

Mediated Learning in Village Schools In The Namaqua District

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PROJECT SUMMARY (2009)



Project Sponsors: Rotary (Waterfront Branch) and the Rural Namaqualand Education Trust

A BASIC CONCEPTS AND LANGUAGE PROJECT

KAMIESBERG AREA, NAMAQUA DISTRICT, NORTHERN CAPE, SOUTH AFRICA (2006-2009)

BACKGROUND AND PURPOSE

The project aimed to eradicate illiteracy in the Foundation Phase in three village-based primary schools. These schools are located in the interior of the Namaqua District. In some respects life in these villages has remained unchanged for the last 2000 years (refer to Appendix 1 for more background information). The study aimed to determine the effects of a *metacognitively-based intervention* initiated in Grade R (2006) and extended through to Grade 3 in 2009. The study hypothesis was that early learning experiences provided in a developmental, challenging and mediational way would enable successful school learning.

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KAMIESBERG AREA, NAMAQUA DISTRICT, NORTHERN CAPE, SOUTH AFRICA (2006-2009)

METHOD

- **Learners at the project and comparable control schools were assessed annually from Grade 1 to Grade 3 –see Slide 5 for more information about the study sample.**
- **This report will present the Grade 3 results (project and control schools) at the end of the project.**
- **A battery of standardized scholastic tests as well as a test of basic concepts knowledge were administered annually – see Slide 4 for a description of the tests.**
- **The results of the scholastic tests will be interpreted using mean scores obtained from the raw data. The mean scores will be compared with the norm scores of the scholastic battery.**
- **The results of the Systemic Evaluation (2003) of the Northern Cape Department of Education will also be used as a reference with which to compare the scholastic results.**
- **The results of the test of basic concepts knowledge will be interpreted using locally derived working norms.**

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KAMIESBERG AREA, NAMAQUA DISTRICT, NORTHERN CAPE, SOUTH AFRICA (2006-2009)

METHOD

Test Battery

- ***UCT Graded Spelling Test***: a norm-based test developed for learners in the Western Cape. Administered to Grade 1-4 learners.
- ***UCT Graded Reading Test***: a norm-based test developed for learners in the Western Cape. Administered to Grade 1-4 learners.
- ***Ballard One-Minute Test (Addition & Subtraction)***: a norm-based test developed for learners in the Western Cape. Administered to Grade 1-4 learners.
- ***Boehm Test of Basic Concepts***: a norm-based test, however used without making direct reference to these American derived norms. This test was developed to assess the understanding of 50 high frequency basic concepts in young learners. Administered to Grade 1-4 learners.

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SAMPLE

Project Schools: Number of Grade 3 Learners (2009)

	Rooifontein	Nourivier	Kheis	Total
Total number of learners	22	9	14	45
Number of learners tested	22 (100%)	9 (100%)	13 (92%)	44 (98%)

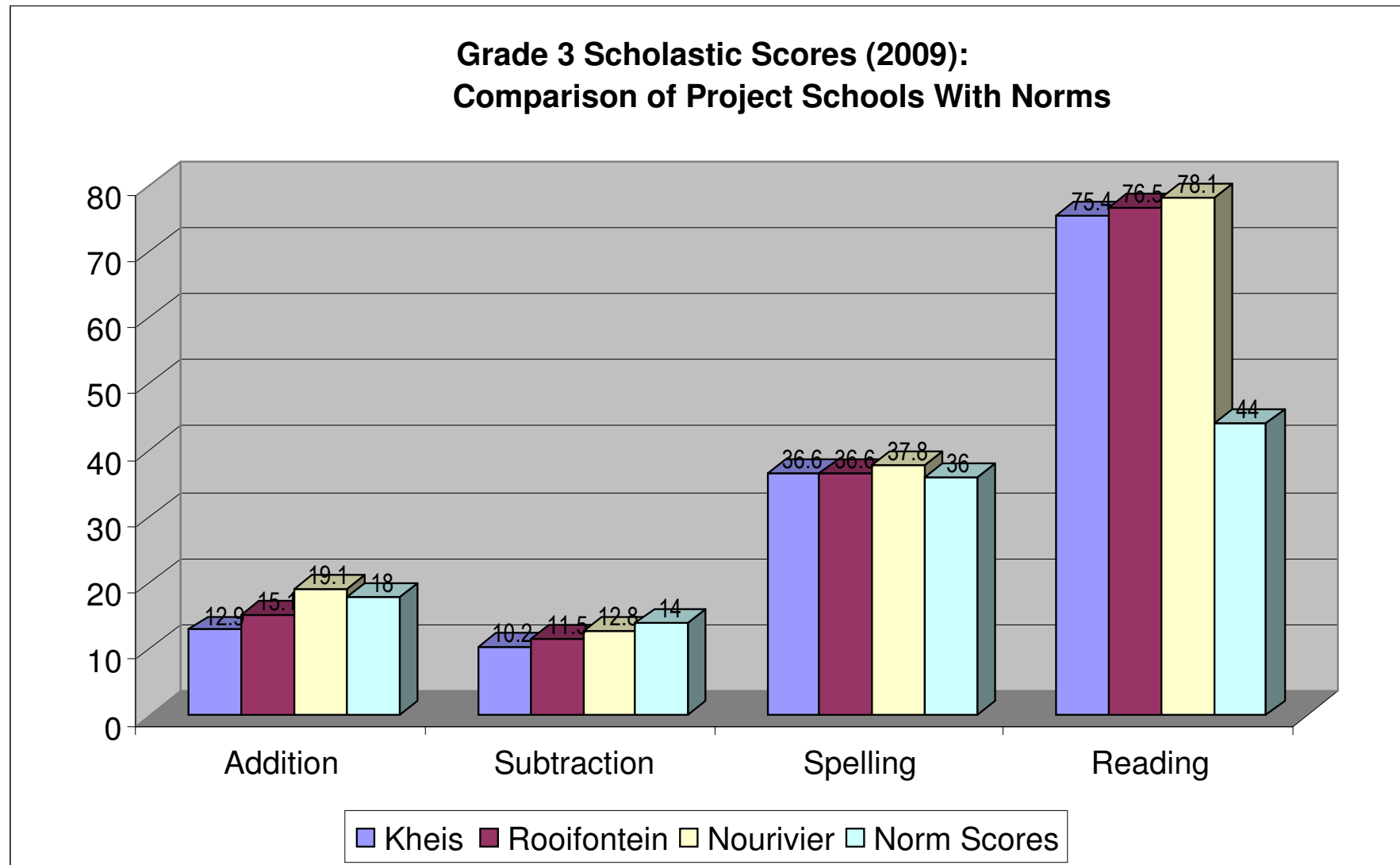
Control Schools: Number of Grade 3 Learners (2009)

	Klipfontein	Spoegrivier	Paulsehoek	Total
Total number of learners	12	11	9	32
Number of learners tested	12 (100%)	11 (100%)	9 (100%)	32 (100%)

A BASIC CONCEPTS AND LANGUAGE PROJECT

KAMIESBERG AREA, NAMAQUA DISTRICT, NORTHERN CAPE, SOUTH AFRICA (2006-2009)

RESULTS



A BASIC CONCEPTS AND LANGUAGE PROJECT

KAMIESBERG AREA, NAMAQUA DISTRICT, NORTHERN CAPE, SOUTH AFRICA (2006-2009)

RESULTS

Grade 3: Number of project learners above, on or below grade level (2009)

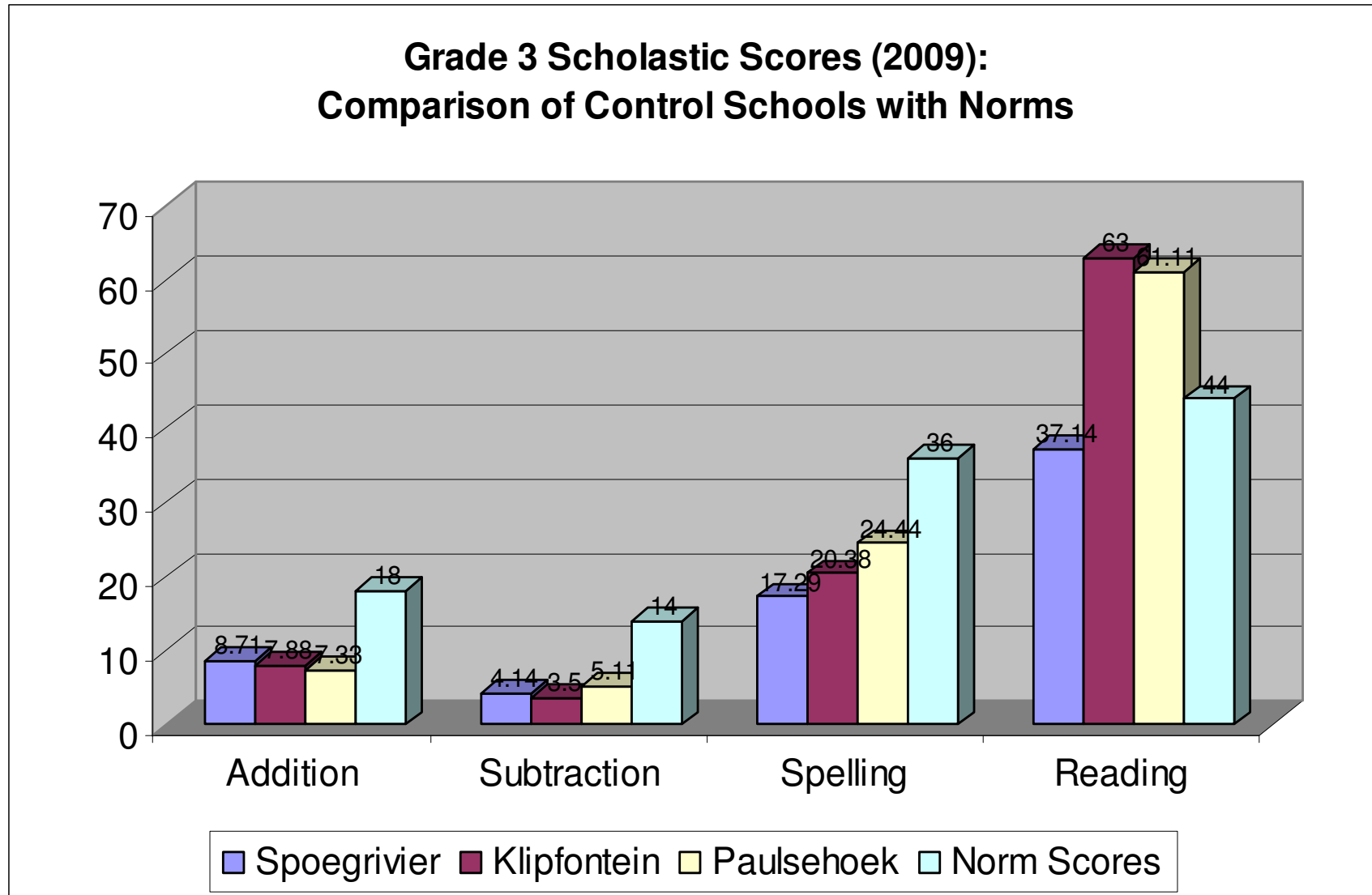
N=44	<i>Learners who are on or above Grade level</i>		<i>Learners who are on Grade 2, 4th term level</i>		<i>Learners who are weaker, but might cope in Grade 3</i>		<i>Learners who should not progress to Grade 3</i>	
	No	%	No	%	No	%	No	%
Rooifontein	16	72.7%	1	4.6%	0		5	22.7%
Nourivier	8	72.7%	0		0		3	27.3%
Kheis	9	81.8%	0		1	9.1%	1	9.1%
Total	33	75%	1	2.3%	1	2.3%	9	20.4%

According to the above results 80% (n=35) of the project learners should progress to Grade 4 in 2010.

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RESULTS



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KAMIESBERG AREA, NAMAQUA DISTRICT, NORTHERN CAPE, SOUTH AFRICA (2006-2009)

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Grade 3: Number of control learners above, on or below grade level (2009)

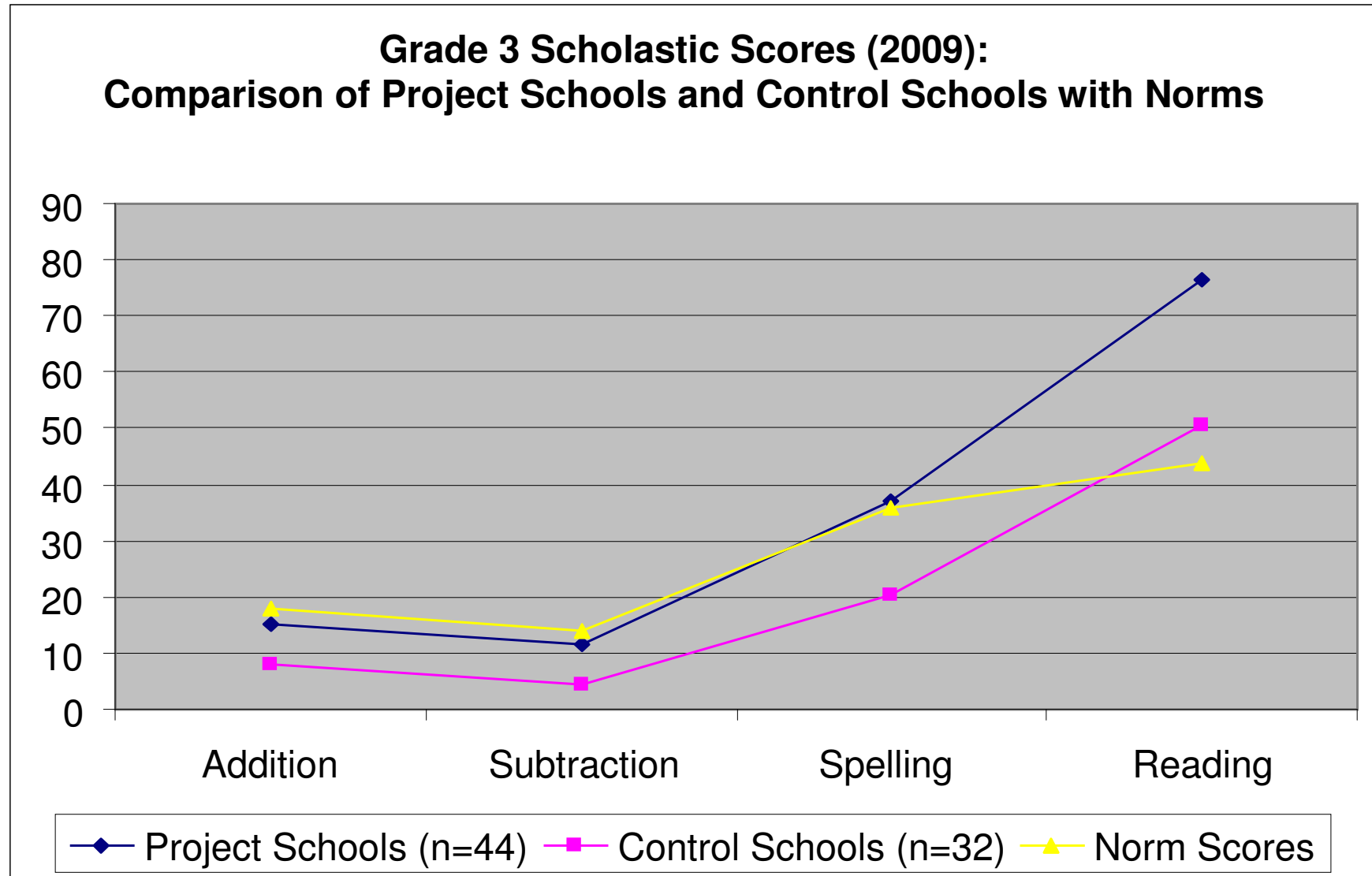
N=32	<i>Learners who are on or above Grade level</i>		<i>Learners who are on Grade 2, 4th term level</i>		<i>Learners who are weaker, but might cope in Grade 3</i>		<i>Learners who should not progress to Grade 3</i>	
	No	%	No	%	No	%	No	%
Kliprivier	4	33.3%	1	8.3%	0		7	58.3%
Spoegrivier	1	9.1%	1	9.1%	1	9.1%	8	72.7%
Paulshoek	4	44.4%	1	11.1%	0		4	44.4%
Total	9	28.1%	3	9.4%	1	3.1%	19	59.4%

According to the above results 40.6% (n=13) of the control learners should progress to Grade 4 in 2010.

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RESULTS

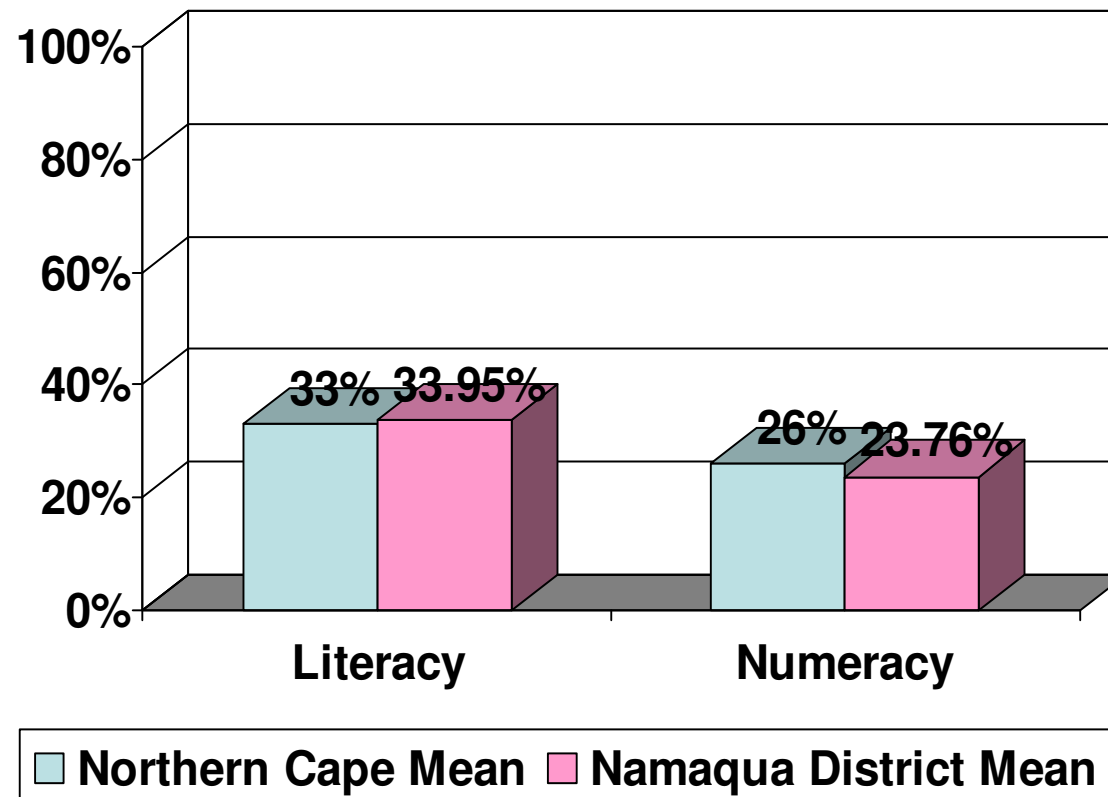


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KAMIESBERG AREA, NAMAQUA DISTRICT, NORTHERN CAPE, SOUTH AFRICA (2006-2009)

RESULTS

Systemic Evaluation of Grade 3 Learners, Northern Cape (2003)



From the above results it could be inferred that only between 33% (for literacy) and 26% (for numeracy) of learners in the Northern Cape should progress to Grade 4.

A BASIC CONCEPTS AND LANGUAGE PROJECT

KAMIESBERG AREA, NAMAQUA DISTRICT, NORTHERN CAPE, SOUTH AFRICA (2006-2009)

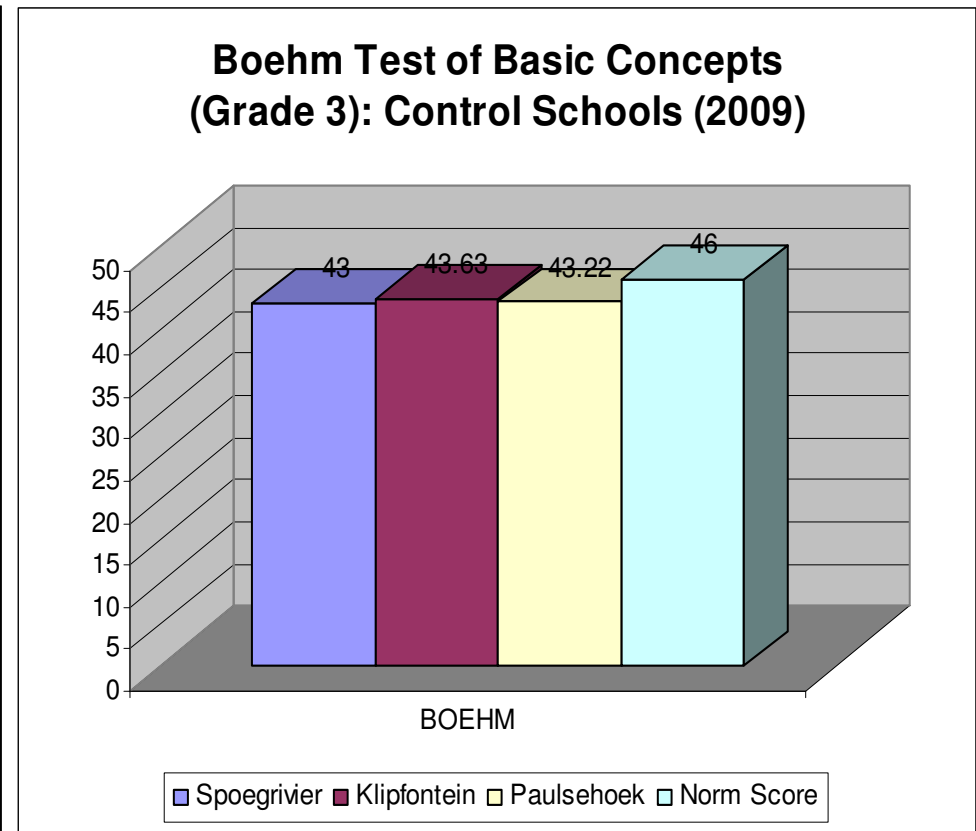
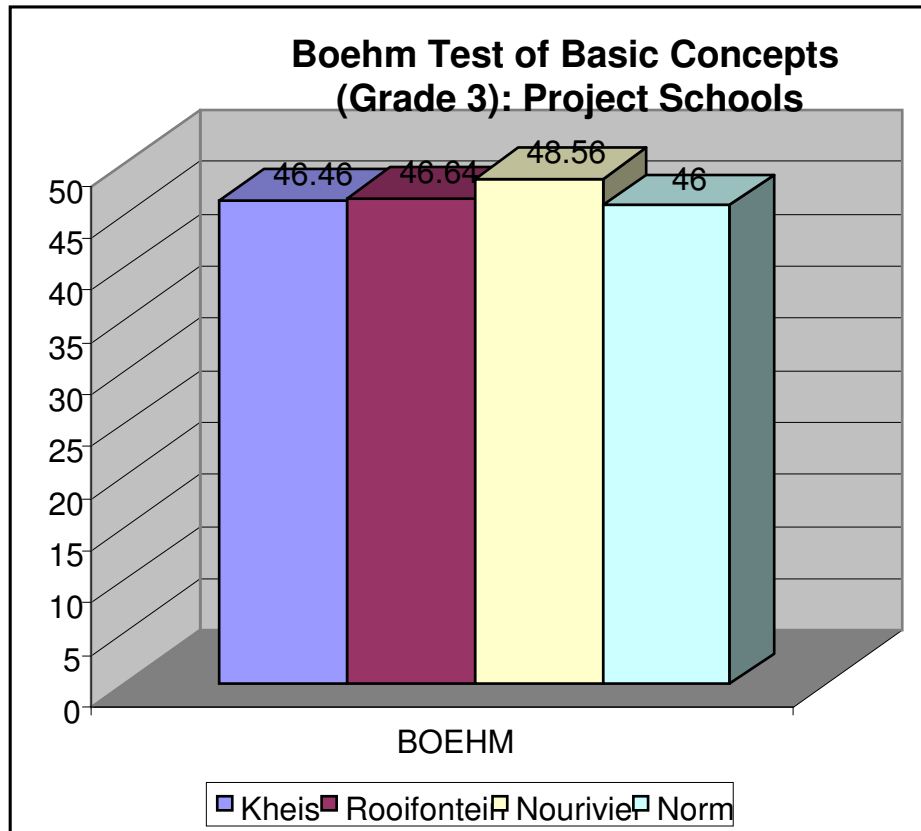
SUMMARY OF SCHOLASTIC RESULTS

- The learners at the project schools attained higher mean scores than their counterparts in the control schools on all tests.
- The project schools were functioning considerably above grade level for Reading (± 6 years in advance) and marginally above grade level for Spelling, while the control schools were functioning above grade level for reading (± 6 months in advance) and below grade level for Spelling (\pm Grade 2, 4th term level).
- The project and control schools were functioning below grade level for Addition and Subtraction. While the project schools were mostly functioning on a Grade 2 – Grade 3 level for Addition and Subtraction, the control schools were functioning on a pre-Grade 1 – Grade 1 level.
- The learners in the project schools thus attained results that were superior to control schools in all areas and seemed to suggest differences of between 1-5 years in favour of the project learners.
- The learners at the project schools attained literacy and numeracy scores that were higher than those of the average learner in the Northern Cape (2003), while the scores of learners from the control schools were similar to their peers in the province.

A BASIC CONCEPTS AND LANGUAGE PROJECT

KAMIESBERG AREA, NAMAQUA DISTRICT, NORTHERN CAPE, SOUTH AFRICA (2006-2009)

RESULTS



According to the above results learners from the project schools were functioning above the norm score, while learners from the control schools were functioning below the norm score.

A BASIC CONCEPTS AND LANGUAGE PROJECT

KAMIESBERG AREA, NAMAQUA DISTRICT, NORTHERN CAPE, SOUTH AFRICA (2006-2009)

SUMMARY OF THE BASIC CONCEPTS (BOEHM) RESULTS

- The learners from the project schools attained a higher mean score (46.98) than their peers from the control schools (43.28).
- The difference between the project and control schools (3.7 points) on this standardized test would correspond to 15 percentile points.
- While the project school learners' knowledge of basic concepts was within the range expected, the learners in the control schools attained results which were not in this range and were below those of the Grade 2 learners at the project schools.

A BASIC CONCEPTS AND LANGUAGE PROJECT

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CONCLUSION

The final set of results for learners in Grade 3 in 2009 (who started the project in Grade R), were most encouraging and seemed to provide support for intervention effect.

The main contention of the project seemed to be validated: - If the pre-requisites for learning (cognitive functions and associated language) are adequately established before the start of formal schooling and if such development is sustained (for up to 3 years) in a mediational way, scholastic learning should be strengthened incrementally.

This is the 'snowball effect' described by Haywood (1994):- As changes in cognitive functioning gather momentum, an associated ability to operate on formal (abstract-symbolic) knowledge systems (e.g. letter and number) develops.

Appendix 1

Summarised Profile of Namakwa District

- Municipality Namakwa District Municipality is geographically the biggest in the country but has the smallest population. The area of Namakwa is made up of one District Management Area and Six Local Municipal Areas, namely:
Nama Khoi
Khai-Ma
Richtersveld
Kamiesberg
Hantam
Karoo Hoogland
- There are 27 776 households in the District with Nama Khoi accounting for the majority of 41% of the District's population. The greatest number of rural households is located in Hantam.
- The education levels in the District are low. Almost half of the people older than 20, either had no schooling or only some primary education. A third of the population older than 20 had some secondary education and only 15,47% obtained Grade 12.

Source: *Preview on Namakwa District Municipality by the Director-General: Department of Provincial and Local Government (dplg), Lindiwe Msengana-Ndlela, 9-10 June 2006.*