National Report 2012

The State of Literacy Teaching and Learning in the Foundation Phase

April 2013

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ACE	Advanced Certificate in Education
AMESA	Association of Mathematics Educators of South Africa
ANA	Annual National Assessment
ANC	African National Congress
APP	Annual Performance Plan
BLA	Balanced Language Approach
CAPS	Curriculum and Assessment Policy Statement
CA	Curriculum Advisor (also known as Subject Advisors or CAs)
C2005	Curriculum 2005
CEM	Council of Education Ministers
CHE	Council on Higher Education
CM	Circuit Manager
DBE	Department of Basic Education
DET	Department of Education and Training
DOE	Department of Education
DP	Deputy Prinicipal
ECDOE	Eastern Cape Department of Education
EGRA	Early Grade Reading Assessment
EMIS	Education Management Information System
FAL	First Additional Language
FET	Further Education and Training band (Grades 10 to 12)
FP	Foundation Phase (Grades 1-3)
FSDOE	Free State Department of Education
GET	General Education and Training (Grades 1-9)
GPLMS	Gauteng Primary Language and Mathematics Strategy
HL	Home Language
HOA	House of Assembly
HOD	Head of Department
HOR	House of Representatives
IDSO	Institutional and Development Support Officer
INSET	In-service education and training
ITE	Initial Teacher Education
GDE	Gauteng Department of Education
GPLMS	Gauteng Primary Language and Mathematics Strategy
IP	Intermediate Phase (Grades 4-6)
IQMS	Integrated Quality Management System
KZN	KwaZulu-Natal
LAIP	Learner Attainment Improvement Strategy

LDOE	Limpopo Department of Education
LiEP	Language in Education Policy
LOLT	Language of Learning and Teaching
LTSM	Learning and Teaching Support Materials
NAPTOSA	National Professional Teachers' Organisation of South Africa
NCDE	Northern Cape Department of Education
NCS	National Curriculum Statement
NSC	National Senior Certificate
NEEDU	National Education and Evaluation Development Unit
NGO	Non-Governmental Organisation
NPC	National Planning Commission
NMMU	Nelson Mandela Metropolitan University
NSC	National Senior Certificate
UOFS	University of Free State
PCK	Pedagogical Content Knowledge
PIRLS	Progress in International Reading Literacy Study
PLG	Professional Learning Group
PRESET	Pre-service education and training
READ	Read Educational Trust
SA	Subject Advisor
SACMEQ	Southern African Consortium for Monitoring Educational Quality
SADTU	South African Democratic Teachers Union
SAPIP	Subject Academic Performance Improvement Plan
SANTS	South African National Tutor Services
SBA	School Based Assessment
SGB	School Governing Body
SIP	School Improvement Plan
SMT	School Management Team
STARS	School Transformation and Reform Strategy
UNISA	University of South Africa
WC	Western Cape
WCED	Western Cape Education Department
wpm	Words per Minute

1 Introduction

> *The object of the common school system in Massachusetts was to give to every child in the Commonwealth a free, straight solid path-way by which he could walk directly up from the ignorance of an infant to a knowledge of the primary duties of a man; and could acquire a power and an invincible will to discharge them. Have our children such a way? Are they walking in it? Why do so many, who enter it, falter therein? Are there not many, who miss it altogether? What can be done to reclaim them? What can be done to rescue faculties, powers, divine endowments, graciously designed for individual and social good, from being perverted to individual and social calamity? These are the questions of deep and intense interest which I have proposed to myself and upon which I have sought for information and counsel.*
>
> Mann, 1838

South Africans may be proud that we have adopted a system of public schooling that transcends the ideals of the good people of Massachusetts in the early nineteenth century, providing the benefits of schooling not only to girls in equal measure as to boys, but of broadening the provision of what has become a key element of any complex society to children of all races and creeds.

But the questions asked so poignantly above by Horace Mann, first Secretary of the Massachusetts Board of Education, haunt South African schooling today. We remain committed to giving every child a '*free, straight solid path-way*' into adult life, and to nurturing the '*faculties, powers, divine endowments*' with which every child is blessed. And we continue to seek ways of preventing these precious qualities '*from being perverted to individual and social calamity*', although it is all too evident that such calamities afflict large parts of the school system in South Africa today.

Lest we feel exceptional in this regard, it is well to note that the tendencies described so eloquently by Horace Mann are characteristics seemingly endemic to large systems. The emergence of public schooling in Massachusetts was, from its earliest days, plagued by problems of inefficiency and waste. Thus, the Secretary was directed to studying the state of schooling, and diffusing:

> *… throughout every part of the Commonwealth, information of the most approved and successful methods of arranging the study and conducting the education of the young, to the end that all children in this Commonwealth, who depend upon common schools for instruction, have the best education which those schools can be made to impart.*
>
> Mann, 1838

Nearly two centuries later, this is remarkably close to the brief that the South African Minister of Education has entrusted to the National Education Evaluation and Development Unit (NEEDU). It is clear from the NEEDU Bill,entering the parliamentary process in April 2013, that the goals of the Unit are not about school inspection or the performance management of teachers (DBE, 2011a). These functions are formally provided for in the current system. The functionality of both could be significantly improved, and NEEDU will make recommendations toward that end. But the principal function of NEEDU is to assess the state of the *systems operations* of schooling, and to make recommendations for improving their efficiency.

Before getting into the substance of this, the first response to its brief, it is necessary to explain the activities undertaken by the Unit over this period, and to locate these within a more detailed understanding of that brief (Section 2). This is followed by a diagnosis of the factors that inhibit quality schooling in South Africa at the present time (Section 3), and a detailed discussion of the questions of language (Section 4), literacy (Section 5), and instructional leadership (Section 6). The report ends with a consolidated set of recommendations (Section 7).

2 NEEDU'S approach to systemic school evaluation

This report presents findings from the NEEDU systemic evaluation of the state of schooling in the first three grades of a sample of largely urban schools spread across the nine provinces. In this introductory section, a brief overview of the background to NEEDU is first given (2.1); and its current research priorities outlined (2.2). A discussion on the question of accountability in schooling follows (2.3) and the evaluation design and method described (2.4).Thereafter, in section 2.5, an outline of NEEDU's reporting procedures are provided.

2.1 A brief history of NEEDU

As the name indicates, NEEDU is designed as an evaluation and development institution which is independent of that part of the civil service responsible for the administration of schools. The need for a facility of this kind was first formally articulated in a resolution passed at the Polokwane conference of the ANC in December 2007. This was followed by the appointment by Minister of Education Naledi Pandor of a Committee to investigate the matter. The Ministerial Committee recommended the establishment of NEEDU (DOE, 2009a), and the institution was set up shortly after Minister Angie Motshekga was appointed following the general election of 2009.

The Ministerial Committee recommended that NEEDU should provide the Minister of Education with an authoritative, analytical and accurate account on the state of schools in South Africa and, in particular, on the status of teaching and learning. The present document is the first such report to the Minister of Basic Education.

2.2 NEEDU priorities

Guided by the draft legislative framework, NEEDU made several operational decisions in the course of 2012 to gather the empirical evidence needed to meet its mandate. This involved confronting choices on two key issues for its research: *coverage*, and *focus*, discussed further below.

2.2.1 Coverage: breadth versus depth

If NEEDU is to meet the demands of the Draft Bill - to identify factors that contribute to quality schooling - then large-scale surveys will not be of much assistance at this stage. Besides, a number of such studies have been done and the broad associations between school-level practices and test scores are known (Taylor et al, forthcoming). In-depth studies, which investigate the complex ecology of the school, are far more likely to yield insights into both the substantive practices that underlie formal policy compliance, and the causal relationships between these practices and student learning. In the words of the Ministerial Committee, NEEDU decided to adopt an evaluative approach to school assessment (why the school performs as it does and how it could improve), rather than to undertake monitoring of schools (how good the school is). Inevitably, the former requires the latter, but it is the causal relationships that are the primary focus of NEEDU's mandate and this report.

The evaluation approach adopted here is labour intensive, a fact which, first, limits the number of schools that can be evaluated, and consequently limits the generalisability of the findings. Therefore, the purpose of the evaluation cannot be to generalise but to identify *common practices* in *typical schools*. While this design may not satisfy the rigours of statistics, it is likely to be of greater use to policy makers and practitioners than yet another survey, the outcomes of which are largely already known.

2.2.2 Focus

The second major decision faced in designing NEEDU's work programme for 2012 was how to prioritise among the myriad needs requiring urgent attention in a school system that is manifestly underperforming. In view of the fact that the new Curriculum and Assessment Policy Statement (CAPS) was due to be instituted in Grades 1-3 in 2012, the Foundation Phase (FP) seemed a sensible place to start. Besides, over the past 18 years attention has been heavily concentrated on the top end of the system (Grades 10-12), and in particular on the National Senior Certificate (NSC) examination at the end of Grade 12. But the most compelling reason to focus on the FP is the fact that it is here that the base for all future learning is established. If the rudiments of reading, writing and calculating are not firmly entrenched by the end of Grade 3, then both learning opportunities and the larger life chances of young citizens will be curtailed.

It was therefore decided to choose the FP as the focus for investigation during 2012. Furthermore, it was decided that curriculum delivery should constitute the primary object of these investigations. Curriculum delivery is an on-going process, which starts with the issuing of policy at the national level by the Department of Basic Education (DBE). This is followed by the procurement and delivery of resources and the provision of support systems to schools by provinces and districts. Curriculum delivery is continued through the organisation and management of time and human and material resources by school leaders, culminating in teaching and learning activities conducted by teachers in classrooms. These are iterative processes, with multiple feedback loops, all coordinated by tighter or looser instructional leadership practices and accountability measures up and down the successive levels of the system.

Tracking the quality of curriculum delivery is a complex and time-consuming task. It is therefore important to note the systems and processes that are not covered by this report's principal focus. While Grade R is formally part of the FP, given the specialist nature of this important pre-school year, it was decided not to evaluate it in 2012 but to make it a special focus at a later date. Areas excluded from investigation in 2012 include: financial auditing; infrastructural assessment; textbook tracking and teacher appraisal. Although we do express an opinion on problems regarding the last of these, by and large pursuing activities such as these would require not only a different cohort of evaluators, but also a far greater number than the 18 professional curriculum evaluators with which the organisation commenced the year. Important as these systems are in providing the conditions for learning, the focus of this report is on the core business of schooling: the processes and products most germane to teaching and learning.

The school system is comprised of several sub-populations. First, there are nine provincial departments divided into 81[1] districts. Thereafter, important distinctions can be made between urban and rural schools, between schools administered by the different racially based departments under apartheid, and between schools characterised by very different demographic segments of the population.

Given the strong urbanising trends revealed by successive censuses, it was decided to focus particularly on schools in high growth areas during 2012[2]. This will be followed by investigations of rural schools and multi-grade schools, respectively, in the first and second semesters of 2013, and

1 Two provinces were in the process of subdividing their districts during the course of 2012, which will result in a total of 86 by the end of NEEDU's first cycle in 2014.

2 See Table 2 below for breakdown of districts and schools selected for evaluation in 2012.

secondary schools in 2014. The definition of a high growth area for this purpose is a broad one, encompassing cities (Johannesburg, Cape Town, and Durban), large provincial towns (Bethlehem, Kimberley, Potchefstroom, Rustenburg), and rapidly growing small towns in largely rural areas (Mount Frere in the Eastern Cape, Moorreesburg in the Western Cape, Bela Bela and Vhembe in Limpopo, Badplaas and Hazyview in Mpumalanga, and Ballito in KwaZulu-Natal). While 2011 census figures are not yet available to reveal precisely the influx of people into these towns, the overcrowded conditions in many schools visited by evaluators confirmed anecdotal evidence of high levels of inward migration into these areas. This sampling strategy was designed to identify particular issues arising in the country's growth points, issues which are likely to become exacerbated under pressure of the stream of people flowing into towns and cities across the country.

2.3 Accountability and other theoretical considerations

It is widely accepted that South African schools perform well below expectations, given the country's state of development and the size of the education budget. One international comparative measure after another confirms this at both primary and secondary school levels. There is much talk today that this situation can be improved if only teachers, principals and departmental officials were somehow held more closely *accountable* for their actions and achievements. This is the course government has decided to adopt in attempting to improve the performance of the school system. In designing a suitable evaluation framework, a first task was to understand the mechanisms through which schools might respond to accountability pressures.

2.3.1 External accountability and assessment

Following the general election in April 2009, the new cabinet adopted a set of 12 Outcomes which captured a comprehensive set of targets for government, and which were included in the performance agreements signed by the President with each of his Ministers. The principal goal for the DBE is captured by Outcome 1: 'Improved quality of basic education'. This goal was given flesh by the publication of the DBE's *Action plan to 2014: Towards the Realisation of Schooling 2025*, which outlines 27 goals focused on raising learner test scores in Grades 1-9, increasing education and training opportunities beyond Grade 9, and improving the quality of teaching, school supervision and support (DBE, 2011b).

The first practical measure instituted in support of these accountability targets was the Annual National Assessment (ANA) exercise, a pilot administration of which was done in 2010. The ANAs consist of literacy and numeracy tests in Grades 1- 6 and 9 which are administered and scored by teachers. The scores are collated provincially and nationally. The goals of the ANA are partly to expose teachers to better assessment practices, partly to serve as a systemic measure of performance and partly as an accountability measure for principals and teachers (DBE, 2010). A full administration was conducted in February 2011 and another in August 2012 (DBE, 2012).

2.3.2 Internal accountability: loose coupling and instructional leadership

Weick defined 'loose coupling' as a situation in which elements of a system are responsive to each other, but retain features of separateness and identity (Weick, 1976). Schools fit this description very well; after all, teachers can and do resist entry into their classrooms by school managers on the grounds of professional autonomy, and district officials, each responsible for dozens of schools, are usually unable to direct more than cursory attention to individual institutions. Under these conditions,

extraordinary efforts are required for districts to exert significant influence over school performance and for school leaders to provide meaningful assistance to teachers. The point is well illustrated by the following quote from an official in one of the district offices visited by NEEDU in 2012:

> *We come up with beautiful strategies and the schools were also supposed to come with turnaround plans for their schools and implement those. But teachers do not use these when they teach.*

Instructional leadership may be seen as an ensemble of practices aimed at aligning more tightly the coupling between successive institutional levels of the school system. Much has been written on this topic over the last two decades, but there is general agreement that good instructional leadership consists of at least five key elements (Parker and Day, 1997). First, the principal is responsible for defining and communicating a *clear mission and set of objectives* for the school, the central focus of which should be learning. In recognition of this principle, *'Leading for learning'* has become a slogan for school leaders. This vision should be shared with the school community – teachers, learners and parents – providing coherence of purpose, and a framework of high expectations of learning outcomes for all learners.

The second element of instructional leadership concerns creating an *instructional climate*, which includes the optimal use of time for teaching and learning, and developing the school as a space where learning is made exciting and where teachers and learners feel supported. A third element is *managing the curriculum and instruction*.This involves establishing a division of labour among school leaders and distributing the various curriculum management tasks required to direct the work of teaching and learning.

The fourth and fifth components of instructional leadership are two sides of the same coin: by *monitoring learning programmes,* through tests and other instruments, instructional leaders identify areas requiring *professional support* to teachers. It is the creation and maintenance of structures and processes for optimising learning across the whole school ecology – managers, teachers, learners and parents – that lies at the heart of instructional leadership.

Internal accountability is the degree of coherence within the school around norms, values, expectations, and processes for getting the work done (Elmore, 2008). A school with a well-developed approach to curriculum and pedagogy, characterised by routine grade level and content-focused discussions of instructional practice, and structured occasions to discuss student performance, is a school with relatively high internal accountability. According to Elmore, it is only schools with high levels of internal accountability that have the capacity to respond to external accountability pressures.

2.3.3 Bureaucratic and professional accountability

A certain degree of administration is needed to support good instructional leadership practices. However, herein lies a potential pitfall for all levels of institutional management. Darling-Hammond (1989) notes that bureaucratic mechanisms are most appropriate when a standard set of practices or procedures can be easily linked to behavioural rules that will produce the desired outcomes.The problem with the bureaucratic solution to the accountability dilemma in education is that effective teaching is not routine or predictable and therefore cannot be captured or prescribed through a set of standard operating procedures or behavioural rules. Inevitably, when the desired outcomes

are not achieved, it is assumed that the prescriptions are not sufficiently detailed or the process of implementation not sufficiently exact, leading to ever more precise specification of the processes and ever more burdensome reporting requirements, a key factor leading to the streamlining of the South African curriculum in the form of the current Curriculum and Assessment Policy Statements (CAPS) (DBE, 2009).

A key problem commonly encountered in the functioning of complex school systems is the slippage between the intended use of procedures as a *means* to improving student learning, to the situation where the procedures and their attendant paper work become *ends* in themselves. Thus, piles of paper – in the form of policies, plans, schedules, targets, reports, instruments and assorted other 'tools' – come to stand as proxies for learning.

This is not to say that bureaucratic accountability is not a suitable mechanism for managing certain components of schooling – such as the extent to which teachers come to school regularly and punctually, and the efficient procurement and deployment of textbooks. But accountability mechanisms must be directed with professional insight and judgment if they are to be useful in managing curriculum delivery. Thus, in '*leading for learning'*, leaders of schooling – from school-level Heads of Department (HODs) to policy makers in the DBE and Ministry – are more likely to achieve success if they are motivated more by a culture of professional accountability than by bureaucratic compliance procedures alone.

2.4 Evaluation design and method

2.4.1 Indicators of good practice

There are two key considerations in assessing school performance. First, the quality of teaching and learning is best measured through the *direct outcomes* of learning. Indirect proxies are an unreliable source of information about learning. For example, lesson plans may not bear much relationship to the actual instructional practices which occur in any class, whereas the quantity and quality of learner writing provides more direct and objective evidence of the type of learning arising from those practices. For this reason, the *writing* revealed in learner books and one-on-one assessment of learner *reading* are key components of NEEDU's evaluation design, together with the scores from the 2012 ANA tests.

The second consideration has to do with the importance of instructional leadership practices, which direct, monitor and support teaching and learning. The evaluation framework shown in Table 1 below examines instructional leadership practices through eight components: learning goals and the allocation of leadership responsibilities; the language of instruction; time management; curriculum planning; monitoring; assessment; procurement and use of books and other cognitive resources; and professional development.

Table 1 displays how the evaluation design adopted is intended to track instructional leadership practices through four levels of the school system, investigating cross-sectional slices drawn through the national DBE, provinces, districts, and schools. Table 2 shows 15 such cross-sections assessed by NEEDU in the latter half of 2012.

Table 1: Indicators of curriculum delivery investigated at four levels of the school system

Level	Element	Indicators	Method
National	Curriculum	Distribution of CAPS documents Training	Interviews at school, district, provincial and national levels
	Assessment	Design, distribution and use of ANA tests	Interviews at school, district, provincial and national levels. Document analysis
	Resources	Design, distribution and use of work-books	Interviews at school, district, provincial and national levels. Document analysis
Provincial	Instructional leadership	Goals, staffing and delegation of functions	Observation Document analysis Interviews
		Curriculum planning	
		Monitoring	
		Assessment	
		Procurement and distribution of books and other cognitive resources	
		Professional development	
District	Instructional leadership	Goals, staffing and delegation of functions	Observation Document analysis Interviews
		Curriculum planning	
		Monitoring	
		Assessment	
		Procurement and distribution of books and other cognitive resources	
		Professional development	
School	School culture	History, demographics, location, infra-structure, resources	Observation, SMT interviews
	Language	LOLT, FAL, HL of learners and teachers	SMT, Teacher interviews
	Instructional leadership	Goals, staffing and delegation of functions	SMT, Teacher interviews Examination of teacher and school records Observation
		Time management	
		Curriculum planning	
		Monitoring	
		Assessment	
		Procurement and distribution of books and other cognitive resources	
		Professional development	
	Reading	Reading fluency and comprehension	Classroom observation Learner assessment
	Writing	Frequency	Examination of learner books
		Quality	
		DBE workbooks	
	Homework	Frequency, assistance	SMT, Teacher interviews
	District sup-port	Frequency of contact Activities	SMT, Teacher interviews

2.4.2 Instrument development

Semi-structured instruments were developed for collecting data on the indicators listed in Table 1 at each level of the system.

At the provincial level, separate instruments were designed for interviews with the Head of Department (or Superintendent General), the Chief Directors (or Senior General Managers), as well as the Directors (or General Managers), for the two key functions of Curriculum and District Management. Depending on the division of labour within the provincial office, in certain provinces interviews were also held with one or more of the managers responsible for Assessment, the Education Management Information System (EMIS), Learning and Teaching Support Materials (LTSM) and Quality Assurance. Data was collected on results of the ANA tests, vacancies in the provincial office, and documents relating to any provincial programmes for improving teaching and learning in the FP.

Instruments for interviewing district level officials and examining documents in the district office were designed in parallel with those used at the provincial level, focusing on the Curriculum and District Management functions.

School level instruments included interview schedules for the Principal, Deputy Principal, HODs for FP and Intermediate Phase (IP), teachers, and the chairperson of the SGB. The teacher interview schedule included protocols for examining teachers' work plans and assessment records, the DBE workbooks and exercise books in the Language of Learning and Teaching (LOLT) and mathematics used by the best learner in each of two classes in Grades 1-3. An instrument was developed to guide observations of time management at the school and to examine school records on assessment and teacher and learner attendance. Finally, a reading lesson was observed in each of two Grade 2 classes in each school visited, and the reading fluency and comprehension of the three best readers in each of these classes assessed.

2.4.3 District and school selection

In order to trace the interactions required for effective curriculum delivery between four levels of the school system, investigations were undertaken in the national DBE, nine provincial offices, 15 district offices and 133 schools between May and November 2012. Within each province two districts were selected, one relatively poorly performing and one that reflected relatively stronger performance, both of which administered schools in largely urban areas. District selection was based on advice from the province. Only one district was selected in each of the Eastern Cape and Free State provinces as these visits were used to test the evaluation instruments and to undertake the training of school evaluators. In the Northern Cape only one district was selected because of the great distance between districts in the province.

School selection within each district followed a three-step process. First, multi-grade schools were not considered, on the grounds that the demands placed on management and teaching in these schools are very different from those in other institutions, requiring a special focus. Secondly, a circle of radius 50 km (wider in cases of districts covering a large area such as West Coast) was drawn around the identified district office, in order to minimise travel costs and time, thus maximising the number of schools visited. Finally, between eight and 10 schools within this radius, depending on the availability of school evaluators, were randomly selected for investigation. The results are shown in Table 2.

Table 2: Districts and schools selected for 2012 NEEDU evaluation

PROVINCE	DISTRICT	SCHOOLS
Free State	Thabo Mafutsanyana	Bethlehem Intermediate, Bohlokong, Clarens, Impucuko, Impumelelo, Motshepuwa, Nthute, Phinduzame, Sekoko, Thabang
Gauteng	Johannesburg Central	Donaldson, Isiseko, Isu'lihle, Jabavu-East, Luyolo, Mambo, Nonto, Zibambele
	Johannesburg West	Dr Mary Malahlela, Harry Gwala, Hector Peterson*, Klip Valley, Lodirile, Roodepoort, Thathesakho, Unified Public
Northern Cape	Frances Baard	Beacon, Boitshoko, Endeavour, Isago, Kevin Nkoane, Kim Kgolo, Kimberley, Laerskool Vooruitsig, Letshego, Molehabangwe, Montshiwa, Olympic, Progress, Reneilwe, Sol Plaatjie, Tshiamo, Tshwarelela, West End
Western Cape	West Coast	Augsburg Agricultural, Laurie Hugo, Liebenberg, Masiphathisani, Naphakade, Panorama, Piketberg, Sederberg
	Metro North	Kenridge, Nal'ikamva, Parow-west, Rosendal, Ruyterwacht, Simonsberg, Table View, Tafelberg Special
North West	Bojanala	Karlienpark, Kloof View, Lekwakwa, Rampa, Reuben Monareng, Rustenburg laerskool, Rutanang, Zinniaville
	Tlokwe (Dr Kenneth Kaunda)	Berts Bricks, Keagile, Madibeng, Mooirivier, Potchefstroom, Promosa, Tshepo, Tshupane
Mpumalanga	Ehlanzeni	Celani, Ifalethu, Inkambeni, Khombindlela, Lundanda, Majika, Numbi Laerskool, Tfolinhlanhla
	Gert Sibande	Badplaas Laerskool, D & C comprehensive, Elukwatini, Father Charles, Izithandani, Letsakuthula, Makhosonke, Nhlazatshe, Siyeta, Tsatsimfundvo
Limpopo	Vhembe	Jim Tshivhonelo, Lurenzheni, Makumbane, Manamani, Muvhi Tshikovha, Tshedza, Tshisahulu, Tswinga
	Waterberg	Albert Lithuli, Blaauwboschkuil, Hleketani, Jinnah Park, Khabele, Malebone, Mmamakwa, Mmampatile
KZN	Ilembe	Dinuphozo, Dr B W Vilakazi, RA Padayachee, Shakaskraal SA, Shakaskraal, Thembeni, Tinley Manor, Umhlali
	Umlazi	Addington, Entuthukweni, Greyville, HP Ngwenya, Msizi Dube, Sandakahle, Ukukhanya Kwelanga, Umlazi
Eastern Cape	Mount Frere	Mahamane, Mandileni, Mount Ayliff, Nguse, Qaizana, Sihlahleni, St Georges, Thembisa

* Note: NEEDU evaluators were prohibited by union members from conducting the evaluation in one school

This process elicited a wide variety of school types, ranging across township, peri-urban and suburban locations, across all apartheid-era departments of education, and across a wide array of teacher and learner demographics. Each set of district schools can in no way be said to represent the district or any other of the many categories into which schools may be classified. But what the sample does reflect is a wide cross section of schools typically found in the country's urban areas, as broadly defined above. Challenges of leadership, pedagogy and resourcing seen in these schools reveal both commonalities across the country and regional variations. Language issues pose a particular challenge in these melting-pot environments.

2.4.4 Procedure for gathering data

The visit to each province occurred over a two-week period. In the first week a head office team spent one day in the offices of the provincial education department, followed by one day in each of the selected districts. The following week a two-person team of school evaluators spent two days in each of a set of 8-10 schools, except for Northern Cape, where 18 schools were visited. Discussions with national-level managers responsible for CAPS, the ANA and the workbooks distributed by DBE took place over the course of the year.

2.5 Reporting

The Draft NEEDU Bill currently before Parliament (DBE, 2011a) states that the Minister is obliged to consider the reports and recommendations made by NEEDU, engage with them in regard to the content of such reports and recommendations, and table each report for consideration and action at the meeting of the Council of Education Ministers (CEM) immediately following the submission of the report.

In giving effect to this mandate, NEEDU has adopted a systematic approach to reporting. First, each school visited received a full report of the visit. Initial school reports were of a draft, confidential nature, allowing the school to respond within two weeks. After engagement with the school on points of difference, the report was finalised and sent to the school.

A composite report consisting of descriptions of the assessment of the provincial and district office, and a summary of the school reports for each district, was then prepared for each district. The same procedure as that for finalising school reports was followed, with the province and districts providing comment on a first draft. It is important to emphasise that the recommendations to provinces and districts apply not only to those schools visited, but to a broad range of urban schools typically found in urban areas across the length and breadth of the country. These recommendations also hold particular lessons for the district and province. After finalisation of the 15 provincial/district reports, the present national report was written for the attention of the Minister, the CEM and the public.

3. Diagnosis

No one would dispute that South African schools are performing below expectations. Diagnosis of the reasons for the inefficiency of South African schools, compared with more poorly resourced systems in the Southern and Eastern African subcontinent, is the first step to improving the quality of learning outcomes. In this section we examine the evidence for the two explanations most frequently advanced for the poor state of our schools.

Why are schools not doing what we expect of them? Is it because they *won't* or because they *can't*? The implications for school improvement are very different, dependent on how this question is answered. If poor school performance is predominantly caused by teachers being *ill disciplined* – for example, being absent from school for no legitimate reason, or not working according to the timetable when they are at school – then they need to be disciplined, a job which lies firmly in the purview of School Principals and Circuit Managers. Where poor oversight and management coincides with ill-discipline, the situation merits outside intervention. Under these circumstances, the systemic focus must be on strengthening management capacity at school and district levels.

If, on the other hand, teachers being *unable* to deliver the curriculum predominantly cause poor school performance, then the solution must take a different course, focused on strengthening the knowledge resources of teachers. Given the different implications for action signalled by the answers to the *won't/can't* question, getting the diagnosis right is critical. Of course, the two explanations are not mutually exclusive, and can apply to the same institution simultaneously but the first strand in unravelling the web of factors involved in structuring schooling is to determine the relative weighting of the won't/can't (discipline/knowledge) question.

The role of resources brings a third complication to the mix. In recent years the trend has been to conclude that it is not resources *per se* that make a difference to the quality of teaching and learning in a school, but *how those resources are used.* On the face of it, this seems to be self-evidently true. However, it also seems obvious that the argument would only hold once a *minimum threshold* of resourcing required for cognitive development is available, and that this threshold may be relatively high. It is these considerations that are captured in the popular triad: *time (discipline), teachers (knowledge) and texts (resources)*.

3.1 The case for won't

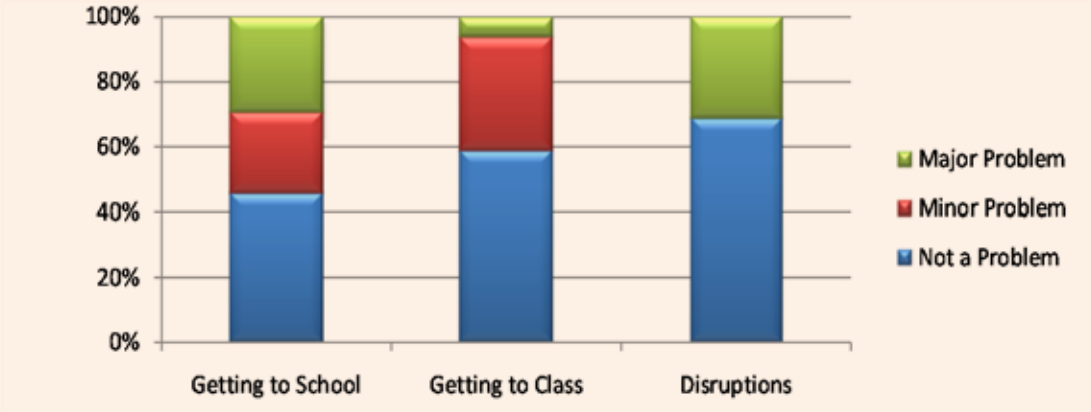
The most obvious manifestation of indiscipline in schools occurs through time not being observed in four ways: teachers and learners being absent frequently; coming to school late in the morning; not going to class according to the timetable; or taking part in non-scheduled activities during the school day, such as training workshops, union meetings, or memorial services. Ten or 15 years ago, poor time management was widely known to be a major problem in South African schools, and therefore was of particular interest to evaluators during the school visits undertaken in 2012.

The assessment of this key aspect of instructional leadership is difficult to determine conclusively over a two-day period. Absenteeism of teachers and learners was assessed by looking at attendance registers, while punctuality both in the morning and after breaks was assessed through observation and interviews with between six teachers and school leaders (for small schools with only one class per grade) and 10 (in larger schools). Information on extra-curricular disruptions to the school

day was also derived from the interviews. The coherence of the time management regime of the school was assessed by triangulating the responses of the various interviewees. Assuming that most respondents would be inclined to present the most favourable picture possible, where at least two interviewees provided a less favourable view, the latter was taken to be the actual situation. Notwithstanding the large number of schools in which there was consensus among respondents regarding time management practices, we would be wise to assume that the margins of error in the following figures may be as high as 10%, and should be read accordingly.

We first look in broad overview at practices across the sample of 133 schools regarding time management, as depicted in Figure 1.

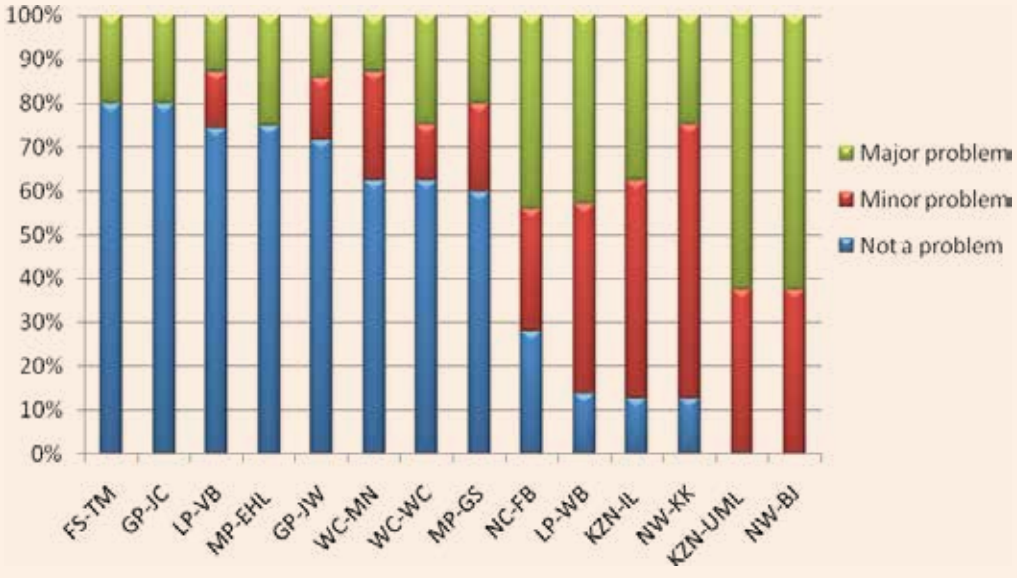
Figure 1: Percentage of schools affected by poor time management



Based on these figures, we estimate that the timetable is followed around 90% of the time in about 70% of schools. In other words, time management is a significant problem in about 30% of schools sampled in 2012.

The biggest cause of loss of teaching time is late-coming on the part of learners, which Figure 2 shows to be highly variable across the districts visited in 2012. Again, we must emphasise the fact that the small sample of schools visited in each district does not represent the 'average' school in the district. The point of Figure 2, rather, is to show the variability and extent of the problem across all 133 schools visited.

Figure 2: Percentage of schools in each district reporting 'Getting to school' as a problem



Leave, and in particular the abuse of sick leave by teachers, offers another gap for teachers to spend less time at school. A study by the HSRC found that in 2008 the public school system had a leave rate somewhere between 10 and 20%, this wide margin of error indicating poor data systems for managing teacher leave (Reddy et al, 2010). This is in contrast to a rate closer to 5-6% in developed countries. The HSRC study came to the disturbing conclusion that, on average, every educator is away from the school for between 20 and 24 days a year. Furthermore, the study estimated that over three-quarters of leave is of one or two days duration and therefore does not require a doctor's certificate. The way in which this leave is abused is clearly shown by the incidence of leave for Mondays and Fridays being twice that of Tuesdays and Thursdays respectively. What makes this problem so intractable is that, while much of this leave clearly abuses the spirit of DBE regulations, it occurs within the letter of the law regarding sick leave. Teachers are entitled to 36 days sick leave over a 3 year cycle, and it seems that many teachers have come to see this leave as an entitlement which should be taken, rather than as a generous service benefit in case of serious illness.

The figure of 20-24 days a year per teacher seems very high, constituting the loss of a whole month of schooling, or 10% of the academic year. Yet it is remarkably close to the average figure derived by the SACMEQ study of 19,4 days a year for 2007, varying from 11 days a year for WC teachers to over 24 for teachers in KZN (Spaull, 2011). This is twice the average absentee rate for teachers in Botwana and Namibia and three times as high as the rate for Mozambican teachers. Spaull considers this to be a 'lower bound' figure, given that it was obtained from teachers reporting their own absence from school, which is likely to err on the side of underreporting.

Apart from teacher absenteeism, disruptions to the daily timetable occur through sports meetings, choir practices, training courses, union meetings or funerals and memorial services. In one district of Mpumulanga it seems that memorial services affecting any school are held around once a month on average, causing a loss of schooling of more than a day a month. The Acting HOD of Eastern Cape Department of Education, where a problem of similar proportions exists, said that he had suggested that memorial services be combined, but that this proposal was not popular with communities.

When asked about the problem of absenteeism, late coming and disruptions to the timetable, many principals tend to shrug and write off these practices to the unreliability of public transport, lack of parental commitment and teacher militancy. In contrast, a number of research projects have demonstrated that principals who manage their schools well take personal responsibility for the efficient management of time and address the issue through a combination of motivating teachers and learners, and establishing systems for combating time loss.

3.2 The case for *can't*

School X (Box 1) provides food for thought when considering the question which structures our search for factors inhibiting learning in South African schools.

Box 1: School X – Leadership

The school is situated in a village in Mpumulanga. Mrs P, founder principal since 1988, has a deliberate, understated approach to leadership. The LOLT in the FP is English, even though the HL of most teachers and learners is siSwati, a situation which it shares with three other poor schools visited by NEEDU in the district.

Since discovering some 10 years ago, through referral to the local clinic, that one of the learners at X had very poor vision, Mrs P has instituted programmes to cater for a variety of learning and physical disabilities. A total of 49 of the 619 learners in the school is differently abled in some or other way. The largest programme is a separate class for eight hearing-impaired children, who are taught by a tutor employed for the purpose and paid by the province. A4-size posters at key points throughout the school provide a basic sign-language vocabulary, enabling communication between participants in this programme and others in the school.

Reading levels of six of the best Grade 2 pupils at the school are above those in the large majority of schools across the country (see Section 5.1, Figure 3). The three best learners in one class were reading at an average of 100 words per minute and in the other at 75, which are both well above the median score for all 133 schools in the sample (Table 3). On a simple comprehension test, however, the results were less impressive, at a mean of 3,2 responses correct out of 5.

A reading lesson was observed in each of two Grade 2 classes at the school. Both took the form of a shared reading format using Big Books. Classes contained significantly more books than were seen in most schools visited in 2012 (Kagiso readers, Bridge to English, Benny and Betty and a collection of Big Books in the library). In both lessons discussion on the illustrations and other features of the book took far more time than was given to learners' engagement with text. Nevertheless, it seemed that at least half of the learners are able to read these simple texts, although there was much chorusing and thus difficult to say how many were actually reading.

It seemed that both teachers were able to take their learners to a basic level of literacy, but not able to launch them into independent reading and levels of textual analysis beyond simple recall. Too much time was spent on repetitive chorusing. In other words, there appeared to be an emphasis on reading as collectively decoding symbols rather than on reading for individual understanding.

The school has a large room available as a library, which contains a reasonable store of books. The library had not been open to learners since the librarian left earlier in the year, although teachers had access. The most interesting acquisition was an extensive set of Ladybird readers consisting of dozens of titles and around 300 volumes in total, none of which had been opened previously, as shown by cracking spines when evaluators did so.

The point of this example is to illustrate the resourcefulness, drive, energy and nurturing nature of Mrs P, principal of X, under conditions of extreme poverty and isolation. Situated in a rural village, the school is somewhat anomalous in the largely urban NEEDU sample for 2012. Nevertheless, School X illustrates a number of important characteristics associated with excellent leadership, wherever the school may be situated. In establishing a number of specialist programmes for the different needs of variously abled learners (sight impairment, hearing difficulties, cerebral palsy), Mrs P is dramatically improving the life chances of the most disadvantaged learners in her care, who would otherwise languish at home.

It would be uncharitable to conclude that such an outstanding leader could fail to provide the very best for all her charges through ill-discipline, laziness or dishonesty. Surely, if the learners at X are not reading and writing at the expected standard, it must be due to some other cause? It happens that reading is relatively well done at School X: Six of her best learners in Grade 2 were reading far more fluently than most of the 615 tested across the country in 2012 (Figure 3). One of the six learners tested at School X was reading close to the 'top' benchmark of 125 wpm, four were just above the 'average' level of 70 wpm and one was below average (Table 3).The classes were better supplied with books than most, time management was judged to be exemplary and the two teachers observed took their classes competently through typical shared reading exercises.

This is highly commendable and, while generalizations cannot be drawn from single cases, it seems likely that much of the credit for this good performance can be attributed to the level of order and culture of commitment in the school. If all South African schools were as well organized as this one, then reading fluency scores across the country could improve by as much as 100%.

Table 3: Reading fluency and comprehension of six best learners at School X

Class	Learner	Reading fluency	Comprehension
		Correct no. words read in simple text p/min	No. correct answers (max 5)
C1	L1	80	3
	L2	121	4
	L3	99	3
	Mean	**100.0**	**3.3**
C2	L4	91	3
	L5	54	4
	L6	80	2
	Mean	**75.0**	**3.0**

However, Table 3 reveals that comprehension scores are less impressive, averaging just over 3 out of 5 for the six learners tested. Similarly, the school's ANA scores for Grade 3 lie just on the provincial mean for mathematics (35%) and below average for HL (40%). And both the quantity and quality of writing in FP learners' books is inadequate in both LOLT and mathematics. The question must be asked: What prevents this school from taking its best learners to reading levels beyond the average? Why are the best six readers in the school not all reading at the 'top' benchmark, and scoring full marks on this simple comprehension exercise? Could the school be doing more to stimulate acquisition of more comprehensive literacy competence and more sophisticated concept development?

If the answer to the last question is affirmative, what should the school do to improve learning? For a start the school could make the Ladybird readers, currently gathering dust in the library, available to learners. Even if only the best readers were given access to the books, after demonstrating a certain aptitude, they would find their own way through this series, expanding their vocabulary, stretching their grammatical repertoires and stimulating their imaginations. However, there are sufficient books there for all learners in the school to have periodic access, which would be bound to lure at least a few more into the pleasures of independent reading, and to raise the average ability of most. So, the most important question then becomes: Why does School X not understand this truth about reading that seems so obvious to skilled readers? Why do they not push their young readers to read more frequently, more widely and with deeper levels of understanding? We attempt to answer these questions in Section 3.3.

3.3 What is it that teachers don't know?

3.3.1 Knowledge

Three aspects of ***teacher knowledge*** are of interest in understanding effective teaching and learning: knowledge of a *school subject* (isiXhosa, mathematics, geography, etc.), knowledge of the *official curriculum* (currently CAPS), and knowledge of *how to teach the subject* (derived from experience,

research and instruction). Expertise in the classroom, the actual conveying of subject knowledge to learners, is ***teacher competence***, which draws on the three knowledge types and is honed by experience, reflection and peer interaction.

Subject (disciplinary) knowledge

Disciplinary knowledge, as codified in the specific curricula for the respective subjects, is what constitutes the intellectual heart of schooling. This is what the ANA tests and the NSC exams set out to assess. In its most general terms, the Foundation Phase curriculum may be described as the development of an increasingly sophisticated literacy ability, to provide the base for the study of a set of specialist subject disciplines. This broad definition encompasses the communication of mathematical ideas: number, space and shape. A good place to start in describing this ability is the UNESCO definition of literacy, as the:

> *... ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society.*
>
> UNESCO, 2004

Language literacy encompasses a complex set of abilities to understand and use the dominant symbol systems of a culture. It is a lifelong, intellectual process of gaining meaning from and communicating ideas through a critical interpretation of printed text. Key to all literacy is reading development, a progression of skills that begins with the ability to understand spoken words and decode written words, and is directed toward understanding of text and using it to communicate. Reading development involves a range of complex language underpinnings including awareness of speech sounds (phonology), spelling patterns (orthography), word meaning (semantics), grammar (syntax) and patterns of word formation (morphology), all of which provide a necessary platform for reading fluency and comprehension (Wikipedia, 2013). Full language literacy includes the abilities to approach printed material with critical analysis, inference and synthesis; to write with accuracy and coherence; and to use information and insights from text as the basis for informed decisions and creative thought.

The first step in exploring literacy in Grade 1 is learning to read and write using the alphabet and natural numbers. This is a process that continues throughout one's life. As the learner's reading fluency and comprehension powers develop, so she is drawn to read books which provide her with an expanding vocabulary, an increasingly complex array of grammatical structures, and a wider range of genres: stories, biography, non-fiction, poetry, news reporting and commentary, and more.

The power of writing comes from its ability to leave an enduring trace. This allows the writer to reflect upon what has been written, and generate and refine ideas in the process. Moreover, it allows ideas and information to be detached from space and time, giving them a capacity to reach a wide audience across continents and generations. The research literature has firmly established the centrality of writing in shaping the way we think, reason, and learn.

While writing helps us remember and better understand ideas, some tasks, like writing summaries, descriptions of events, expressive pieces, analytical essays, and mathematical investigations require a deeper level of processing than answering multiple-choice, cloze or short answer questions.

Research studies have found that the degree to which information is reformulated or manipulated through writing has an impact on how well the information is integrated, learned, and retained. This finding indicates that extended writing (of paragraph length or longer, and requiring at least two steps in mathematics) is more effective than shorter forms of writing (words, sentences, single-step operations) in developing the higher cognitive functions of inference, analysis, synthesis and evaluation.

According to Beck and McKeown (1991), 5 to 6 year olds should have a working vocabulary of 2 500 to 5 000 words; reading independently at around 50 words per minute; and writing paragraph-length stories and descriptive passages. In mathematics they should be adding, subtracting and multiplying with numbers up to 20, and solving word puzzles containing these operations within this number range.

To teach not only this capacity effectively, but the capacity to use it to learn specialist subjects, requires teachers who appreciate the nested complexities of language and can negotiate them in a graded, steadily increasing way. It seems self-evident that teachers cannot teach what they themselves don't know, so a key question for school reformers is: how robust is teachers' knowledge? The last few years have seen the accumulation of evidence to indicate that the majority of South African teachers know little more about the subjects which they teach than the curriculum expects of their children, and that some teachers know considerably less than this. SACMEQ III provided the first opportunity to assess the extent of teacher subject knowledge in a systematic way, administering language and mathematics tests to a national sample of Grade 6 teachers in 2007.

The SACMEQ language test consisted of comprehension exercises on 11 separate texts, ranging in difficulty from those containing simple vocabulary and syntax only, to relatively dense technical descriptions and complex discursive passages. A variety of text types included literary writing, expository descriptions, philosophical speculation, a school timetable, a job advertisement, and a set of three posters on healthy living. While South African teachers did relatively well on questions requiring the simple retrieval of information explicitly stated in the test (75,1%), scores dropped dramatically as soon as the higher cognitive functions of inference (55,2%), interpretation (36,6%) and evaluation (39,7%) were invoked (Table 4).

Table 4: Teacher percentage scores on the SACMEQ language test

Processes of comprehension				Total
Retrieve	Infer	Interpret	Evaluate	
75,06	55,21	36,61	39,73	62,99

Source: Taylor and Taylor, forthcoming

Scores on the mathematics test show a similar decline for more complex topics, from a mean of 67,2% for arithmetic operations to 49,7% for the key area of fractions, ratio and proportion, and 46,5% for items involving the use of algebraic logic (Table 5).

Table 5: Teacher percentage scores on the SACMEQ mathematics test

Mathematical topic					Total
Arithmetic operations	Fractions, ratio and proportion	Algebraic logic	Rate of change	Space and shape	
67,15	49,68	46,51	42,30	56,44	52,39

Source: Taylor and Taylor, forthcoming

Even, the performance of teachers on some relatively straightforward tasks involving arithmetic operations was disappointing. Item 6 is a good example:

$$10 \times 2 + (6 - 4) \div 2 =$$

While a small majority of teachers (54%) were able to compute the correct answer, only 22% of learners could do so. The item requires an application of the classic BODMAS[3] rule for choosing the order in which to perform operations in a problem containing more than one operation. The first distracter for this item is obtained by ignoring the rule and performing the operations from left to right, a procedure followed by 37% of teachers and the largest category of learners (38%). Clearly, a good proportion of teachers and almost all learners are confused about the application of this fundamental arithmetic convention.

The conclusion from the SACMEQ exercise is that the subject knowledge base in both language and mathematics of the majority of South African Grade 6 teachers is inadequate to provide learners with a principled understanding of these foundation disciplines. There is no reason to believe that Foundation Phase teachers are any better endowed with subject knowledge.

Curriculum knowledge

CAPS is an attempt to guide and shape activities in the school and particularly the classroom so as to provide opportunities for learners to acquire subject knowledge in a structured manner. It is the third such attempt in South Africa since 1994. Starting in 1998, Curriculum 2005 (C2005) formulated the *outcomes* of learning in the broadest terms, allowing space for teachers to customise teaching and learning activities to suit each class. The realisation that most teachers did not have the knowledge resources required to design specific curricula in the way envisaged in C2005, prompted a review of the curriculum and the formulation of the National Curriculum Statements (NCS) in 2002, which set out to *specify the knowledge* components of the curriculum in more explicit detail. Then, from 2011, CAPS takes a third approach, recommending particular *sets of strategies to sequence and pace the knowledge* in each subject at each grade level.

Successive curricula in South Africa over the last two decades should not be seen as being in opposition to one another, but as complementary perspectives on the subject knowledge to be acquired by learners. One would expect that the successful implementation of any specific curriculum is greatly enhanced when teachers and school leaders understand the relevant subject knowledge, and that the best teachers are able to implement a wide variety of curricula with equal success. Where teachers do not have strong subject knowledge resources, they tend to see successive curricula as rejecting their antecedents and, as a result, teachers may discontinue using valuable practices and materials from previous curricula.

With respect to CAPS, in the absence of strong subject knowledge on the part of teachers, there is a danger that the strategies set out in the policy documents may be mistaken for the outcomes of learning, and may even obscure the knowledge capacities they aim to promote. However clearly written any curriculum might be, it always involves interpretation on the part of the teacher. We provide evidence below that teachers are not only not following the prescripts of the official curriculum, but that many seem unaware of what these are.

3 BODMAS is a mnemonic for remembering the order of operations: Brackets, Of, Division, Multiplication, Addition, Subtraction

Pedagogical content knowledge (PCK)

PCK includes the most useful forms of representation (analogies, illustrations, examples, explanations, and demonstrations) of key concepts in the curriculum, which renders them comprehensible to learners (Shulman, 1986). It also includes an understanding of what makes the learning of specific topics easy or difficult: the conceptions and preconceptions that students of different ages and backgrounds bring with them to the classroom. If those preconceptions are misconceptions, teachers need knowledge of the strategies most likely to be fruitful in reorganising the understanding of learners.

Perhaps the most important piece of PCK required of teachers in the FP is the knowledge that, in order to develop the kinds of reading and comprehension skills described under 'subject knowledge' above, learners must engage with a wide variety of books and other material. This may seem obvious, but many South African teachers seem unaware of this requirement. A striking exception was Ms H, an experienced teacher at a township school in a large provincial town. In her class evaluators found 8-10 Big Books and two READ box libraries, but the large majority of reading material was constructed by the teacher herself, photocopying, cutting and pasting from other readers. She told evaluators that she takes her learners through four or five readers per term. This may still be insufficient (see section 5.4 below), but it exceeds by far what learners in most learners in schools visited by NEEDU in 2012 are exposed to in a year.

3.3.2 Educator competence

If PCK is knowing the kinds of strategies which are effective in teaching certain subject topics, classroom competence is the practical ability to deploy these strategies with learners as to effect learning. A good teacher is one who engages her learners' cognitive attention through a set of activities and interactions with text and other materials. She knows her subject well, and understands the level at which to pitch it for her grade and the steps required to build each concept. She is experienced in presenting the forms of knowledge representation which her learners find most illuminating, and has an intuitive feel for the pacing of activities which stretch her charges to their capacity. A good example of effective reading instruction, contrasted with an ineffective lesson, is described in Box 2.

Box 2: School Y – Two reading lessons

The school maintained parallel English and Afrikaans streams in the Foundation Phase, although the majority of learners speak seSotho at home. Evaluators observed reading lessons in two English language Grade 2 classes. Both lessons adopted a shared reading format using Big Books, but they could not have been more different in quality.

In the class conducted by Teacher 1, evaluators saw one of the best lessons observed in the 10 schools visited in the district. The lesson contained a variety of reading activities, including: selecting word cards to match items shown in the pictures and pasting them onto the picture; constructing sentences out of given words shown on word cards, with the teacher pointing to the card, thus requiring the learner to read it herself; and a wide-ranging discussion of topics around seeds, such as the role of compost in growing seeds. The pace of the lesson was brisk, keeping the children busy, but not too fast so as to leave them behind. Unusually, although the lesson used a Big Book (Little Seeds) as focal point, no shared reading was done, with individual learners nominated to read successive pages.

In contrast, in the second lesson observed, the pacing was slow and the cognitive level too low to keep the learners' interest. Consequently a number of learners began to get restless after 20 minutes, causing the teacher to interrupt the flow of the lesson to reprimand them. Teacher 2 spent too much time talking about the pictures and not enough time on reading activities. When she did get to reading, she insisted on reading each sentence first, with the learners following and repeating sentences up to 3 or 4 times. This is not reading but parroting. Indeed, she reprimanded one learner who tried to read the text independently. While she had most of the elements in place for a successful reading lesson, their poor integration and slow pacing led to a disjointed lesson in which learners would have gained very little.

In her defence it must be said that Teacher 2 has only been in the post for 1 month, had never taught FP before, and missed the CAPS training. She is badly in need of assistance in effective reading instruction. No one is better placed to help her than the teacher in the classroom next to hers. Situations such as this one provide opportunities for *intra-school* professional development, where teachers assist each other through observation, and demonstration. The development of such peer networks should be stimulated by school leaders. We return to this subject under Recommendations (section 7) below.

During visits to schools, districts and provincial offices in 2012, inadequate capacity on the part of teachers and district officials was widely cited as a serious problem in all nine provinces and at all three systemic levels. As one official at the Thabo Mafutsanyana district office in the Free State noted:

> *Many teachers are not up to the level required. Those who taught Maths SG now can only teach Maths Lit. We have a programme with NMMU to upgrade their skills so we have more teachers and hence schools who can teach math. We also have programmes through UNISA and UOFS, and encourage them to join professional bodies such as AMESA.*

In the Mpumalanga provincial office, interviewees spoke about a lack of capacity at both district and school levels. One senior manager described this situation lucidly when she said:

> *We need to find a way of dealing with teacher capacity. There is a lot of paper chase [teachers' preoccupation with acquiring more certificates] in the system, and teachers follow the easier courses, to get more qualifications and to get once-off payments. Teachers are put onto programmes which have nothing to do with improving teaching and learning. School managers do leadership training that has little to do with the realities of managing schools.*

Many interviewees felt that a number of officials at district and higher levels were not much more competent, if at all, than most teachers. Gauteng Provincial officials pointed to this problem with respect to IDSOs:

> *IDSOs are our weakest link. A good number of them do not meet the requirement. People are hired without the necessary skills.*

There was an intention by the province to develop a training programme for IDSOs but this did not

materialise. As one interviewee noted:

> *Ten years down the line, people are not trained. We assume that because they have been in the job for this long that they know what they are doing. Well, they don't!*

A senior manager in the LDOE provincial office, pointing to the same problem, expressed frustration at the failure to solve it:

> *The DBE and provinces have always neglected this, and still do so. We need capacity building for Subject Advisors and Circuit Managers. Universities don't have courses. Generic project management training is not useful, if it's not located in understanding the curriculum. But people don't read. They want to be trained, they don't take the initiative.*

Respondents from the Vhembe district of the Limpopo Province believe that the needs of teachers have been identified, but there is inadequate action to address these needs. The reasons for the lack of meaningful action included the fact that some of the Subject Advisers are not qualified in subjects or phases in which they are supposed to support teachers because of the way in which they were appointed. Reportedly, some Subject Advisors in the province were lecturers at former colleges who were placed in subjects or phases that might not have been their specialisation.

In the Bonjanala district of the North West Province, CMs claimed to have established the specific needs of principals and SMT members in their circuits, as a result of their school visits. Examples cited were: financial management, monitoring by the SMT, planning (LAIP and SIP), leave issues, learner progression and promotion, curriculum needs. The FP SAs interviewed said that teachers lacked knowledge about teaching reading skills, phonics, policy interpretation, and lesson planning. They said they provided support to teachers during school visits and afternoon workshops.

3.4 Conclusion

The method used in this evaluation to assess the time management regime in schools carries significant margins of error. With this caveat in mind, we estimate that the timetable is adhered to around 90% of the time in about two-thirds of the sample of primary schools visited in 2012. These schools were largely drawn from areas experiencing high population growth, and it is possible that the situation in other categories of schools – such as high schools or rural schools – differs significantly. But in the type of schools visited in 2012 time management appears not to be the severe problem it was 10 or 15 years ago. Nevertheless, tightening up on the efficient use of time will benefit learning across the board, and is likely to have a marked effect in the one-third of schools in which time management is lax.

Teacher leave is a problem of a different sort. Two independent sources have estimated that the average teacher stays away from school for nearly four weeks a year, partly through exploiting generous sick leave provisions. This is 10% of the school year and must have a significant depressing effect on the quality of learning outcomes.

Teacher indiscipline is a problem that needs to be tackled resolutely, in the interests of both procuring the full allocated time for teaching and inculcating efficient work habits among learners. The solution to this problem lies in better management, by school principals in making punctuality a non-negotiable tenet of the school, by Circuit Managers in providing firm leadership to weak principals, and by system leaders in addressing the problem of memorial services and other events

during school hours, and amending policy to prevent abuse of service conditions.

However, the larger problem inhibiting performance is lack of knowledge on the part of teachers, HODs, principals, subject advisors, and higher. It would seem obvious that both PCK and teacher competence are dependent on a sound understanding of the principles which underpin any school subject. If a teacher does not construct tasks to elicit higher order comprehension and problem-solving processes in her learners in class (teacher competence), it must be because she does not understand how they function in developing cognitive capacity (PCK), which in turn is certain to arise if she does not herself undertake complex problem-solving activities or apply the perspectives of inference, interpretation and evaluation (disciplinary knowledge) to her own appreciation of her subject. In other words, sound subject knowledge is a necessary (though not sufficient) condition for effective teaching. South African teachers exhibit generally poor subject knowledge in language skills and mathematics, a weakness which carries over as teachers without the necessary competence are promoted up the line. This is arguably the fundamental problem in the school system.

We might expect some short-term efficiencies to be generated by improvements in pedagogy, such as getting school leaders and teachers to understand that reading and writing should be done every day in every subject, and that extended writing in all subjects, interpretive analysis of language texts and complex problem solving in mathematics should be undertaken weekly. However, any such gains are likely to reach a low ceiling unless a great deal more attention is paid to teacher subject knowledge resources at the same time, since it is not possible for teachers who themselves are not adept at interpretive reasoning or proportional logic to teach these sophisticated cognitive skills to their pupils.

We return to the subject of educator capacitation in section 6.3 (Professional development) below, where we discuss a range of attempts to address this issue, now widely recognised as a serious shortcoming in the system. In section 7 (Recommendations), we provide suggestions for improving the impact of these initiatives.

4. Language

It is widely believed that there is a strong association between mother-tongue education and academic achievement. Children learn better in school when they are taught in their home language. When learners do not speak the language of instruction, they find learning difficult and academic achievement is undermined. However, behind these self-evident nostrums lies a myriad of complications.

While the South African Constitution, as articulated in the Language in Education Policy (LiEP), affords all children the right to learn in the language of their choice, typically their home language, this right is limited by the ability of schools to provide for its implementation. The underlying principle of the LiEP is to maintain the use of home language as the language of teaching and learning (LOLT), especially in the FP, while incrementally providing access to an additional language(s). However, according to the South African Schools Act (Act 84 of 1996), School Governing Bodies (SGBs) have the power to determine the language policy of a school. This means that the LOLT provided by a school depends to a large extent on the choices made by the parents. While the government advocates teaching African children in their home language, parents may, and increasingly do, opt for English or Afrikaans as the LOLT, rather than the majority home language of the student body at the school.

The present section of the report reflects some of the difficulties experienced by teachers and learners in the sample of 133 primary schools visited in 2012. Before we proceed with these observations, two further notes of caution concerning this sample are appropriate. We have noted above that the NEEDU sample is not representative of the national population of schools, nor is it of the districts from which it is drawn. One cannot conclude, for example, that because only 3 of the 8 schools visited in the Ilembe district offer a LOLT that is congruent with the home language (HL) of most learners in the school, that this is the case in 38% of schools in the district (Table 6). The figures shown below are indicative of the kinds of language issues faced by South African primary schools, but do not necessarily provide an accurate profile of the relative proportions in which these features manifest in the districts visited. Second, much of the information reflected below was derived from open-ended questions posed to interviewees. Thus, while this data provides important insights into the difficulties attendant on school language policy and practice, it is not amenable to quantification across the sample.

The difficulties faced by schools in implementing the LiEP fall into three categories: a mismatch between the LOLT in the FP and the HL of most learners, the dialectisation of African languages, and the problem of terminology in mathematics.

4.1 Incongruence between LOLT and home language of learners

Across the 2012 NEEDU sample, the FP LOLT matched the home language of *most* teachers and *most* learners in just over 70% of schools. There was a complete match between the LOLT and home language of teachers and most learners in three districts, Ehlanzeni (Mpumalanga), Metro North and West Coast (Western Cape).

Table 6: Match between the LOLT in FP and the HL of most learners

District	LOLT and HL Match
FS-TM	88%
GP-JC	80%
GP-JW	43%
KZN-IL	38%
KZN-UML	75%
LP-VB	88%
LP-WB	75%
MP-EHL	100%
MP-GS	80%
NC-FB	56%
NW-BJ	50%
NW-KK	50%
WC-MN	100%
WC-WC	100%

But these figures mask further complexities. For example, in a number of former HOR schools in the Metro North District of the Western Cape, parallel English and Afrikaans streams exist, with the former containing largely isiXhosa-speaking children, though Afrikaans speakers are increasingly opting to join the English stream too. In total, nearly one fifth of schools visited in 2012 offered FP teaching in more than one language.

The mismatch between LOLT and home language renders visible the fact that a large number of learners are schooled in a language that is different to the one that they speak at home. At many schools, the learner population is widely divergent in home background and HL. The most extreme example was seen in one school in Johannesburg West, where all 11 official languages were represented; the five most common languages spoken at home by learners (Setswana – 21,2%, English – 17,8%, isiZulu – 15,6%, Afrikaans – 14,6% and isiXhosa – 13,9%) account for 83% of learners, with the remaining 17% distributed across the six other official languages. Under these circumstances, whichever language is chosen as the LOLT, the majority will receive instruction in a language which is not their own. Unsurprisingly, this school has chosen English as LOLT in the FP. Although this school is an extreme example, a similar language profile was evident in many schools in Gauteng. When asked whether language issues were experienced as a problem in the province, one provincial official described the language issue "*a very big problem that affects our ANA results.*" She explained:

> *Most homes in townships are not monolingual. There is not one home language. Schools enrol learners in close proximity, resulting in a mix of languages. [The learner] demographics have changed, but school language policy stays along apartheid lines; many schools now have multilingual streams or learners are learning in a foreign African language.*

It is not difficult to appreciate how the diversity of languages in the schools exacerbates the complexities of teaching reading and writing. Providing appropriate LTSM for learners under these multilingual conditions poses a great challenge to school management and provincial departments. At two schools in the Umlazi District of KZN, for example, the inner city school attracted learners from a range of other African countries and one teacher noted that up to five different languages

were spoken in her classroom, some of which were not official South African languages. Schools located in townships, which traditionally had served the isiZulu speaking community, mentioned that there had been an influx of isiXhosa-speakers to the area and that isiXhosa was the second most widely spoken language in their schools, despite the schools continuing to offer isiZulu as the LOLT. In some schools in the Ilembe District of KZN, schools offering isiZulu as the LOLT admitted learners with home languages such as isiXhosa (former Transkei), Shangaan (Mozambique), Shona (Zimbabwe), and English. Learners whose home language was different to the school LOLT found it difficult to understand their teachers.This also made it difficult for their parents and guardians to assist them with homework.

'HL' is itself not an unproblematic term. In the Waterberg District of Limpopo, for example, provincial managers explained to evaluators that most homes in Limpopo are not monolingual, with parents often coming from different language groups, or living in areas of mixed languages. Furthermore, schools in the province are faced with the problem of finding language teachers for the LOLT and first additional language (FAL) of the school.

In the Ehlanzeni District of Mpumalanga, the schools that were visited all taught in siSwati in the FP. While ostensibly a mono-lingual teaching and learning environment, in each of the schools visited, teachers and school managers made mention of the fact that there were sizeable linguistic minorities in the school who did not speak siSwati as their home language. The Principal of one school estimated that up to a third of learners spoke Xitsonga at home. Within each of the communities surrounding the schools, there are significant groups who speak Xitsonga, Sesotho and Sepedi. The area has also received an influx of migrants from Zimbabwe and Mozambique, who do not speak siSwati.

One-third of schools visited by NEEDU in 2012 offered English as LOLT in the FP for African-language speakers in at least one class. This occurred in ex-HOA (model C), HOD (Indian) and HOR (coloured) schools where the LOLT was either English or Afrikaans and the majority of learners came to the school from the surrounding townships and spoke one or more of a number of African languages. In these schools the LOLT is constrained by the language capacities of teachers, but teachers insist that many parents choose the school because of this arrangement.

In addition, an increasing number of former DET and homeland schools provide English as the LOLT in the FP. A few are situated in urban areas and contain a significant number of African middle class children. Most, however, serve poor children in townships and rural areas. One example of a school in the latter category is School X (see Box 1), where the principal explained the motivation behind this choice as follows:

> *Because our children live in the rural area and are very disadvantaged, we decided to use English as LOLT, to expose them to the modern world, so they can understand what is happening on TV. It is difficult, but we are doing it at our own pace and parents are very happy about it.*

Another school in the Eastern Cape justified their decision to change to English as LOLT on the grounds that parents were demanding it, threatening to remove their children from the school if their demands were not met.

In the Waterberg district, one of the suburban schools offered Sepedi and English as the LOLT. Two schools in Gert Sibanda district, Mpumalanga, reported that the original school policy of using siSwati as the FP LOLT had been changed. The school now offered FP teaching in English and, according to the principals and SGB chairpersons, the change had been prompted by the fact that learner performance declined sharply between the Foundation and Intermediate Phases. Two of the schools that had changed their LOLT in the last 12 months indicated that learner performance on the ANA tests had been a factor in their decision to alter the language policy, especially when they noticed that learners were unable to understand the instructions and test questions in English in the Intermediate Phase. In one school, the SGB chairperson noted that the use of English as LOLT throughout the school made the school more attractive to parents than those that offered instruction in siSwati.

An additional three schools visited in Gert Sibanda district indicated that they would like to change their LOLT to English and phase out mother-tongue instruction citing learners' difficulties with the sudden switch to English in Grade 4 as the primary reason for the change. One of these schools had already approached the district office with a request to change the language of instruction in the FP.

Whether for reasons of parental choice, multiplicity of home languages, or for ease of transition into the IP, it seems that the question of a LOLT that is not the HL has forced itself onto the agenda, and has become a significant educational reality in schools. It is a matter that requires addressing, and we return to it in the Recommendations.

4.2 Dialectisation of languages

A problem commonly experienced by schools is that the African language spoken by many township children is seldom the standard form of that language. This phenomenon is known as the 'dialectisation' of a language. The term dialect is commonly used to describe the variant of a given language spoken in a particular region.

The factors driving dialect-formation can be diverse. Take the Waterberg District of Limpopo, for example. The township population does not speak a standard form of Sepedi. The language spoken by the local population is an amalgam of several languages, and it has formed a local dialect. Some teachers described it as '*Bela-Bela funigalo*'. Many teachers raised this as a serious barrier to learning Sepedi in the Foundation Phase.

Take the Ehlanzeni District in Mpumalanga as a second example. The teachers in those schools spoke of how the learners were exposed to an 'impure' form of Siswati that included many words 'loaned' from English and other African languages. In the Kimberley district of the Northern Cape, teachers there pointed to the differences between the Setswana spoken in Kimberley, from that spoken in Taung in the North West Province, which, in turn, differed from that spoken in Botswana. The following response from one interviewee illustrates the point:

> *We speak a deurmekaar Setswana. In most cases an Afrikaans or English word replaces the real word (Setswana). For example, colours: colour the ball in brown in proper Setswana would be 'Tshasa bolo kammala o mohonou'. The word 'honou' is not used in the community at all, hence the child will not hear it, nor have the need to use it. We simply use the English word brown but we teach the learners these terms for the sake of the (ANA) tests and DBE workbooks, but the learner finds it difficult and confusing.*

According to a number of interviewees in Kimberley schools, many learners speak more of a mix of languages made up of one or other combination of IsiXhosa, Xitsonga, Setswana and Sepedi than any one of these languages on its own. This resulted in learners mixing the other languages with their home language when conversing at school.

All languages are prone to this tendency; it is how languages evolve. A major stabilizing and standardizing force is literature, which places African languages in a particularly vulnerable position. Very few books of any kind exist in the country's nine official African languages. Even Afrikaans, which has a sizeable literature, is beginning to change in Kimberley, where it is being mixed with Setswana.

4.3 Teaching and learning Mathematics in languages other than English or Afrikaans

The most suitable language of instruction for FP mathematics education has been debated for some time in South African education circles. Given the large number of home languages, the difficulty involved in writing suitable GET mathematics textbooks in all of the 11 official languages, and the complexity of mathematics terminology in African languages, it is not surprising that code switching between English and the LOLT is common practice in mathematics classrooms and indeed that many teachers prefer to teach maths in English in the FP.

Although terminology has been developed for mathematical entities and operations in African languages, teachers are not always familiar with them, nor are they used in everyday commercial transactions. Teachers complain that when this terminology appears in, for example, the ANA test papers, it causes confusion among learners.

In some schools visited in the Umlazi District of KwaZulu-Natal, for example, teachers spoke passionately about the difficulties that they experienced in teaching Mathematics in isiZulu. One school had chosen to teach Mathematics in English, while teaching all other Foundation Phase subjects in isiZulu. This was not communicated to the district office and the DBE workbooks were delivered in isiZulu. Teachers insisted that they still made use of the isiZulu books, translating the terminology for learners.

Several teachers interviewed in the Ehlanzeni District complained about the difficulties they experienced in teaching mathematics in siSwati. Learners were exposed to the English names for shapes, numbers and colours at home and in the community, and were unfamiliar with the complex siSwati terminology. The terminology used, and the number names in siSwati, were described as 'difficult' and 'confusing'. As one teacher said *'siSwati in maths makes learning cumbersome and time consuming because of the words and explanations used'*.

Teachers teaching mathematics in Setswana in the Francis Baard District discussed some of the difficulties they experience with terminology, saying that the word *sekeletsa* (circle) apparently

appeared in the ANA literacy paper as part of an instruction, whereas teachers used the term *ecircle* in class. The use of different terminology baffled the learners, and the teachers felt that this contributed to their poor ANA performance.

Across the country, evaluators encountered the view that mathematics would be best taught in English from Grade 1, or at least that Africanised English terms be used, since the latter are more widely known by teachers, parents and children than the more recently contrived 'official' terms. Some schools unofficially adopted this as their chosen solution to the problem.

4.4 Conclusion

A two-pronged approach is needed to address the language problems faced by principals, teachers and learners in the FP. On one hand, if the country is serious about mother tongue instruction in the first three grades, then the African languages need to be standardized and a full set of reading materials for the FP developed in each. This is a major undertaking, but the present *laissez fare* approach is exacerbating the problem.

At the same time, the failure to develop the English proficiency of FP learners leads to a compounding of the language difficulties faced by African language speakers when they move into the Intermediate Phase. While CAPS provides the space for the development of English in the FP, it is clear that many schools are not taking advantage of this opportunity.

A few schools have begun to explore the use of specialized programmes to improve English proficiency. At one school in the Francis Baard district of the Northern Cape, for example, the school had adopted *Time to Read*, described as "… a phonographic way to teach reading to learners … what you hear is what you write"; while another referred to a remedial programme, also called *Didactic Aid*. Two schools referred to programmes that they recommend to parents – at their own expense – *Listening and Language Home Programme*; and the *Tina Cowley Reading Programme*.

Aside from these structured initiatives, which have not been evaluated, the other measures which a number of schools said they adopted seemed superficial. For example, a few schools mentioned spelling competitions, reading competitions, and getting learners to read aloud in assembly.

There is clearly no coherent policy or programme driven by most districts to assist schools to address the language challenges described by the schools visited in most districts. Although the challenge is acknowledged and experienced in almost all the schools, and despite the fact that the basic problems are largely common to all, individual schools have had to take the initiative to address them. It is strongly recommended that the DBE investigates options in this regard.This is a critical issue, which we return to in the Recommendations.

5. Literacy

5.1 Reading Pedagogy

Reading instruction in the FP was evaluated by classroom observation. In 2012, a total of 215 Grade 2 classes were visited for this purpose. The evaluators observed the particular teaching activities used by the teacher, the interaction between the teacher and the learners, and made a judgement on whether the lesson used an appropriate activity and was delivered at an appropriate cognitive level for Grade 2.

Reading in the FP should be taught as part of an integrated Reading and Writing Focus Time. Lessons which focus specifically on reading instruction should consist of the five main components of teaching reading: phonemic awareness; word recognition (sight words and phonics); comprehension; vocabulary; and fluency. Each of these components needs to be taught explicitly, practised daily, and increased in complexity as learners progress through the FP. The CAPS for the foundation phase divides the requirements for reading into four district activities: shared reading (and writing); group guided reading; paired or independent reading; and phonics (including phonemic awareness).

Phonics, the relationship between the sounds of a language and their spelling, is an important tool in reading and writing. Phonemic awareness helps learners recognise that speech consists of a sequence of sounds and teaches them how to recognise these individual sounds, and how phonemes combine to make words. According to CAPS, teaching phonemic awareness should continue throughout the FP, and into the intermediate phase, by Grade 2, this sort of activity should be integrated into reading instruction and should no longer dominate entire lessons. There were, however, a number of reading lessons observed in which the entire 40 minute period was spent on the sounds and pronunciation of between 5 and 10 words. Teachers were observed saying the words, writing the words on the board, reading them, getting the whole class to read the words in chorus, getting individual learners to read them, and finally, getting learners to suggest similar words. This level of word recognition was being taught at too low a cognitive level for Grade 2.

In shared reading, the teacher works with the whole class, using an enlarged text or Big Book, posters, or texts on an overhead projector for the whole class to see together. These texts should be a combination of fiction and non-fiction texts and should progress in length and complexity through the year and across the grades. The text used is aimed at the top group in the class. Some learners will be at a listening level, others will be beginning to engage in the reading and more will be engaging fully. Shared reading informs the shared writing where the teacher models writing, and the reading text is used to provide examples of vocabulary, grammatical structures, spelling, tone and other features.

Shared reading, using one of a few Big Books was an instructional strategy in the majority of Grade 2 classrooms visited. Teachers positioned the Big Book on a stand in front of the class and moved through the sequence of looking at the pictures, teacher reading the text, whole class reading the text, single learners reading the text and then asking questions related to the text. The classroom observations showed, first, that the number of Big Books was very limited, resulting in teachers using one of a few books repeatedly throughout the year. It was clear to evaluators that in lessons observed later in the year, the learners were familiar with the story, could chorus most of it without looking at the pages, and anticipated the questions (by raising their hands) that the teacher would

ask before the question was asked. The teachers who employed this strategy generally followed a well-structured and well-rehearsed methodology, and learners were generally confident in what was expected of them during the lesson. It was also clear to the evaluators that the large text size, the limited number of words per page, and the low cognitive level of the story suggested that the books were better suited for early reading in the first part of Grade 1, not Grade 2. One teacher confessed: "*these are the only Big Books we have*".

Group, guided reading is an ability-group teaching strategy in which a small group (6-10) of learners are at the same reading level. This activity consists of the group reading the same text under the direction of the teacher. Learners are given the opportunity to discuss the text with the teacher and with the other learners in the group. While the teacher is working with the small group, the remainder of the class should be engaged in independent reading activities and should not interrupt the teacher or the small groups engaged in reading. These small group activities should also inform small group writing tasks concentrating on aspects of writing such as format, punctuation, grammar or spelling.

Group, guided reading was observed in a number of classrooms visited by NEEDU in 2012. Some teachers had their classes arranged in small groups, and the class was obviously familiar with the "*let's do group reading today*" instruction: when this reading instruction strategy was observed, learners quickly arranged themselves, one group in the front of the class in a small circle around the teacher's chair, while the remainder of the class remained in their seats at their desks. However, there did seem to be a general misunderstanding on what to do with the rest of the class while the teacher was busy instructing the small group. In most instances, the class was not given any other work to do. Learners sat idle (sometimes noisily) while one group at a time read with the teacher at the front of the class.

Paired and Independent Reading provides leaners with reading practice and encourages reading for enjoyment. The choice of reading material can be class readers, or simple 'fun' books obtained from the library. This sort of activity should take place frequently and regularly, and is suitable as a strategy while the teacher is assisting the smaller groups in group, guided reading. Independent reading was not observed nearly as frequently as one would expect of such a key part of a Grade 2 reading instruction repertoire.

It would seem that most teachers do not understand that the ultimate goal of reading instruction is for all learners to acquire the status of independent reading, and that the other three strategies are goals to this end. Far too many teachers are content to pursue low level shared reading activities and are not leading learners towards higher levels of fluency and comprehension.

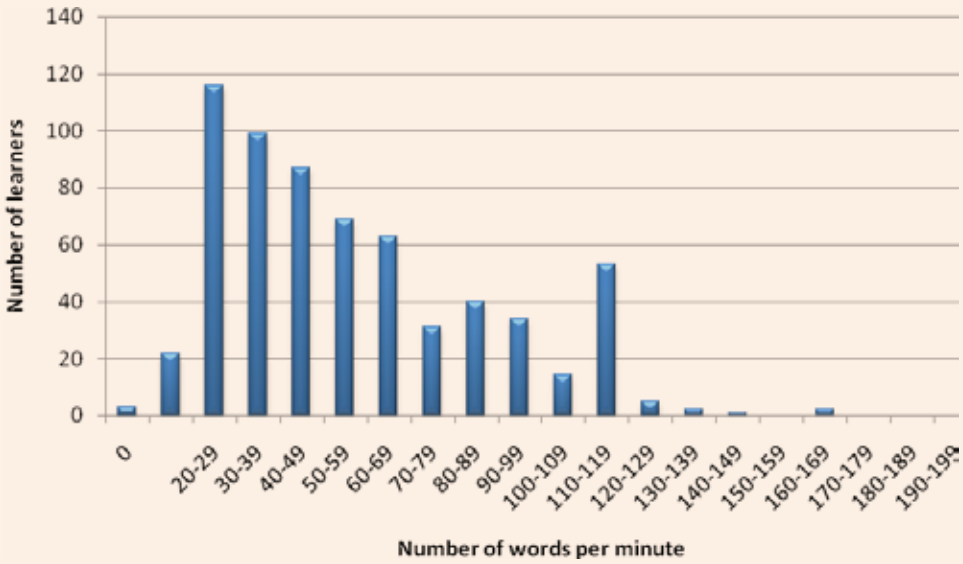
5.2 Reading fluency

In addition to observing the teaching of reading in the schools visited, the three best readers, nominated by the teacher in each Grade 2 class, were tested for reading fluency in the LOLT of the class. Fluency in reading involves: being able to accurately identify the majority of words; reading smoothly with appropriate phrasing and expression; and understanding the content of the passage. The Early Grade Reading Assessment (EGRA) test was used to test reading fluency and comprehension. This is a test piloted by the Department of Education in all 11 official languages in 2007, and the part used by the evaluation in 2012 requires learners to read a short text and answer five questions on the text.

Some caution is needed when approaching the results of this exercise. Although the EGRA tests have been piloted in South Africa, they have not been standardized in a national sample. Furthermore, the tests may differ across languages: for example, isiZulu, being an agglomerative language, will be characterized by a higher average word length then, say, Afrikaans, and thus be more difficult to read. Although the DBE has begun to do some work in this field, far more research is required before standard reading tests and a set of reading norms can be said to have been established for the country's schools.

Nevertheless, when viewed with this caution in mind, the results of the NEEDU exercise in fluency testing and comprehension present an illuminating picture, showing a wide distribution of scores for the 641 learners tested (Figure 3). In general, the scores accord with the expectations of the evaluators derived from other observations in the schools.

Figure 3: Frequency distribution of reading fluency scores, Grade 2



The question remains: What should we expect of Grade 2 learners in terms of reading fluency, given that no reading norms have been developed for South African children? One measure with wide currency is the set of norms developed for American pupils, where the *top* learners in Grade 2 read at an average rate of around 125 words per minute by mid-year. *Average* learners read at about 70 words per minute, while *slower* learners average about 20 words per minute. Table 7 shows a proposed interim set of reading norms for South African learners, based on the American norms.

Table 7: Suggested norms for reading in LOLT, Grades 1-3

Grade	Level of learner	Reading a story: number of words per minute	
		By the end of Term 2	By the end of Term 4
1	Top	N/A	100
	Middle	N/A	50
	Bottom	N/A	15
2	Top	125	140
	Middle	70	90
	Bottom	20	30
3	Top	145	160
	Middle	95	100
	Bottom	35	50

Source: Hasbrouch and Tindal, 2006

The distribution of fluency scores shown in Figure 3, together with the fact that they map neatly across the benchmarks shown in Table 7, indicates both that the EGRA tests are suitable for discriminating reading fluency between learners across the South African school spectrum, and that the norms proposed in Table 7 do provide a set of suitable interim benchmarks against which to judge reading fluency.

The most striking feature of Figure 3 is the fact that 72% of the three *best learners* in each class observed are reading *below the average* benchmark for Grade 2 learners, and that 22% are on or below the *poor* benchmark. Encouragingly, in 14 schools the mean fluency score is 110 wpm or higher, going as high as 160 wpm for the fastest reader in the sample.

5.3 Reading Comprehension

The reading comprehension of the 641 learners was tested by asking five simple questions related to the text. The mean score was 3 out of 5. Since the reading evaluators selected the best three learners in each class, we would expect the results to reflect the most optimistic scenario concerning reading at the school. There is not much that can be said of the results of such a simple 5-question test, but the extensive tests conducted by PIRLS shows conclusively that South African primary school learners' comprehension of text is extremely poor (Howie et al., 2011).

Interestingly, while high comprehension scores were generally accompanied by high fluency rates in the schools evaluated in 2012, this is not always case. In a number of classes slower readers showed better comprehension scores. For example, in School X (Box 1), of the two readers who scored 4 for the comprehension exercise, one was the most fluent (121 wpm) of the six learners tested while the other was the least fluent (54 wpm) (Table 3).

Conclusion

If learners are not reading independently at around 50 wpm by the end of Grade 1 they are likely to struggle for the remainder of their time at school. The most important task for the SMT in every school is to ascertain how well every learner is reading and to provide further support to learners at all levels of performance. In particular, learners need to read far more than they are currently doing in the schools in our sample, while comprehension skills need to be improved, even for the best readers. Reading fluency and comprehension could be improved if the teacher used strategies to

extend the learners by giving them more reading to do every day, to increase the level of the texts read, and to ask more demanding comprehension questions requiring inferential and interpretive reasoning. All this requires the acquisition of far more books than schools have currently got. In section 6.3.5 we describe system-level attempts to improve literacy instruction

5.4 Books

5.4.1 Readers

All the strategies mentioned above presume that teachers and learners have access to sufficient Big Books, readers and sets of books arranged in graded reading series. Graded readers consist of a series of readers divided into levels (e.g. Grade 1 - Level 1, 2 and 3). The levels go from easiest (simple vocabulary, short sentences, short text) to more difficult. Each level has a number of readers in it. Teachers use graded readers to assess the level at which each learner is reading. The learner is then led through the books at that level until he/she can read them fluently. The learner then moves up a level.

If we assume that FP learners should read at least one title a week throughout the year, then classes should contain, or have access to, a minimum of 30 individual titles, containing six or more readers per title. Very few classes visited met this requirement. It seems that most teachers are content to let their learners read three or four titles a year.

Regarding the display of books in the classes visited, a few exhibited well organised and well stocked reading corners, as shown in Figure 4 below.

Figure 4: Well stocked reading corners

By contrast, many other classrooms, by far the majority, contained very few books (Figure 5). In many such schools the state of the ‘reading corner’ suggested general apathy and disinterest on the part of the teacher to encourage reading.

Figure 5: Poor condition of reading corners

Many schools are grossly under resourced with respect to reading materials, and much of the responsibility for improving this situation must lie with the provinces, where the budgets for LTSM do not provide for supplying schools at the required levels. However, putting up with having only four or five distinct titles available for learners in each class of the FP to read over a full year, speaks to the lack of understanding among school leaders and teachers of both what it means to be literate, and the specifications of the official curriculum. Where principals and teachers understand the LTSM requirements of their subject they make a plan to acquire or create the appropriate reading material. Without wanting to blame the victims or relieve provincial departments of this responsibility, schools could be far more proactive in procuring and deploying reading resources.

School D starkly illustrates the very important point that, although schools cannot teach their learners to read to standard without an adequate book collection, the mere availability of books is insufficient to achieve high levels of literacy. The other essential ingredients are the components of teacher knowledge outlined in Section 3. School D has a well-stocked library under the circumstances, pictured below (Figure 6). On opening several books in the library it was found that none had been checked out by learners. Unsurprisingly, the top learners in one Grade 2 class at the school are reading at well below the expected level and more than half of the Grade 2 learners tested read at fluency levels of less than 10 wpm.

Figure 6: Library at School D

5.4.2 Mathematics textbooks

There was a general consensus across the schools evaluated in 2012 that mathematics textbooks, as such, were not appropriate in the FP. Most teachers had personal copies of textbooks – often donated by publishers – that were used as resource material for lesson preparation. But in the large majority of classes learners were not issued with textbooks in mathematics. This attitude towards maths textbooks in the FP reflects the ubiquitous worksheet culture that dominates South African schools. In the hands of highly expert and very conscientious teachers, a well-developed set of worksheets can be the force and means for driving progress through the curriculum. Unfortunately, such teachers are in the minority.

This practice is not recommended for most classes, as worksheets developed by teachers are generally not as systematically designed as textbooks or workbooks, and often contain large gaps and inconsistent progression in the development of concepts and skills. Worksheets are frequently pitched at an inappropriately low level of cognitive demand. Furthermore, the logistics required to ensure that learners file a set of such worksheets in one place, in the correct order, is beyond the capacity of many schools. Learners generally end up with a messy, unordered and incomplete set of papers, which is not adequate for building up a systematic understanding of the subject.

5.4.3 DBE workbooks

Under the book-poor conditions described above, the provision by the DBE of workbooks in key subjects for primary school learners is an important initiative. The workbooks are generally structured as sets of activities, with each activity covering a two page spread and intended to provide work for one or two lessons. Two workbooks were provided in each subject for each grade, with Book 1 intended to be used in the first semester and Book 2 in the second. The DBE has mandated that use of the books is compulsory, although they are intended to be supplementary to the textbooks purchased annually by schools.

The books were delivered to schools by service providers contracted by the DBE, by-passing provincial or district systems. Although evaluators were told about delivery problems for the 2012 year in all 15 districts visited, Book 1 had arrived in almost all schools by the middle of the first term, while Book 2 was delivered in time for the start of the third quarter. In every school visited there were at least some of these books, while the overwhelming majority had books in both the LOLT and mathematics for all three grades in the FP. Reports of schools receiving books in the wrong language or in insufficient quantities were common, but these problems were usually sorted out by the district office. However, many district officials complained that they needed to be ‘in the loop’ in future if they were to be optimally effective in assisting with delivery glitches.

Teachers generally found the DBE workbooks useful, rating them between 4 and 9 on a 10-point scale of 1 to 10. Most teachers were enthusiastic about the books and said that learners loved them. Teachers offered a number of suggestions for the improvement of the workbooks. In terms of content, they suggested more comprehension exercises in the LOLT, more space for writing, provincial input in workbook development because dialects differ, and the need to reflect different methods for computing in mathematics. The teachers further requested a teacher’s guide and closer alignment of the workbooks with the CAPS. Some said that the books contained too few activities, while others mentioned a lack of differentiated learning, with all learners expected to do the same

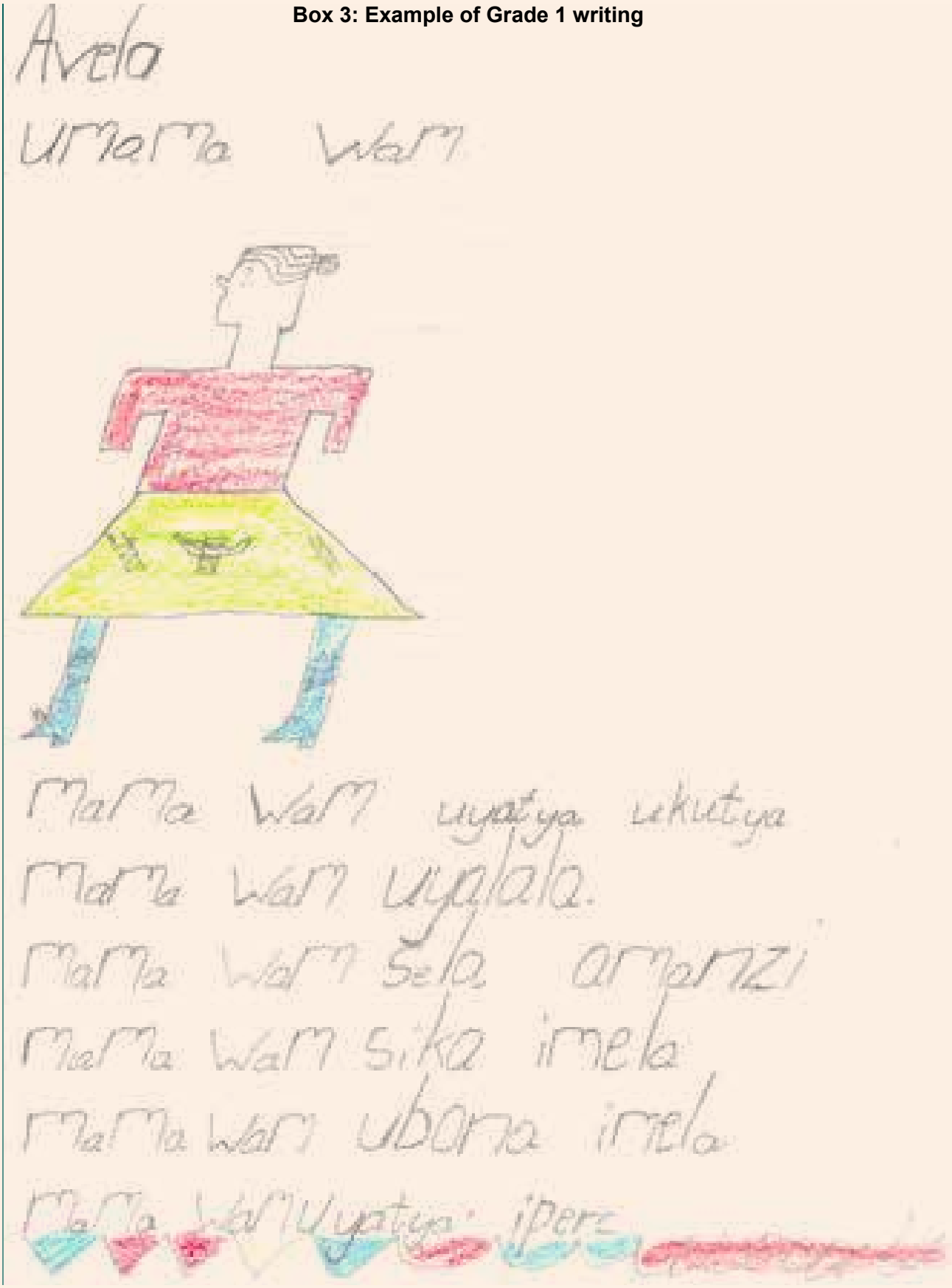
work. While some teachers asserted that the content was too easy for their learners, other said it was too difficult, illustrating the very wide spectrum of performance within the school population. Overall, it is abundantly clear that the DBE workbooks are being well received in schools. We discuss their use in section 5.5.4 below.

5.5 Writing

5.5.1 The educational importance of writing

The discussion in section 3.3 above on the knowledge requirements of literacy in the FP can be interpreted as follows. In language and the content subjects learners should write at least four times a week. At least once a week they should undertake extended writing. The latter should consist predominantly of sentences in Grade 1, paragraphs in Grade 2, and extended passages (2 or more linked paragraphs) in Grade 3. Learners should be asked to describe experiences, express their feelings, and analyse events. These are exercises that develop higher cognitive capacity. From the second half of Grade 1 learners should be led to write stories about themselves, their families and friends. Box 3 shows an example of what can be achieved in schools serving the poorest children.

Box 3: Example of Grade 1 writing



Translation:

My mother eats food
My mother sleeps
My mother drinks water
My mother cuts knife
My mother sees knife
My mother eats pear

At the same time, the level of complexity of comprehension exercises should systematically move from simple recall questions, to those involving inferential and interpretive reasoning. Also from Grade 1, teachers should begin to ask learners questions of the following type with respect to literature: 'Why do you think that …?'.

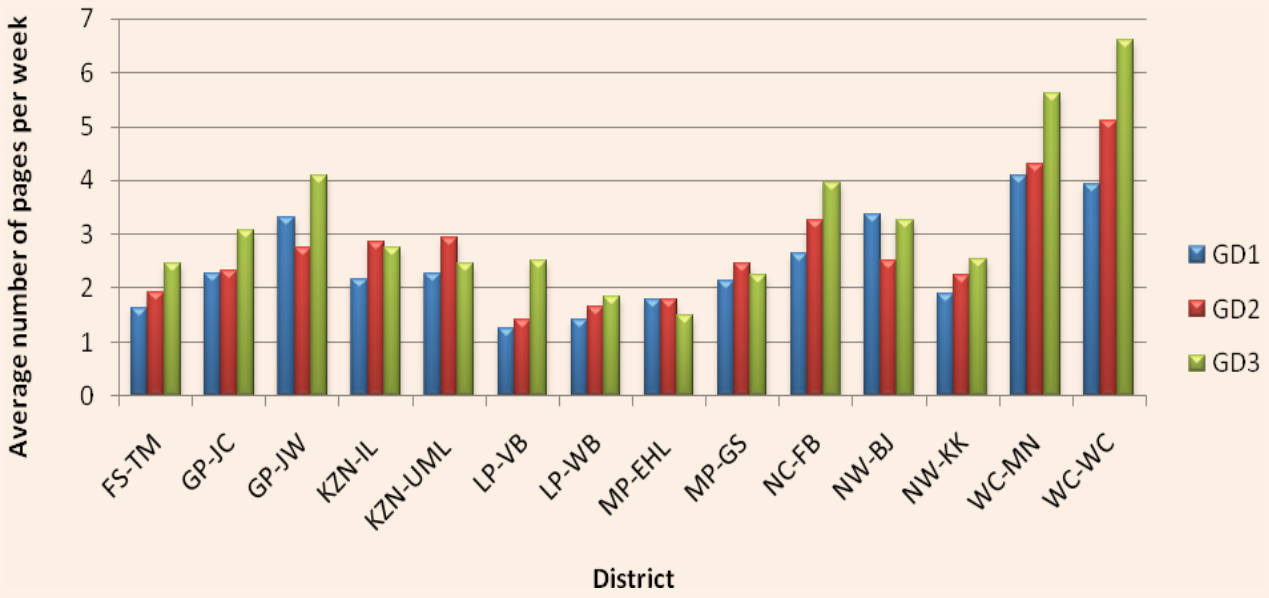
In mathematics classes FP learners should also be required to write at least four days a week, and at least once a week they should work on 'word problems', generally posed as simulations of 'real life' situations. The first task in solving these problems is to understand the language, conceptualise the task and translate it into one or more mathematical operations. Here the cognitive processes of induction, deduction, extrapolation and proportional reasoning are exercised.

With these requirements in view, an important aspect of the evaluation methodology in 2012 was to examine learners' books in order to assess the quantity and quality of writing undertaken, both in class and at home. We examined all the books used by the best learner, as nominated by the teacher, in each of two classes in each grade of the FP in both language (the LOLT of the class) and mathematics. We also looked at the extent to which the DBE workbooks were used.

5.5.2 Frequency of writing in exercise books in language and mathematics

The task for field evaluators was one of counting the number of pages of writing seen in learner exercise books in two sets of books per grade. Evaluators assumed that if learners write four times a week, then the number of pages seen in exercise books would average around 2-3 pages per week in Grade 1 and around 4-6 pages per week in Grade 3, with Grade 2 somewhere in between. This is a rather crude proxy for the quantity of writing required in the FP, but since most classes do very little writing, this measure does provide a gross indicator of how far behind the writing requirements of the curriculum virtually all schools are. The results for language are shown in Figure 7.

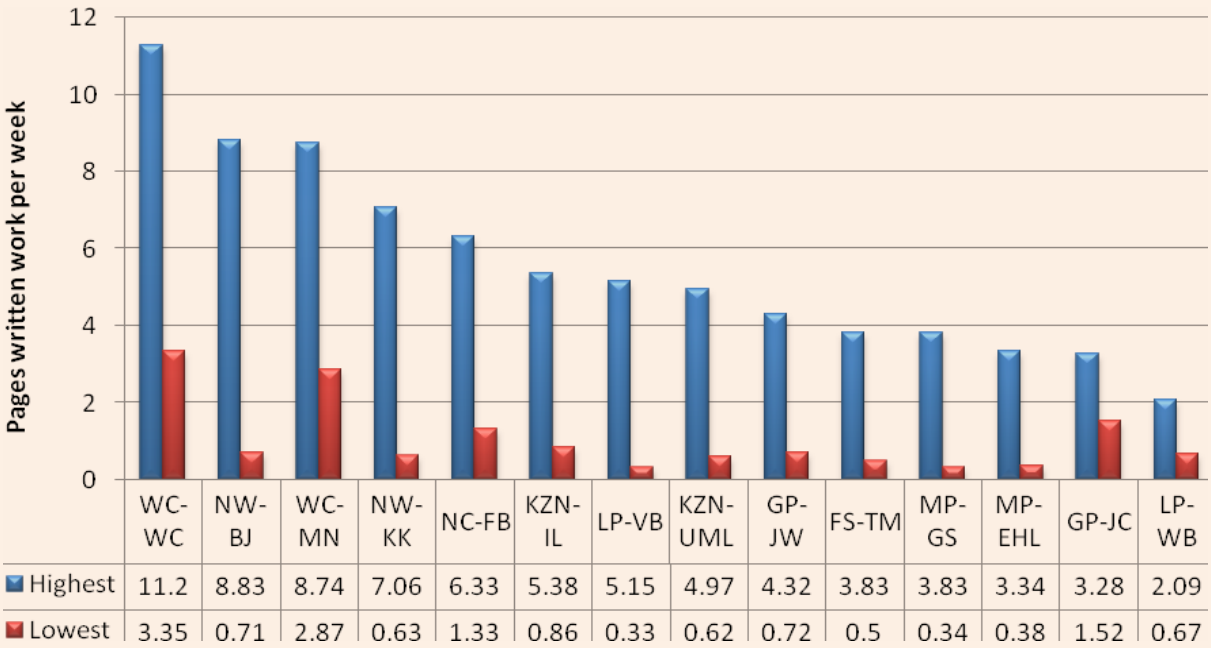
Figure 7: Average number of pages per week of writing in learner exercise books in LOLT



Two features of Figure 7 are noteworthy. First, there is far too little writing done in many classes in the sample, particularly in Grades 2 and 3. Although the average number of pages written per week in Grade 1 is around 2 or more in 11 of the districts, there is inadequate progression as learners move through the grades. Thus, nine of the districts have a mean figure of well under 3 pages per week for Grade 2 and only four districts exhibit a mean of around four or more pages per week in Grade 3. In only two districts did the average quantities of writing approach the norms described above for all three grades. Furthermore, in some districts there seems to be no progression from one grade to the next. By contrast, some districts show a sharp rise in this measure between grades, indicating good progress in increasing the ability of learners to undertake writing work.

The second general observation made about the writing data shown above is that there is often inconsistency in the quantity of writing done between two classes in the same grade in the same school, and between two or more schools in the same district. The point is starkly illustrated in Figure 8, which shows the numbers of pages of learner writing per week for those schools exhibiting the most and least quantities of writing, respectively, in each district. For example, in the Vhembe District of Limpopo (LP-VB) at the school showing the most writing in Grade 3 language, learners were writing more than five pages a week on average, while at the slowest school Grade 3 learners wrote an average of around one third of a page a week.

Figure 8: School averages, per district, for quantity of writing, Grade 3 language

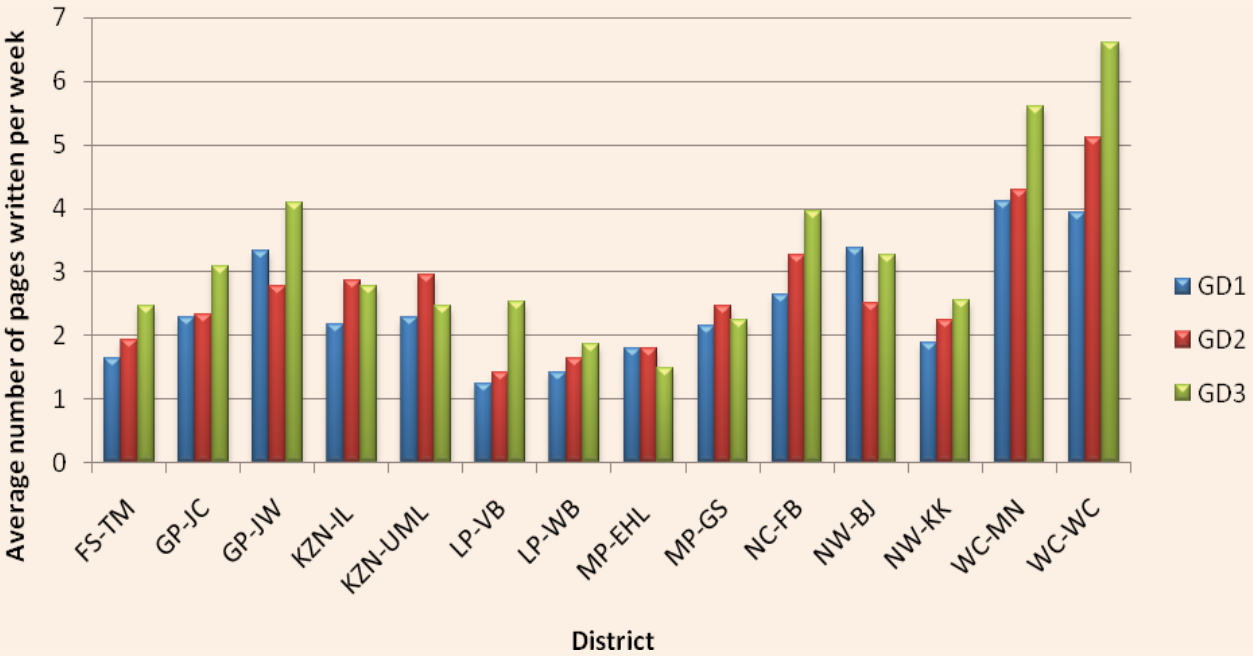


Where learners in two classes in the same schools produce significantly different quantities of writing, it means that members of the SMT are not setting standards nor adequately monitoring the extent to which teachers are promoting writing in their classes. Where two or more schools in the same district produce widely differing quantities of writing, it means that district-level subject advisors are not adequately controlling writing across the schools under their jurisdiction.

The same patterns are seen in mathematics exercise books (Figure 9). Too little writing is done in the majority of classes, there is inadequate progression in writing quantity through the grades, and

there are wide discrepancies in the quantity of writing done by different classes at the same grade level in one school, and by different schools in the same district.

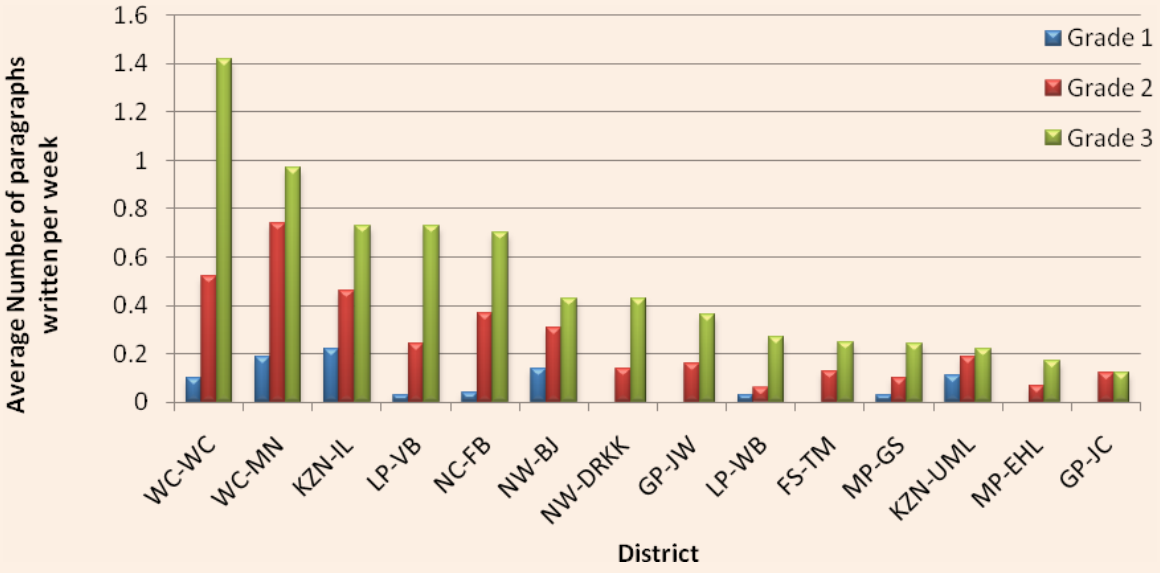
Figure 9: Average number of pages per week of writing in mathematics



5.5.3 Writing quality

Evaluators counted the number of exercises in learner books that involved the writing of sentences, paragraphs (three or more linked sentences) and extended passages (two or more linked paragraphs). Figure 10 shows the mean number of exercises per week containing paragraphs or extended passages.

Figure 10: Average number of paragraphs written per week in LOLT



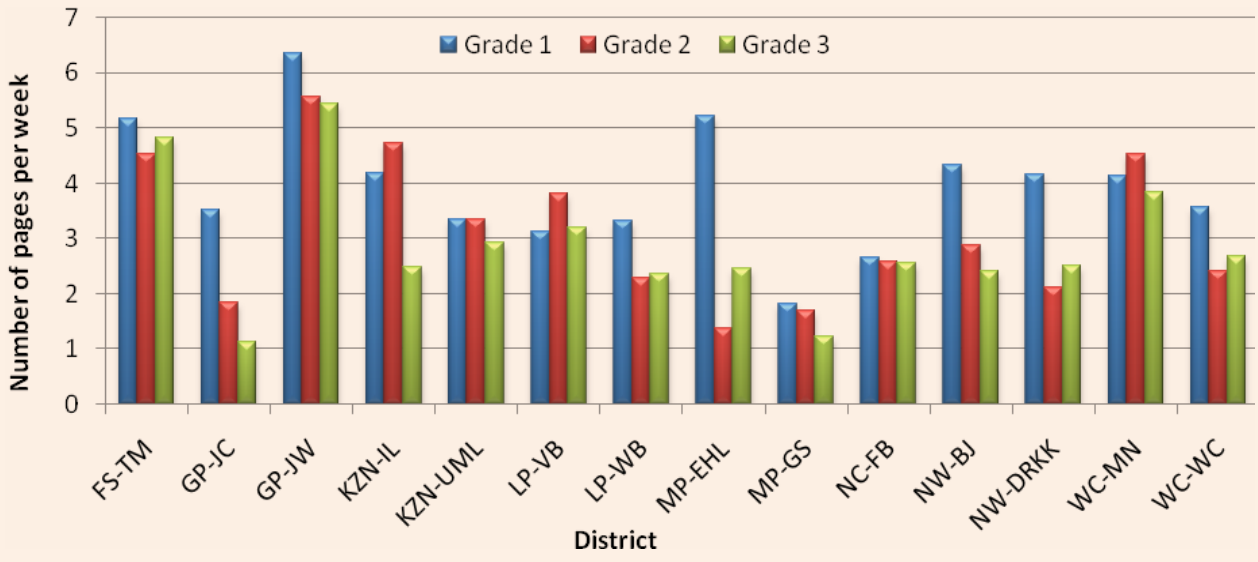
In only two districts does the average number of exercises containing paragraphs or longer get close to or exceed one per week in Grade 3. In another three districts, the average is around three-quarters of an exercise per week, but in the remaining 10 districts, learners in Grade 3 hardly ever undertake writing that extends beyond isolated sentences. The figures are even lower in Grade 2 and in almost all schools across the sample the number of times that Grade 1 learners are required to practice original consequential thinking and record this in writing is negligible.

There are a number of specific possible reasons for this neglect, but ultimately it is clear that teachers do not understand the importance of extended writing and seem to be unaware that it is prescribed in the curriculum. Even when they do require it, the gradient of demand is so flat that the level is, more often than not, already too low by Grade 3.

5.5.4 Use of DBE workbooks

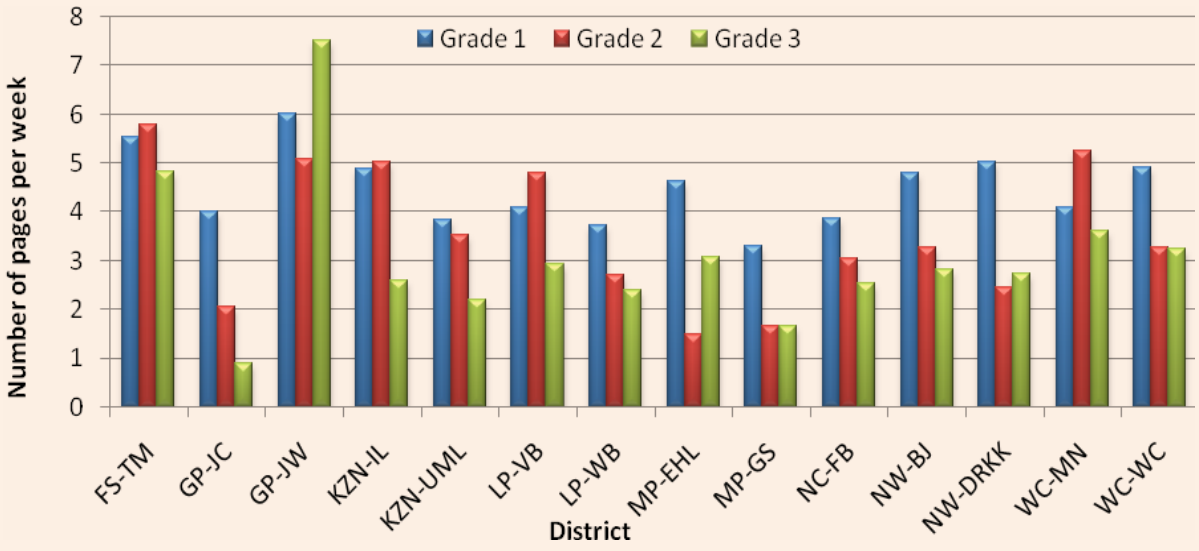
Evaluators counted the number of pages in DBE workbooks that showed evidence that they had been read or written on. Again we requested to see the books of the best learner in each class. Figure 11 shows the composite results of this exercise for language books. The quantity of work shown here cannot be compared to that seen in learner exercise books and described in sections 5.5.2 and 5.5.3 above, because the work reflected in Figure 11 and Figure 12 includes a great deal of reading in the language books and explanatory text in the mathematics books. In contrast, the work seen in learner exercise books consists of writing and mathematics exercises. Both are necessary, and, in particular, the workbooks do not provide nearly enough practice exercises in mathematics or opportunities for creative writing in language.

Figure 11: Use of DBE workbooks, LOLT



Bearing in mind that each two page spread is supposed to be completed in one or two lessons, and that the use of the books is prescribed, most schools are not utilising this important resource to its full potential. If the DBE prescriptions were followed, classes would be working through up to eight pages a week, while the figure indicates that the average use in the majority of districts is less than half of this. Interestingly, in many schools, Grade 1 learners use the books more frequently than learners in Grade 2, while Grade 3 learners use them least often. The same patterns are evident in use of the mathematics workbooks, as shown in Figure 12.

Figure 12: Use of DBE workbooks, mathematics



6. Instructional leadership

Instructional leadership is the set of policies, procedures and practices designed to facilitate delivery of the curriculum. It might be thought of as equivalent to the set of operating procedures in any other complex enterprise, such as the manufacture of cars or the mining of gold. However, schooling differs significantly from the productive sector in that the product of schooling is knowledge rather than material goods, and therefore less tangible, difficult to measure, and much more complex to produce. This evaluation is based on the assumption that effective instructional leadership is important for good learning outcomes, and that it is exercised at four principal levels of the system: national, provincial, district and school.

Since 2009, the DBE has instituted a number of initiatives at the national level aimed at achieving the goals of the *Action plan to 2014* and the longer term targets for 2015. At the primary level these measures include: CAPS, Integrated National Literacy and Numeracy Strategy (INLNS), ANA, Curriculum Coverage Instrument (CCI), National Strategy for Learner Attainment (NSLA), Workbooks and Integrated Quality Management Strategy. At least two of these (INLNS, CCI) remain as policy intentions, while another serves a largely rhetorical function in most provinces (NSLA) at the primary level. Three measures (CAPS, ANA and the Workbooks) are, however, making a distinctly positive impact in schools.

Good instructional leadership in schools is characterised by coherent planning and coordination, effective language policies and programmes, good time management, procurement and deployment of books, promoting high levels of writing, using assessment to improve teaching and learning, and fostering professional development among teachers. Provincial and district offices provide support services to schools with respect to these practices. We have said much in this report so far about the first five issues, and will return to them in our recommendations below. But first we discuss the first and last two components of instructional leadership, about which we have said little so far: planning and coordination, assessment, and professional development.

6.1 Curriculum planning and coordination: Leading for learning

The accumulation of knowledge on the part of learners as they progress through 12 years of schooling depends as much on the acquisition of disciplined habits of study as on appropriate exposure to ideas through their parents and peers, teachers and texts. Success requires the structuring and maintenance of a school culture, which fosters learning, and a web of supporting institutions. The development of an increasingly sophisticated conceptual world in the mind of the learner is guided as much by the official curriculum as it is by the tacit understanding and expert guidance of teachers steeped in the subject knowledge that the official curriculum attempts to capture.

This process is not easily amenable to monitoring or promoting except by expert teachers who are themselves not only highly knowledgeable but also adept in the processes of teaching and learning. Without this knowledge and expertise on the part of school leaders, designing and documenting curriculum delivery may easily degenerate into formulaic plans and tick box instruments, which produce so many piles of paper, but which does not assess or influence the flow of knowledge in classrooms.

A decade ago most principals saw themselves as administrators and accounting officers, and

generally left teachers to their own devices. In contrast, in the schools visited in 2012, evaluators found a growing awareness among principals of the importance of instructional leadership and of their own responsibility to lead the learning programme in the school. We also noted provincial and district level efforts to set up systems to monitor and support principals in this their central function.

However, although many schools are now 'talking the talk' of monitoring, their practices generally lack substance. Many SMT members (principals, deputy principals and HODs) told evaluators that they monitored teachers' work by checking that teacher annual plans and lesson plans were congruent, that these were reflected in the writing found in leaners' exercise books, and that this, in turn, was aligned with CAPS requirements. These assertions were corroborated by teachers, and supported by appropriate signatures and school stamps in learner books. In many cases there were files of completed schedules (monitoring 'tools' and 'instruments') recording that the appropriate procedures were carried out. Yet, when evaluators looked at the quantity and quality of written work in leaner books, these diverged markedly from the norms specified by CAPS (Section 5.5). When SMT members were asked whether and how they quality assured children's reading, many said they were too busy with their own teaching to have time to do this. A number said that selected learners were asked to read in assembly.

We will return to this point in Sections 7.2.3 and 7.2.4. with proposals for assisting SMT members to assit teachers to attain the curriculum standards

6.2 Assessment

Assessment completes any learning cycle, and simultaneously foreshadows the next cycle, as follows:

assess => diagnose => identify learning effects => build => assess

The ANA was piloted by the DBE in 2010 and implemented the following year. The various ANA publications list numerous goals for the programme. These goals fall into two broad categories. The one set of goals aims to assist participants in the school system – learners, teachers, school leaders and system-level officials – to improve their own performance. The second is directed at monitoring performance of individual schools for accountability purposes and of tracking improvement in the system as a whole. These are distinguished in the literature as *assessment for learning*, and *assessment of learning,* respectively.

6.2.1 Assessment *for* learning

Because teachers administer the ANA tests and mark learner responses themselves, they are exposed to good testing practice and appropriate standards. They can also see, at first hand, the strengths and weaknesses of their learners, and hence come to understand the efficacy of their own teaching. This is well illustrated in the realisation at School Z (Box 4) that disappointing scores in the 2011 ANA mathematics tests were caused as much by the low reading ability of learners as by their lack of understanding of multiplication.

Box 4: School Z – The use of ANAs to improve instruction

This suburban school is situated in a village in an area which offers employment in tourism, hospitality, mining and farming. Having served a conservative Afrikaans community for 39 years the school was opened to all races in 1995, against stiff opposition from the traditional community. Unusually for a former Model C school, Z has retained a small core (around 10%) of Afrikaans-speaking learners, and offers dual medium classes in Afrikaans and English. The principal, herself a pupil of the school, said she fights very hard to retain support from white families in the neighbourhood. Most learners speak siSwati at home and are drawn from surrounding townships, villages and farms.

The HOD said that the school is very popular in the community, with a number of parents being teachers themselves, which in his view is a strong advantage**.** According to the principal, learners come from up to 30 km away to attend, with parents choosing the school because of its academic excellence and language policies.

School fees are R300 a month for 10 months. According to the SGB chairperson, a local priest who has served on the SGB for 11 years (8 as Chairperson), 65-70% of parents pay their fees, while about 30 learners enjoy partial or full exemption from fee payment. The SGB, and particularly the Chairman, is actively involved in the affairs of the school and is responsive to requests for assistance from the principal.

The principal noted that '*language is everything*', meaning that all learning occurs through the medium of spoken and written language. She said that the school encountered problems teaching Afrikaans as FAL to siSwati speakers, and from 2012, two siSwati-speaking teachers have been hired to assist in this process. Nevertheless, she is confident that by Grade 7 all learners are fluent in English. The HOD agrees that the choice of English as LOLT in the FP does not present a major problem because most learners attend the school from Grade R, learning English from an early age. She is confident that the situation will improve under CAPS, where learning the FAL commences in Grade 1.

The library has ceased to be functional since the librarian left in August, and is now used as an office for administration. The computer centre is in the same non-functional state. This situation will be rectified should current fundraising for the proposed media centre be successful. Classrooms have corner libraries and book displays.

Reading scores attest to the excellent teaching at the school: the mean fluency scores for the three best readers in the two Grade 2 classes observed were 103 wpm and 95 wpm, both well above the 'average' norm of 70, but below the 'top' norm of 125 (Table 7). Average comprehension scores were 4.3 and 4.7 out of 5.

Since seeing the 2011 ANA results the school has instituted a programme of morning classes, starting at 07:00, which add 45 minutes a day of additional instruction in mathematics and reading. As explained by the HOD:

"We feel the need for improving the basics, but we can only do this if the children can read. During the writing of ANA, for example, we discovered that many learners can't read the instructions. So they can't do word problems. And after analyzing the results of the common papers in March, we discovered that learners can't do multiplication."

The content and focus of the classes was informed by the school's analysis of the ANA scores, paying special attention to reading, writing, spelling, multiplication and the completion of word problems in mathematics.

The use of the ANA results to improve teaching shown at School Z is in stark contrast to practices at most schools visited in 2012. Many South African teachers seem quite unaware of the potential presented by the ANA scores. A good example was the principal at School C, a century old institution in a booming village on the N2 in the Eastern Cape. He showed us the beautiful library he had built, replete with a young librarian paid for by the SGB. He proudly declared that 'not a cent' had been contributed by the ECDE towards this resource, all of which had been achieved through donor money and NGO support. Here was another example of a principal showing plenty of initiative and drive under conditions of grinding poverty. When asked for the school ANA scores he declared that he had sent them to the district but had not thought of keeping a copy. He was most interested when we explained how the results could be used for diagnostic and monitoring purposes, but the idea had clearly not occurred to him, despite the circulation by the DBE in 2011 of a useful guide. At another village school, just across a small field from School Z, the HOD was equally interested in the diagnostic uses of ANA and said that he would like to receive a copy of the DBE guidelines, which evaluators later found neatly stored in the school's ANA file.

The only system-wide use of ANA was exhibited by the Free State DOE (Box 5). Each of the ten schools visited in the Thabo Mafutsanyana district had a Subject Academic Performance Improvement Plan (SAPIP), containing detailed analyses of test scores, against the requirements of the curriculum. Evaluators heard the SAPIPs described in the same way in provincial, district and school level intervention programmes, reflecting the remarkable strength of the message driven from the HOD and MEC in Bloemfontein, through the district office, to every school visited in the district. These instruments vary in quality across the schools, and subject advisors focus on sharpening teachers' understanding of the method, which inevitably involves discussion of subject content.

Box 5: Systemic use of assessment in the Free State

A coherent instructional leadership regime is evident in the provincial office of the FSDOE. Driven by the MEC and HOD, the lynchpin of the regime is error analysis, conducted on learner test data of whatever kind is available: NSC exam results, ANA scores, province-wide quarterly common tests, and local school based assessments. The diagnosis yielded by error analysis is the crux of curriculum planning, where the causes of errors are identified, targets set, remediation strategies planned, responsibilities allocated, and progress reports logged. This process is grounded in a Subject Academic Performance Improvement Plan (SAPIP) that every school is required to produce. The SAPIPs, in turn, provide the raw material for the design of district plans and the Provincial Strategy for Learner Attainment (PSLA). For example:

Concept	Error	Causes	Intervention	Time	Progress
Number concept	When breaking down a no into 6 digits that include 0, learners do not consider 0 as having a value – they only regard digits from 1 as the only digits with value	Learners cannot place the digits according to the value, eg in 400608 they write 4000 + 600 + 80 instead of 400000 + 0 + 0 + 600 + 0 + 8	Number values and place values will be explained to learners, eg (HTh)+(TTh)+(Th)+(H)+(T)+(U) In order for learners to know the place value different strategies will be used e.g. money games. Learners will be taught how to break down 6 number concepts with 0 as place value. More class work and home work will be given to learners in order to practice place value and number value	23/04/12	60 learners are able to break down and build up 6-7 digit numbers

Each SAPIP starts with tables showing the number of learners and school averages for the ANA test of 2011, and the results of provincial common tests written in June, Sept and Nov 2011, and March 2012. Scores are broken down by level of achievement, average % and pass %. This is followed by an error analysis, causes of each error, intervention activities, time frame and progress, as shown in the table above.

From discussions with CMs and SAs in the district office on the question as to whether and how they use test scores to plan their activities, both sets of officials said they worked together on this task, a response which is usual. In most districts CMs and SAs admit to not working together, although most acknowledge the potential value of doing so.

6.2.2 Assessment *of* learning

The second set of purposes of assessment exercises such as ANA, is about holding schools accountable for their results, and tracking changes in performance at the system level. The design of ANA makes the test scores less suited to these purposes. There are many factors which raise questions about the validity and reliability of ANA results, rendering comparisons between schools on the same test, or within the same school or unit of the system over time, prone to significant margins of error. These include the psychometric comparability of successive question papers, the fidelity of the administration, scoring and collating procedures. As an example of the difficulties involved in the last of these, NEEDU found anomalies in the 2011 scores for a number of schools, where the scores obtained from the DBE's national data base were disputed by the school, who

offered a different set of results. Other schools could produce their results, but did not feature in the national database.

Administration of the tests and collation of the marks improved considerably between the 2011 and 2012 rounds of testing, with learner registration occurring well in advance, the submission of results by schools standardized, and samples of scripts remarked provincially. Considering the magnitude of the operation, progress to date on the deployment of ANA has been promising. Nevertheless, the 2012 results are still not considered, in the words of the DBE report, to be reliable enough to accurately measure changes from one year to the next (DBE, 2012), and here too NEEDU found some discrepancies between the scores supplied by schools and those reflected in the national database. Indeed, the GPLMS has been searching for ways of using ANA scores to measure the impact of the programme, but so far without success.

The real problem in designing a reliable *assessment of learning* system is that, because of the higher stakes associated with poor performance; there is a greater temptation to manipulate the process, even to alter the results. The only guarantee against such threats to reliability and validity is to allocate the administration and scoring of the tests to an external agency under conditions of rigorous standardization and quality assurance, as has been done in the WCEDs systemic evaluation system since 2002 and the GDE's systemic exercise in 2007. The drawbacks to such a system are cost and the fact that teachers are remote from the process, which then loses its ability to serve *assessment for learning* purposes. A more cost effective way of tracking progress at the system level is to use a sample of schools, but this approach sacrifices the purpose of using the tests for individual school accountability purposes. The conclusion must be that it is difficult, if not impossible, to design a test that successfully serves both purposes.

6.3 Professional development

If the diagnosis offered in Section 3 is correct, then capacitating teachers by one or other model of building their knowledge resources must be the most important factor in any reform strategy for schools. This has long been recognized. Over the last two decades billions of rands have been poured into *teacher subject knowledge capacitation*, through a plethora of teacher in-service training (INSET) programmes, while the pre-service (PRESET) sector has been radically restructured in the last 10 years. There is general dissatisfaction with these efforts. INSET is widely perceived to have been ineffective, while any improvement in the quality of newly qualified teachers awaits demonstration.

6.3.1 Pre-service (PRESET) training for new teachers

It is unclear to what extent programmes in initial teacher education (ITE) better equip students for teaching in South African schools than they did in the past, since the majority of teachers currently in service were trained by the 120 largely rural teacher colleges which were closed or amalgamated with one of the 23 universities in 2003. What can be said is that both the number and quality of student teachers appear to have risen since the introduction of state Funza Lushaka bursary scheme for the study of teaching in 2009 (DHET, 2011), although there is evidence to indicate that new graduates struggle to find jobs, despite persistent projections of teacher shortages (Deacon, 2011). The latter effect may be due to the tight control over employment exerted by the unions, as

illustrated in the case of the Eastern Cape described below (Section 6.4). Research on the flow of newly qualified teachers, and the extent to which the curriculum better prepares students in terms of subject and pedagogical knowledge is needed to illuminate these questions.

Interviewees in the Frances Baard district expressed frustration at the uncoordinated way in which newly qualified teachers are being trained. For example:

> *The type of teachers we are producing at the universities is a problem. For example, all the teachers we got this year are qualified in Life Orientation, but we need maths and language teachers. Universities are not producing teachers according to our needs. The practice teaching component of teacher training is also a problem. We need to find synergy between what the universities are doing and what we need. As a consequence, we have to retrain all new graduates. We have a number of vacancies. How do we find each other?*

One official in the Thabo Mafutsanyana district agreed with this sentiment, and said he supported growing pressure to get colleges reopened. He felt that universities gave too much theory, and not enough practical knowledge, including the ACE programmes. These comments are illustrative of the views regarding the quality of university training heard in provincial and district offices visited in 2012. To what extent these opinions reflect a general state of dissatisfaction with schooling and to what extent they reflect a real problem regarding the skills of new graduates remains to be established.

6.3.2 Formal in-service training (INSET) programmes

Teacher INSET

Despite their poor subject knowledge, the overwhelming majority of South African teachers are considered to be appropriately qualified, as indicated by possession of a National Senior Certificate and a minimum of four years of appropriate post-school training, or the equivalent. Educator qualifications have increased dramatically in the last two decades: in 1990 only 53% of teachers were appropriately qualified by these yardsticks, and by 2008 this had increased to 94,4% (DOE, 2009b).

The massive growth in teacher qualifications over the last decade has been fuelled by the part-time Accelerated Certificates of Education (ACE) offered by universities. Noting high variability across this field, the Council on Higher Education (CHE) has questioned the quality of most of these programmes. In its Report on the National Review of Academic and Professional Programmes in Education, the CHE had this to say:

> *... HEIs end up paying insufficient attention to the ACE Mathematics, and indeed to other ACEs, because the ACE is perceived as the lowest of their priorities. ... The most vulnerable students in the institution then come to be the recipients of the minimal amount of attention, time and support that the institution can provide.*
>
> *The absence of a sustained plan that addresses the continuum of learning that is required, and in particular that addresses poor subject specialisation knowledge, is perhaps the greatest weakness of the ACE programmes.*
>
> CHE, 2010:135

This view was echoed by a number of respondents, as exemplified by the following quote by a senior manager in the Ehlanzeni District office regarding the quality of ACE programmes:

> *There are lots of assumptions not supported by empirical evidence. We probably provide training on things teachers don't really need. We need to give them guidelines so they can do self-development. I still don't trust that the ACE programme does what it is supposed to do. I have seen a lot of ACEs that are not helping.*

The impact on school performance of uncertified training provided by donor funded NGO programmes and by provincial departments of education has been similarly disappointing (Taylor, 2009). But there are some glimmers of hope. For example, the block release programme offered by the WCED's Cape Teaching and Leadership Institute (CTLI) has been shown to be associated with significant rises in pupil scores in both reading and mathematics in the annual provincial tests (Dechaisemartin, 2010). The model of training offered by the CTLI is also used by Gauteng's SciBono Centre, and the Mathematics and Science Teacher Education College in Limpopo (MASTEC). The cornerstone of this model is an intensive residential course of relatively long duration – two weeks for CTLI and SciBono, and nine weeks in the case of MASTEC – with substitutes employed to release teachers for training. Another common feature of the model is a focus on subject content. While research on these programmes is incomplete, the model does appear to hold some promise.

The Western Cape has a relatively well developed approach to teacher training, which attempts to integrate INSET and PRESET. In its Annual Performance Plan (2012-2015), the WCED identifies the professional development of both teachers and school managers as a key focus of the department. As part of its professional development programme, the WCED, among other things, provides:

- Through the CTLI, residential two- and four-week courses. In addition, the CTLI offers a range of courses, seminars and conferences on topical issues, although the province strongly discourages the use of short workshops wherever possible. Officials interviewed felt that intensive training is the most effective means of empowering teachers, eliminating many of the challenges associated with afternoon and week-end training programmes.
- Two hundred pre-service bursaries in each academic year are awarded to aspiring teachers to provide a continuous supply of newly qualified teachers in "scarce subject areas" such as mathematics, science, technology and the Foundation Phase.
- Mentoring for principals who are inexperienced and those who need support: Principals' training emphasises instructional leadership.

District officials in Frances Baard expressed a need for a provincial in-service training facility, along the lines of the CTLI, given perceptions of the inadequate provision for serving teachers through existing university programmes. The Northern Cape Province, according to a senior curriculum official, is developing a Continuing Programme for Teacher Development (CPTD) based on the areas identified by teachers as those in which they wish to obtain greater competency.

The main teacher training for the primary school in Gauteng is done through the GLMS programme (see section 6.3.5 below). To enable the IDSOs and subject advisors to perform their support functions in schools, the Mathew Goniwe School of Leadership and Governance (MGSLG) and the Sci Bono science education centre have been charged with providing professional development.

Management INSET

In a number of provincial and district offices evaluators heard talk of management training. For example, in the Johannesburg Central District we were told about a partnership with Monash University to develop a programme for principals. According to the District Director:

> *We are establishing a community of principals who share good practices on managing the curriculum. Some principals don't teach, but where they do they are able to pick up problems. Thirty deputy principals who are females have been identified for mentorship programme, so that they are prepared when appointed as principals.*

In the Western Cape officials spoke of the WCED's ACE in School Leadership offered through the CTLI. Unlike other generic ACE programmes, which officials interviewed thought had no impact on school leadership, the WCED programme addresses 'real life' management issues and includes topics such as: the principal as manager of the curriculum; the roles and responsibilities of deputy principals, heads of department; the skills required of aspiring principals; the induction of principals and deputy principals; school management team training; and women in, and into, management.

The Mpumalanga Department of Education plans to prioritise development of HODs and district-level education specialists in an effort to enhance effective management of curriculum implementation. All new HODs are inducted on their responsibilities within the first year of their appointment. Also, since HODs play a vital role in curriculum delivery, they must be trained on monitoring curriculum, assisting teachers teaching particular grades or subjects for the first time, developing teachers in their departments on subject content delivery, and identifying teachers' further developmental needs. Moreover, circuit managers will receive training in mentoring and coaching skills to enhance their capacity to support and develop school managers. One senior manager said that:

> *We too often assume that because people are good teachers they can support other teachers. We need to show them [subject advisors and circuit managers] how to provide support to teachers and SMTs, identify their needs, and show them how to provide it.*

The 2012/13 APP of the NCDE also outlines development programmes for SMTs. A total of 73 school principals completed the ACE specialising in management and leadership in 2010/11. However, an assessment of this programme found that is has had negligible impact on the management of schools. NCDE has therefore decided not to continue with the programme, but instead to invest in teacher development programmes implemented directly in schools, offered by the South African National Tutor Services (SANTS). Rollout has commenced in the three lowest performing districts in the province.

With reference to Bonjanala district support to school principals and their SMTs in implementing the curriculum, the District Manager was outspoken:

> *With all the capacitation workshops and support, they should know what they are doing ... (but) they are not doing their work ... Financial management, mentoring and general management training has been going on for 30 years, but some principals are still hopeless.*

As we said before, this plethora of training efforts have so far not made a dent in the quality of learning outcomes in the country.

6.3.3 CAPS training

During 2011 and 2012, much of the professional development focus in all 15 districts visited was on preparing teachers for the introduction of CAPS in the FP in 2012 and the IP in 2013. This trend will continue into 2015 with Senior Phase training. The following quote by the HOD in the Free State Provincial Department of Education was illustrative of the generally upbeat view of CAPS training:

> *There was national training for officials, who then did training for schools. All attended and we got no negative feedback. We personally attended provincial CAPS training for schools attended by 'expert teachers' and Subject Advisors, so that cascade is improved. We felt very encouraged and excited. Simple things like mental maths and dictation are being brought back.*

There was a general feeling in the large majority of institutions (schools, districts and provinces) visited that CAPS training had gone very well for FP teachers in 2011, and was continuing in 2012 for IP teachers. However, many teachers said they felt they needed more training. One district-official reported: "The main weakness [with CAPS training] when you listen to teachers is too much to learn in short time. Also, there is rapid change of syllabus."

6.3.4 Afternoon workshops and school visits

Cluster and afternoon workshops were a common practice in 13 of the 15 districts visited. The exceptions were the two WCED districts. Subject advisors reported that there was often poor attendance at such meetings. One explained:

> *Teacher attendance in cluster workshops is often poor, yet they [teachers] leave schools early under the pretence that they are going to attend cluster workshops but never show up in workshops.*

A number of respondents felt that afternoon workshops were ineffective. In the Umlazi district evaluators were told that even when the training made accommodation for language, impact was negligible:

> *We conduct workshops in isiZulu for African teachers to make it easy for them to understand. But we still don't see much of improvement: we see the very same challenges. It may not be the language that is a barrier, or that they are not getting adequate support: it may be related to their knowledge and ability to apply it in the classroom.*

Subject Advisors in Umlazi also commented on some of the logistical difficulties that were encountered when delivering workshop-based training. For example:

> *We are not allowed to take teachers during contact time so we have very limited time with them. In the afternoon teachers are not attentive and they are rushing to do their normal chores, like picking up kids. We have too many teachers in the workshops and it doesn't become effective. If you call them according to Grades in order to reduce numbers, then you end up having to do too many workshops.*

What is more than a little inexplicable about the afternoon workshop format is how popular it continues to be, in the face of near-universal condemnation by all involved. District officials seem to have no other way of communicating with school leaders and teachers.

Circuit Managers and Subject Advisors use a second common strategy – school visits – in tandem with afternoon workshops to communicate with teachers. While these visits are no doubt good for morale, and while they may be more effective in addressing management issues, they can have little substantive effect on teacher knowledge. Consider the typical situation of a FP language Subject Advisors responsible for over 100 schools. At best, she can visit each school once a year, spending at most a few hours with each teacher in the school, contact which is quite inadequate in addressing the kinds of knowledge shortcomings described under section 3.3 above.

6.3.5 Systemic programmes to improve literacy instruction

The National DBE and a number of provinces visited in 2012 said they had programmes designed to improve the quality of teaching in the FP. However, on visiting districts and schools, it was found that only two such initiatives were being implemented to any degree, the LitNum Intervention of the WCED and the Gauteng Primary Language and Mathematics Strategy. Both integrate training with on-site pedagogical support. We summarise each of these below, and draw a number of lesson from their experiences in the last 3 or 4 years.

The LitNum Intervention of the WCED

Since the institution of provincial systemic tests in literacy and mathematics in 2002 by the WCED, significant improvements have been recorded. Nevertheless, many learners continue to perform two to three years below their expected levels. In response to this poor achievement, the province launched the coordinated Literacy and Numeracy Strategy (2006-2016). Of the 16 schools visited by NEEDU in 2012 in two districts in the province (West Coast and Metro North), seven reported having participated in the LitNum Intervention programme since 2009.

The Provincial Department of Education allocated a budget to promote literacy and numeracy development through a number of projects in the schools in their districts. What followed was a large number and variety of projects and programmes that were poorly co-ordinated across the province and implemented on an ad hoc base. By 2008, the lack of coherence in the programme was evident and a move was made to align the various interventions and projects through one single intervention: *the LitNum Intervention* (LNI).

Phase 1 (2009-2011)

The intervention was planned as an eight year roll-out. The first phase saw the vacation training of teachers from 250 primary schools across all districts in the Western Cape. This took the form of five days of residential training at the CTLI. Eight teachers from each of 125 schools were selected to be the recipients of language in-service training and support: 1 teacher from each of the FP grades, one language teacher from each grade in the IP, the FP HOD and the IP HOD. A further eight teachers from another 125 schools were selected to be the recipients of mathematics in-service training and support.

The language training was offered by READ trainers. The mathematics training and support is offered by the Maths Centre (MC). Teachers from each school got five days each of language and mathematics training in a 13 month period, spanning two academic years.

According to the READ provincial manager, teachers in schools at all levels of achievement are positive about the LNI. One of the most positive aspects reported on the vacation training is the alignment with CAPS.

> *It [LitNum Literacy training] is CAPS. It's not something extra or different. That was the feedback that we got from so many of the teachers after the training. They said 'wow, this is what we needed, this is exactly what we needed. For once, the department is actually giving us what we needed".*

Training was followed by school-based support given by the 20 READ and MC trainers through two visits to teachers per school per term. The time spent at the school included classroom based support to all the teachers as well as afternoon training of the teachers who had not attended the vacation sessions. The preliminary evaluation data suggests that the school-based support is a key aspect of the intervention. One respondent reflected:

> *[the project] is particularly about changing classroom practice. And doing that in a concrete co-teaching, co-mentoring way, and that's the strength in my view of the project. ... It is more about changing the practice itself, rather than just the planning and preparation and all of that.*

Phase 2 (2011-2012)

After a year of the programme, the model was adapted, based on the realisation that the cascade model of training used in Phase 1 was ineffective in changing practices across participating schools. Starting in 2011, all teachers in the Foundation and Intermediate Phases at the selected schools were selected for the vacation training. It was a change that received a great deal of support from all those interviewed. As one respondent noted:

> *You are not going to make whole-school changes if you've got so few teachers coming, and then some of them don't pitch, so then it changed to all the teachers coming.*

The change in design significantly increased the numbers of teachers who attended the vacation training, putting stress on the training structure. To address the shortage of trainers (originally provided by the NGOs) curriculum advisors from the participating districts were invited to work alongside the trainers, and train to become trainers themselves. According to the READ provincial manager, this decision brought about better buy-in from the district officials, and the coherence between the WCED policy directives and the programme increased. This also ensured that the district officials were exposed to relevant subject specific knowledge. The training of CAs and their subsequent responsibility as the primary agents of support in the schools has been seen as a major success of Phase 2 of the intervention. According to the programme leader:

> *It [training the CAs] worked extremely well. To me that is one of the greatest things about this project … that you have capacitated [the district official]. To me, they should all have been trained. Because now they can support the schools far better. They know what they are talking about. They've earned the respect of the teachers. We've had so much good feedback from the teachers, and the CAs feel great.*

Materials

The provision of resources for teaching language and mathematics in the Foundation Phase is a key component of the LNI. The responsibility of providing teachers with reading resources and mathematics kits remains the responsibility of the province. The provision of Big Book readers (for shared reading) and graded readers, to accommodate learners at different level of reading proficiency, are vital to the successful implementation of the BLA methodology advocated by READ.

Impact

All participants in the programme – WCED project managers, service providers and participating teachers – are unanimous in the view that the LNI is having a positive impact on both teachers' understanding of teaching literacy and numeracy and on their classroom practices.

However, preliminary analysis of the test data indicates that no significant improvements in learner achievement have occurred between 2011 and 2012 in either literacy or numeracy. Perhaps changes in test scores are not to be expected after delivery of only half the programme to this set of schools, and the result of the final tests in 2013 are eagerly awaited.

The Gauteng Primary Language and Mathematics Strategy

In 2010, acknowledging the poor state of learning revealed in both the GDE's 2008 Systemic Evaluation exercise and the 2010 ANA results, the GDE launched the GPLS to address the low level of literacy achievement in the Foundation Phase in the province. By late 2011, it was realised that a programme was needed in both mathematics and languages, and in the whole of the GET band (Grades 1-7). The project evolved to become the GPLMS, with the mathematics component being piloted with Intermediate and Senior Phase teachers and learners in the second term of 2012.

By the end of 2012, the project was assisting 832 targeted schools, reaching nearly 600 000 primary learners in the province. It consists of four pillars: supporting teaching and learning through the use of trained coaches and provision of lesson plans and materials; supporting the use of School Based Assessment and ANAs to improve learner performance; a programme of extra school support, particularly for homework assistance; and school management support, offered to district officials and members of School Management Teams (SMTs).

Lesson plans

The slow pace which characterizes the majority of South African classes has long been recognised as one of the principal factors retarding learning progress, resulting in learners falling progressively further behind as they move through the grades. A central feature of the GPLMS is the use of a set of *scripted lesson plans*, which are carefully aligned with the CAPS, as a way of addressing this problem. The lesson plans are designed as a practical mechanism to provide knowledge resources to teachers in a direct manner to enable them to pick up the pace in classrooms. One of the project documents describes their purpose as follows:

> *The lesson plans would dramatically change the daily rhythms and tasks of teaching, accelerating and intensifying the teachers' work rate in the English classes.*

The most frequent complaint from participating teachers is the amount of work required to keep up with the schedule. In order to manage the pacing of the Lesson Plans, and to lessen teacher workload, teachers are now supported with defined time allocations, weekly routines, revision weeks and marking guidance. The teachers are visited by their coaches fortnightly to assess and assist progress.

Materials

Materials, packaged specifically for the teachers on the project, are a second key component of the strategy. By the end of 2012 the GPLMS model had been adapted to replace workbooks purchased from publishers with the DBE workbooks. Realising that a primary constraint on reading progress in the GET band is a paucity of structured reading material, the project has commissioned the publication of 16 sets of graded readers in each official language. These were due to be produced by the end of 2012.

Mathematics

The mathematics component of the project is not as advanced as the language component, partly because it was introduced a full year after the latter, but also because of design and implementation issues unique to mathematics education. These problems, in turn, reflect a lack of consensus in the field concerning best-practice pedagogy and materials design. Problems encountered by teachers in using the material in their classes caused the GPLMS to withdraw and redesign its original set of mathematics lesson plans. Similarly, in view of the difficulty of procuring suitable workbooks in the 11 languages, the programme is commissioning a customised set of mathematics materials for learner use.

Professional development

The teacher development component of the GPLMS comprises two parts: '*just in time training*', which focuses on using the lesson plans in class; and a formal mathematics INSET programme, which seeks to support identified teachers that need basic mathematics content and pedagogical knowledge. While MGSLG and district officials are charged with the responsibility of training all FP and IP teachers on CAPS, GPLMS coaches are responsible for coaching teachers how to apply CAPS in classrooms. As one provincial-level manager explained:

> *We found that 125 coaches from 2011 were welcomed by schools and teachers, because they are supporting not inspecting. District officials [subject advisors] must exhibit the same expertise.*

There was an intention to develop a training programme for IDSOs, through the MGSLG in partnership with Wits University, but this has not materialised. As one interviewee noted:

> *Ten years down the line people are not trained and we assume that because they have been in the job for this long they know what they are doing. Well, they don't!*

Reception of the GPLMS at district level

Evaluators noticed an important shift at head office, from the preoccupation with Grade 12, to laying a solid foundation in the early grades through the GPLMS. District officials, however, were far less knowledgeable about GPLMS, and where they did know about it, far less enthusiastic than their provincial peers. Most district officials did not see themselves as part of the programme and were mostly pessimistic about its chances of success. The 'us and them' attitude prevailed when district officials talked about the GPLMS. Support to teachers is thus not coordinated, with teachers having to listen to different guidance from the coaches and subject advisors, which may be contradictory and lead to confusion among teachers. One district-level official complained that:

> *I don't know why they [head office] brought these NGOs [coaches] because we are capable and can equally do the job, all we need is extra manpower.*

The lack of clear role of district officials and/or the prevailing misunderstanding of their roles regarding GPLMS poses a threat to the successful implementation of theprogramme. The GDE is well aware of this consideration, and in the latter half of 2012 commissioned the management firm McKinsey to assist in integrating the work of GPLMS coaches and district level officials. According to programme managers, there was evidence towards the end of the year that the problem was being resolved.

Reception in schools

Eight of the 16 schools sampled in the two Gauteng districts visited by NEEDU were found to be participating in the GPLMS. Information from one school was unobtainable due to the visit being blocked by a union delegation. One of the Grade 2 teachers interviewed expressed her satisfaction with the programme, but at the same time it seems to have awakened a sense in her of how much she could achieve, and how far she is from achieving her potential as a teacher:

> *It's the old system. When a sound is introduced we use a lot of aids to get them to know it, we drill them, we get them to write, comprehension. They can't forget. But in LOLT there is so much things we need to do. I had a problem with group reading, so I told my coach, and he gave us a CD to help. I need more: I need someone to stand in front of the class and show me how to do these things. We have so many different things, we can't keep up. I need to be shown practically, not just explained theoretically.*

Some teachers interviewed felt that the most useful aspect of the programme was that all the planning was done for them through the lesson plans. Those teachers who were previously unsure of what to teach and what resources to use on a daily basis were grateful that all they had to do was to follow the lesson plans, and use the prescribed readers and workbooks.

The Deputy Principal at one of the GPLMS schools visited commented on the positive influence of the GPLMS on monitoring activities as follows:

> *HODs are forced to monitor progress on pacesetters, because the coaches visit the school often and immediately pick up any teacher who is falling behind. This is very useful, because we have someone to ask when we have problems. [It is] especially useful for Intermediate Phase because this was a neglected phase. This is very comforting: I think things are going to shape up.*

However, in the small sample of schools evaluated, there was little to distinguish those schools participating in the GPLMS and those which are not part of the programme.

Impact

A number of the school principals and teachers attributed improved learner achievement in their schools to the GLPMS. However, reliable data on the impact of the GPLMS is not yet available. Unfortunately, the nature of the 2011 administration of the ANA tests was not standardized to the extent that would allow for reliable comparisons. Evidence has also begun to emerge that, while 2012 represented a significant advance in quality on 2011, the ANA exercise needs to achieve tighter standardisation of administration and data collation, and careful attention to the psychometric comparability of succeeding tests before it can be reliably used to track school change over time.

Fleisch and Schoer compared the frequency distribution of 2012 ANA scores with the distribution of the 2008 Systemic Evaluation results, for a sample of GPLMS schools and a comparable selection of non-GPLMS schools. The trends this study reveals are encouraging and indicate that the GPLMS might be having some effect on learner literacy achievement, even at this relatively early stage of the programme.

Lessons from the LNI and the GPLMS

If we accept that learning to read, write and count in the first three school grades is the foundation for all further learning, and if we acknowledge that South African children start falling behind in the very first year, then the LNI and the GPLMS are arguably the two most promising educational programmes currently in progress. They are the first systemic programmes that have gone beyond the planning phase, and taken to a scale beyond NGO-driven pilots. Their changing fortunes since 2009 in the case of the former and 2011 in the case the latter should be of interest to all provinces, the DBE and the Ministry. A comparison of these two programmes provides important lessons for the country in its quest to revitalise literacy learning in primary schools. At this relatively early stage in what should be the natural lives of these two interventions, five interrelated lessons are emerging.

Focus

The most interesting difference between the LNI and GPLMS lies in the particular aspect of teacher capacity which each has chosen as its focus. In section 3.3 we distinguished four characteristics required of effective teachers: knowledge of the school subject(s) for which they are responsible, knowledge of the most appropriate ways of presenting key subject topics, knowledge of the curriculum, and the ability to put these knowledge aspects to work in classrooms. While these four components are hard to separate in practice, it is their relative weighting in the LNI and GPLMS that is important in trying to understand what works in improving classroom practice.

The LNI has prioritized *teacher subject knowledge* as the key to more effective delivery of the curriculum. The premise of this focus seems to be that teachers cannot teach what they do not understand very well, and that once they have this understanding, they will be better able to make sense of the curriculum, make better pedagogical choices, and consequently be more effective orchestrators of classroom behaviour.

The GPLMS, on the other hand, assumes that effective classroom practices can be *scripted*, and that if teachers are taught how to follow the script by expert pedagogues, the learners will be presented with a far more coherent induction into the disciplinary field in the short run, and teachers will come to grasp what it is they did not know in the medium and longer term. What we see here, then, is two *different models of teacher capacitation*.

Design

Both programmes have undergone significant changes in design since initiation. In the case of the LNI, it was found that cascade training was ineffective, and in Phase 2 all teachers in participating schools are now included in the training. The week-long residential training offered by LNI is also unusual in comparison to the norm, where teachers are 'work-shopped' after school in the afternoons or on weekends.

A notable feature of the GPLMS is that, after two years, the language component is still under construction. Lesson plans remain in a state of dynamic evolution in response to classroom conditions, while available reading materials require significant supplementation through newly commissioned readers. After one year the mathematics component was taken back to the drawing board, with lesson plans and workbooks being entirely rewritten.

The important lesson to emerge from this feature of both the LNI and GPLMS is one that South Africans have ignored in the past: the need to provide time and space for adaptations to the design of ambitious new programmes to ensure their suitability for target classrooms.

Bedding Down

Closely related to the previous point, once the programmes has been finalised, initiatives such as the LNI and GPLMS require sustained effort over a number of years before they are likely to become embedded in the standard operating procedures of the complex set of institutions and systems comprising schooling. Over the past 18 years each new administration, following the election that brought them into office, has introduced significantly new curriculum policies and other projects. While continuous renewal and refinement are important elements in getting schools to operate optimally, a key element in bedding policies down is *stability and continuity*, as evaluations in highly successful countries like Finland have shown.

Institutional location

A prominent, although relatively recent, feature of the LNI is the involvement of Curriculum (Subject) Advisors in the programme. The Programme Manager and service providers alike are convinced that this element is key to its future success. Nevertheless, the support work in schools continues to be done by NGO personnel, an expensive option which is not sustainable.

The GPLMS also employs NGOs to conduct the in-school support to teachers, on the assumption that Subject Advisors have neither the capacity nor the resources to do the job. As a result, there is antagonism to the GPLMS in district offices, in contrast to the enthusiasm shown by the MEC and provincial-level officials and the acceptance by FP teachers that it is of assistance to them. The issue of conflicting GPLMS and district instruction is currently being addressed but the question

remains as to whether SAs have the capacity to do the job.

The school support model common to both programmes is unsustainable, yet both provinces continue to be hampered in their attempts to systematize this function, due to insufficient numbers of curriculum advisors in districts, and by the low capacity of many advisors. This situation poses a dilemma for both provincial governments and national policy makers. One option could be to concede that, under present resource conditions, district officials are unable to provide adequate support to teachers and provide them with a different brief, which is more in line with their numbers and capacity. Alternatively, their numbers and capacity should be boosted to meet the current expectations of the job. In either event, district level officials and school managers should be more intimately involved in such interventions if they are to be sustainable. This is a key decision facing the school system, and one to which we return in section 7 below.

Impact

It has become clear that acceptance of, and even enthusiasm towards, these programmes is not a sufficient condition for achieving improved outcomes. Effecting pedagogical change in classrooms requires far more than going through the motions of a new set of routines, even where these are periodically monitored by expert visiting coaches. Improving teaching requires not only an explicit restructuring of daily activities, but also continuous guidance on how to engage with the *substance* of the new routines. It follows that the programme should become a central part of the professional lives not only of teachers but also of their support systems at the levels of the school, the district and the province.

Establishing whether or not a programme of this nature does impact on the quality of learning outcomes is the ultimate measure of its worth. In order to use resources to best advantage, it is important to establish which aspects of such interventions are most effective, and this requires rigorous, longitudinal evaluation by an expert outside party. In particular, it is important for the design of future programmes to determine the *relative efficacy of the model of teacher capacitation* of the two interventions. The LNI is furthest down this road and the WCED is about to receive a major report on the impact of Phase 2.

6.4 Threats to organisational order

Developments in the Eastern Cape over the last 15 months illustrate the extent and consequences of a breakdown in civil service discipline. Central government takeover of the Eastern Cape Education Department in March 2012 was precipitated by an overspend of R1.2 billion in the province, in part the result of a shrinkage in learner numbers and consequent reduction in allocation to the province by the Treasury, without an accompanying reduction in teacher numbers. The problem was greatly aggravated by movement of learners within the province, leaving some schools overstaffed and others significantly short staffed. Backed by SADTU, through an illegal three week strike at the beginning of 2012, teachers rendered ‘in excess’ at shrinking schools refused to move. As a result, school feeding and learner transport systems collapsed, but some 7000 ‘excess’ teachers kept their jobs.

The implication of this stalemate is that either more teachers would need to be hired to staff schools in the high growth areas to which children are streaming, or those schools will be understaffed. Recent

reports from the Graaff Reinet area indicate that the latter is happenning, with a number of schools going on strike in protest against teacher shortages, led by principals, teachers and parents. The province remains paralysed by this situation, with salaries exceeding 90% of the budget, severely limiting spending on programmes and resources.

The situation took a new turn in 2013: on 25 February the Bisho High Court granted the ECDOE an urgent interdict against SADTU, upholding a December 2012 High Court judgement in favour of the department. Announcing the decision, spokesman for the ECDOE Loyiso Pulumani said that SADTU was '*staking the personal safety of the department's employees, evicting them from official premises under an express and real threat to life and limb*', violently forcing them to vacate their offices and warning them not to return on pain of personal injury or death. According to the New Age, SADTU had earlier said that the department should employ more teachers rather than transferring existing teachers to schools with shortages.

The NPC Diagnostic Report notes that strike action consumes as much as 10 days a year (five percent of school time), while holding union meetings during school time is often the norm in some schools. Procedures for dismissing teachers for misconduct are complex and time-consuming – and dismissals are rare as a result. School districts and the Department of Basic Education have not provided adequate means to address allegations of extreme misconduct involving teachers (NPC, 2011). It is important to understand this last point: the legal machinery for dealing with indiscipline by personnel exists both in the general labour law and in the South African Schools Act, as periodically amended, but inhibitions to the application of the law depends as much on civil service incapacity as employee militancy. The problem of *inadequate application of the regulations* by managers – by school principals and Circuit Managers – is both a capacity problem, in that leaders lack the knowledge required for good HR practices, and a problem of political possibility, of civil service indiscipline and intimidation. When asked if he had ever dismissed a principal, one CM responded with alarm: '*Haauw! You would become a target yourself!*'

Although by no means as severe, there are similar difficulties in Limpopo Province, also currently under administration by Treasury and the DBE. According to officials interviewed by NEEDU, conflict between the LPDE and unions sometimes curtails provincial or district training services. As described by a senior official:

> *In Waterberg SADTU is managing the district. For example, we transferred funds for teacher training on CAPS, but SADTU informed teachers not to attend. And nothing gets done. They want to show their own provincial structure that they have power. Some CMs are not allowed in schools. People won't talk about it, because they may be asked; what have you done about it?*

A senior official in the province attributed the administrative woes to a combination of factors, including politics:

> *At circuit and district level you are closer to the ground, and you need people who can 'pull votes for you'. The political requirement takes precedence over professional requirements.*

In addition to poor discipline, there is evidence to indicate that collusion and nepotism are rife in the recruitment and promotion of staff. This behaviour is destructive in two ways. First, it results in inappropriate people being appointed to positions for which they are ill equipped: under these conditions institutional dysfunctionality becomes the norm. Second, and far more important,

channelling opportunity through networks of patronage signals that expertise is unimportant. There is no incentive for teachers to develop their subject knowledge because such expertise is irrelevant in building a career. And teachers lose respect for incompetent leaders.

There is a general public perception that the unions exert a stranglehold on appointments in large parts of the system, and that much teacher indiscipline occurs under protection of the unions. While this may be true some of the time in parts of the country, the situation is differentiated. Union activity varies in intensity and the degree to which it adheres to legal and regulatory rules across provinces, districts and individual schools, depending on the quality of union leadership, the level of teacher support, and the capabilities of officials and school principals.

By its very nature, data on such practices is difficult to obtain. However, public perception that they are widespread is reflected in some of the resolutions passed at the Policy Conference of the ANC in Mangaung in December 2012. For example, in motivating for a strong resolution on corruption in the Basic Education sector, the conference noted that reports of corruption are increasing, especially in appointments and promotions, and that there are many cases of conflict of interest that relate to procurement involving public representatives and civil servants.

There are some signs, in the President's 2013 State of the Nation address and the Budget vote, that Cabinet tolerance of these practices is reaching an end. It will certainly take a concerted and sustained act of political will to have any impact on these endemic problems. On a positive note, the largest two teacher unions – SADTU and NAPTOSA – have both over the last year become involved in providing professional development to teachers. These moves emphasise the importance of teacher organisations in ensuring the professional conduct of teachers, and provide government with a useful starting point to engage teachers in a more constructive relationship in the future.

6.5 Conclusion

The purpose of monitoring teaching practices and learning outcomes on the part of the SMT is to identify strengths and weaknesses in the school in order to make best use of the former and minimise the latter. In 'atomised' schools (Elmore, 2008) there is little or no contact between teachers on matters of curriculum, pedagogy and assessment.Teachers work in isolation behind closed classroom doors. Under these circumstances there is little room for improvement. Teachers using ineffective practices cannot learn anything new, while any potential for the best teachers to share what they do is lost. A primary function of the SMT is to facilitate the cross pollination of ideas and practices within the school, and all instructional leadership practices should be directed to this aim.

The school visits undertaken in 2012 as part of the present evaluation reflect the frustration expressed by respondents at the lack of returns to most attempts to build teacher capacity. There is clearly a slippage between qualifications and competence. Yet, the *teacher subject knowledge capacitation model* has become firmly lodged in South African educational commonsense, and the same old remedies continue to be applied: afternoon workshops, and add-on programmes by distance and short courses by the universities and NGOs. Provincial departments of education are beginning to establish their own programmes and training capacities and two of these in particular – the LNI of the WCED and Gauteng's GPLMS – require major evaluations to determine their impact.

Finally, in far too many schools, teachers and leaders alike look outside the school – to the district, province, or non-government partners – for help. But a promising but under-utilised source of assistance lies within the school itself. Outside parties can provide no more than occasional support to teachers, whereas their peers within the school are constantly available, at break, between lessons or in the afternoons. Moreover, intra-institutional assistance is likely to be far more effective, since it is offered within a direct understanding of the contextual conditions that pertain in the school, and can be offered continuously throughout the year. This is a resource that deserves to be far more widely used. We argue further below.

7. Recommendations

In Section 3 above, we distinguished between two major classes of problems besetting teaching and learning: 'won't' and 'can't' problems. The former require institutional solutions; the latter require capacitation solutions. The school improvement research literature is unequivocal that institutional functionality must be fixed before capacitation strategies can 'take'. This is partly why INSET initiatives have delivered such disappointing results so far. Consequently, we begin below with the first priority, which is achieving institutional functionality.

7.1 Achieving institutional functionality

Learning cannot occur without time being devoted to it. While the problem of poor time-keeping in schools is not as serious as it once was, too much time is lost in about one-third of the133 schools visited in 2012. This applies to the urban primary schools of this study. The main problem is learners coming late in the mornings. Much time is also lost between lessons, at the end of breaks and even during lessons. More efficient use of time not only provides for more opportunity to learn, but becoming aware of time, and of productivity, is an important disciplinary mechanism for learning. Most important of all, young citizens growing up under conditions of institutional inefficiency and a loose approach to time management are likely to internalize these bad habits.

In such schools principals must work with their SMTs and SGBs to tighten up on punctuality and the efficient use of time. This means attending to late arrivals in the morning, minimizing days lost to extra-curricular activities, and having a zero tolerance policy with respect to teachers not teaching when they should be. A culture of good time use, in the interests of learning, must begin to permeate the school. The question of sick leave abuse must be addressed.

Recommendation 1a

Principals are responsible for maintaining efficient time management practices in their schools. Circuit Managers are responsible for ensuring that principals do their jobs in this regard. Circuit Managers must work with principals in schools in which time is not optimally used for teaching and learning. Principals must be assisted to exert firm leadership and sound time keeping practices throughout the school. CMs and principals must be equipped with training in basic HR procedures. Each province needs a strong HR school strategy, including leave management, and a provincial level capacity to deal with problematic cases.

Recommendation 1b

The DBE should undertake an investigation into the regulations regarding sick leave, and amend the system so as to circumvent abuse.

7.2 Instructional leadership

7.2.1 Building the school management team

It is the responsibility of the principal to lead curriculum delivery. While tasks and responsibilities should be formally distributed to members of the SMT and teachers, the principal must direct the overall strategy. High degrees of responsibility should be delegated to the SMT, and to individual DPs, HODs and senior teachers, but overall accountability for the processes and outcomes of learning rests with the principal. The slogan '*Leading for learning*' is appropriate as a guiding light for school leaders. It is the function of the district office, and of Circuit Managers in particular, to ensure that a set of roles and responsibilities is developed and assigned in each school. This assignment should be signed off and monitored by the CM.

Recommendation 2

A division of labour must be established within the school, with important tasks defined, planned and allocated to senior members of staff. The SMT must meet regularly to monitor progress against explicit learning goals, identify problems and plan activities. The tasks that require the establishment and maintenance of systems are: design and maintenance of appropriate language policy, curriculum planning, construction of school norms for tracking and strengthening reading and writing, procuring and managing LTSM, moderation of assessment, analysis of test results, and teacher professional development. Each of these is discussed in more detail below.

7.2.2 Language

Language is the medium through which all learning occurs and if learners and teachers are not proficient in the language of teaching and learning, then learning will be severely inhibited. As can be expected under the conditions of high inward population migration to the districts evaluated in 2012, the language ecology of many schools visited was found to be very complex.

Three factors are mainly responsible for this situation. First, in many schools the home languages of learners may number anything between 1 and 11. Consequently, whichever language is chosen as the LOLT in the FP, significant minorities and not uncommonly majorities, are schooled in a language that is not their home language. Second, rapid dialectisation of African languages, including Afrikaans, makes written communication – through textbooks, curriculum documents and ANA test papers – difficult. The problem of terminology in mathematics is a third complicating factor.

There are three main strategies for dealing with this complex and thorny issue.

1) Leave the situation as it is.

If the situation remains as it is at present, we can expect schools to do one of two things:

a) Decide to stick with one or other home language as LOLT in the FP, because

i) They believe mother tongue instruction is educationally superior; or because

ii) The teachers in the school are not proficient enough in any other LOLT.

b) Opt for English or Afrikaans as LOLT, because

i) Parents want it for their children

ii) Schools want to emulate nearby schools, so as not to lose learners and teachers to such schools, or because

iii) Schools wish to smooth the transition to the IP.

Under these circumstances, there will probably be a slow but steady drift towards English (or Afrikaans) as the *de facto* LOLT, especially in urban areas, but increasingly in rural schools too.

2) Standardise the African languages and commission sets of graded readers in all official languages. This is a longer-term strategy, which will not prevent the choices of schools in the shorter term.

3) Make English the LOLT in the FP. This will pre-empt unregulated drift.

All of these options have their drawbacks. Paradoxically, in the high-flux situation we have at present, option 1 might be the most judicious for the moment.

Recommendation 3A

The DBE needs to commission the writing of graded sets of reading materials for use in the FP for the nine official African languages. The question of language standardisation must be taken into account in this process.

Recommendation 3B

Additional language-trained subject advisors in each of the main languages spoken in each district are required to provide leadership, advice and training to schools, teachers and parents. Their main task must be to assist SGBs to make wise language choices for LOLT and FAL, and to develop programmes for improving the proficiency of teachers and learners in their chosen LOLT. It is important that the language choices of parents are respected.

While most schools struggle with language issues, few have investigated programmes dedicated to this goal. It is recommended that provinces investigate such programmes and issue a list of preferred programmes. The most effective of these could be implemented in selected schools, led by Subject Advisors.

Recommendation 3C

Schools must make a special effort to improve the proficiency of learners and teachers in both LOLT and FAL. One option is to recruit first language speakers to teach language classes for both LOLT and FAL, wherever feasible.

Recommendation 3D

The planned introduction of an African language, other than Afrikaans, for all learners is a positive policy in the interests of nation building. The current shortage of African language teachers indicates that implementation should occur with caution, and only when teachers are available.

7.2.3 Reading

Reading is the process through which learners learn to engage meaningfully with what they learn. This is the most important skill to be learnt in the FP. Every learner should be reading independently by the end of Grade 1. This requires that teachers pay attention to each learner, assessing reading throughout the year and giving particular attention to those experiencing difficulties. In Grades 2 and 3, teachers should continuously raise their expectations of learners, getting them to read progressively more complex texts and to respond to increasingly challenging comprehension exercises. Particular attention must be given to developing inferential and interpretive reasoning. Learners must be led to engage with 'Why' and 'How' questions.

The reading fluency of the six *top learners* in schools visited in 2012 was disappointing. Most learners tested were found to be reading well below the 'average' benchmark for their grade. Similarly, the reading comprehension of the learners, tested by asking five simple questions related to a short text, was found to be poor. Both scores also varied widely within and across schools, and SAs must work with the SMTs to achieve greater consistency of reading instruction.

Low teacher expectations, based on a limited understanding of the literacy potential of 6-9 year old children, is a major inhibiting factor. Teachers seem satisfied to achieve low levels of text decoding, rather than treating decoding skills as the foundation from which to launch the main goal of developing increasingly sophisticated comprehension powers.

Recommendation 4

National norms should be set for reading proficiency, led by the DBE. Fluency and comprehension levels should be defined by grade level. District and provincial curriculum officials should coordinate their implementation at the district level, together with the involvement of teachers. National norms for reading in South African languages are not currently available, and should be developed during 2013. A suggested starting point is provided in Table 7[4], reproduced here:

Grade	Level of learner	Reading a story: number of words per minute	
		By the end of Term 2	By the end of Term 4
1	Top	N/A	100
	Middle	N/A	50
	Bottom	N/A	15
2	Top	125	140
	Middle	70	90
	Bottom	20	30
3	Top	145	160
	Middle	95	100
	Bottom	35	50

Since 2013 is the final year of CAPS training, training workshops in the use of these norms, and the others we discuss below, should commence in 2014, funded through the Skills Levy.

4 The norms shown here were derived for American children, and must be viewed with some caution until a full set of South African measures has been developed.

Recommendation 5

Members of the SMT should monitor learner reading systematically against the norms established above. Learners throughout the school should be assessed annually, and the progress of weaker readers tracked at least quarterly. SMT members should do this by getting learners to read a story from an unfamiliar book, and to count how many words are read per minute. Comprehension should also be tested, and this aspect must constitute a component of every written test.

Recommendation 6

The LNI of the WCED and GPLMS of the GDE should be the subject of rigorous evaluations to assess their impact. Such studies should combine quantitative techniques capable of measuring the extent of impact of the programme on student learning, with a qualitative component which seeks to understand which aspects of the intervention are most effective in improving the teaching of reading and writing. In view of the fact that the findings of such a study are in the national interest, it is recommended that the evaluation be commissioned and directed by the DBE, or the Minister's office.

7.2.4 Writing

Writing is central in shaping the way we think, reason, and learn. While writing helps us remember and understand ideas, some tasks, like writing summaries, descriptions of events, expressive pieces or analytical essays, require a deeper level of processing than answering multiple choice, cloze or short answer questions. Research studies have found that the degree to which information is reformulated or manipulated through writing has an impact on how well the information is integrated, learned, and retained. This finding indicates that extended writing (of paragraph length or longer) is more effective than shorter forms of writing (words or sentences) in developing the higher cognitive functions of inference, interpretation and analysis. Learner writing is one of the most neglected areas in South African primary schools.

Recommendation 7

National norms for writing in the LOLT have been suggested in the CAPS. These should be adapted by the DBE and provinces for the LOLT and the FAL during 2013, in terms of the quantity and quality of independent writing to be undertaken in learners' exercise books. This is another process that should involve subject advisors and HODs. An example of such a set of norms for writing in the LOLT is shown in Table 8.

Table 8: Suggested norms for writing in LOLT, Grades 1-3

Grade	By the end of Term 2		By the end of Term 4	
	CAPS Requirements	Suggested number	CAPS Requirements	Suggested number
GRADE 1	Writing sentences	At least 5 exercises of sentence writing by the end of the semester	Paragraph - three sentences	At least one exercise per week throughout the second semester
GRADE 2	Paragraph – 4 to 6 sentences	At least one exercise per week in the first semester	Story – 1 to 2 paragraphs (10 sentences)	At least one exercise per week for the last semester
GRADE 3	Story – 2 paragraphs (10 sentences)	At least one exercise per week	Story – 2 paragraphs (12 or more sentences)	At least one exercise per week for the last semester

Source: Curriculum and Assessment Policy Statement, English Home Language, Foundation Phase, Grades R-3

In the same way, norms should be set for writing in mathematics. An example is given in Table 9, which summarises the CAPS requirements for the various topics and their number ranges to be explored in mathematics writing in classes in the FP.

Table 9: Suggested norms for mathematics writing by topic, Grades 1-3

Topic	End of term	Grade 1	Grade 2	Grade 3
Addition and subtraction	2	Add to 10 Subtract from 10	Answers up to 50	Answers up to 400
	4	Add to 20 Subtract from 20	Answers up to 99	Answers up to 999
Multiplication	2	Up to 10	1 to 10, by 2 and 5	1 to 10 by 2, 3, 4, 5, 10 to 50
	4	Up to 20	1 to 10, by 2, 5, 3, 4	1 to 10 by 2, 3, 4, 5, 10 to 100
Division	2	N/A	Up to 30, may include remainders	Divide nos up to 50 by 2, 3, 4, 5, 10
	4	N/A	Up to 50, may include remainders	Divide nos up to 99 by 2, 3, 4, 5, 10
Problem solving	2	Answers up to 10	Answers up to 50	Answers up to 400
	4	Answers up to 20	Answers up to 99	Answers up to 999
Fractions	2	N/A	Halves, quarters, thirds and fifths	Sixths and eighths
	4	N/A		

Source: Curriculum and Assessment Policy Statement, Mathematics, Foundation Phase, Grades R-3

Recommendation 8

School leaders should monitor learner writing throughout the school, according to norms such as those shown above. This is best done by examining learner books quarterly. In particular, a systematic programme of extended writing should be developed for each grade. It is not enough merely to look at learner books and stamp and sign them: the *quality* of writing in both language and mathematics must be systematically assessed.

In language and the content subjects (life skills, EMS, etc.) learners should write on four days a week at least. Teachers should set exercises that require learners to write sentences, paragraphs and extended paragraphs. They should be asked to describe events, express their feelings, and

analyse current events. These are the exercises that develop higher cognitive capacity, and they should be set at least once a week.

In mathematics, learners should also write at least four times a week. At least once a week they should undertake 'word problems'.

7.2.5 Books

Developing a systematic understanding of any subject is not possible without being able to read a range of materials. Learning to read is a continuous process that occurs throughout one's life. As the learner's reading fluency and comprehension powers develop, so she needs to read books which provide her with an expanding vocabulary, an increasingly complex array of grammatical structures, and a wider range of genres (stories, biography, non-fiction, poetry). Graded sets of readers are designed to provide these essential reading resources in a structured manner. It is important that schools acquire a number of such sets of readers and carefully manage them to serve succeeding generations of learners. The DBE workbooks are a very important supplement to school resources but, on their own, are insufficient to sustain reading and writing at the required levels.

Recommendation 9

The DBE workbook programme should be continued. The books should be assessed against the curriculum and amended where necessary. Teacher guides should be developed. Learners should work systematically through the DBE workbooks during the course of the year, and assisting teachers to do so is another instructional leadership task for the SMT.

Recommendation 10

Increased allocations from the provincial budget must be found to better equip schools with increased quantities of reading material in the FP. Subject advisors should research this field and identify suitable sets of graded readers in the various LOLTs and FALs offered in the district. The DBE and provinces could issue lists of preferred readers.

Principals should ensure that readers are procured in greater quantities and effectively deployed in FP language classes. Children should be reading at least one book a week throughout the FP, which means that classes should have at least 30-40 different readers available, as part of one or more graded sets. All schools should work towards this ideal. An effective book retrieval system must be established in each school to manage these resources cost-effectively.

Procurement of a textbook and/or workbook for mathematics for each grade in the FP is also strongly recommended. Many teachers provide sets of worksheets in the absence of text/workbooks. This is not recommended, as worksheets developed by teachers are generally not as systematically designed as books, and often contain large gaps and inconsistent progression in the development of concepts and skills.

7.2.6 Assessment

The ANA tests are having a positive effect on planning and monitoring instruction, both within schools and as a systemic tool. The DBE guidelines (DBE, 2011c) on how to do this are useful, but most

schools seem unaware of their existence, and most who know about them seem not to understand how to use them.

Recommendation 11A

Regarding the use of the ANA tests to assist teachers, the province and district should use the 2012 ANA scores to help schools undertake useful item analyses of assessment exercises. SMT members should be directed to moderate test and examination papers to ensure they are at the right standard specified by the curriculum. All test results (ANA, common tests set by the province or district, and SBA) should be used at the school level to identify teachers and learners who are having problems with particular topics, and to identify topics that are commonly found to be difficult. It is important to look at the results for each question in the test (item analysis), in order to understand how effectively teachers and learners are progressing on the topic in question.

Recommendation 11B

Regarding the use of ANA for systemic assessment purposes, it is important that the exercise enjoys the highest levels of confidence among teachers, academics and the general public. According to Bruns et al (2011) a key to the success of the Brazilian national testing programme has been the high level of credibility enjoyed by the results among stakeholders. Therefore, before attempting to make claims about changes in test scores over time, the system needs to achieve tighter standardisation of administration and data collation, and give careful attention to the psychometric comparability of succeeding tests. It is recommended that an external agency be commissioned to undertake these tasks, with the participation of DBE officials.

7.2.7 Professional development

Poor subject knowledge on the part of teachers continues to be a critical problem. At the same time, decades of training by provincial education departments, universities and NGOs have produced disappointing results. Regarding the quality of PRESET, little is known, a gap which is best remedied through a discussion among university providers and the Department of Higher Education and Training. Promising new models of INSET, based on intensive residentially based subject content training, accompanied by in-school support, require further investigation. This task should be budgeted for and coordinated by the DBE.

In the meantime, the most important task of school leaders is to facilitate professional development within the school. District level officials cannot begin to provide sufficient support to teachers, given the large number of schools they administer and the logistical obstacles they face in getting to schools. Rather, they should focus on assisting school-level personnel – heads of department, deputy principals and principals – to undertake the support of their own teachers.

Any school can improve the average level of its own capacity by sharing the knowledge held by the best teachers. For example, during the investigation of Grade 2 reading across the country, evaluators found that one of the teachers in each pair observed exhibited more appropriate pacing and level of cognitive engagement in her class than the other. Such a situation is ideal for internal staff development, where the two teachers, together with others at the same grade level, learn from each other through lesson observation, team teaching and mentoring.

Recommendation 12

The DBE should commission a study to investigate models for effective teacher capacitation, including INSET. In particular, the LNI and GPLMS should be subjected to rigorous evaluations to assess their impact.

At school level, SMTs should structure and lead systematic learning opportunities for teachers. In the Foundation Phase these should be focused on the development of reading and writing norms, discussion of difficult topic areas, and the exploration of different pedagogical techniques for particular topics, especially the teaching of reading and number concept.

The task of provincial and district officials is to develop the capacity among school leaders to maintain an effective system of in-school professional development. Programmes to develop reading, literacy and English proficiency are urgently needed.

7.3 Professionalising the civil service

There are two practices that pre-empt appointment and promotion of personnel on the basis of competence and expertise. The first is *seniority*, the second, *patronage*. Seniority is a practice commonly found in all bureaucracies. It defines level of competence in terms of years of service. While this might be valid in some situations, we know it is not a reliable method for ascertaining educator competence in South Africa.

There is general acceptance that significant parts of the South African state and civil service are affected by patronage as a mechanism for the appointment and promotion of staff. In general, lines of patronage run along established networks and a host of informal associations: families, churches, political parties, trade unions, old school tie, sport, criminal associations, the list is endless. Bribery and other forms of corruption often serve to grease the networks.

It is not surprising that seniority and patronage play such a significant part in employment and promotion in all spheres of society and in the public sector in particular. In the absence of other selection criteria, seniority is an easy way out and patronage a constant temptation. What then might an alternative system look like? And with respect to the current report, what criteria should be used to select teachers and officials and to promote them, so that the skills needed to run this large and complex system are more appropriately developed and deployed?

The National Planning Commission has characterized present conditions in the South African civil service as symptomatic of those prevalent in societies in decline (NPC, 2011). More optimistically, these conditions are also typical of those preceding periods of renewal, as happened in England in the nineteenth century. Following the Crimean War – a military and administrative debacle for England – the Northcote-Trevelyan committee was established to investigate ways of making the civil service more efficient. In their report of 1854 Northcote and Trevelyan diagnosed the problem as arising from the tendency for the well-born to use their influence to place those sons who were not suited to competition in the ‘open professions’ in the civil service. Under this system of patronage, the service came to be dominated by the ‘*the unambitious, and the indolent or incapable’*, and both internal efficiency and public estimation suffered. Northcote and Trevelyan proposed the use of a different principal for employment and promotion:

> *The general principle, then, which we advocate is, that the public service should be carried on by the admission into its lower ranks of a carefully selected body of young men, who should be employed from the first upon work suited to their capacities and their education, and should be made constantly to feel that their promotion and future prospects depend entirely on the industry and ability with which they discharge their duties, ….that with superior powers they may rationally hope to attain to the highest prizes in the Service, while if they prove decidedly incompetent, or incurably indolent, they must expect to be removed from it.*
>
> Northcote and Trevelyan, 1854

The mechanism for effecting this principal was the civil service exam, a system used in China, on and off, for over 2 000 years (Franke, 1960). Apart from the obvious gender bias revealed in the above quote and the discrimination against the disabled in the following one, the English reforms had a socially egalitarian ideal; the exam was to be:

> *open to … all persons, of a given age, subject only, as before suggested, to the necessity of their giving satisfactory references to persons able to speak to their moral conduct and character, and of producing medical certificates to the effect that they have no bodily infirmity likely to incapacitate them for the public service. … It is only by throwing the examinations entirely open that we can hope to attract the proper class of candidates*
>
> Northcote and Trevelyan, 1854

If South Africa were to adopt such a mechanism to control entry into and promotion within the school sector, the criteria for structuring assessment will be found in the subject, pedagogical and curriculum knowledge described in Section 3 above. The task of translating such knowledge and competence requirements into a set of assessment tools is a technical task beyond the scope of the present report, although we will return to this issue in broad outline in the recommendations below. But first, let us complete the motivation for such a mechanism.

Historical precedent tells us that an assessment of expertise as a precondition for entry into defined jobs in the civil service is a mechanism to combat seniority and patronage and promote efficiency. Its introduction is inevitably met with resistance from within for the obvious reason that the many incumbents who have been beneficiaries of patronage will be threatened by such a change. For this reason, many attempts to reform the public sector are met with failure. Success depends on strong political will exercised over a sufficient period of time to entrench the new ways of doing things. The Northcote-Trevelyan proposals that took the best part of three decades to become embedded in much of the English civil service is such an example. This is inevitably an evolutionary process, which should not affect the current status of incumbents, except insofar as they seek further promotion.

However, once such a mechanism is applied it will cause prospective new teachers, existing teachers working for promotion, and the providers of teacher education programmes to focus their attention on the knowledge and skills required to effectively undertake teaching and the many leadership and administrative roles necessary to maintaining schooling. It will begin to infuse the system with an expert-focused ethic. Knowledge, competence and expertise, not connections, will ensure progress and prestige. We have presented evidence that the current system of education skills production is itself very diverse, with large parts of it inefficient and widely distrusted. A new system of selection and promotion is likely to stimulate the production and consumption of a new set of educational

programmes, directed towards the requirements of school subjects, including efficient institutional leadership. Offering such programmes for delivery via the internet, for example, will attract and promote the smartest and most highly motivated people.

We turn now to a consideration of what this might mean in practice. We suggest that implementation of a programme of screening prospective employees for their expertise begins with four key positions: Phase- or Subject Heads at school level (generally known as Heads of Dept or HODs) and Principals, and district-level Subject Advisors (SAs) and Circuit Managers (CMs).

School HODs and Subject Advisors

Given the intellectual demands of the curriculum, and the need to assist schools to establish and maintain effective instructional leadership practices, we recommend that the principle of competency tests be applied throughout the system, beginning with school level heads of department (HODs). We have argued that HODs are in a far better position than district officials to provide substantive ongoing support to teachers who are struggling with the knowledge and pedagogic demands of the curriculum. HODs are the only teachers that are in a position to offer sustained assistance frequently, and at the depth required, to effect substantive changes in classroom practice.

Since HODs occupy such a key position in the school, it is important to select them according to the expertise required to do the job effectively. First among these is subject knowledge, a prerequisite but not sufficient condition for understanding classroom practice. This is a quality evidently lacking in many South African teachers, as we have shown. A language teacher who is unable to respond to interpretive comprehension questions herself, or a mathematics teacher who has a weak grasp of the concept of ratio, cannot be promoted to HOD, since the HOD must be in a position to assist teachers to understand these functions, and to convey them in the classroom.

A second essential attribute of an HOD is that she must have been a successful teacher, as shown by better than average learner outcomes of classes she has taught. Another skill required by HODs is a practical knowledge of the curriculum. For example, are they able to extract the kind of rubrics shown in Table 8 and Table 9 from CAPS? An elementary knowledge of psychometric principles and procedures would be a recommendation.

Subject Advisors should be appointed from the ranks of highly successful HODs, DPs and Principals. They should be able to demonstrate very superior subject and pedagogical knowledge.

Recommendation 13

The DBE, in conjunction with experts from the tertiary sector, should establish during 2013 the competencies required to exercise the functions of HOD and SA. These will include sound subject knowledge and proven teaching expertise at the entry level, movint to and understanding the principles of assessment and the ability to apply basic psychometric techniques in the analysis of assessment data. This is a task already in progress under the auspices of the Human Resources Commission, and the DBE should engage with the HRC to ensure that a comprehensive system of most use to schooling is designed. In future, all new HODs must be appointed using these guidelines, and a rigorous assessment of the competencies required for the position should be instituted. This will establish the baseline competency for higher promotion posts, to principal then CM or SA at district level.

Circuit managers and principals

Principals make an enormous difference to school performance. They establish authority in both the behavioural and curricular domains, set up systems for instructional leadership, and assure the quality of all school functions. They too need to be selected with an eye firmly on the knowledge and competencies required for this key position.

Recommendation 14

The DBE, in conjunction with experts from the tertiary sector, should revisit the norms it uses to appoint principals. Once the norms have been revised according to the requirements of the job, including a good understanding and track record in effective instructional leadership practices, all future appointments should be made according to these criteria. The requirements must include having been a successful HOD or deputy principal. In addition, prospective principals must be competent in HR management, including conflict resolution and the principles of industrial relations, understanding relevant legal frameworks and departmental regulations being proficient in the capture and use of data using SA-SAMS, understand the financial requirements of the PFMA, and be held in high esteem by their peers. The same applies to circuit managers, whose first requirement must be that they were excellent principals.

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