

# The link between learner performance in early reading literacy and what is happening in the Grade 1 classroom

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**Background:** Developing reading skills depends on how learners are taught to read in the classroom. Previous research showed that academic achievement is strongly affected by pedagogical content knowledge and lack of appropriate professional development.

**Aim:** This article aims to examine the relationship between learner performance in early reading literacy and what is happening in the Grade 1 classroom.

**Setting:** The study was conducted in five different schools in Mopani district in the Limpopo province.

**Methods:** An exploratory mixed methods research design was used, where quantitative and qualitative methods were used for data collection and analysis. Five teachers who teach reading in Grade 1 classrooms were observed. Seventy-five Grade 1 learners were assessed twice (March and September 2018) in Xitsonga as the home language and as the first additional language using the early grade reading assessment toolkit.

**Results:** The quantitative results showed an improvement in scores from baseline to endline; however, this was not good enough, given that performance in all the reading measures was low and very slow, reflecting inadequate mastery of foundational reading skills by the end of Grade 1. The qualitative findings provided some insights into how this comes about. Although teachers made efforts to implement reading methodologies in line with the national curriculum, they showed lack of understanding of how early reading develops and how each of the reading activities contributes to different aspects of this development.

**Conclusion:** The present teachers' understanding of early reading development and their enactments of reading in Grade 1 classrooms are insufficient to develop grade-level readers by the end of the year. Recommendations are made to help teachers improve their classroom practices.

**Keywords:** early grade reading; foundation phase; phonics; share reading; group guided reading.

## Introduction

The South African curriculum specifies six different methods (phonics, shared reading, group guided reading, paired or independent reading and reading aloud) for teaching early reading in the foundation phase (FP) (Grades 1–3) classes as an attempt to get teachers to move away from their fronted-whole class teaching and chorusing techniques. Each one of the reading strategies is allocated a specific amount of time (typically no longer than 15 min per activity). These varied strategies apply to whole-class teaching and learning and more individualised teaching in smaller groups or pairs (Department of Basic Education 2011). However, despite explicitly specifying different methods which should be used to teach early reading, studies have shown that many FP teachers still experience challenges in teaching reading simply because they have not been trained effectively to implement the curriculum (National Education Evaluation and Development Unit [NEEDU] 2013; Pretorius et al. 2016). The way in which teachers teach early reading in the FP has implications for learner performance. Various medium and large-scale assessments revealed that South African learners' performance in reading literacy is unsatisfactory (Annual National Assessment 2012, 2013, 2014; Department of Basic Education 2014; Howie et al. 2007, 2012, 2017; Progress in International Literacy Reading Study 2006, 2011, 2016; Spaull & Pretorius 2019; Spaull, Pretorius & Mohohlwane 2020). Teacher quality matters a lot when it comes to learner achievement. Morrow (2007) pointed out that teachers' lack of pedagogic knowledge is a prevalent deficiency that negatively impacts teaching and learning.

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This article draws on the findings of a doctoral study that sought to examine early reading development in Xitsonga in South Africa. The study has contributed by adding interesting data to African reading research, investigating how learners performed in the early reading measures of the early grade reading assessment (EGRA) toolkit. Firstly, it unpacks the social cognitive learning theory (SCLT) underpinning this study and reviews literature demonstrating the link between learner achievement and classroom practices. Secondly, it outlines some of the factors considered barriers to the successful teaching of early reading. It then describes the methodologies used in the study. Lastly, it presents the quantitative and qualitative findings and discussions. It then concludes by providing recommendations for improving early reading instructions.

## Theoretical model

The SCLT, developed in 1986 by Albert Bandura, underpins this study. This theory holds that learning occurs through people interacting with each other in a social context (Nabavi 2014). The SCLT was considered in this study based on emphasising that learning is affected by cognitive, behavioural and environmental factors (Bandura 1991). According to Baez, García and Ibáñez (2018), social interaction plays a major role in our behaviour, affecting students' learning. A study that examined how undergraduate and graduate students perceived the value of social interaction on their learning behaviour also found that social interaction improved their learning by enhancing their knowledge of literacy, critical thinking and problem-solving skills (Hurst, Wallace & Nixon 2013). In the context of an early-grade reading literacy classroom, the SCLT provides an understanding that learning is influenced by what is happening during reading lessons. Bandura argues that for observable behaviour to be learned successfully through observation, imitation and modelling, teachers must make sure that the following four conditions exist for the learners: attention, retention, reproduction and motivation (Bandura 1986).

### Attention

For effective learning to occur, children need to pay attention. However, children's interest in learning the modelled behaviour is determined by the strategies teachers use to grab their learners' attention.

### Retention

This process involves recalling what has been learned through observation, imitation and modelling. If children cannot remember the behaviour, they are unlikely to imitate what they have observed.

### Reproduction

This step involves performing and practising the behaviour that has been observed. For example, children may observe the teacher reading the story aloud with expression and

intonation during shared reading or read-aloud activities. Afterwards, they can try to enact what they had observed from a good role model.

### Motivation

This step involves motivating learners to become interested in imitating the modelled behaviour. Learners are motivated to imitate the observed behaviour if they are positively rewarded. However, if the behaviour is followed by punishment, they are likely to avoid that behaviour.

## Literature review

### The relationship between learner achievement and classroom practices

Most learners in South African classrooms cannot read according to their grade level. This has been linked to what is occurring in the classroom. Several studies have shown that classroom pedagogies are most likely to influence student-learning achievement. A comparative study of classroom and teaching factors on learner achievement in maths across the North West province and Botswana found that teachers' pedagogic knowledge was strongly linked to ratings of teacher quality and opportunities to learn in schools in the North West province (Carnoy & Arends 2012). In a qualitative study involving 582 educationists and learners, Mmasa and Anney (2016) examined Grades 2 and 3 learners' mastery of literacy skills in Kiswahili. Findings revealed serious literacy problems in the way teachers teach literacy in public primary schools, where most teachers lacked adequate skills. This was reflected in learner performance, which showed that 64% of Grade 2 and 45% of Grade 3 learners could not read, write or do simple numeracy tasks. The teacher's ability to instruct a particular subject plays an important role in promoting teaching and learning. This is also supported in the OECD (2005) report, which concluded that teacher quality impacts learner achievement. Carlisle et al. (2011) also added that teachers' higher knowledge about early reading positively impacts students' reading achievement.

Children must receive quality education to prepare them to cope with reading to learn as they proceed to higher grades. However, several pedagogic issues, including, *inter alia*, pedagogic content knowledge (PCK), curriculum knowledge, limited opportunities for writing and lost learning time (Hoadley 2013) have been identified as barriers to effective teaching of early reading.

### Pedagogic content knowledge

PCK integrates knowledge of what is to be taught with how to teach learners in the classroom. In literacy instruction, PCK involves teachers' knowledge about the basic elements of reading, how they relate to one another, how they develop and what is required to teach them. Teachers acquire PCK through experience and practice in teaching (Bertram & Christiansen 2012). However, studies have shown that poor teaching practice can arise from poor PCK, negatively impacting learner

performance (Brunsberg 2013; Shepherd 2015). For example, a study that assessed the impact of teacher subject knowledge on academic achievement using a nationally representative data set of Grade 6 learners in South Africa found that teacher PCK or lack thereof had a significant impact on learner performance (Shepherd 2015).

## Curriculum knowledge

Curriculum knowledge (CK) refers to the ability to apply theoretical principles and behaviours associated with planning, implementing, evaluating the curriculum (Behar 1994), differentiating instruction (Joyce, Weil & Showers 1993) and enhancing the capacity for responsiveness to the social context and dynamics of the student classroom milieu (Behar & George 1994). CK is important in helping teachers to understand the content and aim of the curriculum and what the learners at different levels are supposed to learn (Faisal 2014). When teachers are well equipped with curriculum knowledge and skills, they are in a better position to understand the content of curriculum material for teaching and learning (Bagherzadehla & Tajeddin 2020), which has a high chance of yielding positive learning outcomes. However, if they are not well versed in what is expected, constant reviews of the curriculum (to improve learner performance) are inevitable, as evidenced by the following curricular changes, which have already taken place in the South African National Education system: the Outcome- Based Education (Department of Education 1997), the Revised National Curriculum Statement Grades R-9 (Department of Education 2002a) and the National Curriculum Statement Grades 10–12 (Department of Education 2002b).

## Limited opportunities for writing

Reading in the FP classroom comes before independent writing and spelling. However, teachers need to create opportunities for the learners to experiment with writing because it helps them practise crucial learning skills such as integrating new information or reframing their knowledge in logical structures (Department of Basic Education 2019). Hence, right from the Grade 1 classroom, learners should be given ample time to do written work. As per the Curriculum Assessment Policy Statements (CAPS) recommendations, handwriting and writing activities are allocated 15 min per day for 3 days in all FP classrooms. This involves giving learners written work after using designated letter sounds and conducting shared reading with the teacher. The importance of providing learners with adequate opportunities for writing was demonstrated by childhood education researchers who revealed significant associations between elementary-school writing skill development and overall academic performance (Dinehart & Manfra 2013; Grissmer et al. 2010; Son & Meisels 2006).

## Lost learning opportunities

The CAPS specifies in quite a detailed way how much time should be spent on literacy activities and how reading should

be taught in the FP through the implementation of the six core reading strategies or methods (phonics, shared reading, group guided reading, paired reading, independent reading and read-alouds). All this is meant to help teachers plan their classroom reading activities according to the time allotted. The teacher's ability to make efficient use of lesson time is critical for achieving positive educational outcomes (Coe et al. 2014). However, many teachers do not use their classroom engagement time according to the time allocated in the curriculum policy documents, which affects learner outcomes. There are many factors involved in wasting the real time that teachers have to lead their children towards a successful reading programme. These include the management of student behaviour, interruptions, off-task activities, etc. (Allington 2005; Smith 2000). The findings of a study that explored how non-academic incidences impact instructional time during English First Additional Language teaching in the Western Cape province revealed that inappropriate use of pedagogic strategies, poor use of code-switching and unsuitable teaching exemplars contributed to the loss of instructional time (Tiba 2012).

Having discussed the theoretical framework underpinning this study, the relationship between classroom practices, learner achievement and some of the factors which are considered barriers to the successful teaching of early reading, the focus now shifts to what prompted the writing of this article, namely the link between learner performance and what is happening in the Grade 1 classroom during early reading lessons. For this reason, learner performance in baseline and endline is examined to see if it reflects adequate mastery of foundational skills by the end of the year, and thereafter, reading is integrated with what was observed in the Grade 1 classroom to see if there is a link. The following research questions are posed:

1. Does learner performance from baseline to endline reflect adequate mastery of foundational reading skills in the first year of schooling?
2. Do teachers' instructional practices affect learner performance?

## Methodology

An exploratory mixed methods research design was adopted in this study, where quantitative (testing of early grade reading skills) and qualitative (classroom observations) methods were used for data collection and analysis. According to Mary, Malina-Hanne and Nørreklit (2011), it is advantageous to use both approaches because they create more robust research outcomes than either method individually.

## Participants

The participants in this study were 75 Grade 1 learners aged between 6 and 8 years and five Grade 1 teachers (referred to as T1-T5) from five different schools (referred to as Schools A-E) in Mopani district of the Limpopo province in South

Africa. Four of the five schools were classified as quintile 2<sup>1</sup> and had Xitsonga as the language of learning and teaching (LoLT), and one school which was classified as quintile 4 used Xitsonga as the first additional language (the language other than the home language). The learners in these schools were fairly homogeneous, with most of them from homes where parents per school were Tsonga home language speakers (63% quintile 2, 80% quintile 4) or where one parent per school quintile was a Xitsonga home language speaker. Most of the non-Xitsonga speaking learners were in quintile 2 schools rather than the quintile 4 school.

Of all the learners assessed ( $n = 75$ ) in March, three learners were not tested in September as they were either absent on the day of testing or had transferred to another school, bringing the attrition rate of learners to 4% from March to September (Table 1). Schulz and Grimes (2002) argued that a loss of 5% or lower is not a concern. Thus, the attrition rate in this study is acceptable in terms of ensuring internal validity.

The teachers had the requisite qualifications required to teach in South African primary schools. Two of them had Bachelor of Education (BEd) honours degrees; two had BEd degrees and one had an education diploma. The youngest teacher was 26 years old and the oldest 50 years. The T1, T3 and T5's ages and years of experience also showed that they had long been teaching in the FP.

## Data collection method

Data were collected from five different schools in the Limpopo province of South Africa. Seventy-five Grade 1 learners' early reading skills were assessed in two phases (Phase I in March 2018 and Phase II in September 2018). Five Grade 1 teachers' literacy lessons were observed only in March 2018. Of the total number of learners assessed, 49% were girls and 51% were boys, aged between 6 and 8 years. The age of the Grade 1 teachers whose classes were observed ranged between 26 and 50 years, and they were all qualified and had FP teaching experience.

## Instruments

Two instruments were used for collecting data. For the quantitative aspect, a Xitsonga-adapted EGRA tool was used for testing Grade 1 learners' five reading measures. Classroom observations were used for the qualitative element.

### Early grade reading assessment tool

A Xitsonga-adapted EGRA comprising five foundational skills was used to test the Grade 1 learners' early reading skills. It was divided into two sections. Section A included demographic information. Section B comprised the five foundational literacy skills, viz. phonological and phonemic awareness (PA) (13 items), letter-sound knowledge (LSK)

1. South African public schools are categorised into five groups called quintiles for the purposes of allocating financial resources. Quintile 1–3 are the 'poorest' quintile, whilst quintile 4–5 are the 'least poor'.

**TABLE 1:** Gender, age and attrition rate of the Grade 1 learners across schools.

| EGRA measure   | March    |    | September |    |
|----------------|----------|----|-----------|----|
|                | <i>n</i> | %  | <i>n</i>  | %  |
| Girl           | 37       | 49 | 36        | 50 |
| Boy            | 38       | 51 | 36        | 50 |
| Total          | 75       | -  | 72        | -  |
| Attrition rate | -        | -  | 3         | 4  |
| Age 6          | 32       | 43 | 32        | 44 |
| Age 7          | 39       | 52 | 36        | 50 |
| Age 8          | 4        | 5  | 4         | 6  |

Source: Khosa, M., 2021, 'Early reading development in Xitsonga: A study of learners and teachers in Grade 1 classroom in Limpopo Province', PhD Thesis, Department of Linguistics and Modern Languages, University of South Africa.

(110 letters), word reading (WR) (50 words), oral reading fluency (ORF) (2 passages of 57 and 60 words each) and oral reading comprehension (ORC) (5 questions per passage, 4 literal and 1 inferential). Three tasks (LSK, WR and ORF) were timed in which learners were given a minute to perform. The reason for the timed tasks was to determine to what extent those foundational decoding skills had been mastered and automatised whilst the untimed tasks only assessed whether children could answer the question or not, without being timed.

## Classroom observations

A lesson observation instrument reflecting the realities and demands of the FP CAPS and prepared by Zenlit Intervention (2016) was used to gather data during the Grade 1 literacy lessons. The lesson observation schedule was divided into the following sections: Section A covered details of school visits. Section B comprised lesson observations, including decoding activities (e.g. PA, phonics, WR and ORF) and reading activities [shared reading (SR), group guided reading (GGR), independent or paired reading and read-alouds]. At the end of the lesson observation, there was provision for general comments on decoding and reading activities and the comments on the reading process.

## Procedures for collecting quantitative and qualitative data

As indicated earlier, the reading assessment for the quantitative aspect was administered to learners in Term 1 (baseline) and again in Term 3 (endline). Learners were tested in a quiet classroom, one-on-one, and they sat opposite the researcher. It took approximately 12 min to assess each learner. They felt a little nervous before the test. The researcher established a good rapport with them and explained what would happen during the assessment to put them at ease. Examples for each task were given beforehand to ensure that learners had initial practice time before attempting the main task and followed the instructions accordingly. If the learner could not read anything or got six items incorrect consecutively, they were asked to stop and move to the next task.

For the qualitative component, classroom observations were gathered once in March 2018. Observations were administered after break from 10:00 to 12:30 (and lasted about 1½ h per class). The observation schedule, a digital camera and a video recorder were used throughout the observation period.



## Data analysis

The data were analysed quantitatively and qualitatively. The quantitative data were collected and recorded systematically and entered into a computer database of the SPSS programme. Descriptive and inferential statistics in SPSS (IBM SPSS Statistics Version 25) were used to analyse learner performance on various reading measures. However, only descriptive statistics will be used for the purpose of this manuscript. The themes for classroom observation were drawn from the already grouped themes of the classroom observation schedule prepared by Zenlit intervention (2016).

## Ethical considerations

Ethical clearance was approved by the University of South Africa. Before data were gathered, permission to conduct research was sought from the Limpopo provincial education department and principals of the five sampled schools. Consent forms for the teachers to observe their literacy lessons and parents to test their learners were signed beforehand. The learners' assent was sought verbally before they were tested.

## Results

### Quantitative aspect: Reading performance

This section presents the findings of the EGRA, which are given in terms of overall learner performance and performance per school. The reliability of EGRA tasks was verified through Cronbach's alpha for two of the subtasks of EGRA, namely PA and ORC. Given that many children did not yet respond properly to most reading items in March, only the September data were used. The overall alpha value for PA was 0.92, and for ORC, it was 0.88, indicating that these subtests were highly reliable.

### Overall learner performance on reading measures

Table 2 shows the baseline and endline statistics. The results are presented in terms of the mean (*M*), the percentage of zero scores per task and a composite score (CS) comprising the mean derived from all five measures of EGRA.

Performance at baseline across the reading measures was very low. The composite score showed improvement from baseline to endline; however, LSK was the only aspect that

showed better improvement than others. The proportion of learners who could not manipulate sounds or read out of context and in context words increased from baseline to endline. Although there was a decline of zero scores for the ORC subtask from baseline to endline, many learners were still unable to answer basic questions about the text that they had read.

### Performance on reading measures per school

Table 3 presents the descriptive results across the five tasks in five schools. To compare performance across the schools, the final row reflects a composite score for each school, which was derived from the raw means of the five components of the EGRA tool. A composite zero score was also computed, which was derived from zero scores in the different tasks. In terms of the composite scores, the results showed that School E outperformed the others in March and also had the lowest zero composite score, whilst School D started out poorly and continued poorly, producing learners with the lowest reading skills in all subtasks. By endline, School D was clearly the school with the weakest results, having the lowest composite score and the highest zero composite score. Schools A, B and C were fairly similar and in the middle at the beginning of the year, both in terms of composite scores and composite zero scores. However, by endline, the performance of Schools C and E had changed. By September, Schools A and B emerged as the two top-performing schools, whilst schools C and E seemed to drop back and form a middle group whilst School D produced the poorest results.

### Interpretation of the quantitative findings

In terms of responding to the first research question (does learner performance from baseline to endline reflect adequate mastery of foundational reading skills in the first year of schooling?) as anticipated, there was an improvement in scores from baseline to endline across different EGRA components, suggesting that some learning occurred during the course of the year. However, this improvement was not good enough as learner performance on different reading measures was still extremely low. These results corroborate the results which showed a modest increase in all the early grade reading skills of Grade 1–3 learners tested in their home language, Sesotho (School-to-School International 2016). The performance of Grade 1 learners tested in this study suggests very little reading development in Xitsonga language during the Grade 1 year of schooling. This did not sound surprising given the findings that learners fare poorly in reading despite being tested in their home language, which is also used as the LoLT (e.g. ANA 2012, 2013 and 2014 [Department of Basic Education 2014]; PIRLS 2005, 2011 and 2016 [Howie et al. 2006, 2012, 2017]).

Moving away from the quantitative findings, the qualitative findings of the study are presented to see what they revealed about the link between reading performance of the Grade 1 learners and the classroom practices and how these outcomes might inform the quantitative findings reported here. Literacy lessons observed in five classrooms involved the

**TABLE 2:** Baseline and endline statistics of overall learner performance.

| EGRA measure | March |          | September |          |
|--------------|-------|----------|-----------|----------|
|              | Mean  | Zero (%) | Mean      | Zero (%) |
| PA           | 2.3   | 13.3     | 3.2       | 13.3     |
| LSK          | 6.3   | 2.7      | 17.2      | 2.7      |
| WR           | 2.3   | 1.3      | 8.3       | 1.3      |
| ORF          | 1.5   | 14.7     | 11.1      | 14.7     |
| ORC          | 0.08  | 94.7     | 0.98      | 94.7     |
| CS           | 12.4  |          | 40.7      |          |

Source: Khosa, M., 2021, 'Early reading development in Xitsonga: A study of learners and teachers in Grade 1 classroom in Limpopo Province', PhD Thesis, Department of Linguistics and Modern Languages, University of South Africa.

EGRA, early grade reading assessment; PA, phonemic awareness; LSK, letter-sound knowledge; WR, word reading; ORF, oral reading fluency; ORC, oral reading comprehension.

**TABLE 3:** Performance on reading measures per school.

| EGRA measure           | March                |                      |                      |                      |                      |                  | September            |                      |                      |                      |                      |                  |
|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|------------------|----------------------|----------------------|----------------------|----------------------|----------------------|------------------|
|                        | School A<br>(n = 15) | School B<br>(n = 15) | School C<br>(n = 15) | School D<br>(n = 15) | School E<br>(n = 15) | Overall <i>M</i> | School A<br>(n = 14) | School B<br>(n = 15) | School C<br>(n = 14) | School D<br>(n = 15) | School E<br>(n = 14) | Overall <i>M</i> |
| <b>PA</b>              |                      |                      |                      |                      |                      |                  |                      |                      |                      |                      |                      |                  |
| <i>M</i>               | 1.4                  | 3.6                  | 2.2                  | 1.5                  | 2.9                  | 2.3              | 2.1                  | 4.5                  | 3.2                  | 2.6                  | 3.3                  | 3.2              |
| <i>SD</i>              | 0.9                  | 1.7                  | 2.2                  | 0.9                  | 1.2                  | -                | 3.2                  | 3.7                  | 2.1                  | 3.0                  | 4.6                  | -                |
| <i>SE</i>              | 0.2                  | 0.4                  | 0.5                  | 0.2                  | 0.3                  | -                | 0.8                  | 0.9                  | 0.5                  | 0.7                  | 1.2                  | -                |
| % zero score           | 26.7                 | 0                    | 26.7                 | 13.3                 | 0                    | -                | 53.3                 | 13.3                 | 20                   | 46.7                 | 46.7                 | -                |
| <b>LSK</b>             |                      |                      |                      |                      |                      |                  |                      |                      |                      |                      |                      |                  |
| <i>M</i>               | 7.6                  | 5.4                  | 7.5                  | 3.3                  | 7.6                  | 6.2              | 21.2                 | 23.6                 | 13.2                 | 8.0                  | 20.1                 | 17.2             |
| <i>SD</i>              | 7.4                  | 3.5                  | 5.7                  | 2.6                  | 7.5                  | -                | 13.4                 | 14.6                 | 11.7                 | 9.3                  | 21.3                 | -                |
| <i>SE</i>              | 1.9                  | 0.9                  | 1.4                  | 0.6                  | 1.9                  | -                | 3.5                  | 3.7                  | 3.1                  | 2.4                  | 5.7                  | -                |
| % zero score           | 6.7                  | 6.7                  | 13.3                 | 6.7                  | 0                    | -                | 0                    | 0                    | 0                    | 0                    | 0                    | -                |
| <b>WR</b>              |                      |                      |                      |                      |                      |                  |                      |                      |                      |                      |                      |                  |
| <i>M</i>               | 2.2                  | 2.2                  | 1.9                  | 1.9                  | 3.1                  | 2.2              | 11.6                 | 8.4                  | 7.5                  | 5.1                  | 9.2                  | 8.3              |
| <i>SD</i>              | 1.0                  | 0.9                  | 0.9                  | 0.2                  | 1.5                  | -                | 9.9                  | 12.1                 | 6.6                  | 6.9                  | 14.6                 | -                |
| <i>SE</i>              | 0.2                  | 0.2                  | 0.2                  | 0                    | 0.4                  | -                | 2.6                  | 3.1                  | 1.7                  | 1.7                  | 3.9                  | -                |
| % zero score           | 6.7                  | 26.7                 | 20                   | 0                    | 0                    | -                | 13.3                 | 0                    | 13.3                 | 20                   | 26.7                 | -                |
| <b>ORF</b>             |                      |                      |                      |                      |                      |                  |                      |                      |                      |                      |                      |                  |
| <i>M</i>               | 1.4                  | 1.4                  | 1.8                  | 1.4                  | 1.4                  | 1.4              | 14.6                 | 12.2                 | 14.3                 | 4.3                  | 11.0                 | 11.2             |
| <i>SD</i>              | 0.9                  | 1.6                  | 1.7                  | 1.0                  | 0.9                  | -                | 20.2                 | 22.9                 | 17.4                 | 8.2                  | 20.9                 | -                |
| <i>SE</i>              | 0.2                  | 0.4                  | 0.4                  | 0.2                  | 0.2                  | -                | 5.3                  | 5.91                 | 4.6                  | 2.1                  | 5.6                  | -                |
| % zero score           | 13.3                 | 26.7                 | 20                   | 6.7                  | 6.7                  | -                | 13.3                 | 46.7                 | 20                   | 53.3                 | 50                   | -                |
| <b>ORC</b>             |                      |                      |                      |                      |                      |                  |                      |                      |                      |                      |                      |                  |
| <i>M</i>               | 0                    | 0.2                  | 0.2                  | 0                    | 0                    | 0                | 0.5                  | 1.2                  | 1.6                  | 0.6                  | 1.0                  | 0.9              |
| <i>SD</i>              | 0                    | 0.5                  | 0.5                  | 0                    | 0                    | -                | 1.3                  | 2.7                  | 1.9                  | 1.2                  | 2.0                  | -                |
| <i>SE</i>              | 0                    | 0.1                  | 0.1                  | 0                    | 0                    | -                | 0.3                  | 0.7                  | 0.5                  | 0.3                  | 0.5                  | -                |
| % zero score           | 100                  | 86.7                 | 86.7                 | 100                  | 100                  | -                | 80                   | 60                   | 46.7                 | 80                   | 73.3                 | -                |
| Composite mean score   | 12.6                 | 12.9                 | 13.7                 | 8.2                  | 15.7                 | -                | 50.1                 | 49.9                 | 39.9                 | 20.7                 | 44.7                 | -                |
| Composite % zero score | 30.6                 | 29.3                 | 33.3                 | 25.3                 | 21.3                 | -                | 31.9                 | 24                   | 20                   | 40                   | 39.3                 | -                |

Source: Khosa, M., 2021, 'Early reading development in Xitsonga: A study of learners and teachers in Grade 1 classroom in Limpopo Province', PhD Thesis, Department of Linguistics and Modern Languages, University of South Africa.

PA, phonemic awareness; LSK, letter-sound knowledge; WR, word reading; ORF, oral reading fluency; ORC, oral reading comprehension; SD, standard deviation; SE, standard error.

following aspects in terms of promoting foundational literacy development: the teaching of phonics, handwriting, SR and GGR activities.

### Teaching of phonics

During phonics instructions, all the teachers explained the meaning of words on the flashcards and they used examples to clarify for learners. However, they seldom used letter cards and syllable cards. There was active participation of learners in all five classrooms observed. Although phonics instruction was explicit to some extent, letter-sound relations were clearly made in most classrooms. Phonics lessons were conducted for a few minutes more or quite a lot longer than the 15 min recommended by CAPS. Hence, learners were no longer attentive and made noise because of prolonged phonics instructions. The T3 was the only one who used phonics to practice phonemic and syllable awareness with her Grade 1 learners, but she started through the whole language approach. Although some teachers (T1, T2, T3 and T5) used flashcards to illustrate the designated letter sound that formed the focus of the lesson, the font was not easily visible, especially for learners sitting at the back.

Moreover, when learners read from the flashcards, teachers did not mix their sequence to make sure that learners could read them. The T4 was the only one who used the chalkboard instead of the flashcards. All the teachers used the syllabic

approach to combine a consonant with a vowel in the *a, e, i, o, u*, but none explicitly drew attention to blending the sounds and none ever changed the sequence. This meant that children could predictably chorus the syllables or words without actually reading them.

### Teaching handwriting

Handwriting activities after the phonics lesson were only performed by learners in T1 and T2 classes, who could even supervise their learners to make sure that they developed fine motor skills and supported them where needed. However, handwriting activities in these two classes were conducted for more than 15 min. Therefore, some children did not seem to have completed their tasks within the allocated time, even though the time was extended.

### Teaching shared reading

All teachers observed did SR; they read aloud texts fluently and with intonation. However, routines for sitting down in front of the class on the mat were not established yet during this slot. SR took more than 15 min in three (T1, T2 and T5) of the five classes. Teachers mainly focused on prereading and during reading activities and post-reading activities were not performed in all the classes. Sometimes there was a mismatch between the cover and the story, but prereading questions were asked about the cover picture. There was no evidence of SR being performed in the second and third sessions (CAPS requires the same story to

be discussed at different levels in three SR slots per week). None of the teachers explained or modelled the elements of a story read to the learners nor gave written work after conducting SR. In all the five classrooms, teachers only asked questions, which required providing basic literal information. No higher-order questions were asked, which required greater cognitive effort and rich language use.

### Teaching group guided reading

All the Grade 1 teachers observed did GGR; however, this activity was not properly carried out and often seemed to mimic an SR activity. In particular, it came across that all the teachers did not do GGR well. Teachers conducted GGR activities for more than 15 min and the routine for GGR in all the classes was not established. Most teachers did not have a daily schedule for the learners to check their groups and the times for their turns for GGR. The purpose of group work and the activity done with a specific group were also unclear. It was often a repeat of SR. Teachers do not seem to understand the different functions of SR and GGR. Their limited use of GGR deprived children opportunities to practice a range of reading skills. Most groups exceeded the number of learners required per group, as per CAPS recommendation of 6 to 10 learners. The T4 did not give the other learners (those not in the small group) work to do whilst she worked with GGR; therefore, learners played and made noise whilst the teacher was busy with her small group. In some classes, learners were given work to do, but they could not stay on task. Most teachers (T1, T3, T4 and T5) only conducted GGR with one group instead of the two recommended by CAPS. There were no follow-up activities performed for phonics during the GGR slot in any classroom, such as practising reading words and blending letter sounds when encountering new or difficult words.

### Interpretation of the qualitative findings

From what was observed in each classroom, the teachers tried to do some things according to CAPS, but there were still some gaps. For example, teachers did not pick up the cracks in children's early reading development, possibly because they did not know what they were, how to detect them, how to use the information to inform their teaching or what successful Grade 1 reading looks like; therefore, they did not know how to get learners to read at their grade level.

They also seemed to be trying to change and teach according to what is prescribed in the CAPS curriculum. They seemed to show some 'mechanical' compliance with CAPS but not really deep engagement. They taught phonics, but there was very little evidence of phonemic awareness activities and rich vocabulary development interspersed throughout their teaching. They adopted a syllabic approach in their phonics lessons (which made perfect sense for African languages), but they were often stuck to *a, e, i, o, u* syllabled sequence and did not mix them to check if learners could really read syllables.

Before reading, they asked some questions, but these did not lead to rich conversations or rich Xitsonga language use.

They looked at pictures before reading, but these too did not seem to lead anywhere enriching. They asked questions but only literal ones, and they seldom provided feedback. They also did not seem well trained to understand the purpose of different literacy activities. For instance, they conducted GGR but confused it with SR, and none of the teachers had performed read-alouds or organised paired reading activities. In other words, they followed some of the procedures but not all, suggesting lack of deep understanding of how early reading develops and how each of the reading activities contributes to different aspects of literacy development. Many of the teachers did not seem well prepared; hence, most of their lessons went on quite long – too long for a Grade 1 attention span.

All the above-mentioned efforts do not seem sufficient to really impact the reading performance of the Grade 1 learners, mainly because teachers did not seem properly trained to teach children how to read. This also suggested that the Grade 1 teachers seemed reluctant to take the initiative of reading CAPS documents to guide them in their teaching practice. They also seemed aware of what they were expected to do in the classroom, but they taught some aspects of reading according to their own ways; for example, their teaching of GGR was often a repeat of SR, because they did not seem ready to move from their comfort zone, nor did they seem to understand that GGR is for differentiated instruction.

### Integration of quantitative and qualitative data

In order to answer the second research question (do teachers' instructional practices affect learner performance?), this section combines the learners' reading performance and classroom observation data per school.

In T1's classroom, the EGRA results (Table 4) showed that the sample of learners tested from her classroom achieved the highest composite scores across the five schools, even though learners in this school were taught Xitsonga as the first additional language and used English as the LoLT. A review of the South African Grade 4 learners tested across 11 official languages in the pre-PIRLS 2011 revealed that African language learners performed significantly lower in reading comprehension than English language learners

**TABLE 4:** Descriptive statistics for T1 classroom in school A.

| EGRA measure | March |          | September |          |
|--------------|-------|----------|-----------|----------|
|              | M     | Zero (%) | M         | Zero (%) |
| PA           | 1.4   | 26.7     | 2.1       | 53.3     |
| LSK          | 7.6   | 6.7      | 21.2      | 0.0      |
| WR           | 2.2   | 6.7      | 11.6      | 13.3     |
| ORF          | 1.4   | 13.3     | 14.6      | 13.3     |
| ORC          | 0.0   | 100.0    | 0.5       | 80.0     |
| CS           | 12.6  | 30.6     | 50.1      | 31.9     |

Source: Khosa, M., 2021, 'Early reading development in Xitsonga: A study of learners and teachers in Grade 1 classroom in Limpopo Province', PhD Thesis, Department of Linguistics and Modern Languages, University of South Africa.

PA, phonemic awareness; LSK, letter-sound knowledge; WR, word reading; ORF, oral reading fluency; ORC, oral reading comprehension; CS, composite score.

**TABLE 5:** Descriptive statistics for T2 classroom in school B.

| EGRA measure | March |          | September |          |
|--------------|-------|----------|-----------|----------|
|              | Mean  | Zero (%) | Mean      | Zero (%) |
| PA           | 3.6   | 0.0      | 4.5       | 13.3     |
| LSK          | 5.4   | 6.7      | 23.6      | 0.0      |
| WR           | 2.2   | 26.7     | 8.4       | 0.0      |
| ORF          | 1.4   | 26.7     | 12.2      | 46.7     |
| ORC          | 0.2   | 86.7     | 1.2       | 60.0     |
| CS           | 12.9  | 29.3     | 49.9      | 24.0     |

Source: Khosa, M., 2021, 'Early reading development in Xitsonga: A study of learners and teachers in Grade 1 classroom in Limpopo Province', PhD Thesis, Department of Linguistics and Modern Languages, University of South Africa

PA, phonemic awareness; LSK, letter-sound knowledge; WR, word reading; ORF, oral reading fluency; ORC, oral reading comprehension; CS, composite score.

**TABLE 6:** Descriptive statistics for T3 classroom in school C.

| EGRA measure | March |          | September |          |
|--------------|-------|----------|-----------|----------|
|              | Mean  | Zero (%) | Mean      | Zero (%) |
| PA           | 2.2   | 26.7     | 3.2       | 20.0     |
| LSK          | 7.5   | 13.3     | 13.2      | 0.0      |
| WR           | 1.9   | 20.0     | 7.5       | 13.3     |
| ORF          | 1.8   | 20.0     | 14.3      | 20.0     |
| ORC          | 0.2   | 86.7     | 1.6       | 46.7     |
| CS           | 13.7  | 33.3     | 39.9      | 20.0     |

Source: Khosa, M., 2021, 'Early reading development in Xitsonga: A study of learners and teachers in Grade 1 classroom in Limpopo Province', PhD Thesis, Department of Linguistics and Modern Languages, University of South Africa

PA, phonemic awareness; LSK, letter-sound knowledge; WR, word reading; ORF, oral reading fluency; ORC, oral reading comprehension; CS, composite score.

(Van Staden, Bosker & Bergbauer 2016). The average score (21 letters correct per minute) of School A learners in LSK seemed to enable them to read words in and out of context and of all the scores, their WR scores were the highest at 14.6 words correct per minute (wcpm). However, performance was particularly poor in PA and ORC subtasks. T1 seemed to have managed to instil some level of decoding skill in the learners, because there were no zero scores for alphabetic knowledge, and they could read words separately and in a passage. Even so, alphabetic knowledge was not particularly high, and one wonders if learners would have had greater letter-sound proficiency if T1 had paid attention to developing PA. Comprehension was clearly a neglected area. Her failure to ask learners inferential questions during reading activities could have contributed to this outcome.

The results (Table 5) in T2's class showed that learners achieved the second-highest composite scores across the five schools. Their average score of 4.5 PA and 23 lcpm was the highest of the five schools. T2's learners could have started from a slightly better base, maybe because of the Grade R, suggesting that some learners in her class might have acquired some PA skills before entering Grade 1. The average of 4.5 PA seemed to have enabled learners to identify and sound letters. They also seemed to have engaged their alphabetic knowledge to blend the letter-sounds together to read words. However, it was observed that T2 did not use the phonics or any other lesson to practice PA with her learners. Although PA and LSK scores were better for T2's learners relative to the others, their PA growth by endline was not great, with only a 0.9 gain. If T2 had used phonics to practice phonemic and syllable awareness with learners, PA growth would have been better.

**TABLE 7:** Descriptive statistics for T4 classroom in school D.

| EGRA measure | March |          | September |          |
|--------------|-------|----------|-----------|----------|
|              | Mean  | Zero (%) | Mean      | Zero (%) |
| PA           | 1.5   | 13.3     | 2.6       | 46.7     |
| LSK          | 3.3   | 6.7      | 8.0       | 0.0      |
| WR           | 1.9   | 0.0      | 5.1       | 20.0     |
| ORF          | 1.4   | 6.7      | 4.3       | 53.3     |
| ORC          | 0.0   | 100.0    | 0.6       | 80.0     |
| CS           | 8.2   | 25.3     | 20.7      | 40.0     |

Source: Khosa, M., 2021, 'Early reading development in Xitsonga: A study of learners and teachers in Grade 1 classroom in Limpopo Province', PhD Thesis, Department of Linguistics and Modern Languages, University of South Africa

PA, phonemic awareness; LSK, letter-sound knowledge; WR, word reading; ORF, oral reading fluency; ORC, oral reading comprehension; CS, composite score.

Learners in this classroom did not get zero scores for either LSK or WR, suggesting that the teacher was able to develop their decoding skills to some extent, which helped them read some words out of context, particularly in context. The reading rate for these learners was not good, suggesting that she might not be doing enough reading of extended texts with the learners. T2 did not seem to understand that GGR could be used effectively for developing various language components, including reading comprehension, which requires explicit teaching of comprehension strategies for the learners to know how to respond to both literal and inferential questions.

Table 6 shows that children in T3's class were in the middle of all the five schools at the end of the year. Knowing only 13 letter sounds after a year forms a small knowledge base for accurate and fluent word reading. Performance in PA was also low. Although T3's teaching of phonics was very much a whole language approach, she seemed to have managed to develop her learners' decoding skills to some extent, because there were no zero scores in the LSK. Nevertheless, performance in LSK was still low, suggesting that if T3's teaching of phonics were performed systematically, her Grade 1 learners might perform better in the LSK task. Just under half the class scored zero percentage for ORC, so performance in this domain was particularly poor, suggesting that learning in T3's class happened very slowly. Learners were only asked literal questions, which did not develop their comprehension skills.

Table 7 showed that learners' composite score in T4's classroom was the lowest across the five schools. The majority of learners in this class scored zero percentage in three of the five subtasks, suggesting that teaching and learning in this classroom had not been effective during the course of the year. The learners had extremely poor alphabetic knowledge and they also did not seem to engage the little alphabetic knowledge they had to blend sounds to read words. The ORF score was particularly low, and their word reading was the lowest (5.1 wcpm) in all the five schools. Performance was also poor in PA and ORC. Although there were no zero scores in alphabetic knowledge, the teacher did not seem to have done much in developing learners' decoding skills – most learners still struggled to read words in and out of context. The T4's learners would likely have been able to read at their grade level by the end of the year if she had given them enough time to practise their early reading skills during GGR or paired and independent reading



**TABLE 8:** Descriptive statistics for T5 classroom in school E.

| EGRA measure | March |          | September |          |
|--------------|-------|----------|-----------|----------|
|              | Mean  | Zero (%) | Mean      | Zero (%) |
| PA           | 2.9   | 0.0      | 3.1       | 0.0      |
| LSK          | 7.6   | 0.0      | 20.1      | 0.0      |
| WR           | 3.1   | 0.0      | 9.2       | 26.7     |
| ORF          | 1.4   | 6.7      | 11.0      | 50.0     |
| ORC          | 0.0   | 100.0    | 1.0       | 73.3     |
| CS           | 15.7  | 21.3     | 44.7      | 39.3     |

Source: Khosa, M., 2021, 'Early reading development in Xitsonga: A study of learners and teachers in Grade 1 classroom in Limpopo Province', PhD Thesis, Department of Linguistics and Modern Languages, University of South Africa

PA, phonemic awareness; LSK, letter-sound knowledge; WR, word reading; ORF, oral reading fluency; ORC, oral reading comprehension; CS, composite score.

activities. In none of the activities were the learners actually given a chance to develop their reading skills. Of all five teachers, T4 did not seem to properly understand the main purpose of different reading activities and she seemed to have gone through the different reading activities mechanically. Learners fared most poorly in decoding and reading comprehension, because she did not seem to pay attention to building their comprehension abilities.

The results (Table 8) showed that learners in T5's class were also in the middle of all the five schools. Although none of them scored zero in the PA and LSK tasks, the results at endline showed that performance in these domains was still low. Their PA growth from baseline to endline was not great, with only 0.2 gain. The proportion of zero scores was high in ORF and particularly in reading comprehension, where mean scores were the lowest of all the five tasks. Ideally, letter-sound relationships and handwriting are taught together to develop PA and reinforce the letter-sound focus in the phonics lesson, but T5 did not give learners opportunities to practice their handwriting skills. This could have helped children in this classroom develop accuracy in LSK rather than being left mostly to chance. Many learners in this classroom could not read for meaning. If the GGR slot had been utilised more productively for all the learners, specifically for developing LSK, practising decoding and building vocabulary, etc., learners in T5's classroom would have managed to use their multiple reading skills to read and make sense of what they had read.

## Discussion of findings

The data from assessing the Grade 1 learners' early reading skills revealed that they are acquiring foundational reading skills in Xitsonga home language and first additional language very slowly during the first year of schooling, and on all measures, performance was either low or very slow. It is also surprising that most learners tested in this study were home language speakers of Xitsonga, but they fared worse than learners who were taught Xitsonga as the first additional language. These findings are consistent with what was established by Van Staden et al. (2016).

The teachers' lack of deep understanding in terms of how early reading develops and how each of the reading activities contributes to different aspects of this development may have

contributed to the learners' reading outcomes. This is equated with Bandura's SCLT (1986), which holds that for successful learning to occur, teachers need to encourage the existence of the following conditions for the learners: *attention, retention, reproduction and motivation*. Given the low performance of the Grade 1 learners in this study, as per the SCLT, learning seems to have been influenced by the teachers' inability to successfully instil the four conditions (mentioned here as per Bandura's SCLT) in learners. More importantly, teachers lacked PCK; hence, they could not conduct all the reading methodologies appropriately and in line with CAPS recommendations. For example, regarding the teaching of decoding skills, teachers seldom used letter cards and syllable cards, which are important in helping children recognise and use phonemes representing each letter of the alphabet and create combinations with them according to the rules of Xitsonga language. Although decoding skills are not sufficient for the entire reading programme, all the reading skills must be taught explicitly and systematically for many children. It was also observed that most teachers deprived learners of opportunities to practise handwriting skills after teaching them phonics or shared reading. Hence, the learners' average score in letter sounds (17.2 letter correct per minute) was not enough to help them decode words accurately and fluently.

Prolonged teaching did not seem to have yielded positive outcomes in the Grade 1 classroom, because some learners were no longer paying attention. As a result, most of these learners did not seem to have acquired learning through observing what was happening in the classroom. Instead, they reproduced the learned behaviour by failing to complete their written work despite the time being extended.

Moreover, all the teachers did not seem to understand how GGR was supposed to be performed; instead, they confused it with an SR. Hence, in actual fact, GGR is an opportunity for teachers to conduct differentiated instruction, which should help them provide instruction according to each learner's reading ability. And as this was not properly performed, all the learners' reading performance across the five reading measures was low in both assessment times. Findings in this study corroborate previous findings that teacher PCK has a significant effect on learner achievement (Brunsborg 2013; Carnoy & Arends 2012; Mmasa & Anney 2016; Shepherd 2015).

## Recommendations and conclusions

The teachers' understandings of early reading development and their enactments of reading in Grade 1 classrooms are insufficient to develop grade-level readers by the end of the year. Recommendations with regard to helping teachers improve their classroom practices are provided next.

### The need for teachers to understand the purpose of reading activities

Based on the findings, teachers need to understand the purpose of teaching a particular reading activity – this ties in with content knowledge and PCK. Thus, it is crucial to provide standardised and accredited in-service training

courses or programmes for teachers to help them improve their classroom practices.

## Time management

Time management is a problem that manifests in different ways (e.g. through routines or length of literacy activity). During observations, it was found that learning time was wasted because of spending more time on a particular activity than others. Maximising the engagement time does not necessarily translate into a quality of teaching and learning. Hence, it is recommended that teachers be organised and plan beforehand what they are supposed to do in class with the learners to save time for other learning activities.

## Create effective writing opportunities

Written work helps to create opportunities for the learners to recall what they have learned and practise spelling. Based on the findings, most teachers observed did not give learners written work to practise or experiment with writing after teaching phonics and shared reading. It is recommended that teachers engage learners in developing their writing skills by giving them written work that should be managed and controlled effectively within the stipulated time.

## Teachers' professional development

From what was observed during lessons suggested that teachers lacked understanding of how early reading develops and how each of the reading activities contributes to different aspects of this development. This is despite in-service teacher training workshops conducted for effective curriculum implementation. Based on these findings, it is recommended that provincial education departments adapt training workshops to high-quality professional development and long-term interventions. On the other hand, district-based support officials and FP departmental heads can be involved in conducting single-session and in-class workshops, including some coaching or mentoring elements at the district or circuit and school level.

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M.K. is the sole author of this article.

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