What learners are not learning, why, and what to do about it: An analysis of Grade 3 and 6 Literacy and Numeracy results in 8 Primary Schools across 4 Provinces in South Africa

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Contents

Introduction

For a number of years there has been concern about the failure of the majority of learners in South African Schools to fulfil the expectations of the Outcomes Based Education (OBE) curriculum (Jansen, 1998; Chisholm, 2003 and 2005; Taylor, Muller & Vinjevold 2003). In response to these concerns, Curriculum 2005 was reviewed (Chisholm, Volmink, Ndhlovu, Potenza, Mahomed, Muller, Lubisi, Vinjevold, Ngozi, Malan, and Mphahlele, 2000) and revised to produce what were intended to be the simpler, less complex Revised National Curriculum Statements (Department of Education 2002 a – m)[1].

By 2008, the revised curriculum had not had the anticipated impact on teacher performance or learner results. The National Department of Education's Systemic Assessments of Literacy and Numeracy (Department of Education 2003 and 2005a) revealed that the majority of Grade 3 and 6 learners in the country were performing at between 30% and 35% of the new curriculum expectations. Since then, these initially disappointing results have been confirmed by Provincial Systemic Assessments every year (Taylor, 2008).

In addition, at least three international studies confirmed that these Grade 3 and 6 trends apply more generally in South African Primary and Secondary schools. One of these studies, The Progress in International Reading Literacy Study (PIRLS), found that reading and mathematics competencies at primary levels in South Africa are far below international standards (Howie, Venter, van Staden, Zimmerman, Long, Scherman, and Archer 2007). Another, the Southern Africa Consortium for Monitoring Educational Quality (SACMEQ), found that at Grade 6 levels, less than 10% of South African learners are capable of interpretive, inferential, analytical and critical reading; or competent at beginning numeracy, competent numeracy, mathematical skills, concrete problem solving, and abstract problem solving (Moloi and Strauss 2005; and SACMEQ, 2009). Lastly, the Trends in International Mathematics and Science Study (TIMMS), found that Mathematics and Science competencies in South African secondary schools were amongst the lowest of 45 participating countries (Reeves, 2005; and Taylor 2008).

Numerous South African scholars have also contributed towards deepening understandings of the multi-dimensional nature of the poor curriculum implementation and learner performance challenges in South Africa. Just a few examples include Christie, Butler & Potterton (2007) who reported to the Minister of Education on factors that appear to contribute towards the success of schools that 'are working' in South Africa; Christie (2008) who wrote on how to improve dysfunctional and underperforming schools; Fataar (2007 a & b) who described how education policies are interpreted through specific local community realities, and implemented in contextually unique ways; Fleisch (2008) who explained why primary school learners underachieve in reading and mathematics; Schollar (2008) and Schreuder (2008) who analyzed what is wrong with the teaching of Numeracy, and what to do about it; and Taylor (2008) who provided a comprehensive overview of the many reasons why schools are not working, with proposals for how to address them.

Perhaps one of the most significant recent developments, at a symbolic level anyway, was the acknowledgement of the crisis in education by a broad range of

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[1] Hindle (2008) provides a concise overview of the revision of the curriculum and the reasons for it from the Department of Education's perspective.

significant stakeholders who contributed towards the development of 10-point plan to address the crisis (Education Roadmap: Focus on the Schooling System, Development Bank of South Africa, 2008). Included in the list of contributors are: SADTU, ANC NEC sub-committee on Health and Education, Minister of Education, National DoE, Provincial Departments, DBSA, School of Education (Wits), CEPD, EPU, National Treasury, academics, and training institutions.

In the same year, the Organization for Economic Co-operation and Development's review of Education Policies in South Africa, (OECD, 2008) reported that:
> "The South African education system has achieved a number of positive results in the last 14 years, but is still in a process of transition and suffering from a lack of resources … major infrastructural deficits, inadequate financing, lack of democratic procedures, imbalanced curricular policy, poor teacher education and very unsatisfactory provision of teaching materials. "

Significantly, most of the positive achievements referred to in the OECD report relate to policy formulation and revision achievements[2], while many of the challenges it identifies lie in the domain of implementation.

To the Education Department's credit, it has recently recognized and tried to respond to implementation crises with new campaigns and policy revisions. Examples include: The Foundations for Learning Campaign (2008b and c) in response to consistently poor results in Literacy and Numeracy; The Quality Teaching and Learning Campaign (2008f) – in response to the poor quality of teaching in schools; and The revision of the Progression and Promotions Requirements (2009), in response to policy guidelines that allowed too many learners to be promoted to successive grades before they were adequately competent.

While it is too early to measure how appropriate or effective these recent interventions might be, it is clear that the Education Department needs as much support as it can get to address this crisis.

Given this context, the Maskew Miller Longman Foundation, launched a School Development Project in 2008. The aim of the project is to assist schools to achieve their core purpose of delivering quality teaching and learning within the framework of the National Curriculum Statements (NCS). The intention is to develop an effective, sustainable model of 'best curriculum implementation practice' that can be replicated by the Education Department in other struggling schools. The modus operandi is to work towards achieving the aim in partnership with schools and the District Officials that are responsible for them.

In order to develop an understanding of the realities of the partner schools, a Baseline Study was conducted between July and November 2008 (Kariem, Langhan and Mpofu, 2009 a). The study involved eight primary schools in four provinces ranging from severely disadvantaged schools in rural areas (Quintiles 1 and 2[3]) to relatively advantaged schools in suburban areas (Quintile 4). The reason for this

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[2] Examples of some of the Education Department's positive achievements include the following reviews of its own achievements and challenges: The review of the teacher shortage challenge (2005); The National assessment of infrastructure in schools (2007a); The Strategic Plan (2007b); and The National Report on Education Development (2008a).

[3] For an explanation of how the Department of Education classifies schools into Quintiles and how it funds schools in each Quintile, see Madabula, 2008.

was to understand learner performance across a range of schools that is reasonably representative of the majority of schools in South Africa[4]. The participating schools and some of their characteristics are listed in Table 1.1 below.

Table 1.1
The School Development Project Primary Schools

Province	School	Type	Medium of instruction	Quintile	Grades
Western Cape	Primary	Suburban	Eng	4	R - 7
	Primary	Urban Township	Eng & Afr	4*	R - 7
Eastern Cape	Junior Senior Secondary	Rural	Xhosa& Eng	1	R - 9
	Junior Senior Secondary	Rural	Eng	3	1 - 9
KwaZulu-Natal	Primary	Suburban	Eng	4*	R - 6
	Primary	Rural	Zulu & Eng	2	R - 9
Mpumalanga	Junior Secondary	Rural	Sepedi & Eng	2	R - 7
	Junior Secondary	Rural	Sepedi & Eng	2	R - 7

* Quintile 4 Schools whose learner profiles have changed dramatically over the last 5 years and who believe they should be reclassified to Quintile 2 or 3 schools as a result[5].

The focus of this paper

This paper presents an analysis of Grade 3 and 6 Literacy and Numeracy results from the Baseline Study[6](Kariem, Langhan and Mpofu, 2009 a and b).

The findings of this study confirm the poor Literacy and Numeracy trends that have been widely reported in South African primary schools. They also shed light on what teachers have not been developing in their learners, and provide insights into systemic factors[7] within the Education Department that appear to be responsible for this lack of development.

In particular, the findings suggest that an over-emphasis on administrative compliance with NCS requirements by National, Provincial and District Officials has misdirected most of the Education Department's resources and efforts. Rather than focussing on developing the capacity of Provincial and District official's to provide practical curriculum leadership, management and implementation guidance, support and mentorship to schools; this approach appears to have resulted in intimidating and critical 'inspections' that focus on the more superficial and administrative aspects of compliance. This appears to have resulted in, among other things:

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[4] Details of the selection criteria for project schools and how they were selected in collaboration with Provincial Education Departments are provided in the Foundation's Baseline Study Report (Kariem, Langhan, and Mpofu, 2009a).

[5] For insights into some of the challenges associated with, and implications of, the current Quintile classification system, see Govender, 2008 and Hall and Giese, 2009.

[6] Other dimensions of the Baseline Study findings will be addressed in papers planned to address topics such as: Factors impacting on teaching and learning; Curriculum leadership and management in schools; District support for curriculum implementation in schools; and How teachers use officially approved RNCS teacher and learner support materials in classrooms.

[7] Other factors such as socio-economic and local community factors will be addressed in subsequent papers arising from this Baseline Study.

- Provincial and District Officials who do not appear to understand their roles to include practical, hands-on support, development and mentorship.

- Adversarial relationships between Districts and Schools characterized by anxiety, fear, mistrust, and either paralysis or resistance in schools.

- School Management Teams, Heads of Departments and Learning Area Heads in schools that do not understand their roles and responsibilities properly, and are not functioning efficiently to coordinate curriculum planning and implementation in their own schools.

- Schools directing most of their energies towards bureaucratic administrative compliance activities.

- A severe dislocation between what is reflected in 'compliant' Educator Portfolios and actual teaching practices in classrooms.

Ironically, this also appears to have contributed towards skewed internal reporting which may explain why Provincial Education Departments have appeared to believe that all is well with the implementation of the NCS.

Depressing as they may be, these findings do help to provide a framework for the development of interventions that National and provincial Departments will need to support District Officials and schools to implement in order to turn the current curriculum implementation crisis around.

To unpack some of the more critical curriculum implementation problems uncovered in this study, and to propose how to go about remedying some of the problems, this paper is presented in four parts.

Part 1
- Explains the purpose and design of the Grade 3 and 6 Literacy and Numeracy assessments that formed the learner assessment component of the Baseline Study.

- Describes the selection of the assessment activities and the reasons for their selection.

- Outlines challenges and potential limitations associated with their selection.

- Briefly explains how the assessment were presented to the educators, marked and moderated.

Part 2 provides a detailed analysis of the learner results.

Part 3 summarizes the main trends emerging from the learner results, identifies gaps between learner competencies and curriculum expectations; and identifies what appear to be the systemic and teaching and learning factors responsible for them.

Part 4 summarizes the programme of interventions that the School Development Project and its partner schools have developed in response to the trends identified

in Part 3, and provides a brief update on its impact after 8 months of implementation.

Part 1
The Literacy and Numeracy assessments

The purpose of the assessment activities
The learner assessments were designed to:

- Measure learner performance against the expectations of the Revised National Curriculum Statements for Literacy and Numeracy (Department of Education 2002 a - e).

- Identify specific Grade 3 and 6 Literacy and Numeracy expectations that learners were, and were not able to fulfil by the end of a full school year.

- Determine how learners are being prepared to cope with English as the medium of instruction from Grade 4 onwards.

The results of the assessments were supplemented by insights gained into the day-to-day realities and practices in schools gained over a six month period through extensive classroom observations; reviews of Educator and Learner Portfolios and exercise books; needs analysis workshops; and formal and informal interviews and discussions with educators, school leaders and District officials (Kariem, Langhan and Mpofu 2009 a and b).

Selection of the assessment activities
The activities were selected to reflect the requirements of the RNCS for the Literacy and Numeracy Learning Area and Assessment Guidelines (Department of Education, 2002 f - h) as follows[8]. They were selected in order to:

- Address all of the Learning Outcomes for Literacy and Numeracy in Grades 3 and 6[9].

- Incorporate a cross-curricular approach.

- Assess knowledge, skills, values, attitudes and beliefs.

- Embody required assessment practices.

- Be consistent in their style, approach and levels of difficulty across the Grades and the language groups.

To achieve all of the above, the activities were selected from learner resource materials that the Department of Education had officially approved for RNCS implementation. The assumption here was that such materials would ensure that the learners would be assessed through the sorts of activities they had already engaged with, or are expected to have engaged with during the course of a normal

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[8] To see how this was achieved, see the lists of activities later in this section. Copies of the assessment workbooks are also available on request from the Maskew Miller Longman Foundation.
[9] These are listed in Appendix 1.

school year[10]. The assessments were administered during the last quarter of 2008, just before the schools began their own end of year assessments to ensure that the learners had exposure to a full year of work by the time they did the assessments.

Challenges associated with selecting the activities

The Literacy Assessment activities
It was fairly complex to ensure consistency across the language groups for the Literacy assessments. This is because:

1) The Literacy curriculum guidelines and associated materials distinguish between Home Languages and First Additional Languages.

2) Even though English is the medium of instruction for African language speakers from Grade 4, most African language speakers learn to use their Home language in Grades 1 - 3, and English as a First Additional language from Grade 2 or 3 onwards.

3) Because the Grade 3 Afrikaans medium learners were to continue with Afrikaans as medium for Grade 4, their assessment activities were drawn from a selection of Afrikaans materials that they would typically be expected to use, but that were different in character from the English and African language materials. The essential difference was that they included a larger proportion of language specific activities than cross-curricular language activities.

4) Because the majority of the Grade 3 learners were users of English as an Additional language, about half of the English Literacy assessment activities were selected from published materials intended for English First Additional Language users. The same activities, that had been adapted and published for African language users, were used in the Sepedi, Xhosa and Zulu Literacy assessments.

5) Because all of the learners would have to study through the medium of English from Grade 4 onwards, approximately half of the Grade 3 assessment activities were selected from Grade 3 Life Orientation learning materials[11]. Similarly, for Grade 6, just over half of the activities were selected from learning materials for other Learning Areas[12]. This was to ensure a cross-curricular emphasis consistent with NCS requirements.

6) Listening and speaking and reading aloud activities were included in the English and Afrikaans assessments because these languages would be used as media of instruction from Grade 4 onwards.

The Numeracy Assessment activities
It was relatively easy to provide the learners from five different language groups with the same activities for Numeracy in Grade 3. This is because the series that the assessment activities were selected from already exists in ten of the eleven South African languages[13]. The only language it has not yet been translated into is

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[10] See Appendix 2 for a full list of the textbooks that the activities were drawn from.
[11] See Appendix 2.
[12] See Appendix 2.
[13] See Appendix 2.

Afrikaans. However, the activities were translated into Afrikaans so as to ensure consistency across all of the learner groups.

For Grade 6, the medium of instruction across all of the schools is English, with the exception of one Afrikaans school. As for Grade 3, the assessment activities were translated into Afrikaans for this school.

Potential weaknesses in the selected activities

Translations
It emerged that there were some inconsistencies in the translations of some of the terminology in a few of the selected African language activities. However, almost all of these appeared to relate to local/colloquial variations in language usage rather than to technical incorrectness.

Consistency
While care was taken to select activities that were consistent in their style, approach and levels of difficulty, it was easier to ensure the first two than the last of these requirements. It is possible that the difficulty levels may vary slightly across the selected activities for the language groups. However, since all of the activities were selected from officially approved RNCS materials, it was assumed that difficulty levels would fall within acceptable parameters for each Grade.

The assessment activities - Literacy Grades 3 and 6
Table 1.2 summarizes the selection of activities for the five languages in Grade 3 and Table 1.3 for Afrikaans and English in Grade 6. Both show how the six Language Learning Outcomes[14] are covered and provide some insights into the consistency of style, approach and difficulty levels across the languages, bearing in mind distinctions between Home and Additional languages[15].

Table 1.2
Grade 3 Literacy: Learning Outcomes covered and in assessment activities

	Afrikaans	English	Sepedi IsiXhosa/IsiZulu
Activity 1	LOs 3, 4, 5 - Identify and label body parts on diagram	LOs 3, 4, 6 - Jumbled shopping list. Rearrange jumbled phrases in a list to show understanding of meaning.	LOs 3, 6 - Rewrite a paragraph filling in the correct pronouns.
Activity 2	LO 6 - Complete sentences in past tense	LOs 3, 6 - Rewrite a paragraph filling in the correct pronouns.	LOs 3, 5 - Understand instructions, interpret a picture, distinguish between abilities and disabilities.
Activity 3	LO 6 - Look at pictures, interpret them and choose the correct prepositions.	LOs 3, 4, 5, 6 - Use the dictionary to complete a table.	LOs 3, 5 - Read and interpret a map, find information, do a mental calculation.
Activity 4	LO 6 - Read, view, select pairs of opposites.	LOs 3, 5 - Interpret a bus timetable and route map to solve problems.	LOs 3, 5 - Read a table, read and understand a number of options, select correct options to complete the table.
Activity 5	LOs 3, 4, 6 - Interpret a picture, understand and select nouns to complete sentences.	LOs 3, 4, 5 - Use visual clues to sequence jumbled sentences to give instructions in the correct order.	LOs 3, 4, 5 - Understand a key for a map, interpret a map, work out problems.
Activity 6	LOs 3, 4, 5 - Read questions, interpret a picture to find the	LOs 3, 4, 5 - Work out the sequence for jumbled sentences, rewrite sentences in the correct	LOs 3, 5 - Follow instructions, work out the sequence for making things.

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[14] See Appendix 1 for the list of Literacy Learning Outcomes.
[15] See Appendix 3 for the list of Assessment Workbooks used for these assessments.

	answers to the questions and give an opinion.	order.	
Activity 7	LOs 3, 4, 5 - Gather information from textual and visual clues, think and reason to complete word sums.	LOs 3, 4, 5 - Use visual clues to interpret sentences, select the right time from a set of options.	LOs 3, 4, 5 - Interpret a picture to write directions.
Activity 8	LOs 3, 4, 5 - Sequence jumbled pictures and sentences to tell a story.	LOs 3, 5 - Read story sums and solve word sum problems.	LOs 3, 4, 5 - Compare information, make choices, give reasons for the choices, do calculations.
Activity 9	LOs 1, 2, 5 - Listen to and retell a story in own words - A man and a lion that help each other.	LOs 1, 2, 5 - Listen to a story and answer questions about the story verbally to show understanding and independent thinking.	LOs 3, 5 - Read and interpret a bus timetable, do calculations.
Activity 10	LO 3 - Read the story out loud.	LO 3 - Read the story aloud.	

Table 1.3
Grade 6 Literacy: Learning Outcomes covered in assessment activities

	Afrikaans	English
Activity 1	LOs 6 - Select 'shall' or 'will' to complete sentences.	LOs 3, 4, 5, 6 - a. Read a non-fiction passage for information. b. Correct punctuation and spelling. c. Comprehension questions, express an opinion, compare.
Activity 2	LO 6 - Join words, give plural and diminutive forms of words.	LO 3 - Use visual and verbal cues and clues to work out meanings of words
Activity 3	LO 6 - Punctuate a brief report.	LOs 3, 5 - Use an extract from a telephone directory to find information.
Activity 4	LOs 3, 4, 6 - Interpret a picture story, join sentences, anticipate what characters in the picture story might say.	LOs 3, 5 - Read a dialogue, answer questions to show understanding, match sentences with reasons
Activity 5	LOs 3, 4, 5 - Read time in jumbled pictures, arrange in correct order, write in sequence.	LOs 3, 4, 5 - Read an advertisement, answer questions to show understanding, compare things.
Activity 6	LOs 3, 4, 5 - Read a diary, answer questions and express opinions.	LOs 3, 4, 5 - Read and show understanding by listing advantages and disadvantages.
Activity 7	LOs 3, 4, 5 - Read, view, select information to complete a diagram showing values.	LOs 3, 5 - Interpret an organogram.
Activity 8	LOs 3, 4, 5 - Read, compare different opinions, think, reason, and write arguments for and against a situation.	LOs 3, 4, 5 - Re-express information in a flow diagram, summarize.
Activity 9	LOs 1, 2, 5 - Listen to a story about good deed, tell story in own words, identify emotions in the story.	LOs 1, 2 - Listen to a description of how fossils are formed, tell in own words how fossils are formed to show comprehension.
Activity 10	LO 3 - Read the story out loud.	LO 3 - Read the text out loud.

Numeracy Grades 3 and 6

Tables 1.4 and 1.5 below show how the five Numeracy Learning Outcomes[16] are covered and what is assessed in Grades 3 and 6.

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[16] See Appendix 1 for the Numeracy Outcomes.

Table 1.4
Grade 3 Numeracy: Learning Outcomes covered in assessment activities

	Afrikaans/ English/ Sepedi/ IsiXhosa/IsiZulu
Activity 1	LO 1 - Ordering numbers from smallest to biggest
Activity 2	LO 1- Ordering numbers from smallest to biggest
Activity 3	LO 2 - Counting to 1000 in 100, 50,99
Activity 4	LO 3 - Complete the pattern, squares, circles and triangles
Activity 5	LO 2 - Join the dot and show how many dots and lines
Activity 6	LO 1 - Place Values
Activity 7	LO 1 - Expanded Notation
Activity 8	LO 1 - Fractions
Activity 9	LO 1 - Fractions
Activity 10	LO 4 - Time
Activity 11	LO 1 - Round off to nearest 10
Activity 12	LO 1 - Round off and calculate
Activity 13	LO 1 - Basic operations of add, subtract, multiply + divide
Activity 14	LO 1 - Expanded Notation
Activity 15	LO 5 - Complete the table
Activity 16	LO 2 - Identify light and heavy animals

Table 1.5
Grade 6 Numeracy: Learning Outcomes covered and what is assessed

	Afrikaans/ English
Activity 1	LO 1 - Common Fractions
Activity 2	LO 1 - 8 + 9 digit numbers
Activity 3	LO 1 - Place Values
Activity 4	LO 1 - Place Values
Activity 5	LO 1 - Rounding off to 5, 10, 100 + 1000
Activity 6	LO 1 - Round off, estimate, calculate and difference
Activity 7	LO 5 - Area and population
Activity 8	LO 5 - Area and population
Activity 9	LO 2 - Solve + complete the number sentence
Activity 10	LO 2 - Solve + complete the number sentence
Activity 11	LO 2 - Translate the numbers into words
Activity 12	LO 3 - Identify the shapes
Activity 13	LO 4 - Measure the sides and angles
Activity 14	LO 4 - Problem solving with mass
Activity 15	LO 4 - Calculate the volume
Activity 16	LO 4 - Which volume is more
Activity 17	LO 4 - Identify the time
Activity 18	LO 4 - Translate from digital to analogue
Activity 19	LO 4 - Illustrate the analogue time
Activity 20	LO 5 - Tallying

Presenting the Learner Assessments to the educators
At each school, the Baseline Study was explained to the Grade 3 and 6 educators in detail. This included explaining the parameters of the study, its purpose, the process of gathering the data and the process for giving them feedback on the data.

Similarly, the rationale for the Learner Assessments, the purpose of doing them, and the criteria for selecting the assessment activities were explained in full. The teachers were then taken through each assessment activity and the associated marking memorandum before they administered the assessments in their own classrooms.

Educator reactions to the assessments
There were two main reactions to the assessments. In the more advantaged schools, the educators were pleased with the selection of activities and enthusiastic about the results they would reveal.

In almost all of the less advantaged schools, the educators were anxious that their learners would not be familiar with many of the selected activity types, and worried that they would not be able to do many of them. In several of these schools, the educators admitted that their learners had not been exposed to some of the activity types. A number of the Grade 6 teachers said that their learners had not used protractors or calculators (required for the Grade 6 Numeracy assessment) before because the learners could not afford them, and their schools did not have any of their own.

Marking and moderation
The educators from only one of the more advantaged primary schools accepted the invitation to mark the Grade 3 assessments. All other educators preferred not to mark them due to work pressure at the time. For this reason, freelancers who are qualified Primary School teachers marked the assessments using the marking memoranda, and the Foundation's Project Managers moderated the marking.

Part 2
Analysis of the learner results

The following analysis is a consolidation of data recorded for individual learners, per assessment activity, in each of the Grade 3 and 6 classes in the 8 participating schools (Kariem, Langhan and Mpofu, 2009 a and b).

Literacy

Grade 3 – Afrikaans Literacy

Figure 1.1 shows the Grade 3 Afrikaans Literacy scores per activity[17].

Figure 1.1

Grade 3 Afrikaans Literacy scores per activity
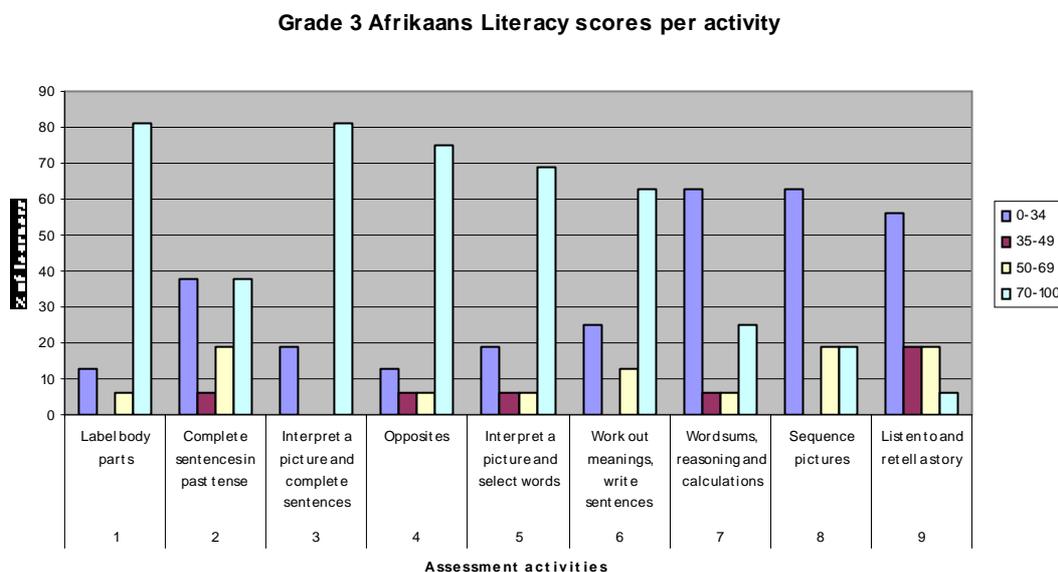
Observations about the Afrikaans medium learner scores:

- The learners coped particularly well with Activities 1 and 3 – 5, which are language use activities. Between 60% and 80% of the class scored between 70% and a 100% for these activities.

- They scored reasonably well for Activity 2, also a language use activity, and Activity 6, an interpretive activity. 60% – 70% class scored over 50% for these activities.

- They did not cope nearly as well with activities 7 – 9, which are cross curricular and problem solving activities:

- 63% of the class scored less than 34% for Activities 7 and 8; and
- 56% scored less than 34% for Activity 9.

- Activity 10, reading out loud, was not done with the class by the educator, so was not taken into account.

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[17] The NCS Assessment scoring codes 1 – 4 (Department of Education 2002 f – h) are used in the graphs showing scores.

- The class scored an average of 58%.

Grade 3 - English Literacy

Reading and writing
Figure 1.2 shows the Grade 3 English Literacy scores per activity across four English medium schools.

Figure 1.2

Grade 3 English Literacy scores per activity
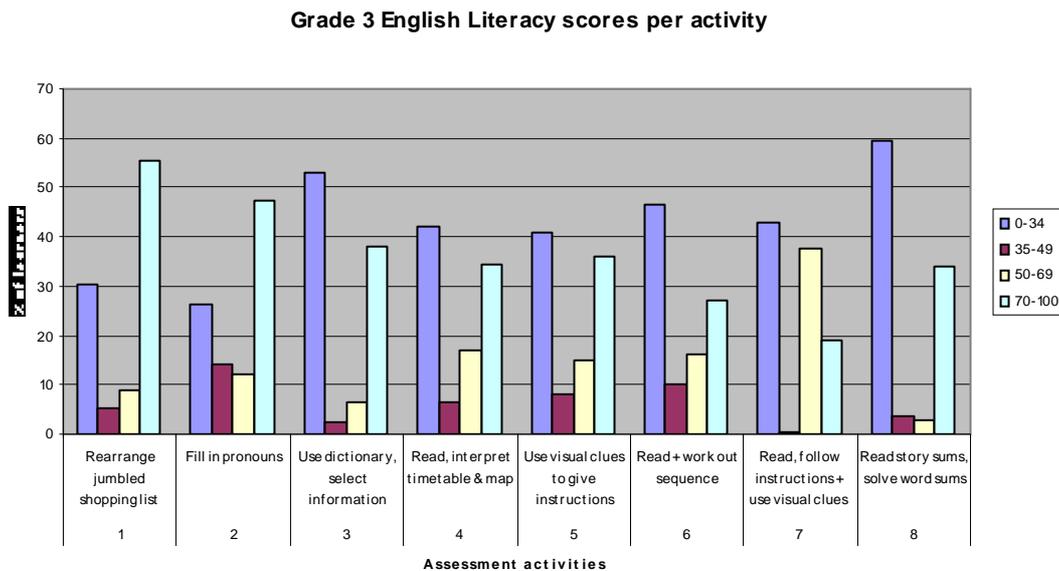
Appendix 4 includes Figures 1.2 a - d, which compare the results of the four English medium schools.

Observations about the Grade 3 English medium schools:

- In the two less advantaged schools, Figures 1.2 c and d, most of the learners struggled with all of the activities. These schools achieved Grade averages of 26% and 21% respectively.

- In one of the more advantaged schools, Figure 1.2a, about three quarters of the learners coped well with most of the activities, while around a quarter struggled with Activities 3 – 7 which are all at the higher end of the reading skills, thinking and problem-solving continuum. This school scored 77%.

- In the second more advantaged school, Figure 1.2b, about half of the learners coped well with most activities, while the other struggled with every activity. This school scored 53%.

Samples of equal numbers of learners from all of the schools[18] performed poorly in Listening and Speaking, and Reading Aloud activities as shown in Figures 1.2 e and f below.

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[18] For these two assessment activities, the educators were asked to select a sample of 12 learners for each Grade made up of 4 weak, 4 average and 4 good readers.

Figure 1.2e

Grade 3 Listening and Speaking scores

15%

23%

62%

0 - 4
5 - 7
8 - 10
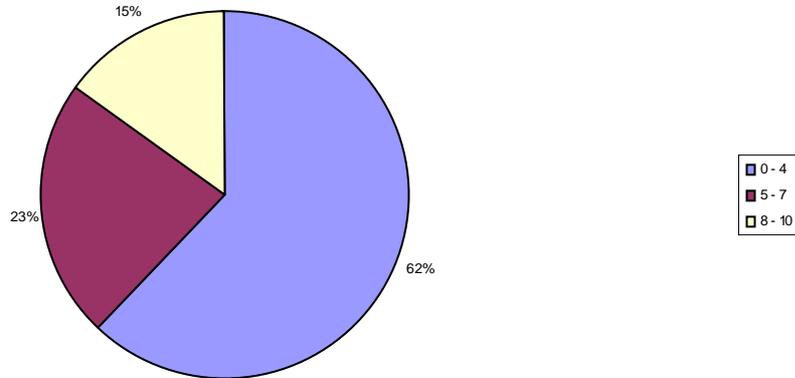
Figure 1.2f

Grade 3 reading aloud scores

30%

52%

18%

0 - 4
5 - 7
8 - 10
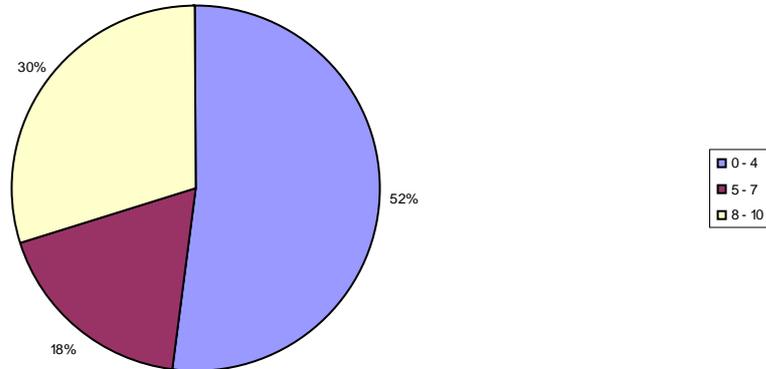
Significantly, the majority of the learners who scored between 8 - 10 out of 10 for the listening and speaking and reading aloud activities were from the two more advantaged schools, while the majority of learners scoring between 0 – 4 were from the disadvantaged schools.

Grade 3 – Sepedi, Xhosa and Zulu Literacy

Figure 1.3 shows the Grade 3 Sepedi, Xhosa and Zulu Literacy scores per activity.

Figure 1.3

Grade 3 Sepedi, Xhosa & Zulu Literacy scores per activity

	Fill in pronouns	Read, interpret, identify + distinguish	Interpret a map + table + calculate	Read table, select options	Understand symbols + words + solve problems	Read, write correct sequence	Interpret a picture to write directions	Interpret, compare, choose + calculate	Interpret a timatable, calculate
	1	2	3	4	5	6	7	8	9

Assessment activities

Legend: 0-34, 35-49, 50-69, 70-100

Appendix 4 includes Figures 1.3 a – d, which compare the scores of the African language medium schools.

Observations about the four African language medium schools:

- Figure 1.3a shows that the Sotho learners, who are taught Zulu as an additional language by Zulu teachers, scored the poorest results of the African language Literacy groups, and even poorer results in Zulu Literacy than they did in English Literacy (Figure 1.2b). They scored 26% for English Literacy and 18% for Zulu.

- The other 3 groups of African language medium learners (Figures 1.3 b – d) all performed significantly better in the African language Literacy assessment than the African language learners who are learning through the medium of English (Figures 1.2 a – d).

- The Sepedi learners taught by Sepedi teachers scored better than the other African language medium groups and the English medium groups. They scored a good average of 65%.

- The mixed Sepedi, Tsonga and Zulu class taught by Sepedi teachers scored significantly better than the Xhosa class taught by Xhosa teachers. The former scored 47%, and the latter 39%.

- The Sotho learners taught by Zulu teachers struggled with all but one activity.

- The other three classes struggled with four to five of the nine activities.

- All four schools struggled particularly with the thinking, reasoning, problem solving and cross-curricular activities.

Grade 3 Literacy learner engagement per activity

A high proportion of learners in the six disadvantaged schools made no attempt to engage with the assessment activities. In other words, they did not attempt to provide answers for them[19]. According to their teachers, there were two reasons for this. First, there are many learners who cannot read well enough to engage with written questions and instructions meaningfully on their own. Second, many of the learners had never encountered a number of the activity-types and did not know how to engage with them.[20] Figures 1.4 – 1.6 compare learner engagement per activity trends across the Afrikaans, English and African language medium schools.

Fig 1.4

Grade 3 Afrikaans Literacy learner engagement per activity

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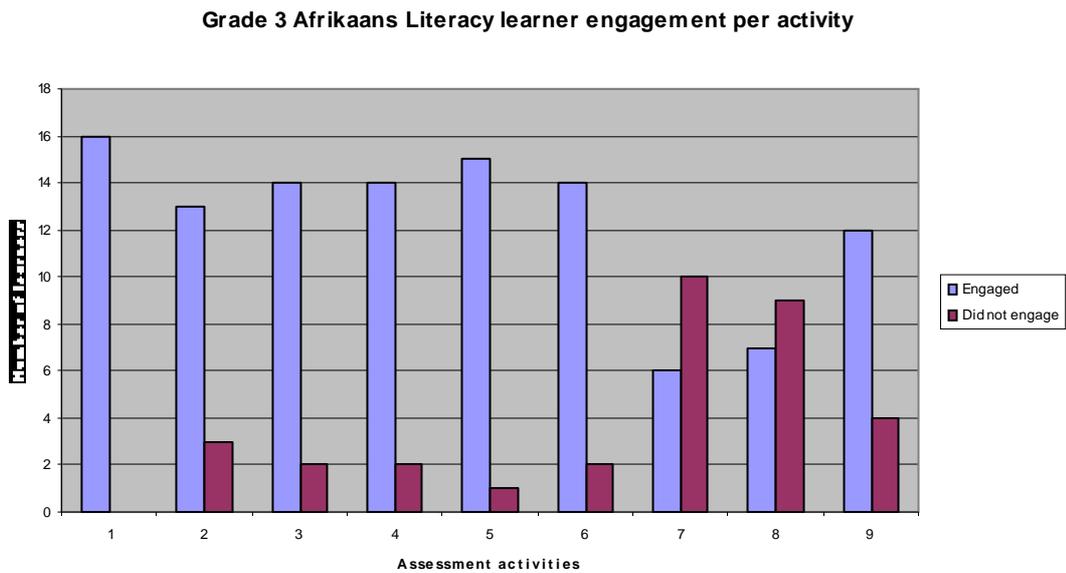
[19] For the purposes of this paper 'engagement' with an activity means the willingness to make an attempt at providing an answer. It does not refer to the how appropriate the attempt may or may not be, or to degrees of correctness.

[20] Several of the educators admitted to not having exposed their learners to a number of the activity types in the assessments. See the discussion of the educators' reactions to many of the assessment activities on page 9 of this paper.

Fig 1.5

Grade 3 English Literacy learner engagement per activity

Fig 1.6

Grade 3 Sepedi, Xhosa & Zulu learner engagement per activity
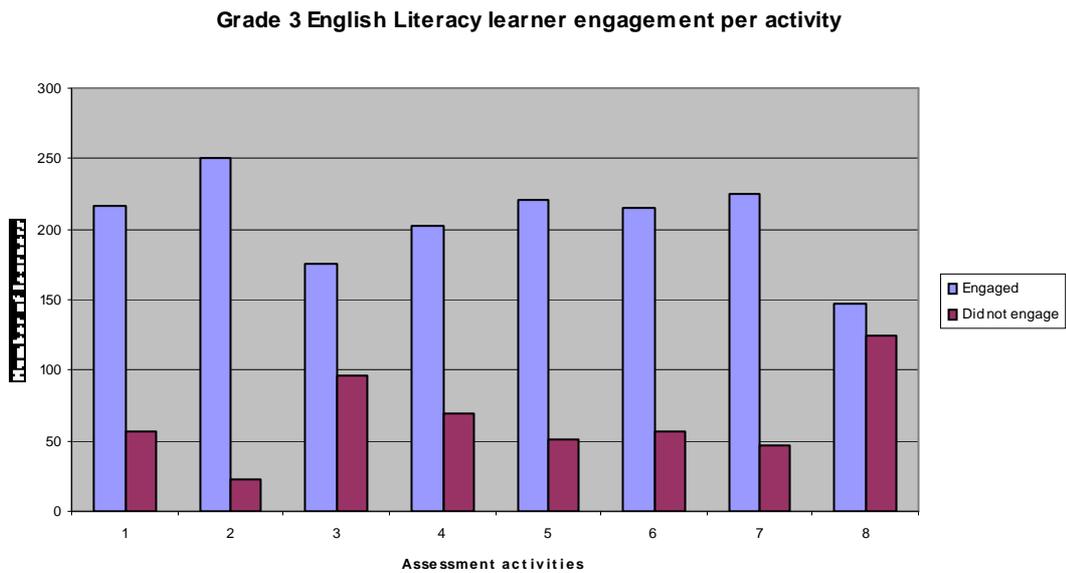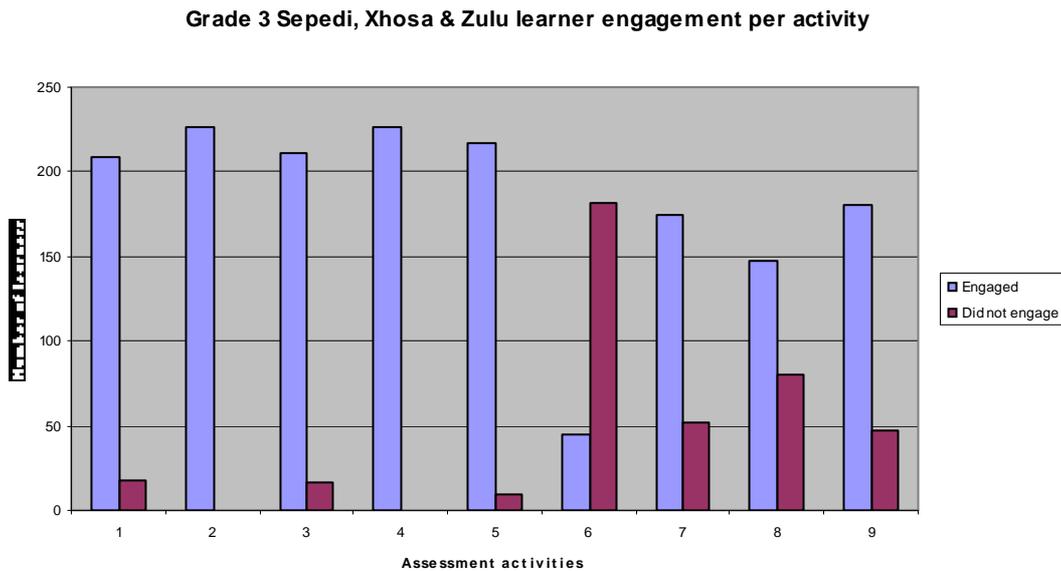
Observations:

- The highest levels of non-engagement for all language groups were for the thinking, reasoning, problem solving and cross-curricular type activities. This appears to confirm that many learners are not familiar with many of the activity types expected by the NCS.

- Of the activities that had the highest levels of non-engagement, there are higher levels of non-engagement in Afrikaans and in all of the African languages than in English. This confirms the more conservative, more strongly language oriented approach to Afrikaans and African language teaching than in English that was noted in the learner materials during the selection of the assessment activities.

- Conversely, there was non-engagement across a greater number of activities in English than in Afrikaans or the African languages. This suggests that activities in the learners' Home Language, or one of their main languages, enabled learners to engage with more activities, even if they were unfamiliar or too difficult, and even if they did not score well for them.


Literacy in Grade 6

Grade 6 - Afrikaans Literacy

Reading, writing, listening and speaking
Figure 1.7 shows the Grade 6 Afrikaans Literacy scores per activity.

Figure 1.7

Grade 6 Afrikaans Literacy scores per activity
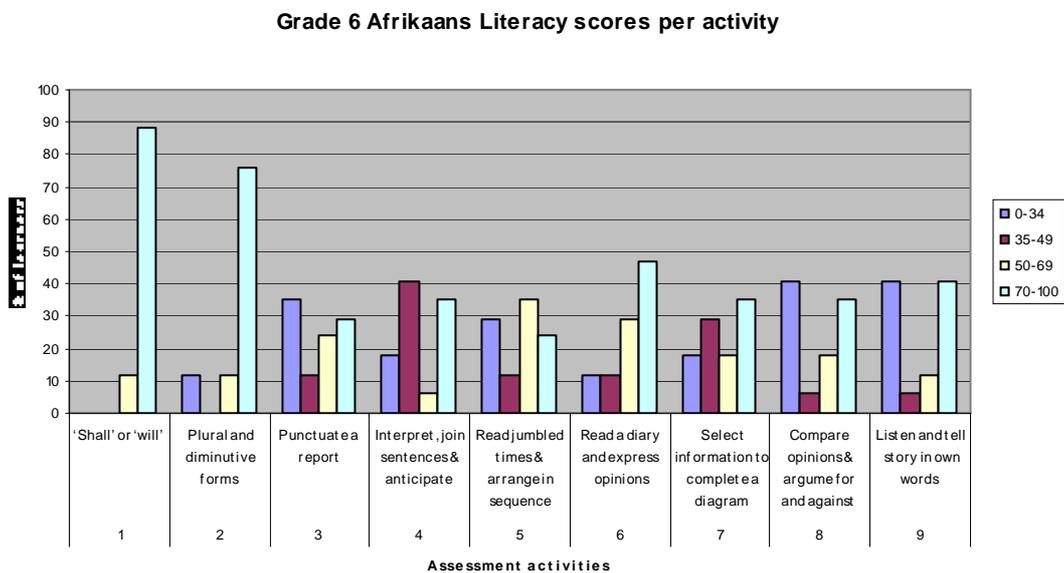
Observations:

- The class coped particularly well with Activities 1, 2 and 6, which are more typical language activities. Between 80% and 90% of the class scored between 50 and 100% for these activities.

- Roughly half of the class scored below 50% for the thinking, reasoning and problem solving-type activities: Activities 4, 5 and 7 – 9.

- Roughly half of the class scored above 50% for the Listening and Speaking activity, which was a marked improvement on the Grade 3 results.

- The reading aloud activity was not done, so was not taken into account.

- The class achieved an average of 66%.

Grade 6 - English Literacy

Figure 1.8 shows the Grade 6 English Literacy scores per activity across all eight schools.

Figure 1.8

Grade 6 English Literacy scores per activity
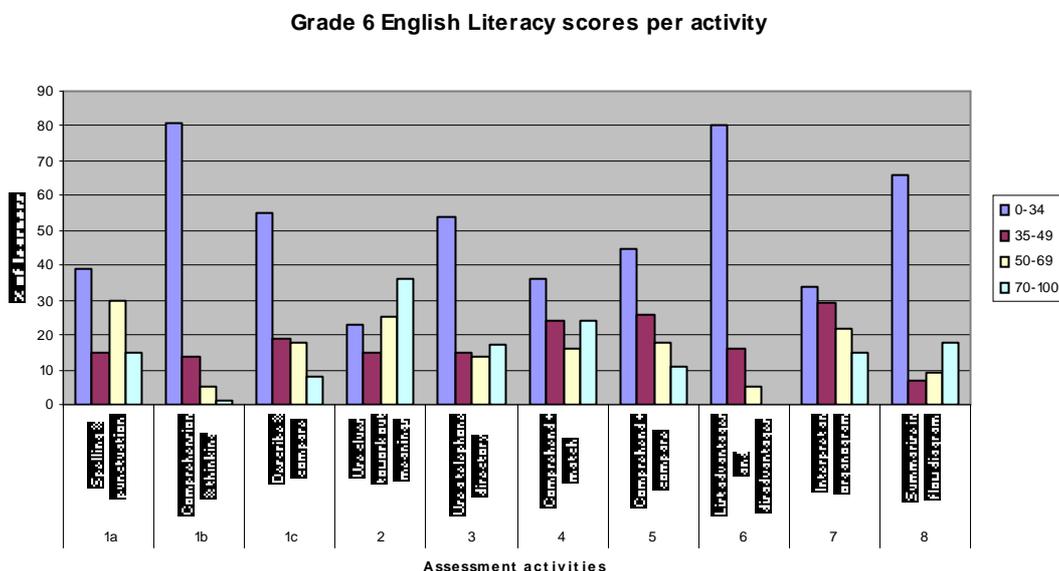
Appendix 4 includes Figures 1.8 a – h, which compare the Grade 6 Literacy scores in the eight schools.

Observations:

- All of the disadvantaged schools, Figures 1.8 a – f, struggled with almost all of the activities, but found the following activities especially challenging:

- Activity 1, Part a - A conventional language activity
- Activities 1, Part c, 3, 4, 5, 6, 7 and 8 - Thinking, reasoning, problem solving and cross-curricular activities.

   These schools scored averages of 39%, 31% and 19%.

- The learners of one of the more advantaged schools, Figure 1.8g, scored 41%, with more than half of its learners struggling with most of the activities the disadvantaged schools struggled with.

- The second of the more advantaged schools, Figure 1.8h, scored much better results for all of the activities and achieved an average of 60%. However, almost one third of its learners also struggled with the activities that the majority of the disadvantaged learners struggled with.

- For listening and speaking, only one of the more advantaged schools, Figure 1.8h, had 5 out of 12 learners who scored between 8 and 10 out of 10. In the second more advantaged school half of the learners scored between 0 and 4 and the other half between 5 and 7. In the disadvantaged schools, the majority of learners scored between 0 and 4, as illustrated in Figure 1.8i below.

21

Figure 1.8i

Grade 6 listening and speaking scores
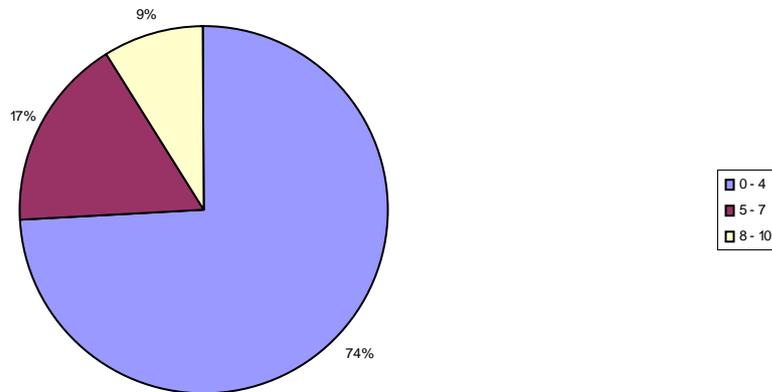
Figure 1.8j below shows scores for reading aloud in Grade 6. Roughly half of the learners from both of the more advantaged schools scored between 8 and 10, and the other half between 5 and 7. In the disadvantaged schools, roughly half of the sample scored between 0 and 4, while the remaining half scored between 5 and 7.

Figure 1.8j

Grade 6 English reading aloud scores
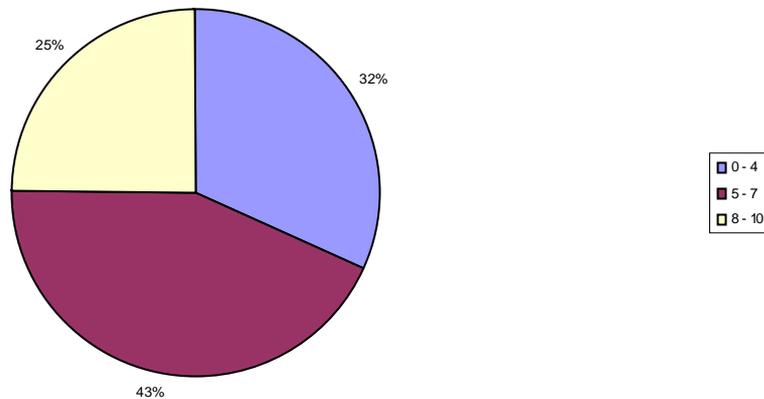
Grade 6 Literacy learner engagement per activity

A higher proportion of Grade 6 learners attempted to engage with the assessment activities than Grade 3s. According to their educators, this was probably due to the learners' greater exposure to English through English medium instruction since Grade 4. However, they also acknowledged that the activities the Grade 6 learners did not attempt to engage with were unfamiliar to them for the same reasons as in

Grade 3[21]. Figures 1.9 and 1.10 show learner engagement per activity for the Afrikaans and English medium groups.

Fig 1.9

Grade 6 Afrikaans Literacy learner engagement per activity

Fig 1.10

Gr 6 English Literacy learner engagement per activity
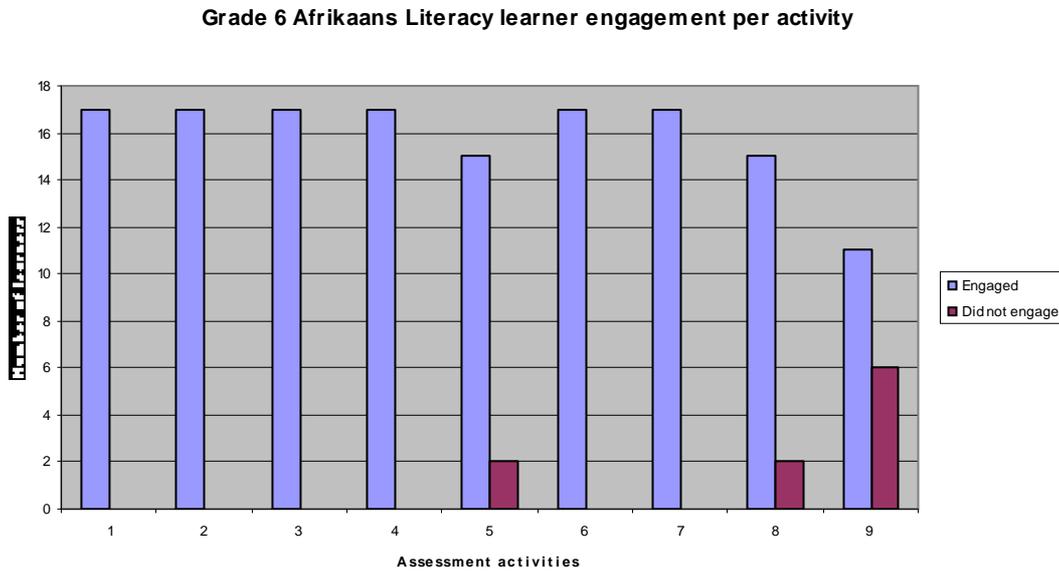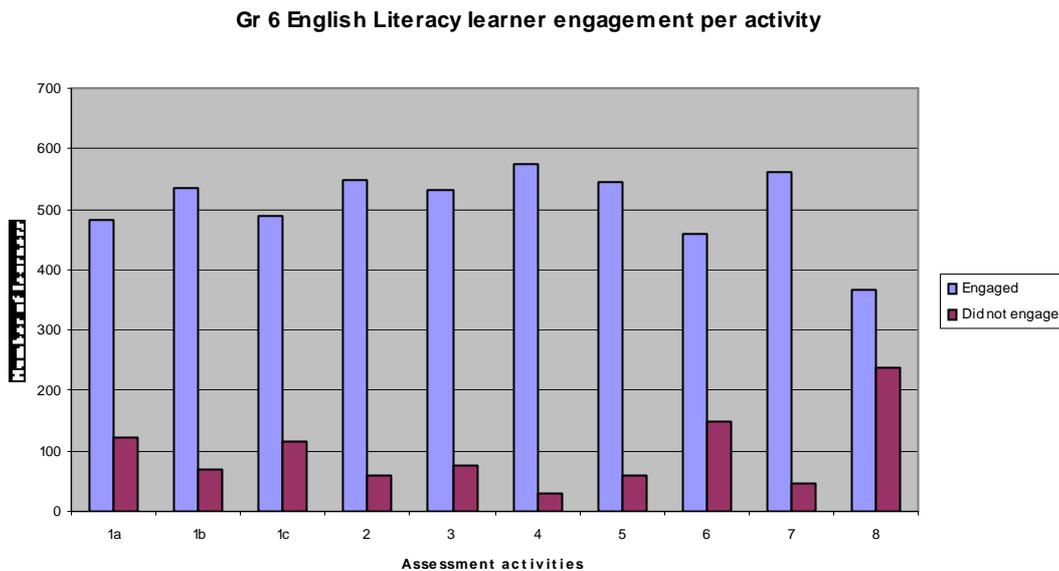
Observations:
- There were only three activities that the Afrikaans learners did not engage with, compared to the non-engagement with every activity in English.

- Far more learners did not engage with the English activities than the Afrikaans activities.

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[21] Like the Grade 3 teachers, Grade 6 teachers acknowledged that they had not exposed their learners to a number of the activity-types in the assessments.

Numeracy

Grade 3 Numeracy in Afrikaans, English, Sepedi and Xhosa

Figure 1.11 shows the Grade 3 Numeracy scores per activity for Afrikaans, English, Sepedi and Xhosa.

Figure 1.11

Grade 3 Numeracy scores per activity - Afrikaans, English, Sepedi, Xhosa
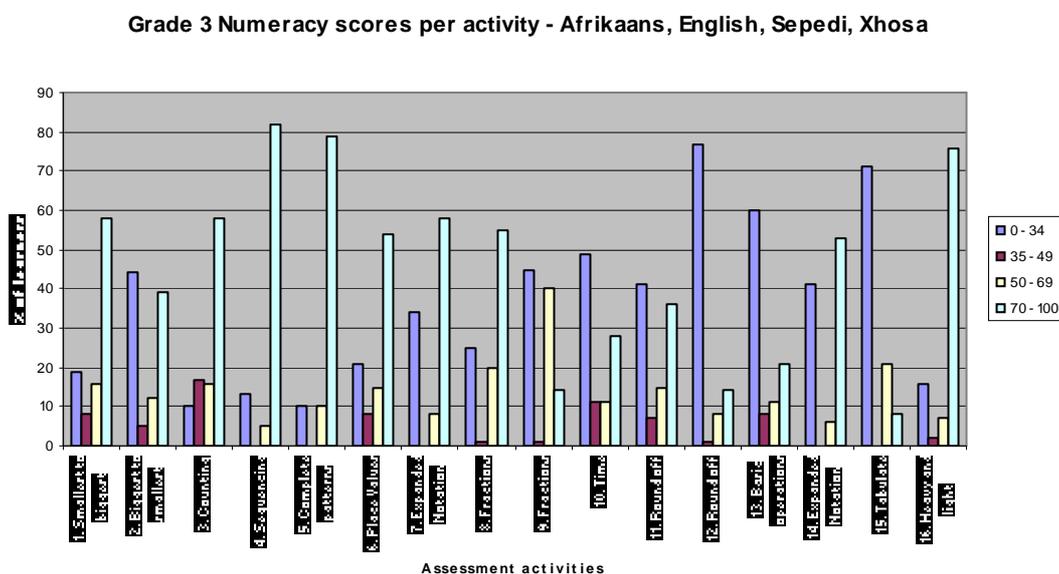
Afrikaans scores

- The learners coped well with Activities 1 to 10 and 14.

- They struggled with Activities 10 – 13 and 15.

- The learners scored a Grade average of 66%.

Appendix 5 includes Figures 1.11 a – h, which compare the Grade 3 English, Sepedi and Xhosa Numeracy scores.

Observations for each of the participating Grade 3 language groups:

English scores
- The differences between the Numeracy scores achieved by the more and less advantaged English medium schools are as significant as they are for Literacy:

  The two disadvantaged English medium schools that scored the lowest averages for Literacy were also the poorest performers in Numeracy, achieving averages of 24% and 21% respectively. These learners struggled with all 16 activities.

- One of the more advantaged schools achieved an excellent 81% average. Its learners coped well with almost all of the activities, apart from activities 10, 12 and 15. These involved time, rounding off and tabulation.

24

- At the second more advantaged school, about one third of the class struggled with activities 1 – 9 and 16, and more than half of the class with activities 10 – 15. This school achieved a 49% average.

Sepedi scores

The two Sepedi medium schools achieved averages of 51% and 53% respectively. At both schools, between a quarter and a third of the learners struggled with activities 2, 6, 7, 9, 10 and 11, and most of the learners struggled with activities 12 – 15.

Xhosa scores

The Xhosa medium school scored a 39% average. About a third of the learners struggled with activities 1 – 6, around half with activities 7 and 8, and most with activities 9 – 15.

Zulu scores

There were no Zulu scores because both schools for Zulu, and Zulu and Sotho learners are English medium schools. Their results are discussed under the English medium results above.

Overall trends in Grade 3

Most learners were able to engage with:
- Counting number patterns forwards.
- Sequencing and grouping
- Basic problem solving
- Identifying Fractions

Most learners struggled with:
- Counting backwards
- Time
- Rounding Off
- Basic Operations
- Tabulation

Numeracy in Grade 6 in Afrikaans and English
Figure 1.12 shows the Grade 6 Numeracy average scores for Afrikaans and English.

Figure 1.12

Grade 6 Numeracy scores per activity - Afrikaans & English
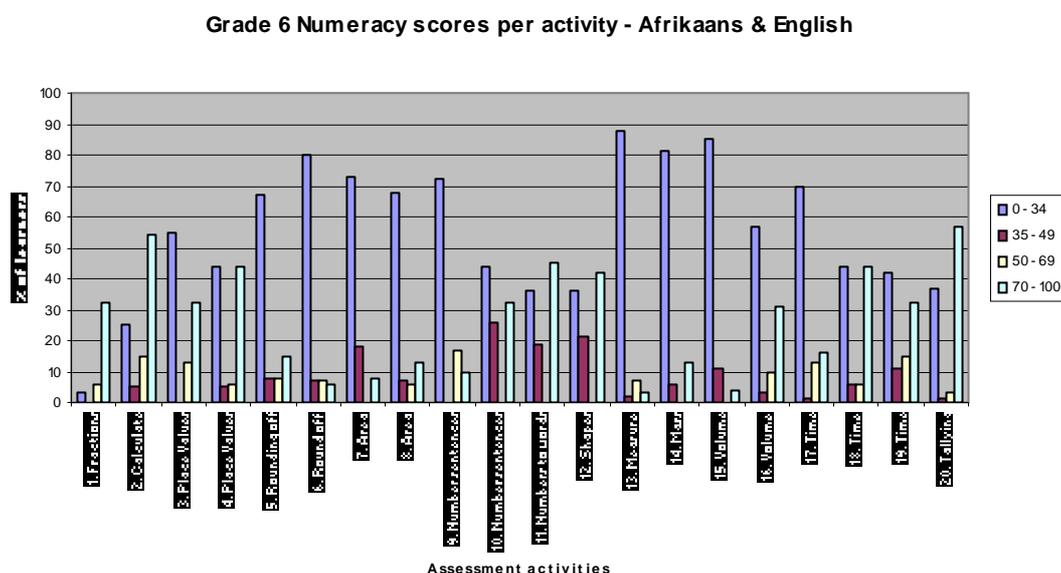
Appendix 5 includes Figures 1.12 a – h, which compare the Grade 6 English Numeracy scores of the participating schools.

Observations:

Afrikaans scores
- About half of the learners coped reasonably well with nearly half of the activities. These are: Activities 2, 4, 10, 11, 12, 18,19 and 20.

- Most of the learners struggled with the following activities: 5 – 7, 9, 13 – 15, and 17.

- The class average for this assessment was 50%.

English scores
- The differences between the scores achieved by learners in the more advantaged and less advantaged English medium schools are significant as they were for Literacy:

  In the disadvantaged schools, more than half of the learners struggled with most of the activities. Of these schools, the three schools that changed from African language medium to English medium instruction in Grade 4 scored 41%, 25% and 23% respectively. The two English medium 'from Grade R' schools achieved averages of 41% and 16% respectively.

  In the two more advantaged schools, the learners struggled with the same activities that the Afrikaans learners did. One school achieved a 65% average, while the other scored 51%.

Grade 3 and 6 learner engagement per activity

Figures 1.13 and 1.14 compare learner engagement per activity across the five language groups in Grades 3 and 6.

Fig 1.13

Grade 3 Numeracy learner engagement per activity - Afrikaans, English, Sepedi, Xhosa
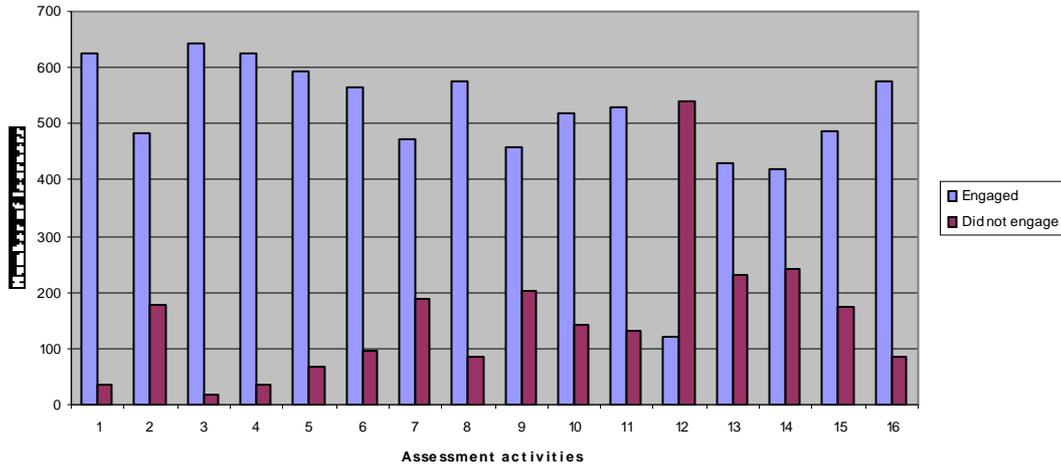
Fig 1.14

Grade 6 Numeracy learner engagement per activity - Afrikaans & English
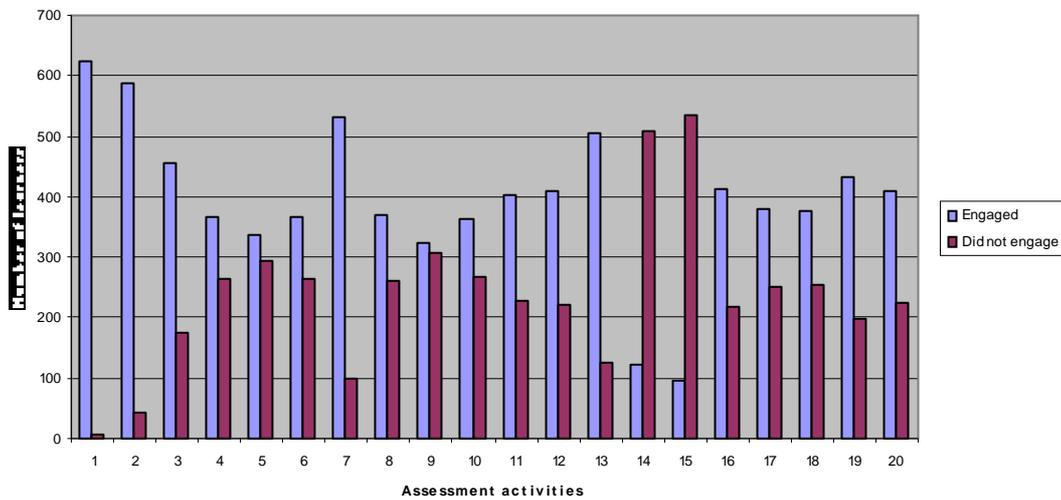
Observations:

- Non-engagement rates are much higher for Numeracy than for Literacy in both Grades 3 and 6.

- The levels of engagement per activity across all languages confirm the general trends about activities that learners found easy or difficult.

- There is a higher proportion of learner engagement with more activities at Grade 3 where at least half of the classes have an African language or Afrikaans as medium of instruction.

- Non-engagement levels increase significantly in Grade 6. This implies that a combination of English medium instruction, the unfamiliarity of activities and the difficulty level of activities are all likely to have impacted negatively on engagement levels.

Overall trends at Grade 6 level
Most learners were able to engage with:
- Identifying fractions
- Number patterns

About half of the learners struggled with:
- Place Values
- Identifying Shapes and Space

Most learners struggled with:
- Rounding Off
- Data Handling
- Measuring
- Problem Solving with mass and volume
- Time

Comparison of the results

Figures 1.15 - 1.18 compare Grade 3 and 6 Literacy and Numeracy scores.

Figure 1.15

Comparison of Grade 3 and 6 Literacy results
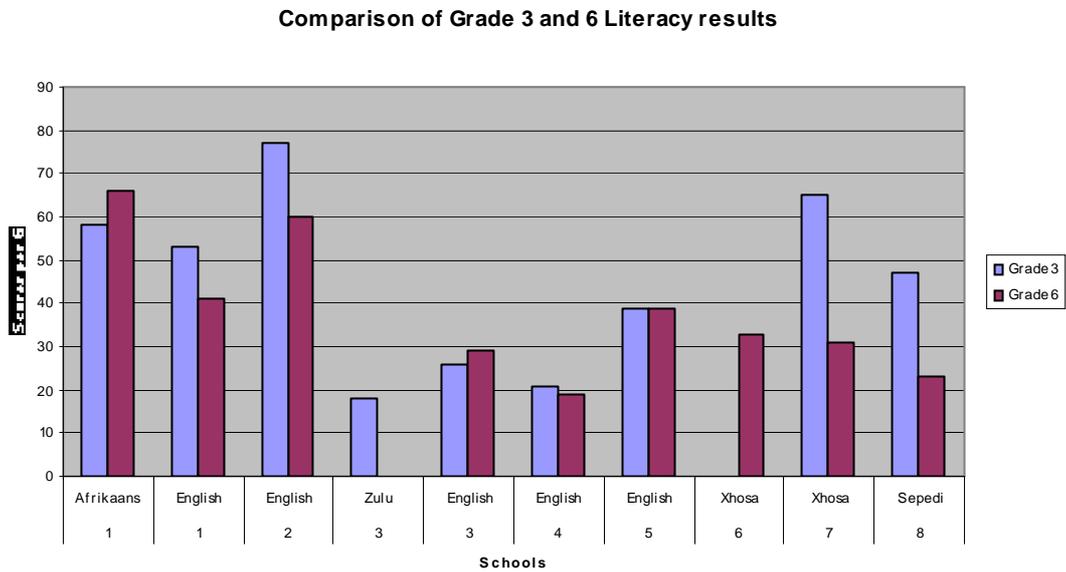
Figure 1.16

Comparison of Grade 3 and 6 learners scoring less then 4 out of 10 for listening & speaking and reading aloud

Figure 1.17

Comparison of Grade 3 and 6 Numeracy scores

Figure 1.18

Comparison of Grade 3 and 6 Literacy and Numeracy scores
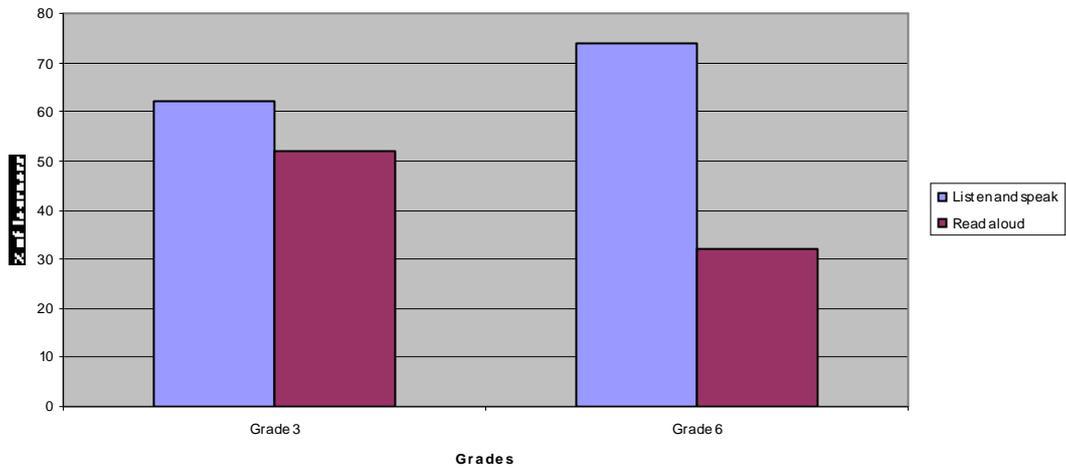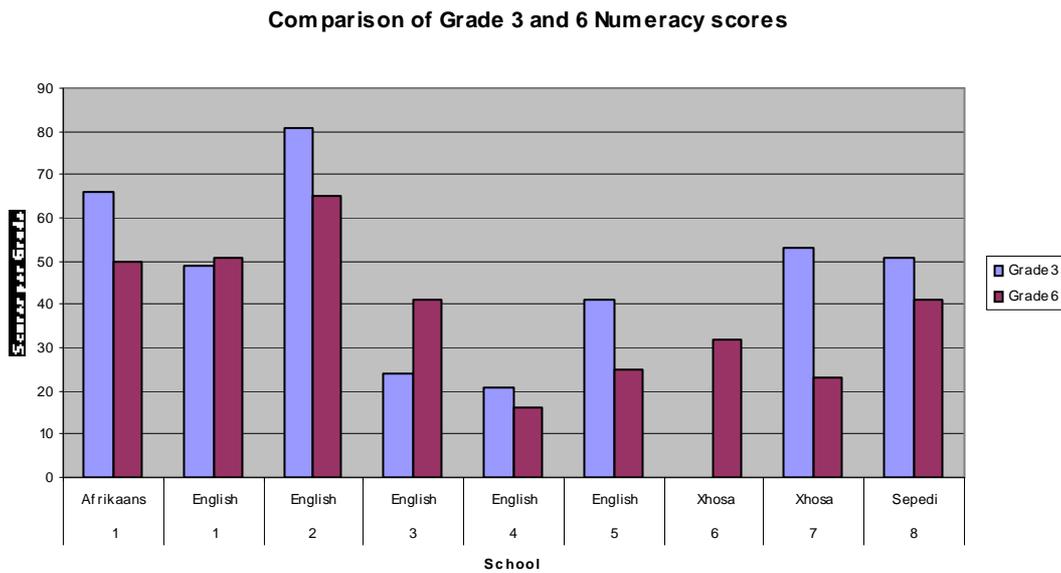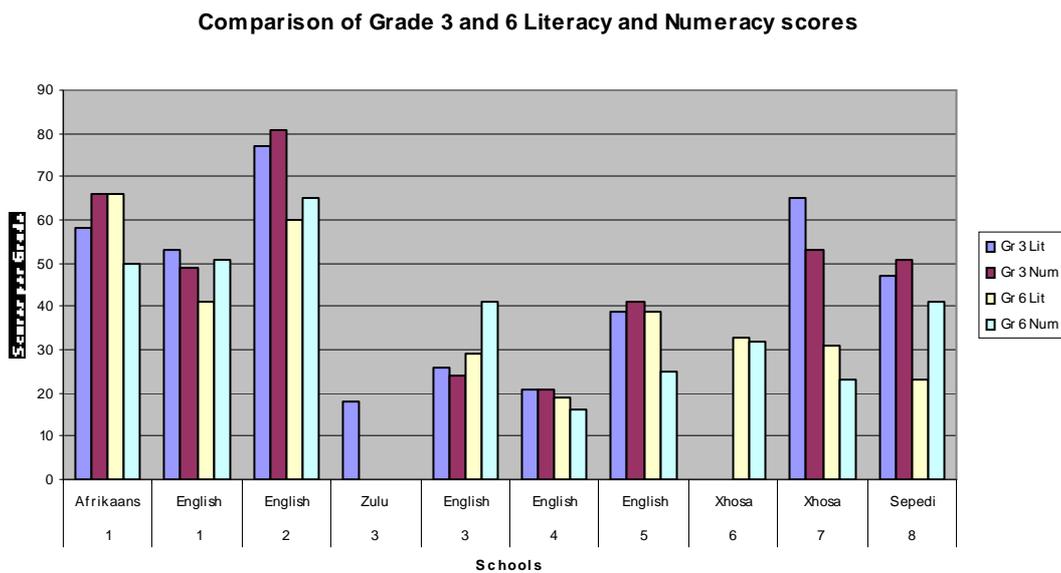
Observations from the comparisons

Literacy scores that improved
School 1's Afrikaans medium class by 8%.

School 3's mainly Sotho learners performed better in English than in Zulu by 8% in Grade 3, and a further 3% in English in Grade 6.

Reading aloud in English – the number of learners scoring less than 4 out of 10 decreased by 20% from Grade 3 to Grade 6.

Literacy scores that remained consistent
At School 5, the Xhosa and English averages for Grades 3 and 6 were exactly the same, at 39%.

30

Literacy scores that dropped
At 3 of the English medium schools - Schools 1, 2 and 4 - scores dropped by 12%, 17% and 3% respectively.

The English average dropped by 13% across the five English medium schools.

At schools 7 and 8, where the medium of instruction changes from Sepedi to English in Grade 4, the averages dropped by 34% and 24% respectively.

For listening and speaking in English, the number of learners scoring less than 4 out of 10 increased by 12% from Grade 3 to Grade 6.

Numeracy scores that improved
Only two Schools recorded improvements:
At School 1, English Numeracy improved by 2%, while School 3, achieved a significant improvement of 17%, but still averaged only slightly more than 40%.

Numeracy scores that dropped
All other Schools recorded drops:
At School 1 the Afrikaans Numeracy score dropped by 10%.

At Schools 2 and 4, the English Numeracy scores dropped by 16% and 5% respectively.

At School 5, the Xhosa to English Numeracy score dropped by a significant 30%.

At Schools 7 and 8, the Sepedi to English Numeracy scores dropped by 10% and a significant 30% respectively.

The average drop in Numeracy scores between Grades 3 and 6 was 16%.

Literacy and Numeracy scores
- In Grade 3, Literacy and Numeracy scores vary either up or down by 4%. This variation almost doubles to 7% in Grade 6.

Learner performance and medium of instruction
Table 1.6 shows trends in learner scores for both Literacy and Numeracy, in terms of a school's choice of medium of instruction and the corresponding main language or languages of the teachers and learners.

Table 1.6 Learner performance and medium of instruction

Choice of medium of instruction (MOI)	Language of teachers and learners	Grade 3 average range of scores	Grade 6 average range of scores
MOI = Language of teachers + most learners + community in all Grades	Afrikaans and English teachers teach learners in own language in all Grades	65 - 82%	Drop of 15%
MOI = Language of teachers + most learners + community up to Gr 3, THEN changes to ≠ from	Sepedi, Xhosa and Zulu teachers teach learners in own language until Grade 3, and then in English	35 - 65%	Drop of 20% - 35%

Grade 4	from Grade 4.		
MOI = Language of teacher + 50% of learners + 50% of community up to Gr 3 THEN changes to ≠ from Grade 4	Sepedi teachers teach in Sepedi to mixed classes of Sepedi, Tsonga and Zulu learners until Grade 3, and then in English from Grade 4.	35 – 50%	Drop of 20% - 35%
MOI = Language of teachers BUT ≠ learners OR community in all Grades	English teachers teach Zulu learners in English in all Grades.	16 - 24%	Remain constant
MOI ≠ Language of teachers + learners + community in all Grades	Zulu teachers teach mainly Sotho learners in English in all Grades.	16 - 24%	Remain constant

These trends suggest a strong relationship between a school's choice of medium of instruction and learner scores. Learners generally scored much better results when taught through the medium of their main language by teachers also teaching in their main language, and significantly worse when this was not the case.

The two best performing schools are both more advantaged schools where the medium of instruction remains constant from Grade R to 7, and where the majority of the teachers and learners have the medium of instruction as their main language. The two poorest performing schools are also English medium schools where the medium of instruction does not change. However, English is not the main language of the majority of the learners at either school, nor of most of the teachers at one of the schools.

All of the schools where the medium of instruction changes from an African language to English in Grade 4 appear to perform better in Grades 1 to 3 and worse after the change of medium of instruction. All of these classes achieved average to reasonable scores.

Part 3
Summary of main trends

1) This paper confirms the learner performance trends in Literacy and Numeracy at Grades 3 and 6 discussed in the introduction. Across the eight project schools, learners performed at between 30 and 35% of the RNCS expectations.

2) There are significant differences between the results achieved by the relatively advantaged and the disadvantaged schools on the project:

> In the two more advantaged Western Cape schools (Quintile 4), most learners performed at between 50% and 70% of the RNCS Literacy and Numeracy expectations. These learners were generally able to engage with most of the assessment activities and fulfil most RNCS requirements at basic, intermediate and advanced levels. There were however, a few advanced level expectations that they struggled to fulfil.

> In spite of this, almost half of the learners at the least advantaged of these two schools, performed at between 30 and 50% of expectations. These learners were generally able to engage with and fulfil most of the RNCS requirements at basic and intermediate levels.

> In the six less advantaged schools in the Eastern Cape, KwaZulu/Natal and Mpumalanga (Quintiles 1 – 4), most learners performed at between 15% and 35% of RNCS expectations for Literacy and Numeracy. The majority of these learners were reasonably able to fulfil RNCS expectations at the basic level, moderately able at the intermediate level, and generally unable to fulfil requirements at the advanced level.

3) In terms of Literacy:
- The majority of the learners have poorly developed listening comprehension, speaking and reading aloud skills in English.

- About a fifth of the learners were unable to engage with any of the reading and writing activities.

- Of the learners who did engage with the reading and writing activities;

  Most coped reasonably well with those requiring one-word answers, completing sentences and extracting information directly from passages.

  The kinds of activities they struggled with included interpreting, reasoning, comparing, independent thinking, expressing opinions, problem solving and re-expressing information in other formats.

- Most learners struggled with cross-curricular activities assuming content knowledge and skills from other Learning Areas.

4) In terms of Numeracy:
- About a quarter of Grade 3 and Grade 6 learners were unable to engage with any of the activities.

- Most learners coped with activities requiring basic understanding.

- The kinds of activities that most learners struggled with included:
  - Using more than one operation
  - Dealing with more than one concept
  - Engaging in thinking and calculating at intermediate and advanced levels
  - Using mathematical instruments
  - Activities that may have been presented in unfamiliar ways

5) A school's choice of medium of instruction appears to have a significant impact on learner performance, depending on the degree of contextual support for the chosen language[22].

What learners are not learning and why

The above trends confirm that in terms of the RNCS requirements for Literacy and Numeracy:

- Large numbers of learners are not learning basic skills.

- The majority of learners are not being exposed to thinking, calculating and problem solving skills at intermediate or advanced levels.

- Most learners demonstrate a lack of content knowledge.

- Most learners demonstrate a lack of familiarity with the broad range of assessment activity types.

- Most learners demonstrate a lack of familiarity with activities that integrate content and skills from other Learning Areas.

Many of the authors cited in the introduction to this paper have written on the poor performance of teachers, and how this contributes towards their learners' poor results. The findings of this study confirm this. For example, the poor learner results in the disadvantaged schools appear to be a direct reflection of what teachers did and did not routinely expose their learners to. During the baseline study, it emerged that most teachers in these schools exposed their learners to limited content and a narrow repertoire of teaching and learning experiences. They did however, consistently expose their learners to listening to teacher explanations; very little reading and writing other than copying teacher's notes or questions from the chalkboard; frequent class chorusing; very little other writing apart from one word and single sentence answers; and very little thinking, reasoning or problem solving (Kariem, Langhan and Mpofu, 2009 a and b).

However, finding the solutions to poor teacher performance, and poor learner results, is not as simple as looking at what teachers do, or do not do. Many of the authors cited in the introduction to this paper have written about the systemic factors that impact on poor teacher performance. The findings of this study confirm that a number of interrelated systemic factors have significant impacts on why teachers do what they do, and especially, why they do not do what they are

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[22] For more details on this issue, see Langhan's discussion of conditions for effective use of the primary language and additional language as languages of learning and teaching/ media of instruction for individual schools (Pretorius-Huechert, Langhan, Witthaus, Constable, Granville, Thebe-Moleko, Francis and Rodseth, 1996).

expected to. Table 1.7 summarizes systemic trends noted in this study (Kariem, Langhan and Mpofu, 2009 a and b) that help to explain why many teachers in the project schools have not enabled their learners to fulfil a broader range of the NCS requirements.

Table 1.7
Why learners were not exposed to the full range of NCS requirements

Reason	Explanation
Most teachers are still unfamiliar with the RNCS	Very few teachers had received adequate NCS training, support or mentorship.
	Most teachers are overwhelmed by the administrative requirements associated with the RNCS.
	Most teachers did not have their own copies of the Curriculum Guideline Documents for their Learning Areas.
	Many teachers found the sheer number of NCS documents overwhelming and confusing. Many found the level of detail in them, and the repetition across them very confusing. Many had begun, but never completed reading the NCS documents.
	Many teachers were not familiar with, or confident that they understood the NCS requirements for their Learning Areas.
	Very few teachers knew, or were confident about how to implement the NCS requirements practically.
District support for curriculum implementation has been inadequate or non existent	In the three disadvantaged groups of schools, Curriculum Advisors were appointed for the first time in 2008.
	Many teachers felt intimidated by Departmental Officials, rather than supported by them.
	Few schools have experienced more than one or two official visits to their schools in any school year. All of these visits are too brief to include any more than superficial engagement around compliance requirements.
	Few officials understand the curriculum requirements better than the teachers, and few seemed able to provide practical implementation support or mentorship in classrooms.
	Few School Management Teams, Heads of Departments, or Learning Area Heads had a clear understanding of their roles as either school leaders and managers, or curriculum leaders and managers.
	There was little or no curriculum leadership and management at the level of individual teachers, within Learning Areas, or across Phases.
District support to schools emphasizes administrative compliance at the expense of supporting practical curriculum implementation in the classroom.	District officials emphasize and check administrative requirements, check Educator and Learner Portfolios against predetermined checklists from National or Provincial Offices and tick boxes on forms, rather than supporting

	teaching, learning and assessment practices in classrooms.
	Teachers spend more time working on preparing and updating their Educator and Learner Portfolios to ensure that they comply with Departmental requirements than they spend on preparing to teach.
There are severe dislocations between official administrative requirements and actual classroom practices.	Most teachers admit to a significant dislocation between the content of the portfolios they have to prepare to comply with Departmental requirements, and what they actually do in their classrooms.
	Few Curriculum Advisors are aware of the dislocation between the content of the Educator's Portfolios and their classroom practices because they seldom, if ever, enter classrooms.
Little or no classroom implementation support	None of the teachers had received any practical, hands-on support from Curriculum Advisors, or their own school leaders, that demonstrated how to implement and achieve curriculum expectations in terms of: - Facilitating OBE teaching, learning and assessment activities. - Organizing and managing OBE classrooms. - Using learner and teacher support materials to fulfil RNCS requirements.
Mixed message about the use of textbooks and LTSMs from National, Provincial and District Officials	Many officials support the implicit expectations of Curriculum 2005 and NCS that teachers should not use a single textbook, but instead use a range of resources to develop their own lessons. The problem here is that very few schools have enough textbooks for every learner in the school in the first place, and even fewer have access to a range of resources.
	Some officials discourage the use of textbooks if they do not at first glance appear to comply exactly with the sequence in National or Provincial Guideline documents. The 2008 Foundations for Learning Guideline Documents are classic examples of this.
	Some officials require that teachers use materials to follow the sequence of official documents. This means that teachers are under pressure to compromise the carefully constructed conceptual development sequence that specialist authors have developed.
	At the same time, the National Department requires that all LTSMs be developed so as to embody curriculum expectations and provide systematic support to enable teachers to implement the curriculum and learners to fulfil its expectations. Yet it does not appear to encourage it officials to encourage teachers to use such materials systematically.
Poor supply and management of learner and teacher support materials	Very few schools had enough textbooks and most of the books they did have were kept, unused, in storerooms.
	Very few ordered materials actually arrive in

	time for use at the beginning of a school year.
	Few teachers seem to be aware of the resources that are available to them in school storerooms, and few seem to make use of them.
Learner and teacher support materials are severely under-utilized	Very few teachers used Teacher's Guides, textbooks, or learner's books systematically, as they are supposed to be used.
	When teachers did use Learner's Books, many used them without Teacher's Guides, thus depriving learners of much of the content included in the Teacher's Guides as preparation for activities in Learner's Books.
	Many teachers 'taught' learning activities instead of allowing the learners to do them as intended, thus depriving them of opportunities to engage with a broad range of activities. Similarly, many teachers who used the Learner's Book as the 'teaching textbook' do not provide the learners with their own copies of the book, thus depriving them of daily opportunities to read from the books.
Medium of instruction challenges	Teachers and learners are placed at a significant disadvantage in schools where the medium of instruction changes from an African language to English from Grade 4 onwards. In these Grades, much, if not most of the teaching and learning in English medium classrooms takes place in African languages. This is because many teachers lack exposure to English and lack the confidence to teach in English.
	Learners are significantly disadvantaged in schools where English is the medium of instruction from Grade 1, when English is the language of the teachers, but not the language of the learners or their families. This is because the teachers are unable to mediate between English and the learners' Home language, and there is no support for English in the home environment.
Poor knowledge and skills of teachers	Many teachers have limited reading, writing and speaking competencies in English.
	Many teachers who were trained in the old 'subject areas' lack confidence in their content knowledge in the new Learning Areas they are responsible for.

This summary confirms that there are many systemic factors that explain why teachers are not exposing their learners to the broad range of learning opportunities required by the NCS. So while it is necessary to develop solutions to enable teachers to become better educators, it is as necessary to find and implement solutions that will enable school leaders and District and Provincial Officials to emphasize actual teaching and learning, rather than administration and paper work. Furthermore, District officials will need to be enabled to model and practically support the sort of curriculum leadership, management and implementation practices required to turn this situation around.

Part 4
What to do about what learners are not learning – a developing model

The analysis of the learner results in Part 2 of this paper, together with the findings in Part 3 are sobering because they suggest that much of the focus and many of the resources that the Department of Education, its officials, and its schools have dedicated towards curriculum implementation have been misdirected. However, they are also encouraging because they provide what seems to be a clear framework for redirecting the Department's efforts. Essentially, they provide insights into the specific kinds of support that the Department of Education will need to provide to disadvantaged schools and their supporting District Offices in order to enable them to more successfully implement the RNCS.

Based on these insights, the Foundation's School Development Project and its partner schools have developed, and begun implementing a school support and development intervention programme that aims to address these trends directly (Kariem, Langhan and Mpofu 2009c). Table 1.8 summarizes the components of the programme, what they target, and what they are intended to achieve.

Table 1.8 The Foundation's School Support and Development Model

Programme component	What it targets	What is aims to achieve
Alternating 1 and 2-day school support visits to every school, every 5 to 6 weeks of the school year (to be maintained for a period of 3 years).	Lack of Curriculum management and implementation support.	Regular school-based action-research-type support over an extended period of time that incorporates: - Needs assessments - Ongoing, regular, predictable and negotiated education, training, mentoring and support to address needs identified by schools. - Allocating agreed upon SMT and educator responsibilities for specific implementation actions between visits. - Holding SMTs and educators accountable for these actions by reflecting on progress made, providing guidance and planning future actions for successive visits.
RNCS orientation and training	Lack of curriculum training.	Orientation to RNCS Learning Area and Assessment documents. Demystification and simplification of aims and essential RNCS requirements.
Provision of approved RNCS learner and teacher support materials[23].	Ad hoc ordering and delivery of learner and teacher support materials.	Delivery of materials at the beginning of the school year.

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[23] The donation of these materials to the schools was made possible by funds provided to the Foundation by its sole funders, the shareholders of Maskew Miller Longman (Pty Ltd).

		Ensure that every teacher and every learner has necessary LTSM materials for every Learning Area, in every Grade from the beginning of the year. This includes approved RNCS Teacher's Guides, Learner's Books, Workbooks and Readers.
	Lack of curriculum planning, coordination, progression and continuity between Learning Areas and across Phases.	Facilitate planning of teaching and learning with RNCS frameworks and provided LTSM materials to ensure integration, progression and continuity within and across Phases.
Practical, hands-on training in the use of learner and teacher support materials.	Lack of practical, hands-on training in the use of LTSMs.	Show teachers how RNCS approved Teacher's Guides and Learner's Books: - Embody coherent curriculum planning - Ensure integration, progression and continuity between Learning Areas and across Grades. Show teachers how Teacher's Guides and learner materials meet and cover curriculum requirements. Demonstrate how to use Teacher's Guides and the learner materials systematically in order to: - Facilitate OBE teaching, learning and assessment practices. - Organize and manage OBE classrooms. - Use learner and teacher support materials effectively. - Cover required content. - Prepare learners adequately for activities with adequate conceptual development input. - Expose learners to the full range of learning and assessment activities.
Practical hands-on support with developing Educator Portfolios.	Dislocation between Educator portfolios and classroom practice. Inefficient use of on unnecessary writing and re-writing of work schedules, lesson plans etc. Lack of focus on preparing to teach and facilitate learning.	Explain what policy and curriculum documentation is required in every Educator Portfolio and ensure that educators include them. Demonstrate how to incorporate work schedules and lesson plans provided in RNCS approved Teacher's Guides into Educator Portfolios. Demonstrate how this achieves

		alignment of Educator Portfolio with the RNCS, LTSMs and teaching, learning and assessment practices in the classroom.
		Demonstrate how to prepare for daily teaching and learning using Teacher's Guide and learner materials.
		Demonstrate how to teach and facilitate learning using the LTSM materials.
Practical support with developing Learner Portfolios	Limited repertoire of learning and assessment activities learners are exposed to.	Show what the RNCS assessment requirements are for Learner Portfolios for each Learning Area per term.
		Ensure that Learner Portfolios are planned to fulfil RNCS requirements and are aligned with learner and teacher support materials used in the classroom.
		Demonstrate how to fulfil Learner Portfolio requirements by systematically working through the teacher and learner support materials with learners.
Training and support of School Management Teams	Lack of understanding of their roles and responsibilities as curriculum leaders and managers.	Orientation to IQMS post level responsibilities for curriculum and teaching responsibilities.
	Absence of curriculum leadership and management.	Advise school leadership as to how to set up SMTs to function more effectively and to allocate curriculum leadership and management responsibilities among its members.
		Demonstrate and mentor practical implementation of these roles and responsibilities with SMT and agree on SMT tasks for doing the same with their teachers.
Clarification of administrative support roles	Under utilization of administrative skills.	Clarify administrative functions.
		Mentor setting up and implementing efficient administrative systems and procedures.
Facilitating the exchange of leadership and management skills and experience between schools	Leadership and management challenges.	Facilitate a school Leadership and Management Exchange Programme to create opportunities for:
		School leaders and SMTs to share best practices.
		SMTs and District Officials to collaborate to develop their own strategies to address the curriculum implementation

		challenges they face.
Discussion of school language policy choices	English Medium of instruction challenges for teachers and learners.	Explaining how thorough lesson preparation using the LTSM materials and their systematic use will help to: - Improve teacher's content knowledge. - Provide consistent exposure to English and improve teacher's reading skills. - Help teachers to use more English while teaching. - Expose learners to more English during lessons. - Expose learners to the full range of learning and assessment activities and prepare them better for examinations formal systemic assessments. As appropriate for particular schools, discuss and consider ways of addressing the challenges presented by medium of instruction choices that seem to disadvantage learners.
Liaising with District Officials about all of the above activities in schools.	District emphasis on administrative compliance.	Sharing with, and offering to demonstrate to officials how to balance administrative compliance requirements and classroom implementation support and mentorship needs.

Results of implementing the model for just 8 months

By August 2009, the following significant improvements over trends monitored during the Baseline Study in the last quarter of 2008 had emerged in most of the eight project schools (Kariem and Mpofu, 2009):

During the first quarter of 2009:
- All teachers began to prepare their Educator Portfolios in order to align the RNCS requirements with the newly provided LTSMs.

- All teachers began to plan Learner Portfolios in alignment with RNCS Assessment requirements and the new LTSMs.

- Most learners were using Learner's Books, Workbooks and Readers for every Learning Area in every Grade.

- Some teachers began using Teacher's Guides, while many preferred to use the Learner's Books as the main means of teaching.

- Most teachers began to experiment with the expanded range of teaching styles and methods in response to the LTSMs they were using.

By the end of the second quarter:
- Most learners had completed more written activities in their exercise books and Learner Portfolios than they had by September of 2008 when learner materials were reviewed as part of the Baseline Study.

- Most SMTs had begun to function more in line with the curriculum leadership and management roles and responsibilities as outlined in the IQMS post levels requirements.

By August in the third quarter of 2009:
- Most Educator and Learner Portfolios were up-to-date, and very close to full compliance with Departmental requirements, and aligned with the LTSM materials being used in classrooms.

- There was evidence of regular internal moderation by the School Management Team in many of the Educator Portfolios.

- Most teachers reported spending much more time on lesson preparation activities, than on administrative activities.

- Most teachers demonstrated increased confidence in their ability to fulfil RNCS requirements by working in the ways that they had begun to.

- Most teachers were using Teacher's Guides reasonably confidently and working through the LTSM materials with their learners systematically, with variations from one class to another.

- Many, but not all of the teachers, were using a significantly expanded range of teaching methods and techniques, as suggested in the Teacher's Guides they are using.

- Most learners' exercise books and Learner Portfolios included at least four times as many completed and marked written activities than they did at more or less the same time in 2008.

- There was evidence that learners were being exposed to a far broader range of learning and assessment activities.

- In a number of schools, there was evidence of learners doing homework.

- There is evidence that teachers are regularly monitoring and marking homework, class and assessment tasks and activities.

- Although learners were doing a much broader range of activities, there was also evidence that they were struggling with many of the activities.

In October 2009:
- The 2009 Grade 3 and 6 learners will complete Literacy and Numeracy assessments in order to determine whether or not there has been any measurable improvement in their abilities over the 2008 learners as a result of the implementation of the programme.

This school support and development programme will be implemented until July 2011. In each year of implementation, the programme will be adapted in response to the school's needs. Should these interventions prove successful in improving teacher and learner performance, they will become recommendations that the Department of Education could focus on implementing through its District Offices.

Appendix 1
Literacy and Numeracy Learning Outcomes

Literacy Outcomes
Learning Outcome 1 - Listening
Learning Outcome 2 - Speaking
Learning Outcome 3 – Reading and viewing
Learning Outcome 4 - Writing
Learning Outcome 5 – Thinking and reasoning
Learning Outcome 6 – Language use

Numeracy Outcomes
Learning Outcome 1 - Numbers, operations and relationships
Learning Outcome 2 - Patterns, functions and algebra
Learning Outcome 3 - Space and shape
Learning Outcome 4 - Measurement
Learning Outcome 5 - Data handling

Appendix 2
Approved NCS Learner Support Materials the assessment activities were drawn from

Molteno Project (2003) **Bridge to English Grade 3** Learner's Book. Kagiso Education: Cape Town.

Baker, P; Langhan, D and Dada, F (2003) **Day-by-Day Grade 3 English Literacy** Learner's Book. Maskew Miller Longman: Cape Town.

Baker, P; Langhan, D; Dada, F (2003) **Day-by-Day Grade 3 English Literacy** Reader. Maskew Miller Longman: Cape Town.

Dada, F; Barker, T; Mgobozi, N; Orford, M (2003) **Day-by-Day Grade 3 Life Skills** Learner's Book (English). Maskew Miller Longman: Cape Town.

Dada, F; Barker, T; Mgobozi, N; Orford, M (2003) **Day-by-Day Grade 3 Life Skills** Workbook (English). Maskew Miller Longman: Cape Town.

Dada, F; Colyn, W; Bopape, M (2003) **Day-by-Day Grade 3 Numeracy** Learner's Book (English). Maskew Miller Longman: Cape Town.

Dada, F; Colyn, W; Bopape, M (2003) **Day-by-Day Grade 3 Numeracy** Workbook (English). Maskew Miller Longman: Cape Town.

Dada, F; Barker, T; Mgobozi, N; Orford, M (2003) **Day-by-Day Grade 3 Life Skills** Learner's Book (Sepedi). Maskew Miller Longman: Cape Town.

Dada, F; Barker, T; Mgobozi, N; Orford, M (2003) **Day-by-Day Grade 3 Life Skills** Workbook (Sepedi). Maskew Miller Longman: Cape Town.

Dada, F; Colyn, W; Bopape, M (2003) **Day-by-Day Grade 3 Numeracy** Learner's Book (Sepedi). Maskew Miller Longman: Cape Town.

Dada, F; Colyn, W; Bopape, M (2003) **Day-by-Day Grade 3 Numeracy** Workbook (Sepedi). Maskew Miller Longman: Cape Town.

Dada, F; Barker, T; Mgobozi, N; Orford, M (2003) **Day-by-Day Grade 3 Life Skills** Learner's Book (Tsonga). Maskew Miller Longman: Cape Town.

Dada, F; Barker, T; Mgobozi, N; Orford, M (2003) **Day-by-Day Grade 3 Life Skills** Workbook (Tsonga). Maskew Miller Longman: Cape Town.

Dada, F; Colyn, W; Bopape, M (2003) **Day-by-Day Grade 3 Numeracy** Learner's Book (Tsonga). Maskew Miller Longman: Cape Town.

Dada, F; Colyn, W; Bopape, M (2003) **Day-by-Day Grade 3 Numeracy** Workbook (Tsonga). Maskew Miller Longman: Cape Town.

Dada, F; Barker, T; Mgobozi, N; Orford, M (2003) **Day-by-Day Grade 3 Life Skills** Learner's Book (Xhosa). Maskew Miller Longman: Cape Town.

Dada, F; Barker, T; Mgobozi, N; Orford, M (2003) **Day-by-Day Grade 3 Life Skills** Workbook (Xhosa). Maskew Miller Longman: Cape Town.

Dada, F; Colyn, W; Bopape, M (2003) **Day-by-Day Grade 3 Numeracy** Learner's Book (Xhosa). Maskew Miller Longman: Cape Town.

Dada, F; Colyn, W; Bopape, M (2003) **Day-by-Day Grade 3 Numeracy** Workbook (Xhosa). Maskew Miller Longman: Cape Town.

Dada, F; Barker, T; Mgobozi, N; Orford, M (2003) **Day-by-Day Grade 3 Life Skills** Learner's Book (Zulu). Maskew Miller Longman: Cape Town.

Dada, F; Barker, T; Mgobozi, N; Orford, M (2003) **Day-by-Day Grade 3 Life Skills** Workbook (Zulu). Maskew Miller Longman: Cape Town.

Dada, F; Colyn, W; Bopape, M (2003) **Day-by-Day Grade 3 Numeracy** Learner's Book (Zulu). Maskew Miller Longman: Cape Town.

Dada, F; Colyn, W; Bopape, M (2003) **Day-by-Day Grade 3 Numeracy** Workbook (Zulu). Maskew Miller Longman: Cape Town.

Baker, P; Francis, V; Salswedel, J; Stokes, J (2004) **Day-by-Day Grade 6 English** Learner's Book. Maskew Miller Longman: Cape Town.

Orford, M; Smith, J; Zulu, J; Dada, F (2004) **Day-by-Day Grade 6 Economic Management Sciences** Learner's Book. Maskew Miller Longman: Cape Town.

Barker, K; Clitheroe, F; Mostert, L; Sargeant, I; Dada, F (2004) **Day-by-Day Grade 6 Technology** Learner's Book. Maskew Miller Longman: Cape Town.

Barker, T; Barnard, J; Cohen, S; Mkhwanazi, V; Omar, N; Rampou, S; Dada, F (2004) **Day-by-Day Grade 6 Natural Sciences** Learner's Book. Maskew Miller Longman: Cape Town.

Bopape, M; Dada, F; Philander, J; Colyn, W (2004) **Day-by-Day Grade 6 Mathematics** Learner's Book. Maskew Miller Longman: Cape Town.

Du Preez, H; Koornhof, H; Schoeman, H (2003) **Kaperjol Graad 3** Leerder's Boek. Maskew Miller Longman: Cape Town.

Koornhof, H; Schoeman, H; Du Preez, H (2004) **Kaperjol Graad 6** Leerder's Boek. Maskew Miller Longman: Cape Town.

Gouws, S; Latti, M; Sema, O (2003) **Nuwe Afrikaans Sonder Grense Graad 3** Leerder's Boek. Maskew Miller Longman: Cape Town.

Gouws, S; Latti, M (2004) **Nuwe Afrikaans Sonder Grense Graad 6** Leerder's Boek. Maskew Miller Longman: Cape Town.

Appendix 3
Literacy and Numeracy assessment workbooks:

Maskew Miller Longman Foundation (2008a) Graad 3 Afrikaans Gelleterdheid Assessering Werkboek. Cape Town.

Maskew Miller Longman Foundation (2008b) Graad 3 Afrikaans Gelleterdheid Memorandum. Cape Town.

Maskew Miller Longman Foundation (2008c) Graad 6 Afrikaans Gelleterdheid Assessering Werkboek. Cape Town.

Maskew Miller Longman Foundation (2008d) Graad 6 Afrikaans Gelleterdheid Memorandum. Cape Town.

Maskew Miller Longman Foundation (2008e) Grade 3 English Literacy Assessment Workbook. Cape Town.

Maskew Miller Longman Foundation (2008f) Grade 3 English Literacy Marking Memorandum. Cape Town.

Maskew Miller Longman Foundation (2008g) Grade 6 English Literacy Assessment Workbook. Cape Town.

Maskew Miller Longman Foundation (2008h) Grade 6 English Literacy Marking Memorandum. Cape Town.

Maskew Miller Longman Foundation (2008i) Grade 3 Sepedi Literacy Assessment Workbook. Cape Town.

Maskew Miller Longman Foundation (2008j) Grade 3 Sepedi Literacy Marking Memorandum. Cape Town.

Maskew Miller Longman Foundation (2008k) Grade 3 Tsonga Literacy Assessment Workbook. Cape Town.

Maskew Miller Longman Foundation (2008l) Grade 3 Tsonga Literacy Marking Memorandum. Cape Town.

Maskew Miller Longman Foundation (2008m) Grade 3 Zulu Literacy Assessment Workbook. Cape Town.

Maskew Miller Longman Foundation (2008n) Grade 3 Zulu Literacy Marking Memorandum. Cape Town.

Maskew Miller Longman Foundation (2008o) Grade 3 Xhosa Literacy Assessment Workbook. Cape Town.

Maskew Miller Longman Foundation (2008p) Grade 3 Xhosa Marking Memorandum. Cape Town.