providing learners with a skeleton outline to scaffold their non-fiction writing (for example key words or phrases). Worksheets were designed to reinforce the lessons taught in the	

	classroom, such as comprehension questions, language usage exercises.	
[Curriculum trackers]	These were provided in an easy-to-use format, allowing teachers to monitor and track their progress effectively and maintain an overview of curriculum coverage over the school year.	TERM 3 TRACKER Week 1: Compassion Day / CAPS content, concepts, skills / Date completed Monday — Activity 1: Daily Activities • Greeting • Rhyme / Song • Theme Vocabulary • Question of the Day • Practice Sight Words Monday — Activity 2: ELS Phonics Monday — Activity 3: Group Guided & Independent Reading • Class: Term 3 Worksheet 1 • Group 1 Tuesday — Activity 1: Shared Reading: Pre-Read • Big Book: Khumo makes a new friend Tuesday — Activity 2: Writing • I showed compassion to... • I saw that he/she felt... • So I... Tuesday — Activity 3: Group Guided & Independent Reading • Class: Term 3 Worksheet 1 • Group 2 Wednesday — Activity 1: Daily Activities • Greeting • Rhyme / Song • Theme Vocabulary • Question of the Day • Practice Sight Words Wednesday — Activity 2: ELS Phonics Wednesday — Activity 3: Group Guided & Independent Reading • Class: Term 3 Worksheet 1 • Group 3 Thursday — Activity 1: Shared Reading: Read One • Big Book: Khumo makes a new friend Thursday — Activity 2: Writing • I showed compassion because ... I felt... • He/she felt... • Compassion is important because... Thursday — Activity 3: Group Guided & Independent Reading • Class: Worksheet 1 • Group 4 Friday — Activity 1: Daily Activities • Greeting • Rhyme / Song • Theme Vocabulary • Question of the Day • Practice Sight Words
[Methodology Book]	These books provided teachers with additional guidance, supplementing the SLPs on pedagogy.	

The materials were culturally and linguistically relevant, supporting students through the stages of reading acquisition in an engaging way.

Graded readers[17] in African languages were the key new resource. They helped learners practice decoding and reading at their developmental level and enabled teachers to provide differentiated support. The Vula Bula[18] graded readers, developed by Molteno, were originally written in African languages, such as isiXhosa, isiZulu, and Setswana. This approach, instead of having translations from English materials, ensured that they were structured around the phonics of each language, aiding learners in their home language (HL) reading acquisition. The content was also more relatable and understandable for children. More recently, these have

[17] Department of Basic Education. (2022). *Early Grade Reading Study (EGRS): Building foundations.* (https://www.education.gov.za/Programmes/EarlyGradeReadingStudy.aspx). South African Department of Basic Education.

[18] Molteno Institute for Language and Literacy. (n.d.). *Vula Bula: Reading in African languages made easy!* Retrieved from https://vulabula.co.za/.

been replaced by the equally well illustrated, engaging and contextually relevant Ulwazi Lwethu readers and storybooks.[19]

Lessons

- Teachers greatly appreciated the additional resources as critical to their efforts in teaching reading, and also appreciated the convenience of having some materials available in an electronic format that schools could print as needed.
- **Graded readers** provided a clear progression in difficulty, helping teachers to systematically build students' reading skills. Group guided reading also provided the teachers with opportunities to provide **individualised attention** to learners. Throughout the programmes, learners were regularly assessed in reading proficiency to assign them the appropriate graded readers and place them into smaller reading groups based on their ability[20] and this proved useful as a tool for assessing students' reading progress, allowing teachers to identify areas where students needed additional support.
- Qualitative evaluations in EGRS I and EGRS II found that **teachers struggled with differentiation and providing individualised attention** and feedback to learners. While they had the tools to do so, they struggled to use them and generally reverted to teacher-centred whole-class, and call-and-response activities.[21] It is also plausible that social and cultural values, such as cooperation and togetherness, may contribute preferences for such whole-class activities.[22] More training and investigation of these practices are needed. Moreover, **the high teacher-to-learner ratios prevalent in South Africa** pose significant challenges to the effective implementation of methodologies like group guided reading as well making general classroom management more challenging.
- **Curriculum trackers** were designed to monitor and support the implementation of the curriculum, ensuring that teachers were effectively using the provided materials and adhering to the prescribed lesson plans. These helped teachers stay organised and focused on their instructional goals, and provided them with a clear framework to follow, ensuring that all students received a similar quality and dosage of instruction. The data collected through the curriculum trackers also enabled programme coordinators to make informed decisions about the effectiveness of the interventions. This data-driven approach helped refine and improve the programme over time.[23]

Recommendations

- **Link LTSM to lesson plans.** It is essential that there is alignment between the provided LTSM and the resources referenced in the lesson plans.
- Make use of open source or DBE/State owned materials. Do not commit to a publisher or the Ministry of Education purchasing books from private sources.
- **Do not change or update materials too often** but rather commit to the governing policy on the LTSM catalogue duration, which is usually aligned with the curriculum

[19] www.ulwazilwethu.org.za.
[20] Khulisa Management Services. (2019). *Early Grade Reading Study Sustainability Evaluation Report (Report No. EGRS I Wave 4)*. South African Department of Basic Education.
[21] Spaull, N., & Pretorius, E. (2022). *Early grade reading in South Africa*. Oxford University Press.
[22] Arenge, G. P. (2023). *Sparking pedagogic change in Southern Africa: Generating middle range theory on how, why and under what conditions teachers start enacting pedagogic change* [Doctor of Philosophy Thesis]. University of Cambridge.
[23] Social Surveys Africa. (2021). *Early Grade Reading Program Evaluation Case Study Report* [PDF]. Zenex Foundation.

review cycle of approximately five years. Changing materials more often, is a resource burden and confuses teachers.

- **Provide curriculum-aligned trackers as part of LTSM.** Curriculum trackers have proven very relevant to supporting teachers teaching literacy in early grades, and, at the same time, monitoring curriculum coverage.
- **Provide age-appropriate graded readers and train teachers on how to make use of them.** While graded readers are excellent tools for providing differentiated reading experiences, many teachers face challenges in utilising them effectively.[24] Experience within the EGRS series has demonstrated that this area is one where teachers often need significant support. As such, it should be an essential component of capacity-building strategies for educators.

3. Teacher development

Children entering Grade 1 often have low levels of oral language skills. However, with adequate support, they should be able to acquire decoding skills in their HL in the Foundation Phase (Grade 1-3). This is not happening effectively, highlighting **the need for further capacity-development of teachers**.[25]

Targeted teacher development is central to EGRS interventions, helping teachers to improve reading instruction, phonics, language teaching, and classroom management. The EGRS series used two approaches: **teacher training** and **teacher coaching**.

The teacher training introduced and familiarised teachers with the SLPs and LTSM, while coaches provided ongoing support to teachers throughout the year on the implementation of the SLPs and classroom management.

3.1 Teacher training

What was tried

The EGRS series employed **direct in-service training,** where teachers were directly trained by the service provider. Whilst teacher training was always included in the base programme, different training frequencies and number of training days were tested.

Below is an overview of the different training lengths in the different studies:

[24] Spaull, N., & Pretorius, E. (2022). *Early grade reading in South Africa*. Oxford University Press.
[25] Mohohlwane, N., Wills, G., & Ardington, C. (2022). Early grade reading in South Africa. *Journal of Education Research, 12*(3).

Table A3. Training days in the various EGRS programmes

Study	Treatment	Term 1 Training	Term 2-4 Training	Comment
EGRS I	**Centralised Training**	2 days	2 days in June	HL only
	In-person Coaching	1 day	1 day per term	HL only, smaller decentralised cluster trainings
EGRS II	**In-person Coaching**	2 days	1 day per term	EFAL only
	Virtual Coaching	3 days	1 day per term	EFAL only, extra day in T1 for tablet orientation
EGRP I	**All schools**	2 days	2 days per term	HL and EFAL
EGRP II	**All schools**	2 days	2 days per term	HL and EFAL

Just-in-time training is an approach in which training is carried out when it is needed, as opposed to advance training.

A **quarterly** just-in-time training approach was employed in all cases, with the exception of the centralised training group from EGRS I.

A decision was taken at the onset of the studies to conduct training in the target language. In the case of Setswana interventions, all training was conducted in Setswana. Ensuring that the implementing service providers had the language expertise and technical vocabulary to deliver this has been prioritised. The approach also ensures consistency and building up of the language-specific technical vocabulary of teachers and provides them with appropriate language for their own teaching.

A comprehensive initial training was held at the start of the year. At the start of the remaining terms, refresher sessions were held, followed by training on term-specific materials.[26] The schedule below provides an example of what was covered in such a teacher-training day.

[26] *Wave 3 EGRS I - Technical Report* (2017). Department of Basic Education, South Africa.

Table A4: Example of the schedule for the EGRP II Grade 1 Term 2 teacher training day schedules for home language and EFAL

Term 2 - Grade 1 Training

Day 1 - Setswana Home Language

Times	Topic
08:00 - 08:45	Dikamogelo le Ditumediso. Rejisitara. Tlhatlhobo yapele. Maikaelelo. Melawana *(Welcoming and Greetings. Register. Pre-test. Purpose. Rules)*
08:45 - 09:15	Go nna le mogopolo/kakanyo e e golang *(Developing Critical Thinking)*
09:15 - 09:45	Thulaganyo le Tsamaiso ya phaposiborutelo *(Classroom Planning and Management)*
09:45 - 10:00	Didiriswa tsa Mophato 1, 2 and 3 *(Teaching Resources for Grades 1, 2, and 3)*
10:00 - 10:15	NAKO YA TEE *(TEA BREAK)*
10:15 - 10:45	Go Reetsa le go Bua *(Listening and Speaking)*
10:45 - 11:30	Medumopuo *(Phonics)*
11:30 - 12:00	Puisokopanelo *(Panel Discussion)*
12:00 - 13:00	Puisokaelo ka ditlhopha *(Group Discussion)*
13:00 - 13:45	DIJO TSA MOTSHEGARE *(LUNCH)*
13:45 - 14:45	Mokwalo. Go kwala *(Handwriting and Writing)*
14:45 - 15:30	Tlhatlhobo e e tlhomameng *(Summative Assessment)*
15:30 - 16:00	Ipaakanyetso thuto le go bokhutlo. *(Lesson Preparation and Conclusion)*

Day 2 - English as First Additional Language (EFAL)

Times	Topic
08:00 - 08:15	Opening and Material verification
08:15 - 08:45	General challenges Foundation teachers experience
08:45 - 10:15	How to use the EGRP 2 EFAL resources
10:15 - 10:30	TEA
10:30 - 11:30	Differentiation
11:30 - 12:00	Types of Reading; Differences between HL and EFAL
12:00 - 13:00	Shared reading: Routines
13:00 - 13:45	LUNCH
13:45 - 15:00	Methodology of Shared Reading
15:00 - 15:15	TEA
15:15 - 15:45	How to prepare and teach Shared Reading
15:45 - 16:00	Complete Post-test and Evaluation form

Lessons

- In EGRS I the **centralised training intervention** (which also included provision of SLPs and other LTSM) had a positive but insignificant effect.[27]
- It was found that JiTT was most effective when conducted alongside the introduction of a new topic, subject, or approach.[28] This approach ensures that teachers receive **immediate, consistent, ongoing** and **standardised support**. In some cases, school principals and other educational staff also participated in the training to better understand and support the implementation of reading programmes.
- **A trade-off is faced when deciding on the training length.** Longer training better prepares teachers, but it often takes time from teachers' weekends and holidays, or classroom teaching. The number of training days depends on the local context and district or provincial norms. Generally, 1-2 days per term was found to be effective. Training that is 2 days or longer may also require accommodation, significantly adding to the cost.

[27] *The Early Grade Reading Study (EGRS) Policy Summary* (2017). Department of Basic Education.
[28] *Final Evaluation Report: Design Evaluation of the Reading Support Project*. (2019). United States Agency for International Development, p. 108

Recommendations

- **Ensure the appropriate language competency exists from the trainers in the target language for implementation.**
- **Ensure the teacher training aligns with the DBE's Professional Teacher Development Frameworks.** Teachers should be able to claim Continuous Professional Development (CPD) points for both central and school-based sessions, and afternoon workshops should strengthen school-based Professional Learning Communities (PLCs).
- **Maintain a ratio of 50 teachers, or fewer, per trainer.**
- **Time the training to limit distraction of teachers.** Based on the evaluation of the implementation of the EGRS II and Early Grade Reading Programme (EGRP I), **centralised training in Term 1 is best held during school time** to allow limited distraction of teachers from their school schedule, while the other touch points of the year, possible during holidays and weekends, should be negotiated with the schools.
- **Do not train teachers for longer than 2 days per term.** Through EGRS II and EGRP I it has been concluded that the optimal central JiTT training sessions should not exceed two days, typically lasting **one or two days**, once per term, providing four contact points throughout the year.[29]
- **Plan for quarterly training.** Ensure this is in line with all other school rhythms. Design the training to ensure it is relevant and meaningful for the teachers, equipping them with fresh, practical knowledge to enhance their teaching practices. This strategy empowers teachers with the essential skills and confidence needed to implement these changes effectively.
- **Always do an advance check-in with the Ministry decentralised structures overseeing capacity development of teachers,**[30] to understand their training norms to minimise disruptions.
- **Carry out a light-dose orientation training at the beginning of the term.** This is very helpful for teachers as a refresher on what lies ahead and also to reflect on what did not work well in the previous term.
- **Carefully consider cost implications.** Prioritise the use of government facilities and the most cost-effective options for high-cost drivers, such as accommodation, in collaboration with local education authorities.
- **Give thoughtful consideration to the specific requirements when selecting a venue.** For example, consider the availability of **strong connectivity** if any form of technology is required. This is critical if making use of **tablets with apps** or any digital materials. It is, in fact, during centralised training that updates of the digital material, including the scripted lesson plans take place.

3.2 Coaching

The EGRS series prominently highlighted the coaching model as a key strategy for strengthening teacher capacity and providing ongoing support. In these programmes, skilled coaching professionals—usually external coaches—work with teachers to help them use the

[29] The attendance rate of teachers in central training was very high (between 85 and 100%), and the timing did not disrupt learning.
Taylor, S., Cilliers, J., Prinsloo, C., Fleisch, B., & Reddy, V. (2018). *The Early Grade Reading Study: Impact evaluation after two years of interventions*. Department of Basic Education. p. 42.
[30] In South Africa, education provision is decentralised to the Provinces.

scripted lesson plans and LTSM effectively to teach reading. Providing such coaching has been instrumental in giving teachers the confidence, motivation and oversight to encourage them to adopt some of the new pedagogical approaches.[31]

Recent research shows that key factors that help teachers change their instructional practice include engagement, preparation, practical learning, and shared goals with others. Teachers succeed when they actively take part, understand the steps needed, and have support structures in place, along with aligned expectations from peers and leaders.[32] Coaching plays a vital role in creating this supportive culture.

However, coaching can be costly, as it involves providing regular, direct, one-on-one support to teachers.

What was tried

The very first EGRS, (EGRS I) tried **in-person on site coaching** by external professional coaches**.** These consisted of physical visits to the teacher at regular intervals (once or twice a month depending on the programme). The visit would include a classroom observation, feedback on the lesson and reflection as well as practical support towards planning and using the LTSM package. The largest **positive impact on learners' reading performance** was observed when support to teachers included such on-site in-person coaching by external professional early grade reading coaches.

Impact evaluations estimated that the children in the "coaching" group were approximately 40% of a year of learning (0.24 standard deviations)[33] ahead of those in the control group after two years of the intervention. The coaching intervention had significant positive impacts on all HL literacy measures, and the positive spillover impact on English was observed for learners 4 years after the completion of the programme.[34]

Given the cost implications, in an effort to explore additional opportunities for cost-effectiveness and scalability of the coaching component, two different models were tried that sought to reduce the costs of external in-person coaching—virtual coaching support using external coaches and internal, Department Head (DH) led coaching:

- **On-site, in-person vs virtual coaching (using external coaches)** in contrast to **in-person coaching** by external professional coaches. **Virtual coaching** by external professional coaches[35] provided teacher support through the use of **digital platforms and tools** to conduct coaching sessions, including video conferencing, online meetings, and digital resources. Coaches conducted remote observations of classes either through pre-recorded videos or live streaming, allowing them to **provide feedback** without being physically present in the classroom. This allowed also for **flexible scheduling** for ongoing support and professional development of teachers as planned and needed. The use of digital tools enabled coaches to collect and analyse data on teachers' performance, helping to tailor coaching interventions to individual needs. By reducing

[31] (Probably need a footnote - maybe a case study from EGRS I or Alsofrom from EGRS II)
[32] Arenge, G. (2023). *Sparking pedagogic change in Southern Africa: Generating middle range theory on how, why and under what conditions teachers start enacting pedagogic change*. [Apollo. University of Cambridge Repository].
[33] Cilliers, J., Fleisch, B., Prinsloo, C., & Taylor, S. (2020). How to improve teaching practice? An experimental comparison of centralized training and in-classroom coaching. *Journal of Human Resources*, *55*(3), 926–962. https://doi.org/10.3368/jhr.55.3.0618-9538r1.
[34] Khulisa Management Services. (2019). *Early Grade Reading Study Sustainability Evaluation Report (Report No. EGRS I Wave 4).* South African Department of Basic Education.
[35] *Virtual Coaching Model Summary June 2019*. Department of Basic Education, South Africa 2019_Virtual Coaching Model Summary REVISED.pdf.

the need for travel and physical presence, **virtual coaching significantly lowered the costs** associated with in-person and on-site coaching methods. However, in contrast to in-person coaching, virtual coaching **did not** significantly improve learning outcomes.

Whilst virtual coaching alone did not result in significant learning gains, many of the support techniques employed by the virtual coaches have been adopted as useful **additions to supplement** on-site in-person coaching support (for example, the use of WhatsApp Groups, sharing videos and resources etc).

- **External vs internal school-based coaches (providing in-person support).** External professional coaches are hired by the implementing organisation (outside of government) for the express purpose of providing coaching support to teachers. This model is described above. In contrast, internal school-based Department Head (DH)-led onsite-coaching[36] is coaching provided by staff members already employed in a management position at a school. EGRP I introduced such in-person coaching through DHs.[37] This model aimed to leverage the existing leadership roles of DHs to support teachers in early grade reading instruction.

  To effectively carry out this additional role, Foundation Phase DHs received specialised training to enhance their own content knowledge and coaching skills. This preparation enabled them to act as **instructional coaches,** providing guidance and support to improve teaching practices.

  As part of their coaching responsibilities, DHs visited classrooms to observe teaching methods, offer feedback, and model effective instructional techniques. Additionally, DHs facilitated in-school Professional Learning Communities (PLCs) where teachers could collaborate, share experiences, and develop new strategies. These PLCs created a supportive environment for professional growth and peer learning.

  Despite their potential, Foundation Phase DHs faced numerous challenges, including heavy workloads and time constraints, which sometimes hindered their ability to provide effective coaching, in addition to lack or limited coaching skills and limited zeal to learn new skills by the older DHs nearing their retirement age. Furthermore, in some cases, the small rural schools did not have Foundation Phase DHs.

The DH-led coaching intervention was not found to be more effective than the base programme without any coaching, and **no significant impact** of coaching by DH coaches was found.

Defining the Coach Role

Over time, different programmes and service providers have used different coaching approaches, shaped by their ideologies, resources and budgets. To bring consistency, a set of coaching norms and standards was developed to clearly outline expectations relating to:

- Recruitment: On the selection and hiring
- Employment: Conditions of service, training and professional development

[36]Department Heads in the Department of Basic Education have the following main responsibilities: curriculum management; teacher support and development; identification and guidance on teacher professional development; leading assessment and evaluation of learners; managing teaching resources; supporting extra-curricular activities. Their presence typically depends on the size and structure of the school. Larger schools are more likely to have Department Heads for specific subjects or grade levels, while smaller schools may not have these roles.

[37] *Early Grade Reading Program Evaluation Case Study Report 2021*. Department of Basic Education, South Africa. EGRPCaseStudyReport.pdf.

- Coaching Role: Comprising management practices, responsibilities, Key Performance Indicators (KPIs)

Some of what has been tried is outlined here, with consolidated knowledge found in the Norms and Standards reflected in the 'Lessons' section below.

Recruitment

Selection and hiring. Coach recruitment and working conditions were traditionally managed by service providers, who would use existing staff or hire new coaches for the project. While efforts were made to select high-quality candidates, approaches and exact conditions varied across service providers.[38]

Employment

Coach training and professional development. Once recruited, coaches **underwent extensive training** to equip them with the skills necessary to support teachers, which included demonstrating lessons and training capacity in reading skills, and training on the LTSM, as well as the lesson plans. The focus of their training has been improving classroom practice.

A specialised training and coaching course was created for the EGRS programmes culminating in a University of Johannesburg (UJ) certification programme to ensure they were equipped with the latest instructional techniques and coaching methodologies. The UJ course was developed but discontinued when scaling was not done.

Coaching Role

Different lengths and frequencies of support.

- Through the implementation of the RCUP programme, it was established that 1 year is too short to change instructional practice, and that 2 years is the minimum that can lead to changes in practice, established through EGRS I and EGRS II implementation.
- In addition, building a relationship of trust between teacher and coach is an important element to the effectiveness of the coaching intervention. It is doubtful that this could be established in less than a year.[39]

Teacher-coach ratios

- The ratio of in-person coaches to teachers has varied. In EGRS I, it was between 2 and 3 teachers per school, working in a single grade and covering 16 schools, so, an average of around 30 teachers each year, but by EGRP I and II the ratio was closer to 60 per coach as they were supporting teachers in Gr 1-3 and in HL and EFAL.[40]The ratio of teachers to virtual coaches was 85 teachers supported by 1 coach in EGRS II (in a year) for a single grade in approximately 50 schools.[41]
- Time taken and travel costs for school visits are a significant cost contributor. Over time, strategies were identified to make more optimal use of the coaches once they were on

[38] Alsofrom, K., Nonkenge, K., Harker, W., & Mohohlwane, N. (2023). *Subject Advisor Study: Can instructional coaching be integrated into South Africa's education system?* Department of Basic Education. Pretoria.
[39] Department of Basic Education. (2019). *Virtual Coaching Model Summary* [Summary Report]. Pretoria. https://www.education.gov.za/Portals/0/Documents/Publications/EGRS/EGRS%20II%20Website%20Upload/Reports/2019_Virtual%20Coaching%20Model%20Summary%20REVISED.pdf.
[40]Department of Basic Education. (2024). *Early Grade Reading Programme Evaluation Findings Summary Report.* National Department of Basic Education.
[41] Department of Basic Education. (2019). *Virtual Coaching Model Summary* [Summary Report]. https://www.education.gov.za/Portals/0/Documents/Publications/EGRS/EGRS%20II%20Website%20Upload/Reports/2019_Virtual%20Coaching%20Model%20Summary%20REVISED.pdf.

site in schools and extended their support to additional grades or to more languages at a time, depending on the specific circumstances.

Protocols for teacher support school visits

- Additionally, **clear protocols between teachers and schools** had to be adhered to. The coach assumed the role of a **critical friend to the teacher**, ensuring that all discussions, and classroom observations remained confidential and were not disclosed to the school leader.[42]
- Feedback was to be delivered using the **sandwich approach,**[43] with **areas for improvement scaffolded** to strengthen teachers' confidence. Generally, this was performed by observing the teacher in the classroom. Coaches would then ask the teacher *what they thought they did well*, then they told them *what they did well*. Last, they gave them guidance on *how to improve*.
- The process of support aimed to start with quick wins to build momentum, foster a sense of achievement and build the confidence of the teacher.

Reporting on teacher training, school visits and teacher engagements

- Standard reporting practices were used; however, it was found that service providers do not always have the necessary systems in place, and these needed to be developed in collaboration with the DBE research team.

Lessons

- **Coaching is most effective if it is in-person on-site at the school and** performed by an **externally hired and trained specialist coach**.

  Alsofrom's (2018) research into some of the causal mechanisms behind effective coaching, concluded that "coaching works to impact teachers' practices through a non-linear, cyclical process", and that this happened in three main stages: helping teachers to reach emotional readiness for change, creating concrete and meaningful language for teaching and learning, and witnessing change.

  Much of the success is due to the affective element of coaching. Namely, its ability to address the fear and shame teachers feel—associated with feedback, changes and oversight—and to turn this into pride, affirmation of their identity as a teacher, and the desire to do well and not disappoint their coach.

  The physical distance between virtual coaches and their teachers, means that it is more difficult to help teachers reach such an emotional state of readiness for change, whilst it is also more difficult for coaches to observe practice and demonstrate alternatives. The witnessing of change is less clear, making virtual coaching ineffective in comparison to in-person coaching.

  For Department Heads, in the switch from DHs to coaches, this role as a "critical friend" was not fulfilled.

- **None of the existing roles in the education system naturally lend themselves to a coaching role.** This was explored in the Subject Advisor Study that took place during

[42] Department of Basic Education. ClassAct, & Molteno (2019). *Coaching Course Outline.* Department of Basic Education.

[43] This approach involves delivering constructive criticism in a balanced and supportive way: starting with a positive opening, followed by focusing on an area for improvement and closing with another positive element, encouraging and motivating the recipient of the feedback.

the EGRP I evaluation.[44] The two roles that are currently best positioned to take on coaching responsibilities are district-based Subject Advisors (SA) and school-based Department Heads. The study found that there are three key barriers:

- Time and resource constraints. SAs and DHs have limited time and resources, and their many other duties would prevent them from spending time in classrooms observing teachers and providing feedback.
- Limited training. SAs and DHs often lack the coaching-specific knowledge and training needed to support teaching effectively, as shown by their range of views, limited coaching language and tendency to see themselves as having a monitoring and oversight role. While training can help, choosing the people that best fit the role from the start may be a better solution.
- Power and authority. Subject Advisors in particular have the power to enforce compliance. Teachers' perceptions of them as inspectors and evaluators is likely to hinder relationship- and trust-building.

The use of school-based managers, or Department Heads, was tested directly in the EGRP I study, and DH coaches did not have a significant impact on improving learning outcomes.

- **Development of coaching norms and standards:** Coaching is not a traditional profession. As such, there have been a large variety of approaches taken to coaching across programmes and service providers. It was realised that a set of coaching norms and standards needed to be developed to clearly outline expectations relating to:
  - Recruitment: Including selection and hiring
  - Employment: Conditions of service, management practices, roles and responsibilities, professional development and performance reviews.

  In addition, a coaching course outline was developed for coaches training. This seeks to standardise the coaching approach to teacher support and development, as well as relationship management and stakeholder engagement.

  Some of the main best practices that were decided upon are outlined here:

  Recruitment

  It is critical to select the right people to become coaches. To do this, a clear advertisement should be created for the role with multiple sourcing strategies and channels employed (traditional newspapers and job sites, social media, word of mouth and head hunting). Current government employees should not be targeted for hiring.

  Some of the minimum criteria identified in the norms and standards[45] as well as selection criteria by service providers have included:

  - **Educational Background**: Candidates are required to possess a relevant formal qualification, often a diploma/degree in education or a related field.
  - **Teaching Experience**: Prior teaching experience, ideally in the Foundation Phase, provides the practical knowledge and skills necessary for effective

[44] Alsofrom, K., Nonkenge, K., Harker, W., & Mohohlwane, N. (2023). *Subject Advisor Study: Can instructional coaching be integrated into South Africa's education system?* Department of Basic Education. Pretoria.
[45] Department of Basic Education, ClassAct, & Molteno. (2019, September). *Coaching norms and standards: Recruitment and employment management practices*. Department of Basic Education.

coaching. Teaching experience also improves the chances that the coaches are respected and have the authority to earn teachers' trust and confidence.

    - **Experience in teaching** the specific **Home Language** targeted by the programmes is desirable.
    - **Competence in teaching of English,** teaching very language specific elements like the vowels.

- **Training Experience** or other evidence of strong **communication and mentoring skills.** Strong communication skills are crucial for building effective relationships and trust with teachers and providing clear, constructive feedback, with demonstration as well as the ability to motivate teachers.
- **Technical skills:** Basic technical knowledge including how to use a laptop; smart phone; tablet; email; and conduct internet searches.
- **Driver's licence**: Coaches need to be able to drive to schools for school visits.
- **Availability and references**: They also need to be available for the probation period (and thereafter) and have contactable and recent references.

In addition, other factors considered which would be required to perform the coaching function include:

- **Location:** Ideally the coach would live or be situated within 100 km of a central location.
- **Commitment to Professional Development**: Demonstrated commitment to ongoing professional development and a willingness to continuously improve their coaching skills is required.
- **Cultural Competence**: Understanding and respecting the cultural context of the schools and communities they would be working in is important for effective coaching.
- **Enthusiasm and Stamina**: Demonstrate resilience, interest in, and desire to do, the coaching, to be able to adapt as problems arise and motivate and inspire their teachers.
- **Ability to engage in reflective practice:** Personally demonstrate the capacity for self-reflection and continuous learning, and possess the skills to support and nurture reflective practice in others.

Employment

Coaching employment needs to fit within the existing regulatory frameworks that govern employment in the education sector. In South Africa, six pieces of legislation[46] needed to be considered:

Remuneration: Basic salary of a coach should be set above the remuneration of teachers, equivalent to a promotion position. In South Africa, this was set at the level of an Education Specialist. In addition, subsistence, travel and communication allowances should be catered for.

[46] Constitution of the Republic of South Africa (1996); The Labour Relations Act, Act 66 of 1995; Basic Conditions of Employment Act, Act 75 of 1997; The Employment Equity Act, Act 55 of 1998; Skills Development Act, Act 97 of 1998; National Qualifications Framework (NQF) Act 67 of 2008; South African Council for Educators Act, Act 31 of 2000.

Performance appraisal: Standardised, regular coach performance appraisals conducted at least once a year with the outcomes used to provide coaches with targeted professional development opportunities. Financial incentives or bonuses would be aligned to appraisal outcomes.

Coaching data and records: Data collection and reporting frameworks would need to be set up to track coach activities (the frequency with which data should be collected and updated would also need to be specified): Example of metrics to be tracked include:

- Basic characteristic, biographical and contact data (quarterly): Includes school, SMT, teacher, coach and learners' data
- Training Data (post training): Number of trainings attended by teachers & SMT
- Resource Provision Data (post training) – Number of teachers / SMT members that have received resources including lesson plans & LTSM
- School support visit data (after each visit) – Support days planned and received by teacher, workshops planned and attended, and interactions planned and attended with SMT members
- Curriculum coverage data (quarterly) – Percentage curriculum coverage
- Communication and communication channels data (quarterly) – WhatsApp Groups set up by cluster, major notices or communications

Various tools, forms and record-keeping systems needed to be developed to collect and store the data, including: attendance registers, teacher progress records from lesson observations and feedback sessions, guidelines to monitor teachers' record-keeping and learner workbook checks.

Training and Professional Development

Coaches training on both the content, learning approaches as well as coaching approach is crucial. A coaching course outline was developed to encapsulate these learnings. Aspects included in the training include: literacy coaching basics, classroom culture and classroom management, technical knowledge of literacy development, and literacy pedagogy.

Below, as an example, is the outline of the course developed:[47]

[47] Department of Basic Education, ClassAct, & Molteno. (2019, August). *Coaching course outline*. Department of Basic Education.

Sessions	Modules	Time	Assessments
Session 1	1 Coaching: Setting the scene	7 hours	Secondary
	2 Classroom Culture: Laying the groundwork for learning	7 hours	Primary
	3 Literacy Knowledge & Pedagogy: An introduction to language and literacy teaching	14 hours	Secondary
Session 2	4 Coaching: Shifting practices	7 hours	Primary
	5 Classroom Culture: Making the classroom work for learners	7 hours	Secondary
	6 Literacy Knowledge & Pedagogy: A deeper understanding of teaching listening & speaking, and phonemic awareness & phonics	14 hours	Secondary
Session 3	7 Coaching: Internalising the learning	7 hours	Secondary
	8 Classroom Culture: Further developing learners	7 hours	Secondary
	9 Literacy Knowledge & Pedagogy: A deeper understanding of teaching reading	14 hours	Primary
Session 4	10 Coaching: Sustaining the change	7 hours	Secondary
	11 Classroom Culture: Building a culture of excellence	7 hours	Secondary
	12 Literacy Knowledge & Pedagogy: A deeper understanding of teaching handwriting, writing and language structures & conventions use	14 hours	Primary

Figure A2: The Developed Coaching Course Outline (Example)

Recommendations

Overall

- **Prioritise investment in professional, in-person coaching** as a proven and high-impact form of continuous professional development (CPD) for teachers.[48] Coaching supports improved teaching practice, builds teacher confidence, and enables the effective adoption of evidence-based reading instruction, with demonstrated long-term benefits for learning outcomes.
- **Adopt a coaching approach that emphasises support, professional development** and provides a safe space for teachers to try new methods. This approach should be embedded within structured learning programmes that offer a clear pathway to success, coupled with regular, practical feedback to teachers —helping to build confidence and improve instructional quality over time. Unlike compliance-driven models focused on

[48] https://blog.irisconnect.com/uk/coaching-for-teachers. Posted 29th January 2020.

accountability and enforcement, this model fosters growth through trust and collaboration. The role of the coach, as a critical friend and trusted advisor, is central to making this approach effective.

- **Systematically test to see if more cost-effective options to in person coaching by external coaches are feasible.** In South Africa, the two alternatives that have been tested—virtual coaching and DH led coaching—have not led to improved learning outcomes. Investments in this area should take into consideration the limited impact of these approaches.

Coach recruitment, employment and training

- **Select coaches carefully** taking into account all of the minimum requirements for the role as well as characteristics and personality that will ensure that they are a suitable fit for the coaching role.
- **Develop strong training and professional development for coaches** to support them from the start. This ensures that they have the necessary knowledge, skills, and a shared understanding of the coaching approach, including common language and expectations. A well-prepared coaching team helps ensure consistent, high-quality implementation at scale.
- **Create more opportunities to observe in-classroom practice:** This should be prioritised, particularly if coaching takes place virtually. This may include competitions where teachers submit videos of learner books, and a range of specific classroom practices. This should not be limited to the best learners, but the most improved learners, or learners identified for additional support. This would enable the coach to see a range of learner performance and teachers' classroom practices.

Cost and scaling

- **Optimise the coaches' time at the schools as much as possible:** This can be done by targeting more subjects, a greater number of grades, including additional support, capacity building and sensitisation activities for school management. In addition, having a clear plan, a routine that is generally followed at the schools, helps. However, care must be taken: increasing this ratio of coach to schools or coach to teacher can result in less frequent and, therefore, less effective support.
- **Continue to explore how existing roles within the education system can be leveraged to fulfil coaching or coaching support functions,** thereby enhancing sustainability and institutional alignment. However, there is currently no role at the district level that could feasibly or easily take on the coaching function. Alternatively, if the decision is to continue outsourcing the function, identify ways for the system to provide administrative and practical support to strengthen implementation.

4. Parental involvement

Parents have an important role to play in the literacy acquisition of their children. For this reason, a parent engagement intervention was included in EGRS I. Given the unsatisfactory results, this intervention was discontinued in the successive programmes.

What was tried

- Parental engagement was rolled out to 50 of the 230 target schools of EGRS I in Grade 1 in 2015 and in Grade 2 in 2016. Parents were given strategies to play a more active role in supporting their children's reading development.
    - A toolkit was developed to provide parents with resources and strategies to support reading and comprehension at home.
    - Parents were coached by Community Reading Champions (CRCs) in weekly sessions at schools, focusing on reading and comprehension activities. These sessions included activities, such as reading together, practicing writing, playing educational games, and following instructions. The CRCs also explained how to support their children with homework, reinforcing the importance of reading and comprehension.
    - Additional strategies were used to engage parents, including bulk SMS messages, phone calls, visits to schools, and travel stipends for CRCs. Competitions were also held to incentivise parental involvement.[49]

Lessons

- Parental attendance in the weekly sessions was very low. Whilst just over 60% of parents attended at least one out of 22 sessions, fewer than 25% of parents attended 5 or more sessions in the first year. In the second year, only half of parents attended at least one session, whilst fewer than 20% of parents attended 5 or more out of 22 sessions.[50]
- Attendance was higher in rural areas and regular attendance was more difficult for employed parents. Attendance was also higher among parents that were already more engaged in their children's schoolwork e.g., read to their child or checked their school bags.[51]
- The parent involvement intervention **had no significant impact on overall reading** outcomes.[52]
- The series of interventions that were implemented to encourage parents to help their children learn to read were not successful. There was one domain, phonological

[49] Zuze, L. (2017). *The Early Grade Reading Study: Family influences on early grade reading*. Department of Basic Education.
[50] Zuze, L. (2017). *The Early Grade Reading Study: Family influences on early grade reading*. Department of Basic Education.
[51] Zuze, L. (2017). *The Early Grade Reading Study: Family influences on early grade reading*. Department of Basic Education.
[52] Stephen Taylor, Jacobus Cilliers, Cas Prinsloo, Brahm Fleisch & Vijay Reddy. (2018). *The Early Grade Reading Study: Impact evaluation after two years of interventions. Technical Report.* Department of Basic Education. p. 57

awareness, that improved in comparison to the control group. Improving children's phonological awareness was one of the focus areas of the parent intervention.[53]

- While parents are important actors in their children's learning, and there is evidence that children, whose parents check their work, perform better,[54] they proved ill-equipped to support their children with more complex strategies to improve reading, such as decoding text, which is fundamental to learning to read.

General Findings across all Parents

- Despite similar parental demographics, urban parents took greater responsibility for developing their children's reading skills and exposed their children to better home literacy practices than rural parents.

Recommendations

- **Limit expectations on what parents can and cannot do in relation to supporting their children read.** While parents play a crucial role in their children's education, the intervention highlighted their **limitations in terms of availability and capacity to effectively implement reading techniques,** although they were successful in improving **oral skills.** Investments in this area should take these objective constraints into account.
- **Limit expectations on availability of parents.** The evaluations confirmed the limited availability of parents to participate in meetings.
- **Avoid investing in parent programmes unless they are paired with better school-based teaching or focus on specific skills that parents can support,** for example, building vocabulary, oral skills or phonemic awareness. Parent programmes may be a useful addition to school-based programmes, but they have proved not to be effective at improving general literacy outcomes on their own.

5. Communication and Technology

The primary communication technology used was WhatsApp, whilst tablets with digital lesson plans were provided as an alternative to hard-copy lesson plans in some cases, from about 2017 onwards. WhatsApp groups were accessed via teachers' personal mobile phones, and the tablets supplied by service providers.

What was tried

Use of WhatsApp

- WhatsApp was already introduced in EGRS I, as a cost-effective tool to maintain communication between trainers and teachers in intervention group 1, who received central training (every 6 months).[55]
- In EGRS II, it was utilised as part of the virtual training programme to facilitate communication with teachers. Teachers were able to share classroom pictures and

[53]Fleisch, B. (2018). *The Education Triple Cocktail: System-wide instructional reform in South Africa.* UCT Press

[54] Zuze, L. (2017.). *The Early Grade Reading Study: Family influences on early grade reading.* Department of Basic Education, South Africa.

[55] Taylor, S., Cilliers, J., Prinsloo, C., Fleisch, B., & Reddy, V. (2017). *The Early Grade Reading Study: Impact evaluation after two years of interventions* [Technical Report]. p. 24

video clips of their teaching practices with the virtual coach. WhatsApp groups were also used for the monthly competitions, as well as a general channel of communication to share things, such as motivational quotes, weekly routine reminders, practical tips for key methods, and reflective questions to deepen understanding and improve teaching practice.[56]

- In EGRP I,[57] WhatsApp was used as part of the coaching. Every Monday the coach would send out a message to the teachers' WhatsApp group, covering the lesson plans for the week and sharing additional videos or other materials to guide with implementing the lesson plans. On a monthly basis, the coach would also initiate a brief discussion forum on the group, focusing on general matters about literacy teaching, core methodologies, and the delivery of the EGRP programme content. The coach would additionally connect with each teacher in a virtual coaching session once every term and focus on the following elements:
    - Establishing the teacher's level of proficiency and engagement through data analysis and questioning
    - Praising the teacher for evident strengths and efforts
    - Identifying challenges and addressing them
    - Sending short video or voice clips to address challenges
    - Documenting the content of the coaching session

Use of tablets

Tablets were used in EGRS II, EGRP I and EGRP II. Each teacher was handed a tablet and these were used to provide teachers with lesson plans and other LTSMs.

Overall, the evaluation findings reveal that teachers faced no significant challenges using tablets after being trained on how to use them for the programme. The devices were, nevertheless, not frequently utilised for classroom teaching.

- Teachers were **trained on how to use the tablets and the related applications** as part of the central training and received support in their use through the coaching arm.
- It was observed that teachers valued the tablets and found them useful for storing lesson plans and other materials. While they felt comfortable using them, interviews and classroom observations indicated that the tablets were not often used in the classroom but served more as information repositories rather than educational tools, with teachers continuing to prefer hard copies for instructional purposes.
- Tablets were also used by the virtual coaches to provide feedback to teachers, through the virtual coaching sessions.

Lessons

- **WhatsApp** has proven to be a very **cost-effective tool for engaging teachers** and providing remote virtual coaching.
- **Digital materials** provide a significant advantage due to their adaptability, allowing for **easy modifications and changes in materials,** as these can simply be downloaded as

[56] Department of Basic Education. (2019). *Early Grade Reading Study Mpumalanga: Virtual coaching model summary.* Department of Basic Education. Pretoria.
[57] Shilakoe, L., Zhou, T., Ngwato, T. P., Ting, L., & Prew, M. (2024). *Early Grade Reading Programme evaluation findings: Summary Report*. Department of Basic Education. p. 16

opposed to reprinted. However, the use of tablets does come at a higher cost and comes with greater connectivity requirements.

Recommendations

- **Make use of the standard mode of communication and coordination in the region for general communication.** WhatsApp is free and almost ubiquitously used in South Africa as the standard mode of communication between individuals and groups, and is, therefore, the best tool to leverage.
- **Make materials accessible offline. Materials need to be accessible offline**, as connectivity is still an issue in most contexts, particularly in more rural areas.
- **Evaluate data costs** when considering ICT tools. Carefully explore data zero-rated options.
- **Consider the long-term challenges of tablets and other individual devices supplied.** Tablets present significant long-term challenges, including high maintenance and replacement costs, and difficulties in co-ordinating backstopping support at scale, which are not there for paper-based solutions. Additionally, uncertainties arise regarding how such support will be continued once the programme concludes.
- **Consider costs and implications for storage of digital data.** The information hosted on an online server also raises concerns—specifically, how the server will be managed and funded after the programme ends, especially given that the service provider is no longer paid for the service.
- **Make provision for the data to be migrated to a state data-hosting server or platform** at the end of the project. Leveraging state ICT infrastructure provides avenues for ensuring continuity, such as sustaining the use of an application beyond the closure of a project. It also opens opportunities for broader scalability, allowing access to a wider pool of teachers beyond those involved in a specific intervention.

6. Implementation Service Providers

What was tried

While the Department of Basic Education has led the design and implementation of the research programmes, the actual in-school execution of the intervention has been carried out by **service providers**, education-focused NGOs, usually working within a consortium (except for EGRP I).

Lessons

Selecting a Service Provider

Below are the key traits considered during selection discussions for a service provider:

- **Quality of Service**; providers were evaluated on their ability to deliver high-quality services that meet the research needs.
- **Cost-Effectiveness**: Emphasis was placed on obtaining the best value for money.
- **Experience and Expertise**: Providers were evaluated based on a proven track record and relevant expertise, particularly in **quantitative skills and the ability to conduct large-scale data collection and analysis**, especially for more rigorous evaluations.
- Ability to intervene in the **relevant language**

- **Compliance with Regulations**: Providers had to **comply with local regulations and standards.**
- **Capacity and Scalability**: The ability of the provider to handle the scope of the project and scale up if needed was also considered.
- **Budget considerations**: Capacity of the programme budget to cover the costs of a given service provider
- **Prior experience at the intervention site was regarded as a valuable asset,** given the existing relationships already established at the location.

Whilst not an explicit requirement, **value alignment** was also a factor that was considered. Specifically, alignment with the project's goals and whether the organisation has a s**hared value of foundational literacy and the use of home language.**

Service providers and LTSM creation

- **LTSM created as a part of the EGRS series has been either open source or owned by the DBE**. This has been one of the conditions to service providers, and ensures that the bulk of ongoing costs is limited to printing and allows for later updates or adaptations to the materials.
- The DBE has **emphasised the importance of adapting and enhancing existing high-quality materials** rather than creating new ones from the ground up. Service providers have used their expertise to revise materials and lesson plan content, and incorporate lessons, to identify and train coaches, and to manage the operational aspects related to the implementation of the programmes.
- **DBE has insisted on the LTSM being open source or the ownership of the materials has remained with the DBE** once these have been developed. This ensures that continuing costs are restricted to printing costs only.

The **DBE has often guided service providers in setting up their monitoring and evaluation systems** in order to support implementation fidelity and ensure alignment with end-goals. Where such alignment was lacking, outcomes have tended to be less effective and not always satisfactory.

The use of service providers, however, comes with certain limitations:

- There is **variation in skills** and **quality** among service providers. Each organisation has its own identity, strengths, and weaknesses, both in terms of expertise and reach. As a result, a programme implemented by multiple organisations may look different, even with the same intervention protocols and a certain level of standardisation. In the EGRS series they have generally aimed to stick with a single service provider within a programme.
- No single service provider possesses the capacity to cover the entirety of South Africa in breadth and across all official languages, making a national-scale implementation with a single provider unfeasible. Even acting as consortia, their reach is constrained.
- The use of service providers may become less sustainable over longer timeframes, either for cost reasons, or because hiring external service would limit the development of state capacity.
- Monitoring and implementation fidelity capacity needs to be established and maintained throughout the implementation. Developing and agreeing on tools to be

used in advance and reviewing these with agreement on the sources for data collection and reporting are necessary. This also enables effective oversight.

On the other hand, this heterogeneity in service providers can serve as a source for innovation and offer new insights into programme execution. It also offers a certain degree of flexibility.

Recommendations

- **Carefully select Service Providers** who demonstrate the required technical expertise, capacity, and relevant experience at a reasonable cost, but are also aligned on values, priorities, and vision.
- **Establish clear Intellectual Property guidelines for LTSMs.** Ideally, ensure that any LTSMs developed as part of an intervention are **open source**, or that clear expectations and agreements regarding intellectual property are established from the outset and included in the contract.
- **Use, adapt and build on existing materials** (e.g., lesson plans or writing frames). Not only does this reduce costs but also helps to avoid repeating past mistakes or relearning lessons already learned.
- **Make sure the service provider's monitoring and evaluation systems are aligned from the start of the project.** Clearly agree on what data need to be collected (e.g., attendance registers, signed LTSM collection registers, training pre- and post-tests), how often, and how it should be reported. These expectations should be discussed early on, with support or guidance provided if needed. This monitoring and evaluation element is critical for tracking the fidelity of implementation.
- **Strengthen internal capacity.** Aim to gradually reduce reliance on external service providers by institutionalising the provision of key resources and activities (incl. training and coaching), and building capacity within government over time.

7. Role of Stakeholders

7.1 Role of School Leadership and Management

There is increasing consensus that school leaders play a critical role in creating a conducive environment and motivating teachers.[58]

While the EGRS series did not specifically target school leaders, they were engaged at key points in the process. Annual school principal meetings were held at the end of each academic year. At the outset, they were briefed on the main features and objectives of the intervention, and at the conclusion, they were presented with the key findings. In addition to school principals, these meetings were attended by provincial, district and circuit officials. They were also surveyed as a part of the evaluations and served as a key contact point for school information.

Greater efforts to engage school leadership were made in EGRP II. As the leaders of their schools and communities, principals play a pivotal role in accountability and in acting as a bridge with parents.

[58] VVOB (2018). *School leadership in Africa: A review of empirical research*. VVOB. https://www.vvob.org/en/african-centre-school-leadership.

7.2 Role of the Government

What was tried

All EGRS interventions have been run as a partnership between the RCME Directorate of the DBE and the Provincial Department where the interventions were located.

The DBE RCME team has led the research and programme design. As already mentioned, the interventions have always been run by a service provider or consortium of providers. Particularly for coaching, there is value in having coaches external to the system. However, this is a sizable expense. For example, in two years between 2018 and 2020, about 136 million ZAR[59] (~176 million ZAR or 9.5 million USD in 2025)[60] in donor funds was spent on EGRS studies and related programmes associated with the EGRS Improvement Plan.

This led to the trial of a coaching intervention within the education system, implemented through the DHs. However, due to internal time and capacity constraints, coupled with a different approach to their role (as detailed earlier in this report), the intervention did not significantly impact reading.

To date, only the Western Cape Provincial Education Department[61] has independently adopted the EGRS-influenced approach, and there has not been a national initiative to take the EGRS programme to scale. It must be noted that the Gauteng Provincial Education Department had previously run a structured learning programme in Literacy and Maths, GPLMS, from 2011 - 2014.[62] Other provinces, namely North West, Mpumalanga and Northern Cape have been/are part of EGRS research and scaling exercises, but led by the DBE.

Neither the National nor the Provincial Education Departments have been able to act as a unifying centre to standardise approaches or ensure consistency in programme implementation. Instead, the education sector remains characterised by a fragmented patchwork of well-intentioned smaller projects and partnerships.[63]

Lessons

For system level reforms to take root, the government needs to maintain a **long-term focus on early grade reading at a national level.**

- This entails allocation of adequate funding to evidence informed approaches and clarity of roles among all stakeholders at all levels of the system.
- It also entails providing clear direction to donors and non-governmental organisations seeking to implement educational programmes. The country is currently characterised by a vast array of programmes that do not contribute to

[59] Department of Planning, Monitoring and Evaluation. (2020, April 28). *Improvement Plan Progress Report for the impact evaluation of the Early Grade Reading Study*. Department of Basic Education.
[60] Used National Treasury Reported CPI figures to calculate the cost in 2025 ZAR and an exchange rate of 18.5 ZAR/USD.
[61] In South Africa, the bulk of education expenditure takes place at the Provincial level (~97-98%). Provinces are responsible for employing educators, infrastructure development and general operations. The National Department is chiefly responsible for regulation, administration and monitoring, alongside running a number of national programmes (eg. DBE Rainbow Workbooks).
[62] Fleisch, B. (2018). *The Education Triple Cocktail: System-wide instructional reform in South Africa*. UCT Press.
[63] What works and what scales, Steven Taylor and Nick Spaull, in *Early grade reading and mathematics interventions in South Africa*. Spaull, N., & Taylor, S. (Eds.). (2022). Oxford University Press.

evidence-based policy development and to the system-wide reforms that can bring about sustained results in the field of education.

- The government has a role to play in coordinating the sector and ensuring interventions are strictly aligned to this long-term focus and vision.
- Additionally, there must be a robust accountability framework for follow-up throughout the institutionalisation process.
- More practically in relation to the coaching component, given the current ministry establishment's lack of a dedicated figure for long-term teacher coaching, execution is likely to remain outsourced to service providers (either in consortia or alone), but still directed by the Department of Basic Education (DBE).
- Embedding the coaching function and programme will require re-evaluating the roles and responsibilities of intermediate positions, such as departmental heads and subject advisors. A long-term reflection on job descriptions will be essential for successful institutionalisation.

Within the DBE, the intermediate structures—District and Provincial officials—have only been involved marginally in the EGRS interventions. They have been informed about the programmes taking place in their coverage areas but their role has been limited to facilitating the engagement with schools for key touch points, such as evaluation moments. They have also been only marginally involved in the development of materials.

Also, within the system, subject advisors are a key support function to schools. Their role is to support schools with **c**urriculum Implementation, professional development of teachers and monitoring and evaluation. They have been invited to all central training for teachers.[64] However the large ratios make consistent classroom visits and support to teachers impractical. The number of schools they support in fact varies substantially per province and per district, from as low as 25 to as high as 500 (though this is very rare). Due to understaffing in many district offices, the workload for advisors is often too high to ensure the provision of quality service.[65] Streamlining their functions could benefit the execution and monitoring of programmes.

This is one area that requires further investigation, especially in relation to potential for scale and sustainability, and is an area of active ongoing research.

Recommendations

- For an intervention that is external to a Province, **involve, inform and engage officials at all levels** of the hierarchy at Provincial, District, Circuit and School level.
- **Solicit input on the programme materials from relevant officials**, allowing ample time to incorporate feedback and make necessary adjustments. This should consider local languages and dialects to ensure alignment with the curriculum and academic timelines.

7.3 Role of Donors

What was tried

[64] Taylor, S., Cilliers, J., Prinsloo, C., Fleisch, B., & Reddy, V. (2017). *The Early Grade Reading Study: Impact evaluation after two years of interventions* [Technical Report].
[65] Alsofrom, K., Nonkenge, K., Harker, W., & Mohohlwane, N.(2023). *Subject Advisor Study: Can instructional coaching be integrated into South Africa's Education System? A study of external coaches, Subject Advisors, and Department Heads*. Department of Basic Education.

Donors[66] have played a significant role in funding South Africa's early grade reading research and have provided technical and operational support on specific programmes across government, and non-governmental and private sectors.

Within the government, donors have funded capacity building, knowledge creation, knowledge dissemination and research studies by supporting the RCME Directorate of the DBE, the National Education Collaboration Trust (NECT), and evaluations of provincial programmes (including in the Western Cape and Gauteng).

Working in close collaboration with the government on a long-term focus on early grade reading could help in supporting more evidence generation and more investments in critical areas, such as pre-service teacher education, which is less expensive but also has the potential to reach many more teachers.

While well meaning, the quest for short-term impacts by donors is a huge distractor from long-term programming, but also in programmes that may not yield immediate results but that will pay off in the next decade.

Over the course of the years the research agenda of the DBE has been generously funded by Zenex Foundation, UNICEF, USAID, the Hempel Foundation, Bill & Melinda Gates Foundation, Hewlett Foundation, Anglo American, and Initiative for Impact Evaluation (3ie).

These donors have collaborated closely with the research department to identify evidence-based interventions and innovations that could spur increases in learning outcomes in the early grades.

Over time, the donors have not only funded work in literacy more broadly, but also collaborated in co-funding of EGRS researches resulting in the programme reaching more schools and grades, as well as cohesion within the districts and sector more broadly. The formalisation of these collaborations to streamline the administration and financial approaches seems to be underway.

7.4 Role of educational Non-Governmental Organisations

What was tried

Just as donors have played a pivotal role, several NGOs have also served as critical partners in the design and implementation of the programmes. These NGOs have provided invaluable **technical advice** and have been instrumental in **creating the lesson plans and reading materials, and other tools utilised by the research programmes**. Their contributions have significantly enriched the initiatives.

A notable example of this collaboration is the impact of the Vula Bula graded readers, already mentioned above, developed by the Molteno Institute for Language and Literacy with funding from Zenex Foundation and a decision to make these resources open source. These readers have been crucial in enhancing early grade reading proficiency across various African languages. Their accessibility through open-source licensing has been crucial.

The involvement of NGOs in these programmes has not only ensured the effective implementation of interventions but also fostered innovation and the sharing of best practices across the educational landscape.

Lessons

[66] South Africa has enjoyed substantial support from both institutional donors and private foundations in the education sector and in early grade reading.

- The fragmented landscape of current interventions does not favour a comprehensive, system-wide reform. The constant need for District and Provincial education structures, as well as teachers and school leadership, to familiarise themselves with project-specific materials and tools diverts their attention from consistent and cohesive, research-based educational practices.
- Adopting a more coordinated approach, one that aligns with national priorities, would prove to be more advantageous for all stakeholders. This approach should incorporate a systematic and evidence-based strategy to scale up successful interventions, ensuring their integration into the broader educational framework. By doing so, sustainable improvements in literacy and educational outcomes can be achieved, ultimately benefiting a larger number of learners.

Recommendations

Build on previous interventions, where feasible. When working in schools that have previously participated in similar or related programmes run by other organisations, aim to build on programmes. Where possible, maintain continuity by adapting existing materials or approaches. For example, in EGRP II, materials from a past structured learning programme were adapted, which helped teacher adoption as the materials felt familiar.

7.5 Role of Academics and Research Institutions

The DBE has embraced collaboration between researchers and policymakers in designing and implementing projects, aiming to bridge the research-policy gap. The EGRS studies have seen the collaboration of academics from the University of the Witwatersrand, University of Pretoria, and Georgetown University. They have played a key role in strengthening early grade reading research and implementation.

Through this partnership, researchers gain policy-relevant insights and access to unique resources, while policymakers benefit from research findings allowing them to prioritise where to channel investments for the highest impact. A recent study suggests that collaborations with policymakers significantly increase the likelihood of evidence utilisation compared to non-partnered projects, without compromising academic rigour.[67]

This collaboration has been instrumental to the EGRS series. Contributions by external academics and research institutions include:

- Designing and developing instructional materials and African language books and readers
- Conducting research on contextually relevant literacy and instruction
- Advancing knowledge on African languages
- Providing technical guidance for implementation

These partnerships have contributed to contextually relevant evidence generation and strategies, while also enhancing research capacity and quality across the South African education system.

[67] Bonargent, A. (2024). *Bridging the gap between research and policy through co-creation.* International Growth Centre.

8. Delivery models and strategies for scaling

While **structured learning programmes** or **education triple cocktail** interventions have successfully enhanced literacy outcomes in the foundation phase and have led to sustained improvements in primary school learning outcomes, there has not been a coordinated and deliberate effort to secure comprehensive system-wide funding and coverage in South African public schools.

A number of things are desirable or necessary to attain a sustained system wide adoption at scale:

- **A long-term commitment to focus on early grade reading** is essential for full institutionalisation and sustainable system-wide expansion, however, such support is lacking, and medium term planning has been disrupted in the last few years as a result of COVID-19, budget cuts and expenditure adjustments.
- **Strong institutional leadership and integration into existing structures**. This includes carefully evaluating and redefining roles within the provincial education departments to shift responsibilities from external service providers to permanent staff.
- **Following a phased roll-out:** This would entail strategically prioritising certain schools over others to maintain quality and avoid resource dilution. Allowing Provinces to make strategic decisions based on their specific socio-economic contexts would enhance the effectiveness of scaling efforts. A phased approach allows for the building of relationships and getting longer term buy-in, and alignment with provincial plans and strategies.
- **Valuing learning in the home language in the Foundation Phase:** Language adds complexity to scaling efforts. In the **Foundation Phase**, the EGRS series of interventions were delivered in learners' home languages, with English taught as a second language. However, beyond Grade 3, there has been little demand for continued home-language reading. This is because many parents, and communities in general, prefer an early switch to English, perceived to lead to improved job or career prospects in the future. Raising awareness and running large-scale campaigns about the importance of home language as a foundation for reading and learning in other languages could help shift perceptions and strengthen support for home-language literacy in the early years.[68]

What was tried

Policy efforts

Several approaches have been tried to encourage system-wide implementation and maintain a focus on early grade literacy.

- **Obtaining commitment, at the highest political level.** One approach that has been tried is through presidential commitments. In the State of the Nation Address in 2019, President Cyril Ramaphosa stated:

> *The department's [Basic Education] early grade reading studies have demonstrated the impact that a dedicated package of reading resources, expert reading coaches and lesson plans can have on reading outcomes. We will be*

[68] Mohohlwane, N., Taylor, S., Cilliers, J., & Fleisch, B. (2023). *Reading skills transfer best from Home Language to a Second Language: Policy lessons from two field experiments in South Africa*. CGD Working Paper 647.

substantially expanding the availability of the early reading resources across the foundation phase of schooling.

and in the recent State of the Nation Report in February 2025, where the commitment was again made to

focus on ensuring that every child can read for meaning in the foundation phase to set them up for success in later years. To achieve this, we are implementing mother tongue based bilingual education to improve literacy and numeracy outcomes, and rolling out lesson plans, reading books and other interventions that have been proven to work.

- **Developing and Implementing an Improvement Plan for Early Grade Reading.** The Improvement Plan, dated May 2018, sought to develop some of the materials as well as some of the norms and standards that define how to implement such a structured learning programme as well as advocate for their adoption and implementation by the provinces. The six objectives in the plan were as follows:
    1. Establishing a Steering Committee to manage and facilitate the implementation of the EGRS Improvement Plan
    2. Adopting a structured learning programme using daily lesson plans which incorporate key reading materials, as a way of implementing CAPS
    3. Developing guidelines for on-site coaching by specialised coaches, and institutional support
        a. Developing guidelines for on-site specialised coaches
        b. Developing guidelines for institutional support of teachers and coaches
    4. Ensuring provinces ring-fence finances for the implementation of an effective programme, including lesson plans, integrated LTSM and specialised coaching to support Foundation Phase teachers in Home Language and EFAL curriculum implementation
    5. Ensuring that the DBE and Provincial Departments of Education adopt an effective programme, including lesson plans, integrated LTSM and specialised coaching to support foundation phase teachers in Home Language and EFAL curriculum implementation
    6. Conducting further research to build upon the findings of the Early Grade Reading Study and ensuring research findings are used to inform future implementation of the daily lesson plans, integrated LTSM and reading coaches.

  Whilst objectives 1-3 were largely completed by 2020, and extensive additional research (objective 6) has been conducted, objectives 4 and 5 have been more difficult to operationalise, partially due to a lack of a clear, coordinated, overarching mandate, but also because this is an unfunded mandate, meaning that the funding for such a programme would need to be found from already stretched budgets.
- **Investing in research** and **testing more cost-effective solutions**. Cost is a major constraint, and the RCME team at the DBE has sought to test more cost-effective options, particularly with regard to using external in-person coaches. However, to date, other options have not had significant positive effects on outcomes.
- **Keeping Early Grade Reading on the DBE's agenda** through local and international events and publications.

Furthermore, while cost considerations are pertinent, it is noteworthy that substantial budgets are allocated to projects with sufficient support. System-wide leadership has the potential to galvanize donors and partners, directing investments towards evidence-based foundational literacy and numeracy interventions as the bedrock upon which all future learning is constructed.

Delivery model: External vs Internal

The two key resources needed to deliver these early grade reading programmes are:

1. Human resources	Human resources in the form of Implementers (Trainers and coaches) and Administration and Support (Managers, supervisors, coordinators and administrators)
2. Materials	Creation, printing and distribution of lesson plans and LTSM

Because funding supports the deployment of both human resources and materials, the source and sustainability of funding play a crucial role in deciding the delivery model. The central question remains around how these resources will be sourced (who is responsible in the medium to long term; under whose budget does this sit) and distributed.

Throughout the EGRS series of studies, the external delivery model has dominated the provisioning of the early grade reading interventions. This is best embodied by the original models of centralised training and in-person coaching that were first tested in EGRS I, and similarly in EGRS II. This model is externally funded by non-governmental and philanthropic organisations and the human resources needed are hired from outside of the public education system, apart from the overall coordination by the RCME Directorate of the DBE. The intervention was minimally integrated with standard district activity. District and provincial staff provided limited support and were only kept informed of developments. The learning materials that were used were created and distributed by the external intervention service provider.

In contrast, in EGRP I, a slightly more integrated internal model was tested. This model made use of existing school-based staff members: Departmental heads (DHs). These provided day-to-day coaching and support to teachers at their school. However, the material provision, training and coaching support remained external and the project remained donor-funded.

Steps have been taken to try and move some lesson plans, LTSM and even provisioning of teacher training to provinces, as this aligns well with current system activities. Progress has been made in creating a standard, central set of lesson plans and LTSM for all 11 HLs and EFAL.[69] A review of materials has been done, and a National Reading Framework and Teacher Guide for African Languages has been developed. Lesson plan and LTSM development is ongoing—a minimum LTSM package based on the EGRS was added to the 2023 textbook catalogue and, since 2024, is being aligned with African language reading benchmarks.[70] Provinces can select from this list when they select new LTSMs every three years, supporting more consistent teaching and system-wide training based on methods tested under EGRS.

[69] Department of Planning, Monitoring and Evaluation. (2020). Improvement Plan Progress Report for the Impact Evaluation of the Early Grade Reading Study. Department of Basic Education. Pretoria. (Unpublished).

[70] Department of Education. (2024). *Draft Invitation and Terms of Reference to submit materials for Grades 1-3 National Catalogue which will list the minimum package of resources for Foundation Phase as well as for evaluation and adoption in the National Catalogue, Department Of Basic Education, South Africa.* Pretoria.

Some provinces have started to provide these resources, including Limpopo, the Eastern Cape and the Western Cape.

Outsourcing the coaching component to a service provider—currently the only viable option—means that the intervention is, by design, not integrated with sustainability implications. However, a multi-year co-funded or entirely donor-funded project may be feasible. This approach is particularly crucial given the unavailability of professional coaches within the current ministry establishment and the limited impact of the DH coaches that were tried in EGRP I.

Another element to consider is the potential loss of knowledge or lack of institutional knowledge. For example, over the years, clear records of the teacher training content have not been kept. This means that there was less standardisation, but also that this element was fairly dependent on the service provider for content and quality.

Consequently, the highly expensive external approach has limited scalability. If long-term sustainability and wider reach are key goals, the implementation model needs to make better use of internal government systems—both to secure the necessary people and materials, and to ensure more stable funding through inclusion in provincial budgets.

Lessons

A general insight from the Khulisa Report was that there are some issues that naturally arise as one scales (for example, the limited availability of experienced coaches with Foundation Phase and Early Grade Reading expertise), however, some issues are less specific to scale and are rather as a result of a specific situation or service provider; for example, the quality and dosage of coaching provided.[71] Most of the constraints in both categories may be anticipated based on experience, collaborative planning, and ongoing monitoring. They should be addressed as part of implementation very early in the process, to improve fidelity. Remedial steps may be to limit the number of coaches hired, and to provide additional training where relevant, or pairing new service providers with experienced ones.

Policy efforts

- **Alignment of implementation plans with budget cycles.** Specifically in the case of South Africa, it is difficult to get payments approved and paid out from mid-February to end of March as Treasury closes procurement in order to consolidate the budget for their year-end, and thus, activities may be delayed/postponed to a later date.
- **Developing Catalogue of Lesson Plans for all official Languages.** The catalogue of lesson plans and additional lesson plans can be built through submissions from a wide range of stakeholders, with each submission going through a review and approval process to ensure alignment with curriculum requirements. To promote standardisation, a limited number of lesson plan sets (no more than 3 or 4 per language) should be accepted. Once these are selected, future investment will be lower, as the approved lesson plans can serve as a strong foundation to build on over time.

Delivery Model

An 'ideal' delivery model for an early grade reading programme should meet numerous criteria to successfully enable implementation, while also aligning with the programme's goals and context. The desired delivery model would have the following elements:

[71] Williams, B., Bisgard, J., Tjasink, K., Taimo, L., Roper, M., Dornbrack, J., Orr, J., & Baba, N. (2019). *Final Evaluation Report: Design evaluation of the Reading Support Project*. USAID.

- **Impactful delivery** – The delivery model needs to implement and enable a programme that delivers clear improvements in learning outcomes.
- **Cost-effective** – striving to ensure that costs are contained
- **Sustainable** – The funding required to deliver the programme is guaranteed and stable. The programme should place reasonable time demands on teachers and district or provincial staff.
- **Integrated** – Irrespective of who is delivering the programme, the programme should form a normal part of annual and quarterly district and school discussion, expectations and planning. It should be incorporated in updates from Subject Advisors, feature in the planning of districts, and be incorporated into events, such as new teacher induction, and mentioned in teacher training.
- **High-reach potential** – The delivery model should allow for delivery at scale.
- **Flexible** – the delivery model should be adaptable to changing circumstances or to changes in programme needs.
- **Trackable/measurable** – The delivery model should allow and plan for implementation fidelity tracking and measurement of administrative data, or be linked to the larger SA-SAMS[72] system.

There are always trade-offs when choosing between different options. Choices need to be made regarding which criteria are the most critical at a given time.

In the case that a more external model is chosen, more efforts at standardisation and the adoption of a clear set of norms and standards would be needed. Key elements, such as teacher training, would ideally be formalised and accredited by a relevant body. In South Africa this could be the South African Council for Educators (SACE), a Sector Education and Training Authority, or one of the Higher Education Institutions. The manual that accompanies lesson plans would need to be adhered to.

The later interventions, (EGRP I & II and RSP), were designed to engage more departmental actors—at schools and within the school districts. They had components that targeted the Foundation Phase HD, one additional SMT member in some schools, and a component that involved district-level Curriculum Advisors (CAs).[73] One of the ways in which the CAs were involved was in the review of the lesson plans, which was useful for CAPS alignment, as well as ensuring that the CA were informed about the programme content which also allows them to shift how they monitor and support teachers. It may also raise buy-in from the districts.

Recommendations

- **Use a phased approach.** Start by testing interventions in a few districts, then expand based on evidence of what works. A phased approach could also be along a non-geographic dimension, such as language, initially developing high-quality materials in one language before adding others, rather than trying to cover all languages at once.
- **Align to provincial plans and strategies** on early grade reading, as this will increase ownership and buy in.
- If home language instruction is mandated by policy, it should be supported by an **awareness campaign** highlighting the critical role of home language instruction in fostering reading acquisition during the early grades.

[72] SA-SAMS is the national school electronic management and information system used in South Africa.
[73] Reading Support Programme Design Evaluation Report. p. 66.

- **Create a lesson plan catalogue.** Develop a catalogue of lesson plans that draws heavily on state-owned or open-source LTSM materials (e.g., graded readers or big books). Schools, districts, or provinces can then choose the set they wish to use—every three years in the case of South Africa. To promote consistency and stability in classrooms, the catalogue should remain unchanged for an extended period.

  Ideally, each set of lesson plans should be paired with a corresponding teacher training package. These should be based on a standardised training template, but customised to align with the specific content and approach of the selected lesson plans.
- **Design clear and detailed guidelines on teacher training**. In South Africa, the structured codification and detailed documentation of training practices remain undeveloped, with service providers currently bearing the responsibility for their design and elaboration. To standardise and ensure quality, this process should be formalised into an official manual and receive approval from the South African Council for Educators (SACE).
- **Take into consideration the government budget cycles and procurement processes (rules, regulations and timelines)** to ensure the smooth execution of essential processes, such as the procurement of critical programme elements and the facilitation of necessary payments.
- **Consider and trial different delivery models**: Design and test delivery models that are responsive to the education system's capacity and context, while aiming for greater cost-effectiveness. Where appropriate, use different funding or resourcing strategies for different components of the programme.

  For example, in South Africa, the currently proposed "ideal" model involves provinces (the state) providing lesson plans, LTSM, and some teacher training, while additional support (such as training and in-school coaching) is delivered by contract-based coaches. These coaches are typically employed for 2–6 years and support schools in two-year cycles. These coaches could be funded internally or externally.

9. Costing of Programmes

Costing educational programmes enables implementers to evaluate their feasibility and scalability, while also assessing their effectiveness in achieving the desired outcomes. By analysing the costs incurred, implementers can determine whether the programmes deliver value for the resources invested. Analysing the main cost-drivers, such as teacher training and the costs of additional support for teachers, provides valuable insights to guide decisions in programme design and implementation. As the EGRS studies were standalone programmes, initial budgets and expenditure reporting to funders were established. Consequently, expenditure was well-tracked, and supporting documentation was organised and stored.

What was tried

- **Conducted an in-depth analysis of cost at scale (2020).** The report looked at the financial implication of scaling an early grade reading programme nationally in South Africa. A detailed costing model was developed, through which they sought to determine:
  - An optimal design for an EGRS-type programme implemented at scale;
  - How much the programme would cost

- How much funding provinces would need to make available for the programme, given certain strategic decisions

The research team considered three main at scale implementation models: External, Hybrid and Internal. The external model was based on the in-person coaching treatment from EGRS I, the DH-led treatment from EGRP I resembled the hybrid model in the first year and the internal model in later years.

In the final estimations, they aimed to target all Quintile[74] 1-3 (poorest) schools over a 5-year period, with half receiving the base programme and half coaching. They estimated the 5-year cost at ZAR 3.25 billion for the External model; ZAR 2.86 billion for the Hybrid and ZAR 2.43 billion for the Internal model for the whole of South Africa[75] in 2025 ZAR.[76]

- **Costing calculation and reporting in academic articles.** The academic article that reported on the main findings of the successful first EGRS study "*How to Improve Teaching Practice? An Experimental Comparison of Centralized Training and In-Classroom Coaching*", reported cost estimates per student for the centralised training and in-person coaching arms.
- **Brief coaching cost comparison (2025)**: A high-level cost comparison exercise, in which the cost of the EGRS programme was calculated for the different coaching interventions (None, In-person, Virtual, and DH-led).

Lessons

- **The unattainable cost sweet spot**: The EGRS I and EGRS II synthesis report refers to an elusive "sweet spot" where interventions achieve a significant impact, but at a low cost. Reading interventions in South Africa that have shown measurable positive effects on literacy outcomes still have relatively modest effect sizes compared to the scale of learning inequalities across the system. However, the learning and teaching support materials (LTSM) and professional support they provide are often considered **unaffordable.**[77]
- **Costing methodologies, trade-offs and considerations**

  Cost estimate units. When calculating and reporting programme costs, different units offer distinct advantages depending on the context:

  - Cost per teacher – This approach is useful when considering programme expansion, as teachers are the primary agents of implementation.
  - Cost per learner – This allows for better comparability across interventions and education systems.

[74] Quintiles are an official classification in South Africa that determines the funding that schools receive. Quintile 1 are the poorest, generally rural schools, whilst Quintile 5 schools are the wealthiest. Quintile 1-3 schools are not allowed to charge fees and receive the most funding per student. In the initial classification, each Quintile contained about 20% of schools, however the split has become skewed, with Quintile 1-3 schools making up more than 60% as schools have argued to be reclassified to receive higher levels of financial support.

[75] Venter, F.H.J. and Sherif, S. (2020). *Analysis of the financial implication of scaling an early grade reading programme in South Africa.* Department of Basic Education and UNICEF, South Africa.

[76] Original estimates from 2020 are adjusted for inflation to arrive at amounts in 2025 ZAR. Original amounts in the report were: ZAR 2.52 bn (External); ZAR 2.21 bn (Hybrid) and ZAR 1.88 bn (Internal) in 2020 ZAR.

[77] *Synthesis Report of EGRS I and EGRS II (2020).* Department of Basic Education. South Africa.

- Total cost of programme – This approach is useful if attempting to determine a budget for a well defined region or population for a given timeframe.

Fixed costs: Many programme costs are variable operational costs, fluctuating based on factors such as the number of learners, teachers or coaches involved. However, the initial development of materials—including lesson plans and learning and teaching support materials (LTSM)—represent a fixed cost. This cost is applied per language and recurs periodically, as materials require updates every few years. To ensure accurate financial planning, these costs should either be depreciated over time (or divided by the number of years that the materials will be used) if quoting an annual cost. Alternatively, if calculating the cost of the total programme, not per teacher or per learner, then programme costs could be estimated over a number of years

Implicit costs: Additionally, the cost calculation should include the time contribution of employed staff. For example, if a district officer would need to spend 35% of their time on supporting or implementing EGRS programming, then 35% of their salary should be added to the amount to reflect the true cost of programme implementation.

Recommendations

- **Track, report, and store cost and expenditure information.** Plan to track and report costs from the start of any project. Recording expenditure and related details, such as reach, is key to accurately calculating final programme costs.
- **Store all the information** in a single digital location for easy access. Keep updated records of:
    - **Programme data**: Both organisation information (e.g., number of employed staff and contractors) and information on the reach of the programme (e.g., number of teachers trained or learners on the programme)
    - **Financial information**: Historical data, invoices, receipts, contracts, etc.
    - **Communications and decisions:** Keep meeting minutes, emails for reference. It can also be useful to keep a running list of smaller changes or decisions with short background information and dates, this is particularly useful in newer organisations or ones with higher turnover.
- **Conduct a costing estimate exercise regularly,** even if it is only a rough estimate, or inflation adjusting to see how things have changed.

10. Disruptions and Implementation Challenges

What was tried (experienced)

COVID 19

The biggest disruption experienced in the course of implementing the research programmes was in 2020 with the COVID-19-related school closures. Schools closed briefly in March 2020, and reopened in phases, with priority grades (for example Grade 12) returning to school first. Schooling resumed in the second half of 2020 on a rotational basis which allowed for social distancing but resulted in an estimated loss of between 44 and 97 days of schooling.[78] This

[78] Taylor, S., Fleisch, B., Kotze, J., Cilliers, J., & Mohohlwane, N.. *The Second Early Grade Reading Study: Year 4 Report, Evidence one year after the end of implementation*. (2022) Department of Basic Education.

rotational system persisted in much of the country until the end of 2021, resulting in another half a year of instructional time lost.

The research team and the service provider in EGRP I reacted by adapting their methods to continue supporting teachers and students in this challenging environment. Before the schools closed, the EGRS team transitioned from face-to-face to virtual coaching. Whilst evidence from EGRS II on virtual coaching had been mixed, this was deemed the best (and only) alternative option.

The team distributed learning materials and resources digitally, making them accessible to both teachers and students at home. They also adjusted their data collection methods to account for the disruptions caused by the pandemic.

Strikes, Go-slows and Service Delivery Failures

Teacher strikes represent another form of disruption that has hindered implementation efforts, with South Africa experiencing numerous such instances.

One particularly severe strike that affected the EGRS II implementation took place in 2019. This strike was led by the South African Democratic Teachers' Union (SADTU)[79] and focused on issues such as wages, working conditions, and the implementation of the new curriculum. The strike lasted several weeks and resulted in widespread disruptions to the education system. Many schools were forced to close, and teachers did not report for work, leading to significant learning losses. The EGRS research team had to navigate these challenges by working closely with local stakeholders to minimise the impact on the study's progress. Key steps taken were adjusting the coaching schedule to the availability of teachers; distributing materials in digital format, as well as resorting to virtual coaching.

The poorest schools were hardest-hit by the strike, as strike participation was more widespread and prolonged. This resulted in substantial learning losses.

In 2025, the EGRP II intervention faced a "work-to-rule" strike led by teacher unions. While classroom teaching continued, external parties were barred from entering schools, and teachers couldn't leave for training or workshops. The strike, lasting three-and-a-half weeks, was especially disruptive, as it began in the first term and affected both multigrade teacher training and the delivery of tablets. Multigrade schools were particularly impacted due to the loss of training and in-person coaching.

Disruptions can also be the result of system delivery failures: for example, unscheduled and protracted interruption of supply in water and electricity. These can impact lesson delivery, training and classroom lessons, in general.

Recommendations

- **Remain flexible, expect and be willing to problem solve in the face of disruptions.** Be willing to adapt or try alternatives—especially for aspects that are not core to delivery—in order to keep implementation on track.
- **Let decentralised structures at district or provincial level lead problem-solving.** Avoid stepping in with quick fixes or bypassing normal processes. This is especially important during evaluations. Giving special treatment to schools in the evaluation—both

[79] The South African Democratic Teachers Union is a powerful force in the education sector. It has a history of militant activism dating back to the apartheid era, and it continues to use strikes as a tool to push for its demands, often bringing the education system to a complete standstill for long periods of time.

intervention and control—such as reopening them during a strike, creates an unrealistic picture of what the system can achieve under normal conditions.

- **Stay in regular contact with districts and schools during disruptions,** and keep informed about any developments. This helps ensure that responses align with official actions, while also allowing for urgency in communicating and reinforcing the importance of resolving the issue. It also creates an opportunity to co-identify ways your organisation could help remove roadblocks to a resolution.
- **Develop strong communication networks** between coaches or trainers and teachers over platforms, such as WhatsApp, through regular communication and engagement. Even in the absence of a crisis, this is likely to enhance communication, coordination and a sense of belonging, as well as ownership.
    - Maintain a certain level of flexibility/agility and accept that disruptions can and will happen. The service provider needs to remain open to adapting the model of delivery or engagement, and experiment with alternative options, especially in the context of a large external shift.
    - Ensure that the Provinces and districts remain in the lead of problem-solving and that there is clear and consistent communication between the Provinces and the service providers.
- **Be prepared and have back-up plans for activities that you are managing.** For example, if there is a service-delivery breakdown (such as no electricity), this can disrupt planned training activities, as well as lunches. Make sure that tablets and devices are all charged and that you have investigated alternative venues in case a switch becomes necessary. Similar contingencies should be considered for workshops and other coaching activities.

Part B. Evaluation Guidelines

The EGRS series of studies have always been run in parallel with an evaluation as a proof of concept, or to test a particular approach. This is unusual. Normally one would either test for the impact of an existing programme, test a particular question about an existing programme, or aim to continue the programme post-evaluation if the evaluation shows a positive impact.

To ensure the effectiveness and reliability of research projects, it is essential to have a clearly defined research question, a well structured study design with a transparent randomisation strategy, and a robust methodology. A well designed approach to data collection, supported by adequate quality assurance measures, along with rigorous and transparent analysis, ensures that the findings are both valid and actionable.

Engaging or collaborating with experienced researchers, data analysts, and subject matter experts, can significantly enhance the quality of the research and contribute to meaningful and impactful results.

1. Design and Randomization

Each of the EGRS studies has taken a mixed methods approach. The programmes have run a randomised controlled trial (RCT) to obtain a quantitative measure of overall impact, as well as conducting qualitative research to gain a better understanding of the mechanisms that drove (or did not drive) change.

1.1 Why randomized controlled trials (RCTs)?

A **randomized controlled trial** (RCT) is a research method used to evaluate the effectiveness of policies or interventions. In an RCT, participants are **randomly assigned** to either a treatment group, which receives the intervention, or a control group, which does not. This random assignment helps ensure that differences in outcomes can be attributed to the intervention itself, rather than other factors. RCTs are considered the gold standard for establishing **causal relationships**, which is then considered strong enough evidence to **inform policy**.

What was tried

All the evaluations in the EGRS series of studies were designed as RCTs, as was an earlier related project, the Reading Catch-Up Programme (RCUP), conducted in 2014. However, a precursor programme, the Gauteng Primary Literacy and Mathematics Strategy (GPLMS), which ran from 2011 to 2014, was not randomized.[80]

The GPLMS was evaluated using a natural experiment[81] due to a discontinuity in the schools selection process. Schools scoring below a threshold of 40% on the 2008 DBE systemic evaluations were selected to be part of the GPLMS programme whilst those above the threshold were not.

[80] Fleisch, B. (2018). *The Education Triple Cocktail: System-wide instructional reform in South Africa*. UCT Press.

[81] A natural experiment in research is a study in which researchers take advantage of a naturally occurring event or situation to observe its effects on a particular variable or outcome. Natural experiments rely on real-world occurrences that happen independently of the researcher's intervention.

Recommendations

- **Run an RCT if the evidence is needed to make key policy decisions.** Running an RCT remains the **best way to identify the causal effect of an intervention** that can provide definitive evidence for use in policy decisions. **Natural experiments**, where such a design is feasible, for example, with the GPLMS, are the next best option to better understand if the programme was responsible for, or the **cause** of, the positive impacts observed (as opposed to chance or a normal improvement trajectory).

  Simply relying on pre- and post-programme measurements without a credible comparison group is insufficient to claim impact. Such a design can lead to researchers finding false positive results. This was the case for the Reading Catch-Up Programme (RCUP). Here researchers initially identified a positive effect of the programme using a pre- and post-test difference. However, when an RCT was run to confirm the effect, there was no significant difference in the improvement between the control and treatment groups.[82]

- **Align on using an RCT upfront.** It is crucial to do this for an evaluation, and designing and running the random selection into control and treatment groups needs to be completed before the start of the intervention. Whilst it does not cost anything to randomize, opportunities to randomize can be missed. Such an opportunity was missed in the GPLMS, although entry requirements to the programme did create a discontinuity, which allowed for the generation of better evidence.

  Additionally, if the reasons for randomization are not well understood, government partners or other stakeholders often oppose randomization, as they object to the exclusion of schools or students.

1.2 What steps need to be taken to design an RCT?

1.2.1 Calculating the required sample size

From the start of any study, especially an RCT, it is essential to determine the required sample size to maximise the chance of detecting significant results (if the expected effect size is as large as expected). Once the target group is identified—such as schools or individual students in an education study—the necessary number of participants can be estimated.

Evaluations are costly, so there is a trade-off between increasing the sample size and managing costs. A sample that is too small may fail to detect a significant effect, making the results inconclusive. This is especially frustrating if the impact is positive but not statistically significant, as a slightly larger sample might have resulted in a significant effect.

What was tried

- All the EGRS studies were randomized and implemented at the school level. EGRS I had three treatment arms, whilst EGRS II and EGRP I had only two each. A larger control group was chosen because this increased the statistical power at a lower cost (as the control group was compared to each of the treatment groups). The number of schools in the samples are shown below.

[82] Fleisch, B., Taylor, S., Schöer, V., Mabogoane, T. (2017). The value of large-scale randomised control trials in system-wide improvement: The case of the Reading Catch-Up Programme. *South African Journal of Education*, *37*(1), 1–13.

	Number of schools in each Treatment arm				
	Control	Treatment 1	Treatment 2	Treatment 3	**Total**
EGRS I	80	50	50	50	**230**
EGRS II	80	50	50		**180**
EGRP I	60	40	40		**140**

Figure B1: Number of schools in each treatment arm per study

Recommendations

- **Identify the probable sample size for the RCT as early as possible**, and update the estimate if more updated information becomes available. It is critical to have a large enough sample to be able to show statistically significant impact with statistical power (generally p = 0.8),[83] and to allow reliable inference to a wider population.[84]
    - In EGRS I the centralised teacher training group showed sizable positive but insignificant effects. A slightly larger sample size may have resulted in picking up significant effects
    - **Rule of thumb.** Generally, in South Africa, for education interventions, 40 schools is the lower bound of what is reasonable to pick up effect sizes on such a 2-year intervention. Therefore, for a planned RCT, where randomization is conducted at the school level, the minimum number of schools required is usually at least 80: 40 for a control group, and 40 for a single treatment arm.[85]
    - There is a wide set of materials available through the Abdul Latif Jameel Poverty Action Lab (J-PAL)[86] and the World Bank[87] to assist with estimating the required sample size using power calculations.

1.2.2 Selecting the sampling frame

The sampling frame is a list of all of the units or participants, in this case schools, that will be a part of the evaluation. From the sampling frame, schools are then selected to be either in the control or a treatment group.

[83] A **statistical power of p=0.8** (or 80%), means there is an 80% chance that the study will detect an effect of a given size if that effect truly exists. In other words, there is an 80% probability of avoiding a Type II error, which occurs when the test fails to reject a false null hypothesis.
[84] Taylor, S., Cilliers, J., Prinsloo, C., Fleisch, B., & Reddy, V. (2017). *The Early Grade Reading Study: Impact evaluation after two years of interventions* [Technical Report].
[85] A power calculation should always be conducted before implementing any intervention to determine the required sample size. This rule of thumb is a minimum indicator, namely, if you have fewer than 80 schools, it is unlikely that a school-level RCT will be feasible.
[86] https://www.povertyactionlab.org/resource/quick-guide-power-calculations.
[87] https://dimewiki.worldbank.org/Power_Calculations.

What was tried

For EGRS I, the North West province was chosen based on representativeness, cost, convenience, and partner considerations, specifically, it was:

- A relatively poor province, thus a relevant comparison to the majority of the underperforming South African school system;
- Largely homogenous in terms of home language (Setswana) making it more affordable to develop learning support materials in a single language;
- Within driving distance from the Gauteng province where the national DBE is located;
- A Province that had senior management buy-in, as the North West provincial education department were eager to partner with the DBE on this project.

This was further restricted to two districts: Dr Kenneth Kaunda and Ngaka Modiri Molema, and only poorer schools that were classified as Quintile 1, 2 or 3 schools were included in the final sample of 230 schools.[88]
Similar considerations underpinned the selection of Mpumalanga and the districts of Gert Sibande and Ehlanzeni district as the site for EGRS II.[89] However, here they expanded it to two languages, including schools with siSwati and isiZulu as the home language. They excluded areas where other active reading programmes were being implemented. They also ensured that the chosen area would allow for a large-enough sample size.

In addition, they considered a number of factors relating to the potential functioning of the districts and schools including:

- Political stability with minimal interruptions to the school year
- A relatively well-functioning Provincial Office, capable of providing some necessary support
- A relatively well functioning school environment with limited teacher absenteeism.

Recommendations

In selecting the sampling frame, you are defining the group that will be studied. **It is important to carefully consider the criteria by which schools are included or excluded.**

- **Choose a sampling frame that is as close to the target population as possible.** The key consideration here is external validity. External validity is the extent to which the findings of a study can be generalised to other populations and settings. It is important to ensure that any findings from the study are as applicable as possible to the population that the programme will be implemented on in the future. Thus, selection criteria should ensure that the sample is somewhat comparable to the population (for example, in EGRS restricting the sampling frame to poorer, Quintile 1-3 schools and choosing districts that have a combination of rural and urban schools).

Provided that it does not result in a sample with limited external validity, selecting where or with which group the evaluation takes place is often influenced by existing connection or convenience of the implementer. Key factors that are often considered:

[88] Taylor, S., Cilliers, J., Prinsloo, C., Fleisch, B., & Reddy, V. (2017). *The Early Grade Reading Study: Impact evaluation after two years of interventions* [Technical Report]. p. 31-33.
[89] Department of Basic Education. (2018). *The Second Early Grade Reading Study: Early perspectives* [Baseline Report]. Department of Basic Education.

- **Geographical spread.** It is operationally easier to implement and assess a programme in schools that are located within a particular area as opposed to randomly selecting individual schools scattered across the country.
- **Size.** Sampling frame needs to be large enough for the required sample size.
- **Leadership buy-in.** The openness of department and school leadership to engaging in an evaluation may be factors that are considered.

  It is worth noting that selecting along such lines has the potential to introduce some selection bias, which may mean that the sample is systematically different to the overall population of interest (e.g., may be particularly innovative or well connected school districts, or schools might be closer to an urban centre than the average school).
- **Threshold of functionality.** A condition may be added that schools or the chosen district would need to meet a minimum threshold of management and operational functionality. Whilst this may reduce external validity, in a situation where there is almost no instruction taking place, it is senseless to attempt to measure the effect of an intervention as the fidelity of implementation will, by definition, be low.
- **Existing networks.** EGRP I was implemented in the same province as EGRS I, and in some of the same schools. A major factor in the decision was the ethical consideration of extending the original programme to the former control schools. However, the existing networks in the area might also provide an entry point and help streamline operations.

1.2.3 Running the randomization

What was tried

- **Stratification.** In all the EGRS studies, stratification was used during randomization to improve balance between intervention groups. To do this, schools were divided into sub-groups (strata) where schools within each group were more similar to each other than to the overall sample. Randomization was then conducted within each sub-group to ensure both control and treatment groups included comparable schools.

  For example, in EGRS I they split the 230 schools in the study into 10 strata of 23 similar schools based on school size, socio-economic status, and performance in the Annual National Assessments.[90] Within each stratum, 5 schools were randomly selected to each Intervention group and 8 to the control group. Thus, in total, they randomly assigned 50 schools to each Intervention arm and 80 schools to the control.
- **Balance tests.** Balance tests are used to check if randomization was successful. When random assignment is practiced, it is assumed that there will be balance among the groups. This means that the average of observable (and therefore, hopefully, also unobservable) characteristics of each group are expected to be the same before the intervention.

  Importantly, if a baseline assessment was conducted, the average of the outcomes should also be roughly the same across each of the control and treatment groups. But slight imbalance is always possible, so it is customary to check—using a baseline assessment— and report the averages before the intervention.

[90] Taylor, S., Cilliers, J., Prinsloo, C., Fleisch, B., & Reddy, V. (2017). *The Early Grade Reading Study: Impact evaluation after two years of interventions* [Technical Report]. p. 34-35.

Thus, for example, in EGRS I, the outcomes of the baseline balance test showed that one of the intervention groups (Intervention 1: Training) achieved statistically significantly lower scores on several of the baseline sub-tests.[91]

Where slight imbalances are found, the baseline scores should then be included as controls in the specifications of the regression model. Including these baseline results allows the researcher to control somewhat for initial differences observed.[92]

- **Monitor whether treatment coincides with random assignment.** After random assignment to control or treatment groups, adherence is sometimes imperfect. Mistakes or deliberate attempts by schools to switch groups can lead to discrepancies between assigned and actual treatment.

  Due to multi-grade considerations and implementation challenges, this happened in the EGRP I study. Of 140 schools, one school was excluded, as it was a multigrade school.

- When treatment does not match the assigned groups, the **intention-to-treat (ITT)** approach is typically used, analysing results based on original random assignment. However, it can also be useful to assess the actual impact on those who received the treatment—treatment on the treated—despite the bias of the measure.

Recommendations

- **Establish Clear Randomization Guidelines.** Define and document the randomization process to ensure transparency and replicability.
- **Follow a Structured Randomization Process.** First, compile a complete list of schools, then apply the randomization procedure.
- **Use Stratification to Improve Balance.** Group schools based on key characteristics (e.g., region, school size, prior performance) before randomization to enhance comparability between treatment and control groups.
- **Conduct Balance Checks.** After randomisation, assess whether key variables are evenly distributed across groups to confirm fairness.
- **Include a Baseline Assessment.** If possible, collect baseline data before implementation to measure initial conditions and improve statistical power.

2. Limitations of RCTs and use of mixed methods

RCTs are useful tools to determine an unbiased estimate for the group that you tested (internal validity). One of the cornerstone critiques of RCTs is that they are a “black box” and only serve to help researchers discover ***what works*, but not *why things work*.** The conclusion from this is that RCTs need to be combined with other methods, including conceptual and theoretical development in order to truly understand why a programme has impact.[93]

Additionally, there are a number of limitations to RCTs, with the most often cited including: no guarantee of external validity (Does this work in a different location or with a different set of

[91] Taylor, S., Kotzé, J., Wills, G., Burger, C., & Cilliers, J. (2019). *The Early Grade Reading Study: Sustainability evaluation* [Technical Report]. p. 15.
[92] Taylor, S., Kotzé, J., Wills, G., Burger, C., & Cilliers, J. (2019). *The Early Grade Reading Study: Sustainability evaluation* [Technical Report]. p. 15.
[93] Deaton, A. & Cartwright, N. (2018). Understanding and misunderstanding randomized controlled trials. *Social Science & Medicine*, *210*, 2-21.

people?); ethical and cost concerns; and the fact that RCTs often only track participants for a limited time.

In the EGRS series of studies, the **quantitative findings** were accompanied by **qualitative studies**: Classroom Observations, Case Studies, Subject Advisor and Senior Management Team (SMT) interviews in order to better understand and describe some of the mechanisms driving the change.

Some of the other concerns were addressed in a variety of ways:

- **External validity**: Through careful selection of the sample frame to be as representative as possible within given constraints
- **Ethical concerns**: Many of the ethical concerns relate to the exclusion of the control group from the programme—in the Reading Support Programme which ran from 2019 to 2020, schools from the control group received the treatment after the RCT had been concluded.
- **Outcomes in the longer run**: The EGRS I learners have been tracked for 4 years after the end of the programme, and future tracking is planned.

Recommendations

- **Develop and update a Theory of Change** to codify thinking around how an intervention results in impact.

  Collect additional information at different steps in the Theory of Change and conduct qualitative research to understand what is driving the change. This is particularly helpful in cases where there is no impact or impact is much lower than expected.
- **Qualitative Research.** Supplement the quantitative results with selected qualitative studies that aim to uncover some of the mechanisms and context. Where there is significant heterogeneity in outcomes, qualitative research can help to tease out why the intervention is more successful for certain groups.
- **Tracking post intervention.** For successful interventions, where feasible, track participants in the study to determine whether the effects fade out or whether they are sustained over time.
- **Ongoing Monitoring and Evaluation.** When a programme with demonstrated impact is adopted and scaled, it is recommended that the implementing province or organisation continues to monitor and evaluate the programme's performance. While formal impact evaluations such as randomized controlled trials (RCTs) should not be necessary at this stage, it is important to track implementation fidelity. This should include regular monitoring of programme inputs and activities to ensure that delivery remains consistent with the original design. In addition, it is valuable to assess learner outcomes over time—either as part of the programme or through independent assessments. This may involve collecting baseline and endline data to track progress and understand how learner performance improves over the course of the year.

3. Assessment

3.1 Fundamental considerations in assessment design

What was tried

In the EGRS study series, learners were followed over time, with the same set of learners tracked over a number of years. As a result, the content and difficulty level of the tests needed to change over time to be age-, grade- and context-appropriate. A few of the key considerations in the test design included:

- **Oral testing in Grade 1-3.** The learner test conducted in the first three grades of EGRS I and II was designed to be orally administered by a fieldworker to one child at a time. Because it aimed to test general foundational reading skills, it was also not curriculum-specific or standards-based.[94] The test instrument incorporated and adapted tasks from the Early Grade Reading Assessment (EGRA). While EGRA tools had already been developed in South Africa in all 11 official languages, they could not be used due to the need to test pre-literacy skills, some language-specific difficulty issues and the open-access use of EGRA. EGRA-type assessments were developed for EGRS I. The tasks selected for inclusion were:[95]
    - Letter recognition fluency
    - Word recognition fluency
    - Non-word recognition fluency
    - Sentence reading
    - Oral Reading fluency
    - Reading comprehension
    - Listening comprehension
- **Baseline considerations.** For Wave 1 (at the start of Grade 1), a number of tasks were included in the assessment that tested pre-literacy skills that are known to be predictors of learning to read, such as:
    - Vocabulary (Receptive and Expressive)
    - Listening comprehension,
    - Phonemic awareness, and
    - Working memory.

  Such alternative tests were included to avoid floor effects,[96] as students would have just entered formal schooling, so many students would not yet be able to identify letters, but their vocabulary and listening skills are likely to be much better developed.[97]
- **Development of writing skills.** To avoid floor effects, written comprehensions were introduced at the earliest at the end of Grade 3. For learners in Grade 4 and older, the bulk of the assessment could be conducted in written form. A written test can be

[94] Taylor, S., Cilliers, J., Prinsloo, C., Fleisch, B., & Reddy, V. (2017). *The Early Grade Reading Study: Impact evaluation after two years of interventions* [Technical Report].
[95] Taylor, S., Cilliers, J., Fleisch, B., Prinsloo, C., Van der Berg, S., & Reddy, V. (2015). The Early Grade Reading Study: A report on the baseline data collection and Year 1 programme activities [Baseline Report].
[96] A floor effect is when a substantial proportion of learners score zero on a test, whilst a ceiling effect takes place when a substantial proportion of learners achieve the maximum score.

[97] Taylor, S., Cilliers, J., Prinsloo, C., Fleisch, B., & Reddy, V. (2017). *The Early Grade Reading Study: Impact evaluation after two years of interventions* [Technical Report].

administered to a class at a time, greatly reducing the complexity and time taken for the testing.

- **Language policy and language development.** Most children in the studies have an African language as their home language. South Africa has adopted an education policy that allows for mother-tongue instruction. In practice, this home language is the language of instruction until the end of Grade 3, with English taught as a second language from Grade 1. In Grade 4 the official language of instruction switches to English (EFAL).[98]

  With this context in mind, assessment tasks in the earlier grades would mainly be in home language, whilst in later grades, more EFAL questions would be included.

- **Language Focus of the Intervention.** The language focus of the interventions informed the selection of the assessment items. EGRS I focussed on home language (Setswana), Only a single English task was included over the first three waves of data collection. In contrast, EGRS II focussed on English as a first additional language (EFAL) and therefore the bulk of tasks in Waves 2 and 3 were in EFAL, although most of the baseline was still in home language.

For later studies, EGRP I and EGRP II, items in the relevant languages (Setswana and EFAL) had already been created. New assessments could simply be put together by choosing from among the approved adapted EGRA items.[99]

Recommendations

- **Utilise existing, relevant, validated test instruments and adapt where necessary.** This builds on earlier efforts, thus reducing the amount of upfront work to create and test the assessment items. Additionally, it is useful for later comparison across different studies if test structures and questions are the same or similar.
- **Ensure that the instrument is fit-for-purpose.**[100] The assessment should reliably provide key information for all groups taking the test and be practical to administer. For example, a student assessment for a programme evaluation should test the main outcome targeted by the programme, although it could also test intermediate or related skills. Standard curriculum-based tests may not be suitable, so other standard instruments may need to be adapted or supplemented. In contrast, if the aim of the test was a reading diagnostic to be used by teachers in classrooms, curriculum alignment, along with factors, like test length, clarity, and simplicity, would be more relevant.
- **Set the right standard of difficulty.** The test needs to be at the right level for the group of students being tested. At the right standard of difficulty, it is possible to differentiate between students across the whole distribution. Where possible, avoid floor and ceiling effects. The problem is that there is still variation in ability amongst those scoring zero or achieving full marks, but the test cannot differentiate amongst those learners. It is often difficult or impossible to avoid floor and ceiling effects for a single task, therefore items of

[98] Heugh, K. (2002). The case against bilingual and multilingual education in South Africa. PRAESA Occasional Papers. Cape Town: PRAESA. Also Cummins, J. (2001). Bilingual children's mother tongue: Why is it important for education? *Sprogforum* 7(19), pp. 15-20.
[99] Department of Basic Education. (2020). *Terms of Reference: Evaluation Services for Early Grade Reading Programme.* Pretoria.
[100] Taylor, S., Cilliers, J., Prinsloo, C., Fleisch, B., & Reddy, V. (2017). *The Early Grade Reading Study: Impact evaluation after two years of interventions* [Technical Report].

different difficulty levels (easy to more difficult) should be included so that there is not a floor or ceiling effect for the test as a whole.

- **Pilot and adjust the level of the assessment where necessary (use more items than will be needed in the final version).** In the absence of prior information, a new assessment would need to be piloted on a group that is not part of the evaluation. Based on the outcome of the pilot, items may need to be removed or the standard adjusted.
- **Check for inter-relatability of items.** Where a full psychometric item response theory (IRT) analysis is not necessary or not possible, it is still useful to check inter-relatability of items, the correlation between items, to see whether there are any items that appear to have very low correlation to the others—this can be a sign of poor item design, choice of items, or an indicator of poor data quality.

3.2 Customisation, iteration and standardisation of learner assessments

What was tried

- **Development and expansion of foundation phase African language assessments.** The three main home languages in the EGRS series have been Setswana, siSwati and isiZulu. A full set of instruments, with instructions needed to be developed. Comparable assessments in 7 additional African languages[101] were developed as a part of a related project where reading benchmarks were set up. These test banks continue to be extended as part of ongoing work in the Funda Uphumele Research Study.
- **Improvement to testing approach for oral reading fluency (ORF) tests.** Oral reading fluency is measured by counting how many words in a passage a student reads correctly in 60 seconds. This is often followed by a set of comprehension questions. Many learners do not finish the passage in the 60 seconds, and thus, cannot answer questions on the sections of the passage that they have not read. From Grade 3 onwards, they have extended the reading time to 3 minutes to allow for a more complete and accurate measure. There is an intermediate stop at 60 seconds to measure the number of words read at this point. This produces three key metrics:
    - Number of words read correctly in 60 seconds
    - Number of words read correctly in 180 seconds, or time taken to complete the passage if under 180 seconds
    - Number of correct comprehension items (more items can now be asked as larger portions of text were read in the 3 minutes)
- **Development of language-specific reading benchmarks.** Given the diverse orthographic structures of South African languages, the need to establish **fluency benchmarks in HL across different grade levels** was recognised.[102]

  Adaptation of reading benchmarks to specific language structures, provides teachers with important guidelines to have clear expectations around learning trajectories in the teaching of reading.

[101] The 7 African languages plus Setswana and isiZulu comprise the 9 African languages that are part of the 11 official languages in South Africa.
[102] South African languages reading benchmarks policy brief, November 2023, Department of Basic Education.

As an offshoot of the EGRS research programme, the DBE established reading benchmarks for Home Language instruction. These benchmarks are designed to align with international reading fluency norms, ensuring a comprehensive and standardised approach to literacy development.

- Benchmarks help **measure oral reading fluency**, so teachers can see if learners are reading on track for their grade, and thus, identify students who need additional support in fluency and tailor interventions to meet their specific needs.
- They also serve to **assess students' decoding skills—**their ability to recognise and sound out letters and words essential for early reading development.
- The benchmark on reading comprehension evaluates **students' understanding of the text they read,** ensuring they could not only read but also comprehend the material.
- The benchmark on alphabetic knowledge includes **recognising letter-sounds** and understanding the relationship between letters and sounds.[103]

[103] Department of Basic Education. (2023). *South African languages reading benchmarks policy brief*.

Table B1: Example of Benchmarks in Nguni and Setswana Home Language Groups

Language	Benchmarks		
	By the end of grade 1, all learners should be able to sound	**By the end of grade 2, all learners should be able to read at least**	**By the end of grade 3, all learners should be able to read at least**
Nguni Home Language group (Siswati, isiZulu, isiXhosa)	40 clspm (letters)	20 cwpm (words in a passage)	35 cwpm (words in a passage)
Sesotho-Setswana Home Language group	40 clspm (letters)	40 cwpm (words in a passage)	60 wpm (words in a passage)

- The benchmarking exercise has led to changes in how HL reading progress is assessed and tracked in the Foundation Phase. It has led to the adaptation of the oral reading fluency passages to the structure of each specific HL. For example, the passages in isiZulu are short, averaging 59 words, while they averaged 159 words in Setswana. Through the benchmarking exercise, the team was able to set the reading speed in HL at 35 words correct a minute for Nguni languages by the end of Grade 3 and 60 words correct a minute for Sesotho-Setswana languages.[104]
- **Creation of the Peabody Vocabulary tests**: Vocabulary development in African languages is underexplored, partially due to the lack of suitable assessments. A set of tests were developed in isiZulu, Siswati, and English based on the approach used in the Peabody Vocabulary tests. The tests were validated during the EGRS II Wave 4 data collection. The tests were shown to be reliable and were found to correlate with reading comprehension and oral language skills outcomes.[105] These tests have been made publicly available.

Recommendations

- **Utilise existing, relevant, validated test instruments and adapt where necessary** (see above).
- **Develop language specific benchmarks** where the language structures of the languages of instruction differ.

[104] Mohohlwane, N., Wills, G., & Ardington, C. (2022). Early grade reading in South Africa. *Journal of Education Research, 12*(3).
[105] Wilsenach, C. & Schaefer, M. (2022). Development and initial validation of productive vocabulary tests for isiZulu, Siswati and English in South Africa. *Language Testing, 39*(4), 567-592. https://doi.org/10.1177/02655322211063785.

4. Data collection and data use

4.1 Data collection

To collect or not to collect data. The choice of what data to collect and what not is always a tricky balance. Two main questions need to be answered: ***who*** do we test and survey, and ***how much*** does one ask them? In theory, more (high quality) data are always preferred, and the marginal costs of asking one more question are small. However, both the respondent's time and the cost of collecting more data need to be considered.

What was tried

- An example of the group that was chosen to be tested and surveyed for each of the waves in EGRS I, EGRS II and EGRP I is indicated in the figure below:

	EGRS I					EGRS II					EGRP I	
	W1	W2	W3	W4	W5	W1	W2	W3	W4	W5	W1	W2
Assessments												
Learner– Oral	x	x	x	x	x	x	x	x	x	x	x	x
Learner – Written		x	x	x	x			x	x		x	x
Teacher - Written	x	x	x			x	x	x				
Surveys												
Learner	x	x	x	x	x	x	x	x	x	x	x	x
Teacher	x	x	x			x	x	x	x	x	x	x
Principal (+ school)	x	x	x	x	x	x	x	x	x			
Parent	x	x	x			x	x	x				

Figure B2: Group tested for each wave (EGRS I, EGRS II and EGRP I)

The length of the assessments and surveys also need to be considered. The average length for each is indicated below:

Assessments:

- **Learner Oral.** For younger children in Grades 1-3, the bulk of the assessments were **one-on-one oral** assessments; generally contained about 7-10 tasks; and took around 20 minutes.
- **Learner Written.** In Grades 1-3, a single written item was often included as a part of the oral assessment and administered to an individual learner. From Grade 4 onwards, a larger share of the assessment would have been in a written form. The written assessment would be administered to a class at a time. Such a written assessment generally consisted of about 3-7 written tasks, with a test length of about 30-45 minutes (equivalent to about a school period).
- **Teacher Assessments.** The teacher assessments used in EGRS I and EGRS II consisted of a short oral reading fluency exercise and a reading comprehension test with about 10 items, taking about 5-7 minutes to administer. The teacher assessment was the last question in the teacher survey.

Surveys:

- **Learner (Demographic).** Asked at the beginning of each assessment and consists only of identifiers and very basic demographics (Gender and Date of Birth).
- **Principal (including school's information).** The Principal Questionnaire was administered as a face-to-face interview with the principal. The survey asked questions about the principal, their characteristics and experience, as well as questions about the school; student and staff numbers, and gathered contact information for logistics purposes. If the principal was unavailable, another member of the management team would answer on their behalf. The survey generally took between 20 and 30 minutes.
- **Teacher.** The Teacher Survey asked teachers for demographic information, their education and experience, classroom and school activities, absenteeism, and opinions on language instruction and perceptions of support. The survey (including the assessment) took around 45 minutes per teacher, depending on the length of the survey and the level of detail required for the teachers in the coaching arm.
- **Parent.** The Home Background Questionnaire was completed by a parent or caregiver. It included questions on the relationship of the respondent to the student, parent's level of education, home literacy activities and resources, parent's engagement with student's schooling, and a home asset registry. This was normally a paper-based survey, designed to take about 15-20 minutes for the parent to complete.

- **Quantitative data collection timelines.** There are generally three stages: piloting, main data collection and the mop-up exercise. During the mop-up period, enumerators go back to specific schools or students that were missed, for example, due to absenteeism or an unforeseen school closure.
    - Learner assessment: The bulk of data collection usually took place over a 2 to 4-week period.
    - Surveying principals and teachers: Surveys were administered over a period of about 2-4 weeks. This took place over the same period as the learner assessments.
    - Surveying parents: Teachers supervised the distribution of parent surveys, ensuring they were sent home with learners The completed surveys were then collected by the enumerators from the schools within the data-collection period (usually about 1-2 weeks later).
- **Fieldworker allocation.** Fieldworkers were paired, and each pair was assigned to one school per day. Although fieldworkers were not always explicitly allocated at random, the schedule was reviewed to ensure that each team had a relatively similar split of control schools and schools from each treatment arm. While the risk of fieldworker bias remains, this approach helps prevent significant imbalances in outcomes across arms.[106]
- **Quality assurance in data collection.** A 3-tier quality assurance strategy was agreed upon in Wave 4 of EGRS II.[107] This included: Supervisors monitoring data collections

[106] Khulisa Management Services. (2019). *Fieldwork Report: Data collection for the Early Grade Reading Study II in Mpumalanga (EGRS II) (Wave 4)*. Khulisa Management Services.
[107] Khulisa Management Services. (2019). *Fieldwork Report: Data collection for the Early Grade Reading Study II in Mpumalanga (EGRS II) (Wave 4)*. Khulisa Management Services.

and checking for errors and inconsistencies; Khulisa checking; and then the DBE Project Management Team validating the output.

Specific staff members were also assigned responsibilities as: Data Capturers, Data Quality Monitor and Backend Data Quality Monitor. The Data Capturer consolidated things like learner-linking lists and -attendance registers that came in via WhatsApp, whilst the Data Quality monitor administered various quality protocols on the actual physical data packs returning from the field. Lastly, the Backend Data Quality Assessor conducted high-frequency statistical checks on the raw data on a daily basis.

In EGRS I, for the baseline, the quality of data collection for the learner assessments was poor. This can partially be attributed to difficulties with collecting oral data from very young children; however, it is also a reflection of poor quality assurance during the data collection process, which was significantly improved in later rounds.[108]

In later Waves, some of the quality assurance checks of assessments and surveys included:

- Enhancing training by ensuring consistency among surveyors throughout the process, and incorporating tests and quizzes and using these assessments to select the final fieldworkers
- Incorporating in-person simulation with learners at a school as part of training
- Checking consistency between surveyors during data collection, across languages, and the use of scores on key variables (means, modes, distributions, outliers)
- Checking time taken for an assessment or survey to be completed
- Checking for nonsensical or impossible responses

Monitoring of fieldworkers included some telephone checks, as well as the standard checks of the data being sent in.

- **Implementation Fidelity Monitoring.** Given that fieldworkers are already at the schools, it is useful to run some implementation fidelity monitoring checks in parallel. For example, checking classrooms for presence of programme materials or some telephonic monitoring was done.

Piloting of Assessment and Surveys

- **Length of pilot.**: Generally, learner assessment instruments were piloted for about 3 days.[109] A second pilot was normally only run if there were significant errors or difficulties encountered in the first pilot.
- **Piloted in different schools and languages.** For example, in EGRS I Wave 4, piloting took place in 4 schools. If there are multiple languages, piloting needs to take place in all languages.
- **Update instruments and use insights to inform enumerator training.** The aim of the pilot is to provide input into the instrument design including the sequencing of the items and which items to drop. It should provide lessons for fieldworker training, as it may

[108] Taylor, S., Kotzé, J., Wills, G., Burger, C., & Cilliers, J. (2019). *The Early Grade Reading Study: Sustainability evaluation* [Technical Report].
[109] Taylor, S., Kotzé, J., Wills, G., Burger, C., & Cilliers, J. (2019). *The Early Grade Reading Study: Sustainability evaluation* [Technical Report]. p. 22.

highlight possible challenges or potential misunderstandings as well as insights into when and how to introduce the survey tools (e.g., tablets).[110]

Recommendations

- **Implement Quality Assurance**
    - **Standardised Data Collection Procedure**s. Ensure all enumerators follow clear, written protocols to minimise inconsistencies.
    - **Training and Pilot Testing.** Train fieldworkers thoroughly (at least 5 days). Include fieldwork in the training to identify and resolve potential issues.
    - **Regular Monitoring and Supervision.** Where possible use tablets for digital data entry as this allows for real-time validation of data coming in during data collection. Also conduct spot checks in the field.
    - **Cross-Validation and Error Checking.** Implement built-in logic checks into the digital data capturing tool and conduct additional checks on submitted data.
- **Ensure Data Completeness**
    - **Minimise Missing Data.** Design survey tools with mandatory fields, and predetermined options, ensure auto-stop and skip-patterns are working correctly, and ensure that enumerators provide clear instructions to students.
    - **Real-Time Monitoring.** Use dashboards or field reports to track missing or incomplete responses and address gaps promptly.
    - **Follow-Up Procedures.** Establish protocols for revisiting schools, or tracking children where data points are missing.

4.2 Hiring and training of fieldworkers

What was tried

- **Hiring fieldworkers and fieldworker supervisors.** Fieldworker selection was generally conducted in stages. The screening process comprised background checks, verification of qualifications, as well as a telephonic interview. A set of criteria was used to identify high-potential candidates. As an example, see the selection criteria for fieldworkers on the EGRS II, Wave 4 data collection in the table below.

[110] HL and Phonic Friezes.

Table B2: Fieldworker and Fieldworker Supervisor Selection Criteria

Fieldworker Selection Criteria	Fieldwork Supervisor Selection Criteria
1. Degree/teaching diploma OR Matric with teaching experience	1. Degree and/or teaching experience
2. Researcher work experience – previous learner assessment experience advantageous.	2. At Least 3 years work experience in the education sector – previous EGRS experience (Mandatory)
3. Fluency in English, SiSwati and/or isiZulu languages	3. Fluency in English, SiSwati and/or isiZulu languages
4. Previous experience working with foundation phase learners advantageous	4. Previous experience working with foundation phase learners (mandatory)
5. Driver's license (advantageous)	5. Driver's license (Mandatory)
6. Good interpersonal skills	6. Good interpersonal skills
	7. Experience managing fieldworkers

- **More fieldworkers trained then required for the final team.** About 15-20% more fieldworkers would be selected to come in for training than the number required for the final team. Training included fieldwork, where they went out to schools to run assessments. After the results of these trial runs, a final group of fieldworkers would then be selected for the main data collection, with the remaining set of trained fieldworkers designated as "reserves". For example, in EGRS I Wave 4, 56 fieldworkers were trained, of which 46 were selected for fieldwork and 10 were appointed as reserves.[111]
- **Fieldwork supervisors.** These act as mini-managers that are also able to implement assessments if required. They both assist with ensuring that operations in the field are running smoothly and act as the first point of call for on-the-ground quality assurance. The ratio of fieldwork supervisors to fieldworkers that was tried and worked well was between 6 and 7 fieldworkers per supervisor.[112]

Fieldworker training

- Duration of training: About a week-long (5-day) training workshop
- Content of fieldworker training:
    - **Fieldworkers**: Two days of the training were dedicated to the tools, while the third and fourth days entailed in-venue and school-based fieldworker role play and fieldwork simulation, and the fifth focused on administration and logistical arrangements.[113] Over time an in-school data collection trial run with real learners has been embedded within the 5 days of training.
    - **Fieldwork supervisors** were trained on the protocols for fieldwork and each of the assessment instruments. Fieldwork supervisors were provided an overview of the study and were introduced to the research tools and data collection software.

[111] Taylor, S., Kotzé, J., Wills, G., Burger, C., & Cilliers, J. (2019). *The Early Grade Reading Study: Sustainability evaluation* [Technical Report].
[112] Khulisa Management Services. (2019) Fieldwork Report data collection for the Early Grade Reading Study II in Mpumalanga (EGRS II) (Wave 4). p. v.
[113] Taylor, S., Kotzé, J., Wills, G., Burger, C., & Cilliers, J. (2019). *The Early Grade Reading Study: Sustainability evaluation* [Technical Report]. p. 22.

A substantial part of the training was dedicated to tool-orientation and protocols for assessing learners.[114]

- Thirty fieldworkers were paired-up (i.e., 15 groups of two fieldworkers each), and each pair spent a full day in each school to administer the following instruments:
    - Learner Oral Assessment (LA)
    - Learner Written Assessment (LWA)
    - Principal Questionnaire (PQ)
    - School Observation (SO)
    - Teacher Questionnaire (TQ)
    - Linking Form (LF)

The evaluation service provider was responsible for training, fieldwork, and managing the team of fieldworkers, as well as training, fieldwork, and managing five supervisors, and implementing quality assurance in the data collection. There was, however, oversight by the DBE, particularly during training and quality assurance.

Lessons

- **Younger enumerators with the right skills and training have the potential to outperform older enumerators.** An observation was made in the EGRS II Wave 4 Fieldwork report that "based on the lessons learned from previous years (2017 and 2018), the average fieldworker age was decreased. This is due to the physical requirements and productivity expected of the fieldworker cohort."

Recommendations

- **Take particular care in hiring and training fieldworkers to assess and survey young children.** Grade 1 learners are new to school and not able to write. As the assessment is completed orally and on one-on-one testing, it can be a lot harder to ensure that fieldworkers administer and interpret the testing correctly and consistently. Thorough quality assurance during fieldworker training and piloting phases should ensure that any concerns are addressed or can be monitored.

4.3 Survey software

Survey software allows users to upload questions and collect responses during face-to-face field research. Enumerators can input responses directly into a tablet or mobile device, even without an internet connection.

What was tried

Three different survey software packages have been used:

[114] Taylor, S., Kotzé, J., Wills, G., Burger, C., & Cilliers, J. (2019). *The Early Grade Reading Study: Sustainability evaluation* [Technical Report], p. 22.

Table B3: Survey Software used in the Evaluations

Survey Software	Comments
Tangerine	Developed by RTI. Was initially free, now paid. Simpler user interface.
Survey CTO	Paid service. More flexibility than Tangerine, but programming the instruments is more complicated
KoboToolkit	There is a free version available for NGOs and smaller data collection efforts

A full list of the survey software used is provided in the table in the supplementary appendix. In summary:

- In the first three waves of EGRS I, all learner assessment and surveying was paper-based, with responses later captured into a database.
- In Wave 4 of EGRS I, the move was made to a digital survey system, using the Tangerine software developed by RTI. Tangerine was used throughout EGRS II, although, in the last few years, for the related reading benchmarking and later learner assessment work, the team has shifted to using Survey CTO and Kobo.
- Parents surveys have remained paper based, as these are sent home for parents to fill in.

For EGRS I and II, the DBE project management team (PMT) developed the instruments, uploaded them onto the survey software and did the initial testing. In EGRP I and II, the evaluation service provider was responsible for the initial creation, uploading and testing of the tools, using existing templates and item banks.[115]

With digital data collection, it is possible that data become corrupted or tablets lost, especially with low data connectivity in the field. The apps used could all work offline and automatically sync when connectivity was restored. Data were uploaded to the Cloud and backed up on a daily basis to minimise data-loss risks. Team leaders would confirm and check uploads daily. Over time, to enhance monitoring, the DBE introduced automated daily checks for data loading within a dashboard.

Recommendations

- **Use digital survey tools rather than paper instruments for in-person enumeration.** In-person oral learner testing, in particular, benefits from being conducted on a digital device, as this reduces some potential data errors. It also allows for greater investigation of potential errors later, due to additional information captured, such as time taken and the response of the learner on every word. Some of these benefits also extend to digital surveys.

  Whilst using tablets in the field can be a slightly more expensive option, it generally leads to higher quality data.

- **Instrument programming and testing**: Allow enough time (at least a week) to test the instrument for any errors or technical difficulties once it has been fully programmed, and

[115] Khulisa Management Services. (2019). *Fieldwork Report: Data collection for the Early Grade Reading Study II in Mpumalanga (EGRS II) (Wave 4).* Khulisa Management Services.

before going to the field. It is also critical to check that the data are being captured completely and in the correct format.

- **Daily data uploads**: If there is limited data connectivity in the field, ensure that data are uploaded on a daily basis, to avoid data loss if a tablet gets lost, stolen, broken or corrupted.

4.4 Data management and accessibility

What was tried

- A statistical analysis plan was submitted for each of the EGRS studies. For example, for EGRS I, a pre-analysis plan was submitted to the AEA RCT registry in October 2016.[116]
- The DBE has made an anonymised version of the EGRS I and EGRS II panel datasets publicly available on DataFirst and its public data repository.
- In order to allow for the tracking of learner identifying data over time, including names and birthdays, data were collected and have been stored for use in later research, ensuring compliance with national data protection laws.

Recommendations

- **Ensure Public Data Access.** After completing the study, provide access to anonymised data through a secure data platform.
- **Publish the Statistical Analysis Plan.:** Before data collection begins, share the proposed analysis plan on an open platform to promote transparency.

5. Role of Evaluation Service Providers

The Department of Basic Education has led in determining and designing the studies on the research programme, while the assessment and surveying of learners, some of the qualitative work, data management and analysis has been provided by **service providers**.

5.1 Scope of work of service providers

The split of responsibilities taken on by service providers has also taken on slightly different forms across the different studies and in different Waves.

What was tried

The studies in the EGRS series have usually included both quantitative and qualitative aspects, and the categories given here can be applied to either type of research approach.

The main areas of responsibility for an evaluation service provider are listed below.

1. Evaluation design
2. Instrument design, programming and testing
3. Data collection (assessments, surveys, classroom observations)
4. Data cleaning and analysis

[116] Cilliers, J., Fleisch, B., Prinsloo, C., & Taylor, S. (2020). How to improve teaching practice? An experimental comparison of centralized training and in-classroom coaching. *Journal of Human Resources*, *55*(3), pp. 926-962.

5. Technical, impact and case study reporting

The evaluation design (1) has always been led by teams at the Department of Basic Education, although sometimes, with input and technical advice from academic partners, and the data collection (3) has been almost exclusively outsourced to service providers.

The other three categories, instrument design and testing, data cleaning and analysis and reporting have, at various points, been performed either by DBE staff members, along with academic collaborators or by service providers.

For the first two studies, EGRS I and EGRS II, many of the tasks, apart from the on-the-ground data collection, quality assurance and basic cleaning took place with heavy involvement by members of the DBE team and other academic collaborators. This level of involvement was important, as there was still innovation in instrument design and selection of different competencies to be tested. Much of the later data cleaning, analysis and reporting was also performed by DBE staff in the earlier interventions.

In EGRP I, on the other hand, Instrument design, programming and testing for both the quantitative and qualitative data were included in the original terms of reference. These were conducted by the service providers, Social Surveys Africa and Social Impact Insights Africa. These organisations also conducted the data cleaning and analysis ,as well as the report writing.

Recommendations

- **Consolidate the work under a single service provider**. Ideally, the same provider should be responsible for instrument preparation, fieldwork, data cleaning, analysis, and aspects of reporting. This minimises data loss, prevents perverse incentives from passing on problems, and facilitates debugging, error checking, and data cleaning, and the reporting of this process.
- **Aim to retain the same service provider for the whole research period** unless there are service delivery concerns that remain unresolved.

5.2 Selecting Service providers

The service providers in charge of implementation of the research programme and those in charge of the data collection and some of the analysis of the programme have always been different organisations. Two critical factors have driven this approach: skills specialisation and independence.

What was tried

A total of 8 different evaluation service providers (and sub-contractors) have run elements of the instrument designs, fieldwork and analysis over EGRS I, EGRS II and EGRP I. A full list is provided in the Appendix. Although these programmes have been managed by a government department, **the procurement procedures adhered to have been those of the funding agency**. **The Terms of Reference (ToRs)** have thus been the product of a **co-creation process** with the funder to ensure this alignment. Significant discussions and sticking points have arisen in the selection of evaluation partners:

- **Strengths and weaknesses of service providers.** Given the different strengths of service providers, trade-offs are often unavoidable. A significant discussion has been whether to prioritise service providers with strong data collection and evaluation skills or those with more experience in education and language. Generally, data expertise has been prioritised. However, it has usually been required that teams also include someone

with language and education expertise—sometimes through a consultant—to ensure the necessary capacity in these areas.

- **Budget.** There has sometimes been a trade-off between cost of a service provider and the range of skills they offer (e.g., language, project management, programming, etc). Service providers with a more comprehensive set of skills tend to be more costly.
- **Single or multiple service providers.** There is a choice to be made whether all the tasks should be completed by a single organisation or to sub-divide these further between more than one service provider. Generally, a single service provider has been appointed to be responsible for the evaluation. However, for the first three Waves of EGRS I, EGRS II and for Waves 1 and 5, the data collection was subcontracted.

Recommendations

- **Ensuring that the evaluation and assessment team is independent of the implementation team**. There is always a trade-off that takes place, when selecting between different service providers, and it is difficult to find one organisation that has the breadth of skills for implementation alone, or evaluation alone.
- **Key factors to take into account when selecting service providers** are: expertise and track-record; range of skills; objectivity; communication skills; and cost.
    - **Expertise and track-record.** Look for individuals with relevant knowledge and experience in the subject matter being evaluated. This could include technical expertise, industry-specific knowledge, or familiarity with the evaluation methodology.
    - **Range of Skills.** The service provider for the data collection and evaluation will need a diverse set of skills, including project and people management, instrument design, data quality assurance, data analysis, qualitative research, report writing and communication skills.
    - **Scarce Skills:** In some contexts, certain skills may be in short supply. It's important to select the best available service provider and invest in developing those skills over time as part of building the relationship.
    - **Objectivity.** The evaluators should be independent, with no affiliations to the implementation team. Additionally, they should have minimal ties or conflicts of interest with other key stakeholders.
    - **Cost.** Budget will be a factor that limits the pool of possible service providers. Ensure that the total cost for the project is clear up front.

5.3 Service Provider management and risks

Lessons

Service providers can add expertise and bring new ideas, innovation and ways of doing things. Two of the main challenges in managing service providers have been:

- **Low or variable quality of work.** In the very first wave of data collection in EGRS I, the fieldwork was subcontracted by the evaluation partner. There were some concerns around the quality of data collected, as well as the recruitment process and fieldworker logistics. At this time, data collection was also paper-based, and, as such, real time quality assurance was only possible by observation, not by checking the collected data.

Various quality assurance measures were put in place and a new sub-contractor was hired for the next wave of data collections, and data quality markedly improved.[117]

- **External institutional memory.** When a project ends, there is always a risk of losing access—or at least easy access—to details and information that are only known to specific individuals or stored in informal documents and communications. In one instance, a service provider went bankrupt after a project's completion, resulting in a significant loss of access to an application and other information. In a less dramatic instance, the main analyst switched roles in the middle of the project leading to a similar discontinuity.

Recommendations

- **Quality assurance:** Implement a robust quality assurance system at every step of the evaluation and data collection process. Quality assurance should also extend to include operational aspects, such as recruitment and logistics, not just documents and data.

  Switch service providers where data quality is demonstrably low, and there is no improvement. While there are benefits to keeping the same provider, they don't apply if the quality of delivery is poor.

- **Documentation and reporting**. Require light-touch reporting and documentation at intervals (e.g., a handover of the instruments once these have been completed), not just upon completion of the project. This also mitigates the risk of losing access to key people during the project. Hold a final handover where access is provided by the service provider to all relevant documents in a well organised system.
- Consider placing the data on a government-owned database/server to ensure access is retained after the end of the contract period with the service provider.

6. Role of academic collaborators and research partners

What was tried

The RCME Directorate at the DBE is a research unit. They are somewhat unusual in having academics embedded within the unit who publish their own research. This has enabled more academic publishing and genuine co-authorship than is typically observed in similar partnerships.

The EGRS was characterised by collaboration with individual academics across a number of universities and research institutions who shared similar research interests. Partnerships with academics from institutions including University of the Witwatersrand, the Human Sciences Research Council (HSRC), Georgetown University and RTI have contributed significantly to generating robust evidence on what works and why in the local context.[118] They have also contributed to improving the quality of instruments used and of data collected in the course of the evaluation cycles.[119] As touched upon earlier, RTI provided the DBE with technical assistance with the benchmarking of home languages exercises.

[117] Taylor, S., Cilliers, J., Prinsloo, C., Fleisch, B., & Reddy, V. (2017). *The Early Grade Reading Study: Impact evaluation after two years of interventions* [Technical Report].
[118] Building Foundations: Department of Basic Education. (n.d.). *Early Grade Reading Study (EGRS).*
[119] *EGRS 1, Wave 3 Technical Report* (2017) Department of Basic Education, South Africa.

Recommendations

- **Collaborate with a diverse set of partners, who share research interests and values,** which builds a research community in which ideas are generated, tested and shared.
- **Encourage greater levels of government-led publishing**, with officials acting as lead authors. This will help build academic credibility alongside policy influence, strengthen the evidence base for reforms, and position governments as active contributors to the broader knowledge ecosystem.

7. Dissemination of findings

The findings of the EGRS series of studies were shared using various standard communication methods and channels.

What was tried

- **Reporting.** The research programme has consistently and comprehensively reported on each Wave of studies. Ten years after the first EGRS I data collection, these reports serve as a valuable source of information for reference. For the main quantitative results, the reporting generally consisted of a baseline, midline and endline report. In cases where learners were tracked after the conclusion of the programme, each Wave also has an attached report. In some cases, this was accompanied by a separate technical report; alternatively this information was included in the main report.

  Separate reports documented the findings and research process for any associated qualitative studies that were undertaken, such as classroom observations, case studies or the subject advisor study for EGRP I.

  In some cases where tests, instruments and materials were created or adapted, this was documented in a report or academic papers.
- **Centralised website.** Key reports from the studies are housed and publicly available on the EGRS page on the Department of Basic Education website.[120]
- **Launches and workshops.** Main reports have generally been released in a large launch attended by key government officials from the DBE and the provinces to share and discuss findings. This is generally accompanied by a media release. In addition, smaller workshops have been held to disseminate findings to a broader audience, targeting key groups, for example, at the provincial level. A live-streamed Early Grade Reading Indaba was held in 2022 to discuss the combined findings of EGRS I and EGRS II.[121]
- **Policy briefs, synthesis documents and infographics.** Shorter policy briefs and infographics and synthesis documents aim to communicate the key findings in an easily accessible format.
- **Academic publishing.** There has been a commitment to publishing in peer-reviewed journals, and to date, at least 6 journal articles have come from this study series.

[120] https://www.education.gov.za/Programmes/EarlyGradeReadingStudy.aspx.
[121] https://www.gov.za/news/media-advisories/government-activities/basic%C2%A0education-hosts-indaba-early-grade-reading.

- **International dissemination.** The DBE team, as well as academic collaborators, have attended a number of international conferences to share the findings beyond South Africa and obtain input from peers. Examples include: CIES,[122] RISE, WWHGE,[123] UKFIET and AfrEA.
- **Multimedia.** Videos in which key players in the study series were interviewed were created specifically to disseminate the findings of the EGRS I and II studies.
- **Local and regional academic engagement.** Within South Africa, the EGRS research has been shared at the Litasa[124] and SAMEA[125] conferences, which served both to publicise the findings, and generate local support for the programme.
- **Social media.** The DBE accounts on X and Facebook have been used to communicate EGRS findings, allowing them to reach all the DBE's followers.
- **Branding**: There have been two occasions in which reports and releases of the EGRS studies have had a uniform look and feel. For EGRS I, black, red green and yellow were used with an EGRS logo of a child with a book. A second theme was used for the policy summaries that were released in 2020 looking at both EGRS I and II outcomes. These all used the DBE's green and orange colours and cartoon-like theme, with a primary-school feel. However, this branding was not maintained across all reports and media, particularly as a number of different service providers have been involved.

Recommendations

- **Produce regular and clear reports.** Ensure regular, structured reporting of findings, outcomes, and updates that are clear and accessible to both internal and external audiences.
- **Use Diverse Formats.** Consider using a mix of content and formats (e.g., long reports, policy briefs or executive summaries, infographics, videos or podcasts) to make the content accessible and engaging to different groups of stakeholders.
- **Make Reports Publicly Available.** Publish reports on a publicly accessible platform (e.g., website or open-access repository) to ensure transparency, accessibility and reach. This simplifies sharing findings with relevant stakeholders.
- **Centralised Storage Repository.** Implement a centralised, easily navigable and updated repository for all reports, data, and documentation (e.g., Google Drive, SharePoint, Dropbox). Ensure that this is backed up and available to key staff members for future reference. Such documentation is also key as institutional memory, in case of staff transition.
- **Use Existing Communication Channels and Norms.** Use established communication systems (e.g., indabas, newsletters, social media) and workflows in your department or region for dissemination. But, add your own flair by organising unique events or enhancing these channels with creative content, such as videos, infographics or off-site launches or indabas.
- **Seek to Publish in Academic Journals.** This leads to greater research credibility, particularly within the academic and the wider development community. Peer-reviewed

[122] Comparative and International Education Society Conference.
[123] What Works Hub for Global Education Conference.
[124] Literacy Association of South Africa Conference.
[125] South African Monitoring and Evaluation Association Conference.

publications expand the reach of the organisation or study and can spark discussions, collaborations, further research and uptake of the evidence generated.

- **Standardise branding.** Whilst not strictly required, standardised and consistent branding in communications looks more professional and is the preferred approach. This becomes harder to manage if multiple organisations create the material. To address this, it is crucial to establish a clear branding style guide that is shared with everyone involved from the start and maintained over time. Alternatively, if the branding is applied post-fact it becomes necessary to allow time (and also additional budget) for a professional designer to apply the branding to all materials.

Conclusion

We hope that the guidance, examples, and reflections offered in this document have been useful. By drawing on South Africa's experiences with early grade reading programmes, the aim has been to support more consistent, evidence-informed implementation across varied contexts. As the sector continues to evolve, it remains vital not only to document and share best practices, but also to actively incorporate lessons from other programmes, contexts, and countries.

Equally important is the continued focus on high-quality evaluations. Rigorous evaluations—combining strong quantitative methods with rich qualitative insights—are essential for understanding not only *whether* an intervention works, but *how* and *why* it works in practice. These insights are critical for shaping effective, scalable solutions that are grounded in local realities and capable of delivering sustained improvements in learning outcomes.

The process of implementation and evaluation should not be seen as separate, but as mutually reinforcing. Together, they form the foundation for adaptive learning and stronger decision-making. We encourage all actors—whether implementers, funders, researchers, or policymakers—to use and build on this resource, contribute to the growing body of local evidence, and work collaboratively to strengthen early grade reading internationally.

Supplementary Appendix

Table S1: Table to show the Service Providers and Data Collection Tools over time

Implementation	Implementation	Evaluation	Data Collection SP (if different)	Data Collection Software
EGRS I				
Wave 1	Class Act Educational Services	HSRC (Human Sciences Research Council)	(Unnamed sub-contractor)	Paper based
Wave 2	Class Act Educational Services	HSRC (Human Sciences Research Council)	Social Data Collectors	Paper based
Wave 3	Class Act Educational Services	HSRC (Human Sciences Research Council)	Social Data Collectors	Paper based
Wave 4	-	Khulisa Management Services	Khulisa Management Services	Tangerine
Wave 5	-	Khulisa Management Services + some RTI reporting	Khulisa Management Services	Tangerine
EGRS II				
Wave 1	Class Act and Molteno partnership	Khulisa Management Services + DBE reporting	Social Data Collectors	Tangerine
Wave 2	Class Act and Molteno partnership	Khulisa Management Services	Khulisa Management Services	Tangerine
Wave 3	Class Act and Molteno partnership	Khulisa Management Services	Khulisa Management Services	Tangerine
Wave 4	-	Khulisa Management Services	Khulisa Management Services	Tangerine
Wave 5	-	DBE	Ikapa Data	SurveyCTO
EGRP I				
Midline	Molteno	Social Surveys Africa	Social Surveys Africa	Learner assessment: Tangerine Contextual tools: Kobo
Endline	Molteno	Social Impact Insights Africa	Social Impact Insights Africa	Learner assessment: Tangerine Contextual tools: Kobo
EGRP II				
	Oxford University Press	Social Impact Insights Africa	Social Impact Insights Africa	Tangerine or SurveyCTO