SOUTHERN AND EASTERN CONSORTIUM FOR MONITORING EDUCATION QUALITY

(SACMEQ IV BRIEF)

Draft Report

This is a brief of the SACMEQ IV Report. The brief includes chapters that were discussed during the Ministers' conference. The complete report is still under draft and is still to undergo validation by the SACMEQ Coordination Committee. Copies of the report and presentations will also be available on the EMIS site, www.emis.co.sz and from the Ministry's EMIS unit, which coordinates SACMEQ.

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Background

This is a brief presentation of the SACMEQ IV results. This is not the complete report, but it serves to highlight the major results in the achievement of grade 6 pupils and their teachers in Reading, Mathematics and Health AIDS Knowledge Test. The highlighted findings were a basis for in-depth discussions during the SACMEQ Ministers' meeting which was scheduled for the 19th June 2017. A full and comprehensive report is being drafted. The brief highlights the key areas of interest, which were presented to the Ministers during their meeting.

Two sections have been included in this report: (i) Pupils and Teacher achievement in Reading and Mathematics and a section on (ii) HIV and AIDS Health Knowledge test (HAKT). The SACMEQ research also includes other attributes to a quality education such as inputs to education, the profile of learners, their teachers, head teachers and the socio-economic environment of the school setting. This includes the resources that are available in the different schools. SACMEQ data presents a holistic assessment of all the attributes that can be attributed to a quality education. It takes into cognisance all the factors that impact on the quality of education.

An annex is also included in the brief, which is a presentation on the analysis of all SACMEQ countries' performance in the areas highlighted above. Although the intention of SACMEQ is not to compare countries, these results can be used to place Swaziland amongst its neighbouring countries and other which are part of the consortium. The report will present the national results in the light of past results, and also the international perspective. The national analysis looks at the trends nationally, and suggests areas where there may be need for intervention.

SACMEQ data the property of the Ministry of Education and Training, and can be sought through written requests to the office of the Principal Secretary.

The Conduct of the study

Over the years since its first project in 1995, SACMEQ has developed research instruments and collected useful information using advanced research methods. An important principle in the studies is to ensure that SACMEQ is able to generate valid measures of levels and changes in achievement:

(a) Across countries at single time points, and
(b) Across time points for individual countries.

To achieve this goal SACMEQ follows virtually the same methodologies across studies and uses the same instruments which must be kept confidential to remain valid. The methodology and instruments that were used in the SACMEQ IV project in 2013 were, therefore, the same as in SACMEQ III. **For a detailed account of the study design, sampling techniques and the development of the instruments (tests construction) reference should be made to the second chapter of the[1]Swaziland SACMEQ II report which is available on the SACMEQ website (www.sacmeq.org).** In addition to the normal SACMEQ tests, SACMEQ III project included a test on HIV and AIDS knowledge test.

In 2006 the SACMEQ's Governing Body (the SACMEQ Assembly of Ministers of Education) expressed concern about the need for a well-designed indicator that could be used to guide informed debate about the effectiveness of HIV and AIDS prevention education programmes. The one indicator that had been widely used to judge these programmes (known as the United Nations General Assembly (UNGASS) HIV-AIDS Knowledge Indicator for Young People, was considered to lack validity because it was based on a short list of five test questions that were problematic in terms of wording complexity, content coverage, and reliability. The SACMEQ Ministers asked the SACMEQ III Project Research Teams to address information needs in this area by developing a valid SACMEQ HIV-AIDS Knowledge Test that would be suitable for administration to Grade 6 pupils who have average ages of 13.5 years across the SACMEQ countries and 13.9 years in Swaziland, and their teachers. The HIV and AIDS knowledge indicator (test) was also administered in 2013 under the SACMEQ IV research study.

The Study Population

(a) Desired Target Population

The desired target population definition for the SACMEQ III Project was exactly the same as was employed for the SACMEQ II Project. This consistency was maintained in order to be able to make valid cross-national and cross-time estimates of "change" in the conditions of schooling and the quality of education. The desired target population's definition for the SACMEQ III Project was as follows:

"All pupils at Grade 6 level in 2007 (at the first week of the ninth month of the school year) who were attending registered mainstream (primary) schools."

(b) Excluded Target Population

One of the rules followed by SACMEQ for ensuring valid data in large-scale studies is that no more than 5 percent of the pupils in the desired target population may be excluded from the defined target population. Like in SACMEQ III, special schools which provide education to pupils with severe educational needs were excluded from the SACMEQ IV sample. "Small" mainstream schools which had less than 25 pupils enrolled in Grade 6 in 2013 were also allocated to the excluded population to reduce data collection costs – without running the risk of causing major distortions in the study population.

(c) Defined Target Population

The "defined target population" was constructed by removing the "excluded target population" from the "desired target population". The excluded population accounted for 2.93% percent, which was less than the stipulated 5 percent to meet SACMEQ criteria for accuracy in large-scale assessment data.

(d) Sampling and Sample Characteristics

A two-stage sampling design was employed. In the first stage, schools in the defined target population were sampled on a "probability-proportional-to-size" (henceforth PPS) basis, from sampling frames that individual countries submitted to the SACMEQ Coordinating Centre. The PPS sampling technique meant that, relatively large schools had a higher probability of being selected than smaller schools. In the second stage of sampling, learners were sampled from all the Grade 6 classes in each of the sampled schools using computer-generated random numbers. Twenty five (25) pupils (minimum cluster size) were sampled where the total number of all enrolled Grade 6 pupils at the time of data collection was greater than 25. Where the number of Grade 6 pupils was 25 or less, all the Grade 6 pupils were included in the sample.

Data Management

(a) Data Checking and Data Entry

Data punching was centralised in Swaziland and done at the national office, in the EMIS Unit. All data instruments were thoroughly checked for completeness and stored in readiness for punching. This was a continuous process, and as each school was completed, the instruments were checked and stored. The first stage of checking involved two main processes. The staff checked that: (i) all expected questionnaires, tests, and forms had been received, and (ii) that the identification numbers on all instruments were complete and accurate.

The second stage of cleaning was preceded by a review of all the logical linkages that exist between the instruments. This review exercise took a whole day. All instruments were analysed using the guidelines provided by the SACMEQ Coordinating Centre. Linkages between questions were checked if they made sense. For example, staff had to verify if the two questions to School Heads: "Do you have a school library?" and "How many books do you have in your school library?" were answered consistently and logically, and whether Teachers would also give the same responses to the same questions. This initial step of data-punching was crucial because it determined that right from the onset, data were cleaned.

Data punching was done by the core EMIS team. Data punchers were supervised by the National Research Coordinators (NRC), who had undergone rigorous training on data-entry software. Data were captured into computers using WINDEM software that was supplied by the SACMEQ Coordinating Centre. Data were "doubly entered" in order to monitor accuracy. Data punchers were allowed to punch data for a period not exceeding three hours after which, they would take 30-minute compulsory breaks.

(b) Data Cleaning

During December 2007, the SACMEQ Coordinating Centre organized a training programme for all NRCs. The teams were led step-by-step through the required data-cleaning procedures that they would follow in their respective countries. At individual country level, NRCs followed a "cyclical" process whereby data files were cleaned by the NRCs, emailed to the Coordinating Centre for checking and then emailed back to the NRCs for further cleaning. Worth pointing out is that the data-cleaning process in Swaziland had fewer 'cleaning cycles,' an indication of quality data cleaning and punching. This was much shorter than the time taken to clean the data for the SACMEQ II project. It was important to begin the process of punching data once all 'hand cleaning', checking of inconsistencies and gaps had been done, so as to reduce the number of cleaning cycles.

To clean the data, using the WINDEM software, the NRCs followed specific directions to : (i) identify major errors in the sequence of identification numbers, (ii) cross-check identification numbers across files; for example, to ensure that all pupils were linked with their own Reading and

Mathematics teachers, (iii) ensure that all schools listed on the original sampling frame also had valid data collection instruments and vice-versa, (iv) check for "wild codes" that occurred when some variables had values that fell outside pre-specified reasonable limits, and (v) validate that variables used as linkage devices in later file merges were available and accurate.

Merging and Weighting

When the data cleaning was complete, the NRC merged the data from all the sources. The merging process required the construction of a single data file in which pupils were the units of analysis and the rest of the data from the other respondents were linked to the pupil data. That is, each record of the final data file for the country consisted of the following four components: (a) the questionnaire and test data for an individual pupil, (b) the questionnaire and test data for his/her Mathematics and Reading teacher, (c) the questionnaire data for his/her School Head, and (d) school and pupil "tracking forms" that were required for data cleaning purposes.

Pupil and Teacher Competencies in Literacy and Numeracy

Introduction

This chapter will present SACMEQ research findings in the Reading (English) and Mathematics achievement Levels of grade 6 pupils and their teachers in Swaziland. The chapter will include comparisons of three SACMEQ research studies that were undertaken by the country, under SACMEQ. The tests are based on the SACMEQ countries' curriculums, and were constructed in consultation with curriculum experts and teachers from the SACMEQ countries. A number of test items were constructed and these items underwent a comprehensive analysis, which included them being piloted in SACMEQ countries and the best discriminating items shortlisted for the tests. Materials were piloted with grade 6 pupils and their teachers. There were a few items that were also included in both the pilot and final tests that were selected from past SACMEQ studies – items which effectively discriminated the different achievement levels.

The **Achievement tests** were designed to measure the knowledge and skills students learned in local school-contexts, and were also used to determine the academic progress they had made over time, from SACMEQ II SACMEQ III and SACMEQ IV for Swaziland. The results from the tests were also to investigate the effectiveness of the schools and teachers, especially in the delivery of the curriculum.

All SACMEQ studies developed and administered achievement tests for teachers of grade 6 pupils. There were also common test items in the pupils and their teachers' tests, and these made it possible to place the grade 6 pupils and their teachers in the same continuum. It was possible

then to place the pupils and their teachers on the same underlying literacy and numeracy scales. Some items were picked from the SACMEQ item bank – items that proved to be good discriminators in the previous SACMEQ studies. In Swaziland the tests were piloted in 20 primary schools – 5 in each region in 2012. These final tests were administered to Grade 6 pupils and their teachers – those who were teaching grade 6 in the year of study. A detailed description of the development and scaling of pupil and teacher tests will be presented in the Chapter 2.The results of the three SACMEQ studies will be presented with a view to investigate the trend from SACMEQ II to SACMEQ IV. The SACMEQ IV study will adopt the same methods for reporting the scores.

The three ways of reporting the test scores

The performance of grade 6 pupils and their teachers will be presented and reported in three different methods: (i) the traditional, (ii) comparison with expert judgments and (iii) competence levels.

(a) Means (traditional)

The first method is the '**traditional method'** of reporting achievement. It is based on the **mean scores** of pupils and teachers across the four administrative regions in Swaziland. This is the most familiar method and it is commonly used in education systems and schools. It is **a number presenting an average score that has been achieved.** It is designed to compare and rank test takers in relation to one another. It makes it possible to compare an individual's score(s) with those of pupils who are in the same grade. This method of scoring does not provide any insights or meaning into a particular level of pupil or teacher performance. It falls short of giving information about the cognitive level of development. This method of reporting achievement is common in some education systems, even where such reporting is used to measure the competency of a child in order to move to the next level. However, from the content of the test, a particular score can be used to indicate some level of achievement by the pupil. Detailed analyses could also be used to match traditional scores to achievement, provided the mean scores can be linked to certain levels of competency that have been achieved.

(b) Comparison with expert judgments

The second method is **based on agreed criteria.** In SACMEQ studies, prior to the data collection the national and international expert committees agreed on "standards" or "criteria" that defined levels of performance. Two broad levels were identified, i.e. performances that would **be expected from a pupil who would : (a) barely survive during the next year of schooling (the "Minimum" level) and (b) was guaranteed to**

succeed during the next year of schooling ("Desired" level). In Swaziland this meant the "Desired" level in Grade 6 represented performance that would guarantee that a pupil would be able to proceed to and pass Grade 7, the end of primary school examination.

(c) Competence levels

The last method is based on a scaling method known as the Rasch Model. **This enabled the ability levels of pupils and their teachers to be aligned with the difficulty levels of the test items according to a probabilistic linkage between person ability and item difficulty. This made it possible to place the test items along a "level of difficulty" dimension and then group them into "clusters" that are linked to common groups of skill.** These clusters were then examined and described in terms of the specific skills required for pupils to provide correct responses. **This meant that the probable ability of a pupil could be measured by the difficulty of the group of items (cluster) the pupil scored in a test. The team defined eight clusters which were called levels of competency.** The SACMEQ team, with local experts, defined eight levels of competency in both Reading and Mathematics. **This enabled the researchers to align pupil and teacher responses with the eight levels of competence in Reading and Mathematics.** Further, the SACMEQ researchers also categorized these eight levels into broad strands of levels of development. For example in Reading, based on the level of competence, the researchers were able to determine and describe whether or not a pupil was at a lower level of Reading (emergent reader) as opposed to an 'analytical reader,' which is a higher level of Reading.

1.0 What were the levels and variations in the achievement levels of Grade 6 pupils and their teachers?

(a) Reading and mathematics mean scores for Grade 6 pupils in SACMEQ

The results of the mean scores for Grade 6 pupils and their teachers for SACMEQ studies have been presented in Table 1. Both sets of scores were scaled such that the average for Grade 6 pupils for all SACMEQ countries combined was 500 and the average for teachers was 700. The standard deviation in both cases was 100.

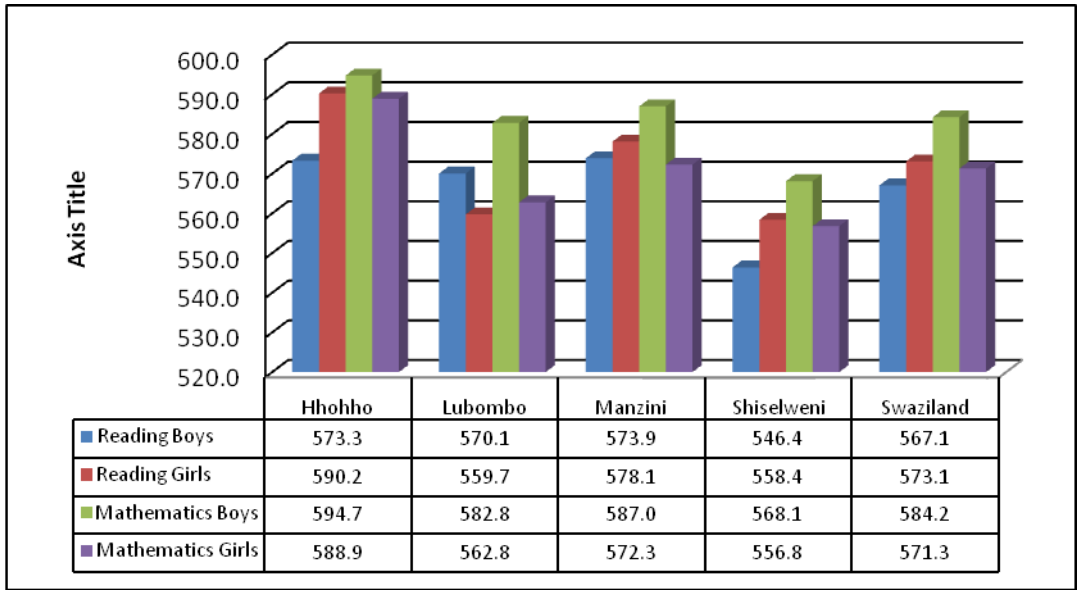
Table 1 Means for the reading and mathematics test scores of pupils and teachers

SACMEQ II	PUPILS				TEACHERS			
	Reading		Mathematics		Reading		Mathematics	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Hhohho	541.0	7.98	527.4	7.43	747.4	9.22	810.4	16.01
Lubombo	534.5	8.48	524.4	5.37	755.1	10.53	795.8	10.23
Manzini	525.0	6.18	509.0	4.56	738.2	11.79	820.3	17.02
Shiselweni	516.5	5.69	505.1	7.20	757.7	10.63	801.2	15.05
SWAZILAND	**529.6**	**3.72**	**516.5**	**3.39**	**748.8**	**5.46**	**808.1**	**7.77**

SACMEQ III	PUPILS				TEACHERS			
	Reading		Mathematics		Reading		Mathematics	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Hhohho	547.0	7.08	537.4	6.05	763.7	9.06	800.5	16.29
Lubombo	552.1	6.74	542.6	4.95	755.1	9.45	807.6	12.57
Manzini	556.0	5.32	544.1	3.84	779.7	9.78	816.0	14.48
Shiselweni	541.4	4.18	539.2	3.76	769.7	8.89	819.8	13.23
SWAZILAND	**549.4**	**2.98**	**540.8**	**2.39**	**768.2**	**4.73**	**811.1**	**7.34**

SACMEQ IV	PUPILS				TEACHERS			
	Reading		Mathematics		Reading		Mathematics	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Hhohho	**581.7**	**6.76**	**591.6**	7.44	727.1	7.95	**821.4**	14.72
Lubombo	565.0	5.96	572.2	5.52	**736.7**	11.88	816.9	14.90
Manzini	**576.0**	6.24	**579.6**	4.94	721.5	12.28	**830.2**	14.92
Shiselweni	552.1	7.27	562.3	6.09	**736.8**	11.64	814.9	17.03
SWAZILAND	**570.1**	**3.31**	**577.6**	**3.06**	**729.6**	**5.56**	**821.7**	**7.70**

Chart 1: Reading and Mathematics Pupils Scores by Gender and Region: SACMEQ IV



	Hhohho	Lubombo	Manzini	Shiselweni	Swaziland
Reading Boys	573.3	570.1	573.9	546.4	567.1
Reading Girls	590.2	559.7	578.1	558.4	573.1
Mathematics Boys	594.7	582.8	587.0	568.1	584.2
Mathematics Girls	588.9	562.8	572.3	556.8	571.3

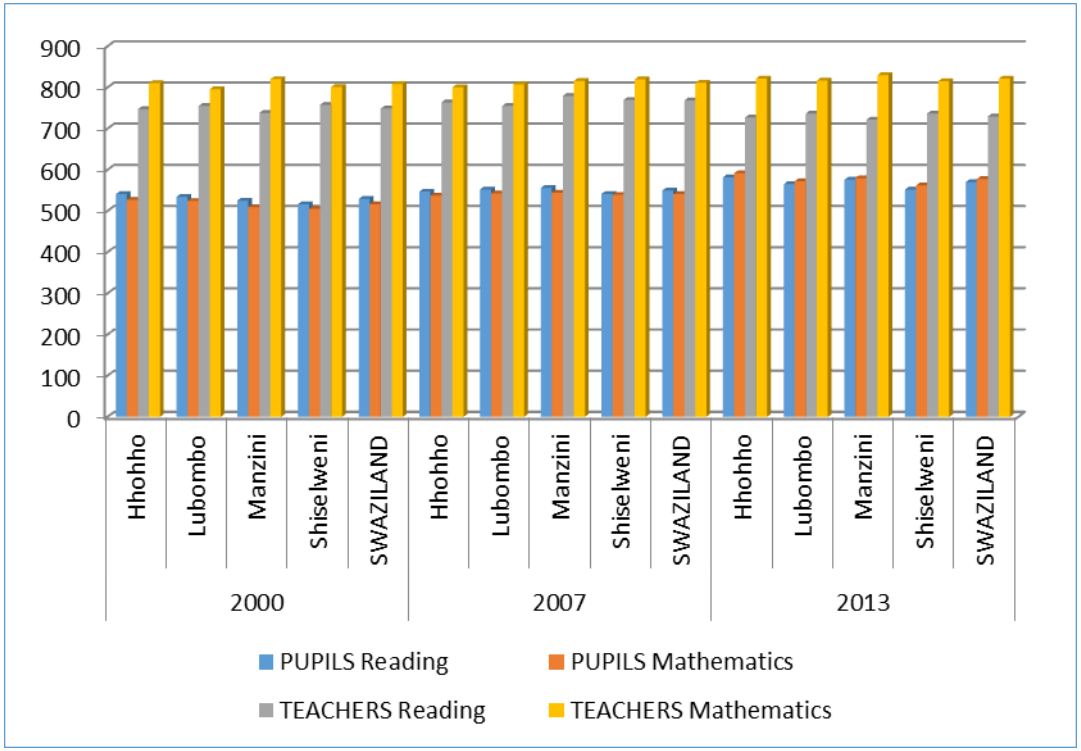
The results also highlighted some regional differences in performances. The difference between the highest scoring region (Hhohho) and lowest scoring region (Shiselweni) was about 30 points in both Reading and Mathematics.

This may have suggested that the education offered in the regions may not have been of equal quality. Such differences raise critical questions about the provision of education in the country, especially because Shiselweni has always been on the lower end since 2000.

This may warrant further investigation in other national assessments because if the region is performing poorly in other assessments, such as the end of primary examination, then there is need for a major review in the provision of education at primary level to ensure that Swazi children, irrespective of location, get quality education. All Swazi children are entitled to a free primary education irrespective of location, the region cannot always be lagging behind the others, and the Ministry needs to 'balance the scales'.

The results also indicated that on average, grade 6 boys scored better than girls in mathematics; this is common in all the regions. The opposite is true for Reading –the girls performed better, on average, than the boys. The lowest recorded scores in both subject areas were for Reading by boys from the Shiselweni region (546.4) and for mathematics by girls (556.8) from the same region.

Chart 2: Reading and Mathematics Mean scores for Grade 6 pupils and their Teachers: SACMEQ II-IV



As the chart shows, the performance of grade 6 pupils indicated an improving trend from 2000 to 2013 in Reading and Mathematics. The performance of their teachers in Mathematics has remained stagnant, but in Reading, the performance dropped in 2013.

The case of Reading teachers is not clear; the fact is the results dropped in 2013 whilst there was improvement in Mathematics teachers and all pupils. There is need to investigate this scenario because it represents a major challenge in the system. It purports that the gains made in Reading in 2007 seemed to been lost by 2013, what happened?

A possible and plausible explanation could be attributed to increased demands for education because of the FPE, which resulted in a lot of inappropriately qualified teachers being engaged at primary school level. Most of the inappropriately qualified teachers were employed in arts, as most had majored in Humanities for secondary school level. These teachers, despite the provision of the required materials, books and additional learning materials, do not possess the pedagogy that would have enabled effective teaching and learning in the classrooms where they taught. This is just possible reason; there will be need for the primary teams to investigate further.

Policy Suggestion 1: The Chief Inspector for Primary and the English subject panel need to investigate the drop in performance in Reading by teachers in SACMEQ IV, so as to determine whether or not this was due to teachers, lack of resources such as textbooks, workbooks, etcetera. If the pupil scores showed an improvement, then there is need to investigate why the teachers' scores went down, there should be a link if the pupils were indeed taught by the teachers.

Policy Suggestion 2: The National Curriculum Centre, with the national Reading subject panel, should undertake a research into the teaching of Reading at primary school level. This research should also look into the teachers and materials that are in the schools and make recommendations that will improve the performance in Reading in both grade 6 pupils and their teachers. This may be an indication of the need to in-service some of the PGCE teachers in the relevant pedagogy – re-culture them into teaching at primary levels.

Policy suggestion 3: This study has reconfirmed a suggestion in the SACMEQ II report. The Chief Inspector for Primary should investigate why Swaziland's grade 6 teachers perform relatively better in Mathematics than in Reading.

(a) Competence levels in reading for Grade 6 Pupils in SACMEQ III

The Rasch technique was used in the definition of the eight levels of competency in reading and mathematics. The *Rasch model is* a psychometric *model* for analysing categorical data, such as answers to questions on an assessment or questionnaire responses, as a function of the trade-off between: **(a) the respondent's abilities, attitudes or personality traits and (b) the item difficulty.** These eight levels are hierarchical by nature, from the lowest level (level1) to the highest level (level 8). **This technique was used to analyse both the pupils' and teachers' performance on the test items.** The percentages of Grade 6 pupils and their teachers who reached different levels will be presented in this section of the report.

The Levels were designed by the Curriculum experts and SACMEQ teams through extensive analysis of the items that had been developed. The items and levels (based on item difficulty) were developed for each Reading and Mathematics test. Each level was then defined by name. The lowest level in Reading was Pre-Reading, which is just picture recognition. The highest level (level 8) was Critical Reading. The test items also ranged from levels 1 to level 8, so it was possible to calculate the proportion of grade 6 pupils who achieved the different levels. Figure 7.1 shows the shortened name for each level and the reading scores by region for SACMEQ III and SACMEQ IV.

Table 2: Reading levels and mean scores for Grade 6 pupil. (SACMEQ IV)

Levels	Hhohho	Lubombo	Manzini	Shiselweni	Swaziland
1. Pre-Reading	0	0	0	0	**0**
2. Emergent Reading	0	1	0	1	**1**
3. Basic Reading	2	4	2	6	**3**
4. Reading for Meaning	9	12	11	15	**12**
5. Interpretive Reading	31	34	33	35	**33**
6. Inferential Reading	32	28	29	27	**29**
7. Analytical Reading	21	20	21	11	**19**
8. Critical Reading	5	1	4	3	**3**
500 Score	**581.7**	**565.0**	**597.5**	**552.1**	**570.1**

Chart:3 Reading levels for Grade 6 pupil SACMEQ III (2007)

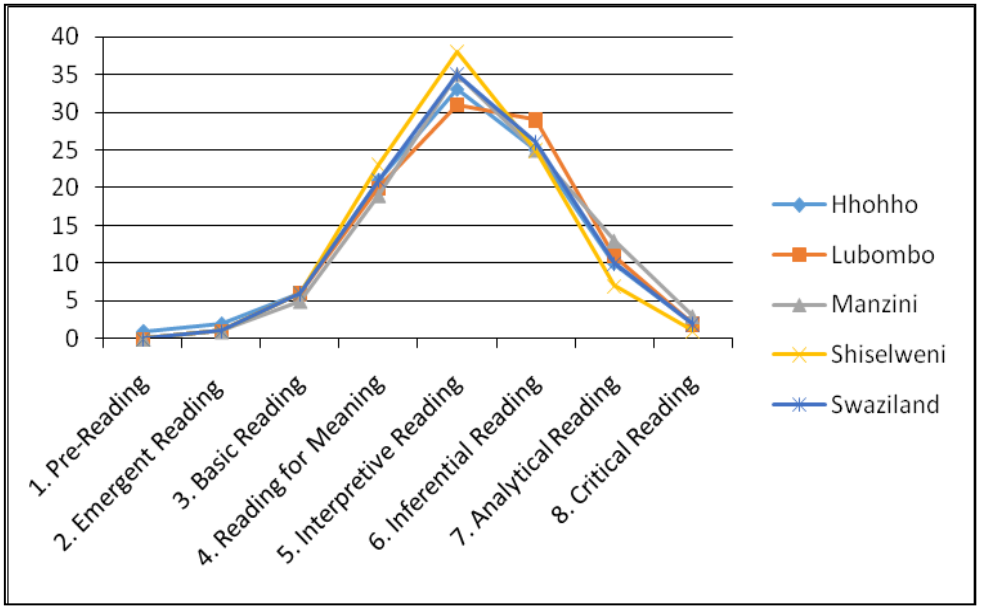


Chart:4 Reading levels for Grade 6 pupil SACMEQ IV (2013)

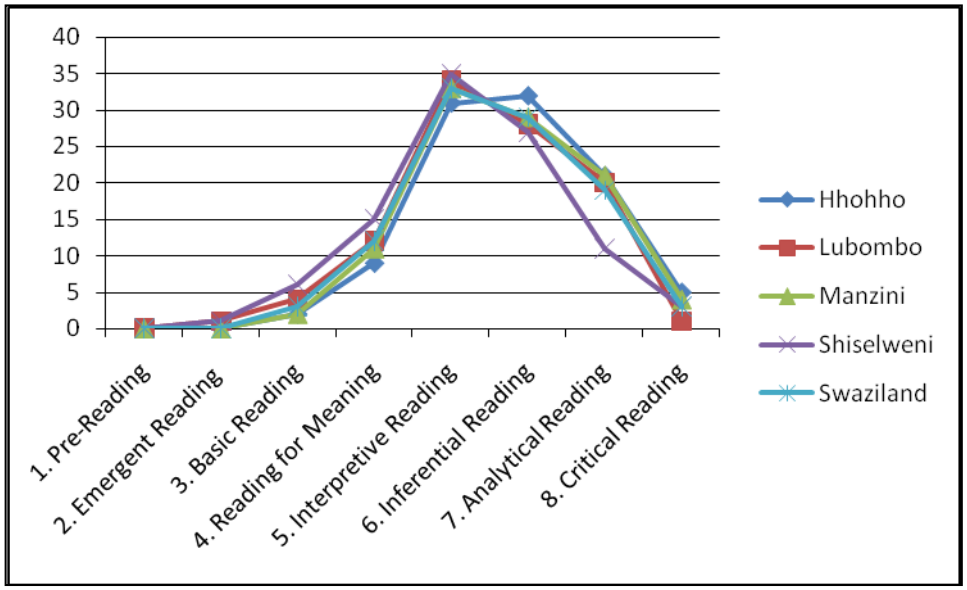


Chart: 5 Reading levels for Grade 6 pupils: SACMEQ III and SACMEQ IV

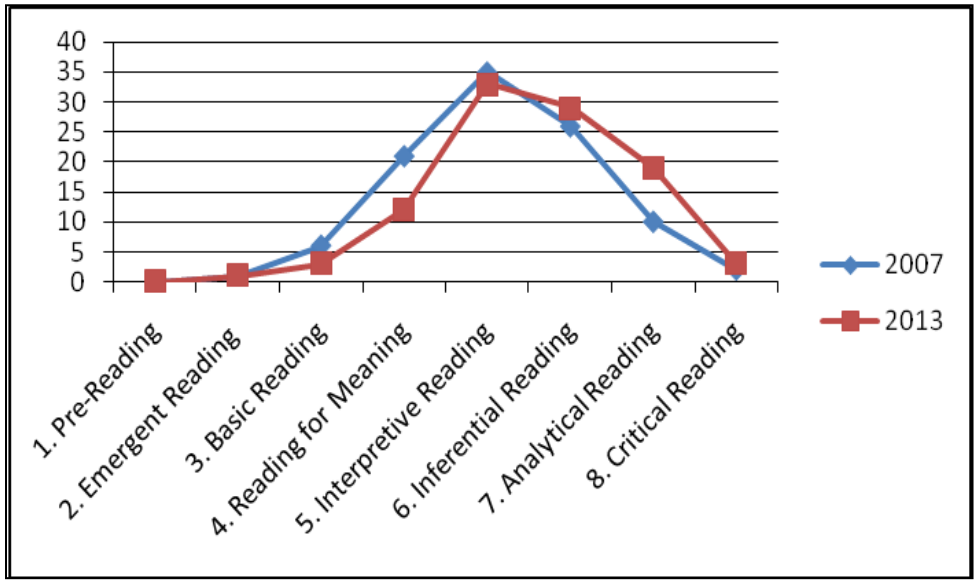
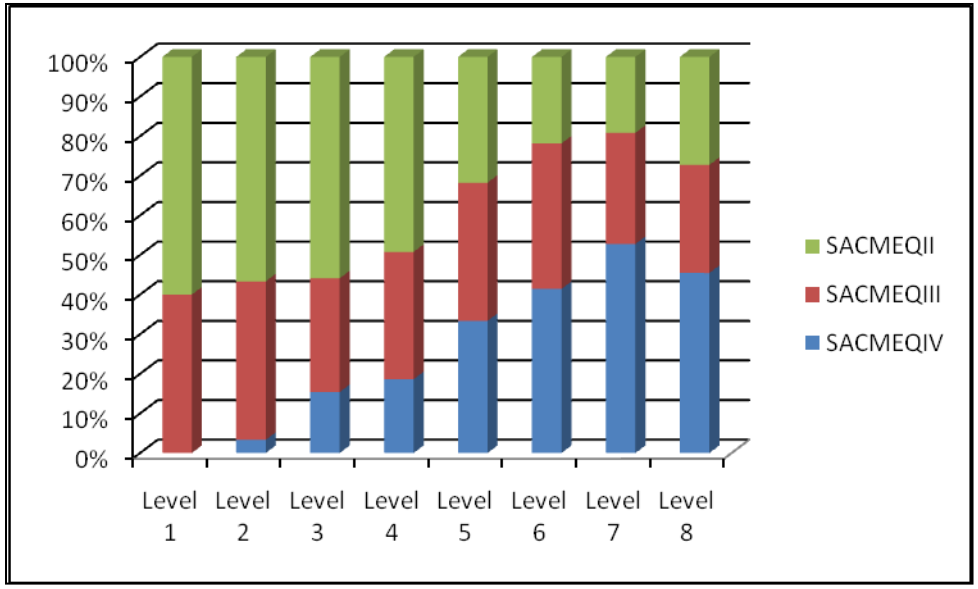


Chart 5 indicated the slight positive skewedness in 2013. There were less grade 6 pupils operating in levels 4 and below than in 2007. This implied Reading levels increased. More grade 6 pupils, operated above level 5 in 2013. However, the fact that the proportion of grade 6 pupils in level 8, suggested that maybe the curriculum was not structured to push the pupils higher up the achievement ladder.

Chart 6: Trend in Competence Levels in Reading, SACMEQ II to SACMEQ III



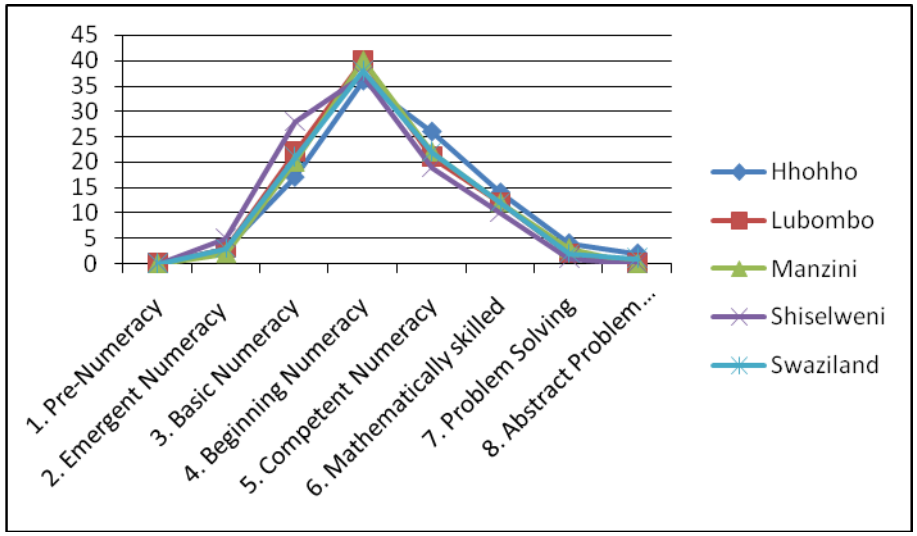
A large proportion (60%) of grade 6 pupils was in level 1 in SACMEQ II, and the remainder (40%), from SACMEQ III. In SACMEQ IV there were no grade 6 pupils in level 1. This suggested that Reading levels had improved as no learner was considered illiterate, i.e. level 1 –pre-Reader.

The chart shows an evolution of the performance in reading – more and more of grade 6 pupils were falling under levels 5 and above, especially in SACMEQ IV. This suggested that Reading levels were improving gradually in Swaziland.

Table 3: Mathematics levels and mean scores for Grade 6 pupil 2013 (SACMEQ IV)

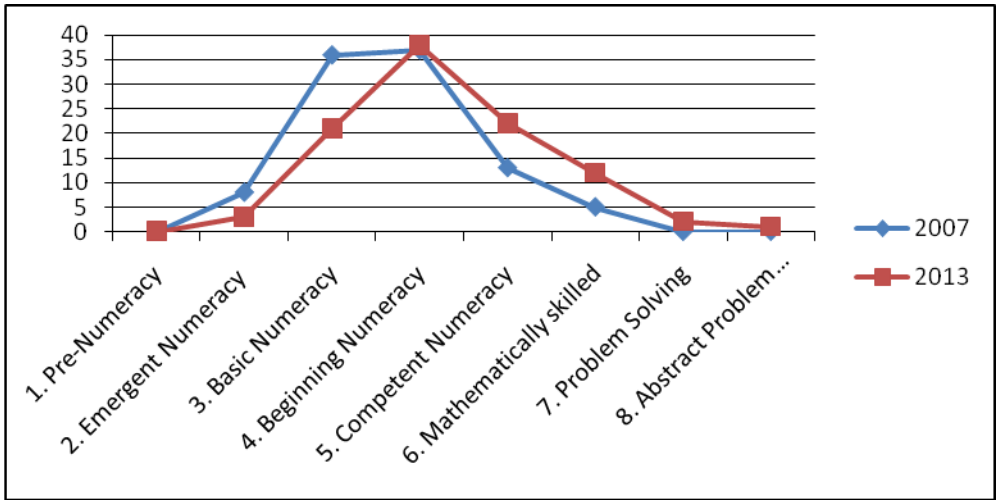
Levels	Hhohho	Lubombo	Manzini	Shiselweni	Swaziland
1. Pre-Numeracy	0	0	0	0	**0**
2. Emergent Numeracy	3	3	2	5	**3**
3. Basic Numeracy	17	22	20	28	**21**
4. Beginning Numeracy	36	40	40	37	**38**
5. Competent Numeracy	26	21	22	19	**22**
6. Mathematically skilled	14	12	12	10	**12**
7. Problem Solving	4	2	3	1	**2**
8. Abstract Problem Solving	2	0	0	0	**1**
500 Score	**591.6**	**572.2**	**579.1**	**562.3**	**577.6**

Chart 7: Mathematics Levels of Competency, SACMEQ IV (2013)



The SACMEQ IV pupils' mathematics results suggested that most of the grade 6 pupils were operating around level 4 – beginning numeracy. These were followed by those who were mathematically competent, i.e. level 5 pupils.

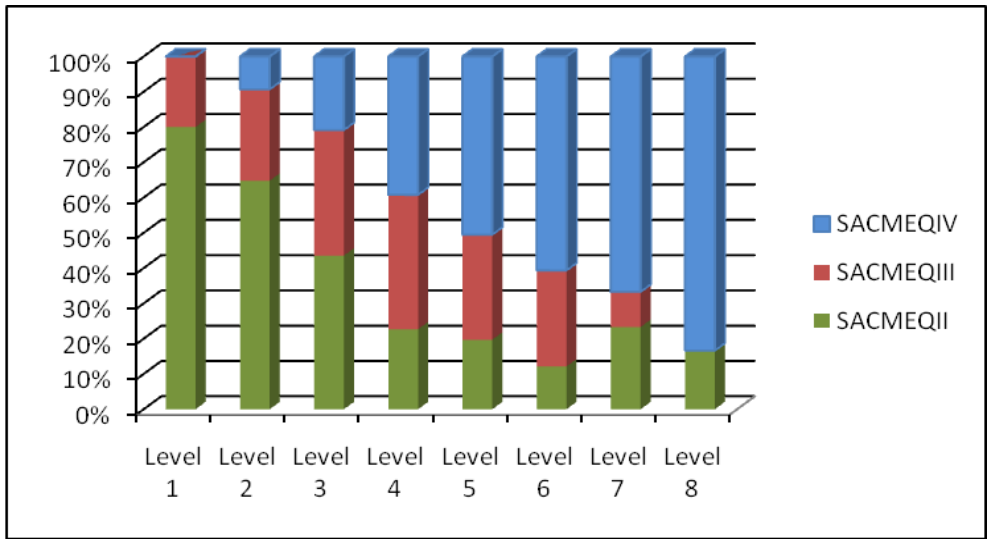
Chart 8: Mathematics levels of Competency SACMEQ III (2007) and SACMEQ IV (2013)



A slight shift to the right in Chart 8 suggested an improvement in Numeracy levels in the average grade 6 pupil in 2013 **when compared with the performance in SACMEQ III (2007). A shift to the positive indicates that more pupils are operating at higher levels of competency.**

There are more grade 6 pupils operating at ''Competent Numeracy', and ''Mathematically Skilled' than in 2007. There is also an emergence of pupils operating at levels 7 and above, which suggests that pupils are pushing their limits higher than before.

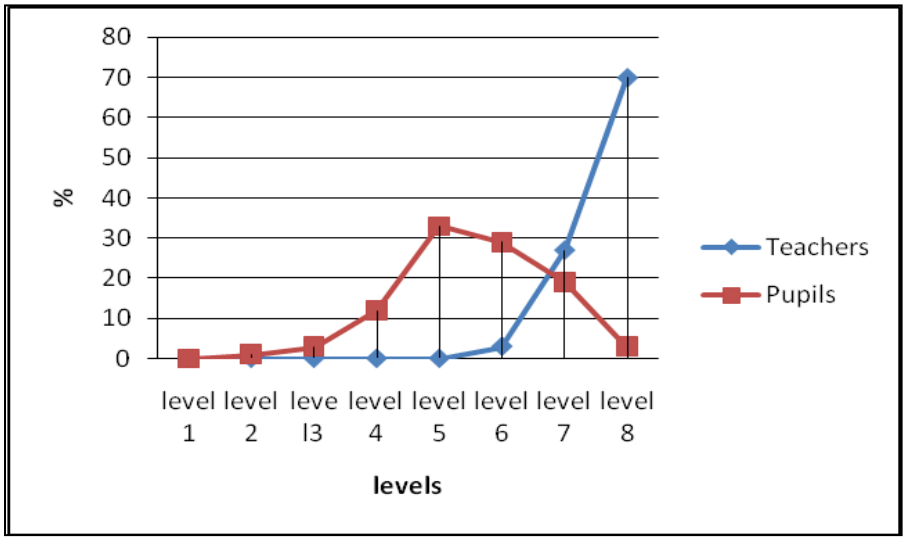
Chart 9: Trend in Numeracy achievement for Pupils SACMEQ II to SACMEQ IV



Results indicated a low proportion of grade 6 pupils in levels 1 to 3 in SACMEQ IV. This suggested that more pupils had achieved the lower end competency levels and were operating at high levels.

The data showed an improvement in mathematics achievement. Like in the Reading test, more and more grade 6 pupils seemed to be operating at higher levels: levels 5 to 8 in SACMEQ IV, when compared with past SACMEQ studies. This suggested an improvement in the learning process.

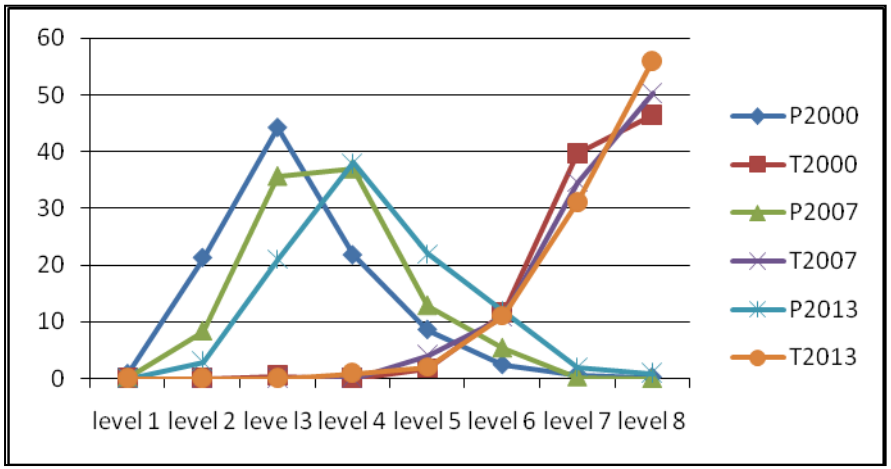
Chart 10: Achievement trends for grade 6 pupils and their teachers in Reading, SACMEQ IV



Another way of looking at the performance of grade 6 pupils and their teachers in SACMEQ IV is to review the levels that they reached on the same scale. Naturally, it is expected that most teachers should achieve higher levels of competency in the subjects than their pupils.

Results indicated that there were no teachers in levels 1 to 4. This was commendable as one doesn't expect an illiterate teacher to teach any class in formal primary school. However, data suggested that there were some grade 6 pupils who achieved higher competency levels than some of their teachers. In SACMEQ IV, 27.8 percent of grade 6 pupils achieved higher competency levels than 23.1 percent reading teachers-around level 7. Crudely speaking, it meant that there was a possibility that there was a grade 6 pupil who was more of a competent reader (read with meaning) than some teachers in Swaziland. This raised critical questions such as, were teachers taking the test seriously this time around or not? Or, did the performance of Reading teachers in SACMEQ IV drop? Crudely speaking, it meant there were classes which were taught by incompetent teachers.

Chart 11: Achievement trends for pupil and teachers in Mathematics



The performance of grade 6 pupils and their teachers in mathematics showed a behaviour that can be associated with normal expected performance levels. The results for grade 6 pupils show a decline as the levels increase to level 8, and this is because the items required competency levels of abstract problem-solving. The results for teachers show an increase as the levels go up, which means, teachers are more likely to achieve higher competency levels than their pupils. As observed from the chart, as the pupil scores (P2000) decay (decrease?) from level 5, the scores for the teachers in the same year decrease (T2000).

This trend is different from that of reading pupils and their teachers. The trend is almost similar, implying that reading teachers are not that much different than their pupils. The results raise critical questions such as, is it that the items in

reading cannot discriminate between higher order performances (poor discriminators) or that, generally, the reading levels of grade 6 teachers had declined?

Section II
HIV and AIDS Knowledge and Test (HAKT) of grade 6 pupils and their Teachers

Introduction

This chapter looks at: the Health and HIV/AIDS Knowledge, Information and Skills Levels of Grade 6 learners, their teachers and their head teachers. The knowledge about HIV/AIDS is important as it influences the attitudes and behaviours of the learners and the immediate community. Education is a strong factor in improving population health by building in individuals the capacity to process and understand risks related to the HIV/AIDS pandemic. Adversely, poor information hinders individuals from analyzing their behavioural choices by masking potential health risks. It was important for the study to also investigate the Information and Knowledge grade 6 pupils had on HIV and AIDS. A test constructed under SACMEQ III was used as a basis for the SACMEQ IV HIV/AIDS test. The Health and AIDS Knowledge Test (HAKT) was used with grade 6 pupils, their teachers and head teachers in 2007 and 2013. The results of the SACMEQ IV (2013), served to inform the Ministry and partners on the impact of their intervention in the education sector after 2007.

The test was constructed based on consultations with HIV/AIDS experts in the SACMEQ countries, and from internationally approved documents such as the UNGASS. Teaching and learning materials from all countries were used to come up with the test items. The test was constructed in a similar fashion as with the achievement instruments in that, the pupil tests and teacher information questions had some common items. This instrument was piloted in all the SACMEQ countries and the best items (discriminating) were selected to design the final test. This meant that they could be used as an indicator of HIV/AIDS knowledge. The test was to estimate the knowledge, attitudes and belief systems, perceptions and understanding of the HIV/AIDS by the pupils and their teachers.

In this chapter, research findings on the HIV/AIDS Knowledge test (HAKT) for Grade 6 pupils and information levels of their teachers and head teachers will be presented. The report will also present findings on how the situation has changed between 2007 and 2013. This is to determine whether or not the knowledge and skill levels have improved over time. This is important as it will be used as proxy to determine whether or not there has been any tangible effort made by the Ministry in the area. It is important to note that Swaziland, over the time, developed some materials, and strategies in response to the HIV/AIDS pandemic, and it included first, a concept of “Schools as Centres of Care and Support”,

which addressed this issue through seven pillars, namely, Protection and Safety, Psychological Support, Food and Security, Health, Water and Sanitation and Prevention of Violence and HIV through Life Skills Education. This included the integration of Comprehensive Sexuality Education. Later, this concept was reviewed to be a broader initiative termed the "Care and Support for Teaching and Learning (CSTL)", which was more comprehensive and has been infused to all public primary schools in the country. This concept was further integrated into the schools' time table, supported by Education, Guidance Testing and Psychological Services department known as "Guidance and Counselling department" in the Ministry of Education and Training. Guidance and Counselling teachers ensured that all learners were exposed to issues around HIV/AIDS. Consequently, schools that have guidance and counselling teachers, are tasked, in collaboration with School Support Structures, with the delivery and guidance in the implementation of the pillars under CSTL. Guidance teachers have been referred to as Health teachers in the SACMEQ study.

Most of the teachers, especially non-Guidance teachers, have not received pre-service training on issues around HIV/AIDS, but have been exposed through a number of workshops run by the Guidance department and its partners. In addition, the Ministry has formally adopted and embraced the CSTL framework, as such, its integration and delivery have been successful. The CSTL has since been adopted by the SADC as a framework for the holistic development and protection of the children, especially the girl child. It is, however, impossible to address issues around HIV and AIDS and excluding the boy child who is also a key player in the spreading of the virus. This is why the Ministry of Education and Training has seen it fit that CSTL is infused into formal curriculum to ensure every player has access to the information and knowledge about health in general and HIV and AIDS, in particular. CSTL has been structured to include Comprehensive Sexuality Education (CSE) through a program or subject called Life Skills. Schools in Swaziland offer Life Skills, which integrates issues of HIV and AIDS and holistic development and protection of the child. **Life Skills** have been defined by the World Health Organization (WHO) as "abilities for adaptive and positive behaviour that enable individuals to deal effectively with the **demands and challenges of everyday life**". They represent the psycho-social skills that determine valued behaviour and include reflective skills such as problem-solving and critical thinking, as well as personal skills such as self-awareness, and interpersonal skills. Practicing life skills leads to qualities such as self-esteem, sociability and tolerance, plus action competencies that include taking action, generating change, and capabilities to have the freedom to decide what to do and who to be. This wide definition could also influence what teachers actually teach in the school.

The tests and questionnaires for Grade 6 pupils were administered such that language did not become a barrier to understanding, so that failing an item would only be linked to lack of information than lack of understanding of the question.

Reporting of the HIV/AIDS test scores

The performance results of Grade 6 and their teachers are reported and presented in two ways:

(a) Means (Traditional)

The first approach is the "**traditional" method of reporting the mean scores of pupils and their teachers**. This measure provided an aggregated measure of performance in the form of number. The scores (transformed scores) were scaled as in other SACMEQ achievement scores such that the average score for all SACMEQ countries combined was 500 and the standard deviation was 100 for pupil scores. The scaled score for teachers was 700 with a standard deviation of 100. It is however important to note that this score although not informative in these tests would give rough information on the general knowledge of the pupils and their teachers.

(b) Comparisons with expert judgments

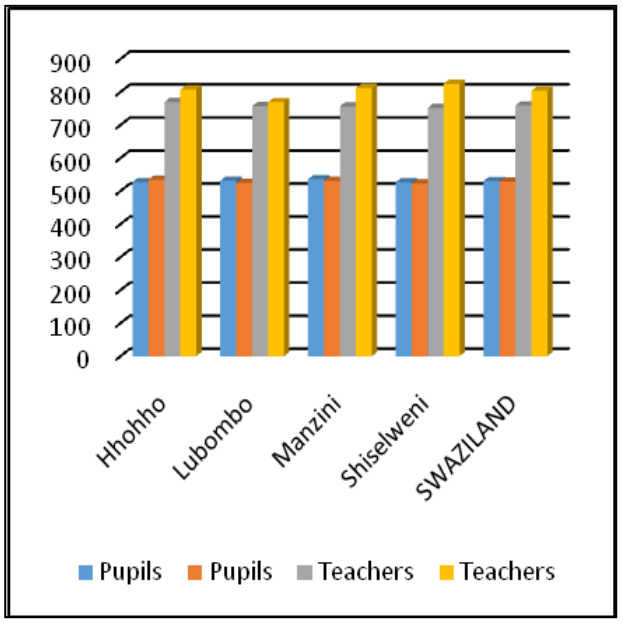
This approach involved comparing pupil and teachers scores to "**agreed standards**" that have been defined by the national experts from the SACMEQ countries before data collection. These consisted of HIV/AIDS experts, curriculum specialists, and experienced teachers. This panel identified two major levels of achievement and performance that they would expect from a pupil or teacher: **(a) have the minimum knowledge on HIV/AIDS to be able to lead a healthy risk free life (the minimum level), and (b) had enough and adequate (desired) knowledge on HIV/AIDS to survive and lead a highly productive life free of HIV/AIDS.**

The desired levels were based on a statistical analysis. It was assumed that since the HIV/AIDS instrument was a multiple choice test where each item had two options "true" or "false" the chances of guessing a correct answer is 0.5 for each item. This then meant in a test with 100 items a pupil or teacher who knew nothing and guessed all questions could possibly get 50 percent of the items correct. This meant the lowest standard that was expected was 50 percent – the minimum standard. The desired level was the case where the pupil possessed the knowledge of at least half the curriculum, i.e. this meant the pupil got 50 percent (minimum) and then guessed the other half of the test, thus with a probability of 0.5 would get an additional 25 percent. **This then resulted in the desired levels being those who achieved to get 75 percent of the test items correct.**

Table 1: Mean performance on the HAKT of pupils and teachers and percentages of pupils and teachers reaching the minimum and desirable levels of knowledge about HIV and AIDS, 2007 and 2013

2007	PUPILS						TEACHERS					
	Transformed score		Reaching minimum level		Reaching desirable level		Transformed score		Reaching minimum level		Reaching desirable level	
	Mean	SE	%	SE	%	SE	Mean	SE	%	SE	%	SE
Hhohho	526.9	7.59	49.5	4.31	4.6	1.31	769.6	14.09	100.0	0.00	86.8	5.22
Lubombo	531.5	7.56	53.0	4.22	4.6	1.56	757.2	14.22	100.0	0.00	95.2	3.37
Manzini	536.1	5.27	55.4	2.92	3.9	1.01	756.5	14.19	100.0	0.00	86.0	4.84
Shiselweni	526.9	5.26	50.2	3.34	3.0	0.79	752.0	13.34	100.0	0.00	90.8	4.58
SWAZILAND	**530.5**	**3.21**	**52.1**	**1.84**	**4.0**	**0.59**	**759.1**	**7.06**	**100.0**	**0.00**	**89.1**	**2.38**
2013	**PUPILS**						**TEACHERS**					
	Transformed score		**Reaching minimum level**		**Reaching desirable level**		**Transformed score**		**Reaching minimum level**		**Reaching desirable level**	
	Mean	SE	%	SE	%	SE	Mean	SE	%	SE	%	SE
Hhohho	534.7	6.16	50.2%	.04	5.4%	.02	807.5	11.33	100.0%	0.00	97.5%	.03
Lubombo	524.8	7.91	43.6%	.05	3.7%	.02	769.1	19.27	98.1%	0.02	91.0%	.06
Manzini	530.6	4.72	48.6%	.03	4.1%	.01	811.9	15.13	100.0%	0.00	93.6%	.05
Shiselweni	522.9	9.02	44.5%	.06	4.8%	.01	824.9	21.97	100.0%	0.00	100.0%	.00
SWAZILAND	**528.7**	**3.38**	**47.0%**	**.02**	**4.5%**	**.01**	**803.8**	**8.37**	**99.6%**	**0.00**	**95.4%**	**.02**

Chart 1: Mean Score for Pupils and their Teachers (2007 and 2013)



The grade 6 pupils mean score dropped from 530.5 in SACMEQ III to 528.7 in SACMEQ IV. The same was true for grade 6 pupils reaching minim levels; they dropped from 52.1 percent in 2007 to 47 percent in 2013. This is cause for concern as it suggests that in 2013, an average grade 6 pupil knew less when compared to an average pupil in 2007. As explained in the introduction, since this is less than 50%, then it means Swazi children were more at risk in 2013 than they were in 2007, which is worrisome. The results for teachers were the opposite.

There was substantial increase in the teachers' mean score in all the regions, with the highest mean score (824.9) that was observed in the Shiselweni region. The lowest mean score for teachers (769.1) was observed in the Lubombo region. This was a relatively low mark considering that all the other regions recorded a mean score above 800. However, the bottom line is that teachers improved on their mean score, but their pupils dropped! Does this that mean teachers only focussed on their knowledge in HIV and AIDS and were not passing this information to the pupils, or the schools were not providing a conducive environment for learning to happen?

Policy Suggestion: The director of Guidance and Counselling needs to ensure that all teachers (from all school communities) get In-Serviced training in Life Skills Education under the Care and Support for Teaching and Learning (CSTL) programme, and that they should pass this information to their pupils.

From this type of reporting, the results indicate that there is still a large difference between the HAKT knowledge and skill levels of the average grade 6 pupils and their teachers. In fact, the difference seems to have increased during the period leading to 2013. Chart 8.1 shows the gaps between the grade 6 pupils' performance and that of their teachers. It evidently shows the increase in teacher performance whilst stagnating performance from the pupils.

This raised pertinent questions to the interventions currently employed by the Ministry of Education and Training. It suggests that teachers benefitted more than their pupils during the period. The gap has been increased – grade 6 pupils knew far less than their teachers in 2013. At

face value, this implied that capacity was built in teachers but did not translate to increased information and knowledge levels in the HATK test for pupils.

Policy Suggestion: The Director for NCC needs to make efforts to explore the best methods of teaching pupils on Life-Skills, either having a standalone subject or integrate it fully so that it is taught in the schools. Research suggests that pupils are not learning from a teacher led model, either teachers are not teaching effectively or do not have time for the subject.

Table 2: Mean Performance on the HAKT of teachers by gender 2007

2007	TEACHERS											
	Transformed scores				Reaching minimum level				Reaching desirable level			
	Male		Female		Male		Female		Male		Female	
	Mean	SE	Mean	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	795.0	15.38	756.1	19.79	100.0	0.00	100.0	0.00	100.0	0.00	79.7	7.82
Lubombo	781.8	26.34	748.8	17.00	100.0	0.00	100.0	0.00	100.0	0.00	93.6	4.53
Manzini	795.7	21.22	739.9	17.47	100.0	0.00	100.0	0.00	98.1	1.91	80.8	6.64
Shiselweni	783.0	30.92	738.6	13.23	100.0	0.00	100.0	0.00	94.9	5.37	89.0	6.18
SWAZILAND	**790.2**	**10.93**	**745.5**	**8.60**	**100.0**	**0.00**	**100.0**	**0.00**	**98.2**	**1.35**	**85.2**	**3.28**

Table 3 Mean Performance on the HAKT of teachers by gender: 2013

2013	TEACHERS											
	Transformed scores				Reaching minimum level				Reaching desirable level			
	Male		Female		Male		Female		Male		Female	
	Mean	SE	Mean	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	805.5	14.08	808.0	10.95	100.0	0.00	100.0	0.00	96.8	3.27	97.5	2.51
Lubombo	766.1	18.32	762.3	18.06	98.2	1.78	98.2	1.77	89.1	6.16	89.2	6.12
Manzini	821.3	15.60	810.4	13.85	100.0	0.00	100.0	0.00	100.0	0.00	96.6	3.42
Shiselweni	823.5	22.98	819.2	18.67	100.0	0.00	100.0	0.00	100.0	0.00	100.0	0.00
SWAZILAND	**802.9**	**8.99**	**800.9**	**7.71**	**99.5**	**0.48**	**99.6**	**0.40**	**96.3**	**1.86**	**95.9**	**1.84**

SACMEQ IV also assessed the Knowledge and Skill levels of three subject areas: Health, Mathematics, Science and Reading teachers. This was to explore whether or not the knowledge levels of the various teachers differed. This was important to know as it would have policy implications to the teaching of Life Skills. The results of the SAMEQ IV presented a very interesting picture. **The Mean score for Health teachers (Guidance) is**

the lowest amongst the other two teacher groups (Reading and Mathematics). This raised very important questions which include the following:, why would teachers who have received in-service training in the subject area, get lower scores than the other teachers? Did this mean, it is not necessary to have specialist teachers in the area? Did it mean all teachers should teach the subject, and what would that imply? Did it mean every teacher should have a Life Skills component in their subject areas at pre-service?.

Table 4. Mean Performance on the HAKT of Mathematics teachers by gender

2013	TEACHERS											
	Transformed scores				Reaching minimum level				Reaching desirable level			
	Male		Female		Male		Female		Male		Female	
	Mean	SE	Mean	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	822.7	14.39	821.1	12.83	100.0	0.00	100.0	0.00	100.0	0.00	97.4	2.65
Lubombo	804.1	16.94	799.3	15.55	96.3	3.71	96.3	3.69	96.3	3.71	96.3	3.69
Manzini	797.6	16.04	795.9	13.45	100.0	0.00	100.0	0.00	95.6	4.38	96.8	3.19
Shiselweni	810.3	20.40	795.3	17.60	100.0	0.00	100.0	0.00	95.7	4.33	93.4	4.62
SWAZILAND	**808.2**	**8.46**	**803.1**	**7.33**	**99.0**	**1.01**	**99.2**	**0.83**	**96.9**	**1.81**	**96.1**	**1.75**

Table 5. Mean Performance on the HAKT of Health teachers by gender

2013	TEACHERS											
	Transformed scores				Reaching minimum level				Reaching desirable level			
	Male		Female		Male		Female		Male		Female	
	Mean	SE	Mean	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	800.5	14.45	804.8	10.53	100.0	0.00	100.0	0.00	100.0	0.00	100.0	0.00
Lubombo	815.7	18.51	804.2	17.55	100.0	0.00	100.0	0.00	96.7	3.30	96.8	3.25
Manzini	788.2	15.11	783.5	14.87	100.0	0.00	100.0	0.00	96.2	3.75	94.2	4.03
Shiselweni	771.4	13.41	774.0	10.51	100.0	0.00	100.0	0.00	100.0	0.00	100.0	0.00
SWAZILAND	**794.3**	**7.91**	**791.1**	**7.04**	**100.0**	**0.00**	**100.0**	**0.00**	**98.1**	**1.35**	**97.4**	**1.49**

Table 6. Mean Performance on the HAKT of Reading teachers by gender

2013	TEACHERS											
	Transformed scores				Reaching minimum level				Reaching desirable level			
	Male		Female		Male		Female		Male		Female	
	Mean	SE	Mean	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	805.5	14.08	808.0	10.95	100.0	0.00	100.0	0.00	96.8	3.27	97.5	2.51
Lubombo	766.1	18.32	762.3	18.06	98.2	1.78	98.2	1.77	89.1	6.16	89.2	6.12
Manzini	821.3	15.60	810.4	13.85	100.0	0.00	100.0	0.00	100.0	0.00	96.6	3.42
Shiselweni	823.5	22.98	819.2	18.67	100.0	0.00	100.0	0.00	100.0	0.00	100.0	0.00
SWAZILAND	**802.9**	**8.99**	**800.9**	**7.71**	**99.5**	**0.48**	**99.6**	**0.40**	**96.3**	**1.86**	**95.9**	**1.84**

The results were interesting as they varied. They presented a lower mean score for Health teachers, at the same time, showing that all Health teachers (100%) achieved the minimum levels in the HAKT. Did this imply that they only managed to get the lower level items correct and struggled with those that may have required deeper understanding? Teacher-results may also suggest that what teachers know is not necessarily what they get through in-service programmes. If Health teachers were out-performed by those who were less likely to attend these workshops, then it may suggest that the workshops did not have any major impact on their knowledge levels.

What were the Attitudes of Grade 6 pupils to HIV and AIDS?

Education is very important when dealing with issues around HIV and AIDS, stigma and discrimination. Discrimination exists everywhere in the community, and in schools. Studies have revealed that the greatest weapon against the scourge is HIV and AIDS information and knowledge. Education helps change attitudes, modify behaviour, and dispel myths that are generated in the communities which end up driving stigma and discrimination through fear, violence, myths, belief systems, and misperceptions. This section of the report will focus on the findings on grade 6 pupils, their teachers and head teachers – their attitudes, fears, myths and perceptions. These perceptions and myths usually give rise to false belief systems which may lead to discrimination and stigma to those who may be affected and/or infected by the HIV/AIDS. AIDS-related stigma and discrimination refers to prejudice, negative attitudes, abuse and maltreatment directed at people living with the virus. This may result in infected people being shunned by family, peers and the wider community poor treatment in healthcare and education settings; an erosion of rights; psychological damage; and can negatively affect the success of testing and treatment. The Ministry, through the CSTL program, has been trying to address issues of stigma and discrimination through a variety of means. This has been done through campaigns, jamborees, roles plays,

gatherings and debate. Grade 6 pupils, their teachers and head teachers were asked about how they feel about being in contact with fellow pupils/teachers who are infected. The results for SACMEQ III and SACMEQ IV are presented in the tables below.

Table 7 Percentages of pupils, teachers and school heads expressing fear of casual contact with a pupil infected with HIV *(stigma)*

2007	RESPONSES ON THE POSSIBILITY OF A PUPIL INFECTED WITH HIV TO CONTINUE TO ATTEND SCHOOL																	
	PUPILS						TEACHERS						SCHOOL HEADS					
	No		Not Sure		Yes		No		Not Sure		Yes		No		Not Sure		Yes	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	12.6	2.16	13.0	1.63	74.4	3.19	0,0	0,0	3.0	3.00	97.0	3.00	.	.	.	.	100.0	0.00
Lubombo	11.7	1.91	19.6	3.04	68.7	3.66	0,0	0,0	.	.	100.0	0.00	.	.	2.1	2.12	97.9	2.12
Manzini	15.3	2.19	15.4	1.83	69.2	2.83	0,0	0,0	1.8	1.77	98.2	1.77	2.0	2.04	.	.	98.0	2.04
Shiselweni	11.3	1.67	14.3	2.79	74.4	3.35	0,0	0,0	2.2	2.22	97.8	2.22	.	.	2.1	2.06	97.9	2.06
SWAZILAND	**12.9**	**1.03**	**15.3**	**1.13**	**71.7**	**1.61**	**0,0**	**0,0**	**1.9**	**1.09**	**98.1**	**1.09**	**0.6**	**0.61**	**0.9**	**0.64**	**98.5**	**0.89**

Table 8 Percentages of pupils, teachers and school heads expressing fear of casual contact with a pupil infected with HIV *(stigma)*

2013	RESPONSES ON THE POSSIBILITY OF A PUPIL INFECTED WITH HIV TO CONTINUE TO ATTEND SCHOOL																	
	PUPILS						TEACHERS						SCHOOL HEADS					
	No		Not Sure		Yes		No		Not Sure		Yes		No		Not Sure		Yes	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	12.8	2.01	13.2	2.14	73.9	2.90	4.8	3.35	0.0	0.00	95.2	3.35	2.2	2.16	0.0	0.00	97.8	2.16
Lubombo	14.9	2.69	13.7	1.60	71.5	3.43	0.0	0.00	0.0	0.00	100.0	0.00	0.0	0.00	0.0	0.00	100.0	0.00
Manzini	13.6	1.77	11.0	1.26	75.4	2.49	0.0	0.00	0.0	0.00	100.0	0.00	0.0	0.00	0.0	0.00	100.0	0.00
Shiselweni	14.8	2.38	15.5	1.73	69.8	3.69	0.0	0.00	0.0	0.00	100.0	0.00	0.0	0.00	0.0	0.00	100.0	0.00
SWAZILAND	**13.9**	**1.08**	**13.1**	**0.86**	**73.0**	**1.53**	**1.3**	**0.89**	**0.0**	**0.00**	**98.7**	**0.89**	**0.6**	**0.58**	**0.0**	**0.00**	**99.4**	**0.58**

The results did not show any changes in pupils expressing fear of casual contact with a fellow infected pupil over the period. The results remained the same. There is, however, need to be worried when some negative perceptions seem not to be dying out. The results indicated that 13.9 percent of grade 6 pupils would be against an HIV infected pupil to continuing with school. This represented an increase of a percent. This is implied this attitude has not been eradicated and instead showed signs of not changing. This can be looked at as a school related challenge rather than an intrinsic attitude problem, since children's perceptions are moulded by the immediate family, school and community they live in. Teachers, therefore, are expected to educate and mitigate the effects of lack of knowledge. What is further worrying is that there are pupils (13.1%) who still claim **they were not sure**. This suggested that about 27 percent of the pupils are at risk because not being sure implied lack of

adequate knowledge. A child who is not sure stands a risk of being influenced by anyone; this needs to be dealt with at all levels of the community.

It is important that a school as a centre of care and support instils an environment that is protective to all children. This demands that the school as a community should fully embrace the CSTL framework. The key driver is the teacher who spends most of the time with the pupil, and he or she is in better position to mould the child in the classroom**. SACMEQ IV also investigated the responses of, the pupils, teachers and head teachers to the question: should a teacher infected with HIV and AIDS continue teaching? The responses are given in the table below** .

Table 9 Percentages of pupils, teachers and school heads expressing fear of casual contact with a teacher infected with HIV *(stigma)*

2013	RESPONSES ON THE POSSIBILITY OF A TEACHER INFECTED WITH HIV TO CONTINUE TEACHING																	
	PUPILS						TEACHERS						SCHOOL HEADS					
	No		Not Sure		Yes		No		Not Sure		Yes		No		Not Sure		Yes	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	13.7	1.54	17.8	1.78	68.6	2.32	4.8	3.35	0.0	0.00	95.2	3.35	0.0	0.00	0.0	0.00	100.0	0.00
Lubombo	15.3	2.52	15.9	2.15	68.8	3.53	0.0	0.00	0.0	0.00	100.0	0.00	0.0	0.00	2.3	2.32	97.7	2.32
Manzini	16.7	1.69	14.5	1.45	68.8	2.17	0.0	0.00	0.0	0.00	100.0	0.00	0.0	0.00	0.0	0.00	100.0	0.00
Shiselweni	18.4	2.98	17.1	1.66	64.5	3.68	0.0	0.00	0.0	0.00	100.0	0.00	0.0	0.00	0.0	0.00	100.0	0.00
SWAZILAND	**15.9**	**1.06**	**16.2**	**0.88**	**67.8**	**1.42**	**1.3**	**0.89**	**0.0**	**0.00**	**98.7**	**0.89**	**0.0**	**0.00**	**0.5**	**0.51**	**99.5**	**0.51**

Slightly more pupils (32%) either said they had fear, or were not sure if an HIV infected teacher should continue to teach. This was a slight increase compared to the same question involving pupils. Although there was a slight difference, in the main it did not appear as if the teachers' and pupils' perceptions were not radically different. . The response pointed to the fact that there is still a lot of information and education needed by the pupils, in general, about HIV and AIDS.

No head teacher expressed fear of having a teacher with HIV continue teaching, which was a very positive response. The response for teachers also suggested the same positive attitude. However, there was element which may need to be addressed; as a very small number (1.3%) indicated that they would not allow a teacher infected with HIV to teach. The fact is, even if it were only one teacher with a negative attitude, which represents a class of 40 pupils that will not get a positive influence. The Hhohho region needs to identify the school or communities that contributed to the 4.8 percent and mount remedial classes in the schools.

Policy Suggestion: The Director of Education needs to ensure that all primary school teachers are trained in Life Skills, because untrained teachers who lack information and Life Skills about HIV and AIDS pose a threat to children that will be taught by them.

Pupils were also asked to indicate whether they would like to **have contact** with an HIV infected person. The aspect of contact, raises issues around discrimination against people living with the virus. Discrimination is actual behaviour; it involves an action which is associated with actual behaviour. Discrimination means treating one person differently from another in a way that is unfair. For example, treating one person less-favourably simply because he or she is HIV positive. Grade 6 pupils were asked how they would behave if a friend or a relative was infected with HIV and AIDS. The question provoked deeper understanding and the response derived the kind of information the pupil had about the pandemic.

The first question that was posed was in relation to a friend – whether or not the pupil would shun a person infected with HIV and AIDS. The results in SACMEQ IV, indicated that the proportion of grade 6 pupils who were either 'not sure' or claimed that they would 'shun' their friend decreased from 46 percent in 2007 to about 38 percent in 2013. The incidence of 'not sure' was 27 percent. This meant one in four of Grade 6 pupils were at risk of discriminating or developing negative attitudes towards those infected with HIV/AIDS. However, the good thing is that the proportion dropped by 8% from 2007, which suggested some improvement.

Table 10 Percentages of pupils refusing contact with a person living with HIV or AIDS (Discrimination)

2007	PUPIL BEHAVIOUR WITH A FRIEND INFECTED WITH HIV						PUPIL WILLING TO CARE FOR A RELATIVE ILL WITH AIDS					
	Avoid/ shun him or her		Not sure		Positive attitude		No		Not sure		Yes	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	10.8	2.41	36.8	3.26	52.4	3.82	23.1	3.50	30.7	3.50	46.2	4.41
Lubombo	8.2	1.58	33.5	3.01	58.3	3.22	18.5	3.62	29.7	3.85	51.7	4.99
Manzini	11.5	1.86	33.2	2.44	55.3	2.33	21.9	2.64	26.2	2.69	51.9	3.27
Shiselweni	16.6	2.41	32.2	3.29	51.1	3.64	21.8	3.26	23.6	2.77	54.6	4.04
SWAZILAND	**11.9**	**1.08**	**34.0**	**1.50**	**54.2**	**1.64**	**21.5**	**1.61**	**27.5**	**1.59**	**51.0**	**2.05**

Percentages of pupils refusing contact with a person living with HIV or AIDS (Discrimination)

2013	PUPIL BEHAVIOUR WITH A FRIEND INFECTED WITH HIV						PUPIL WILLING TO CARE FOR A RELATIVE ILL WITH AIDS					
	Avoid/ shun him or her		Not sure		Positive attitude		No		Not sure		Yes	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	9.8	1.63	27.4	1.70	62.8	2.40	20.2	2.07	28.0	2.05	51.8	2.74
Lubombo	10.0	1.33	28.0	2.83	62.0	3.69	24.2	2.62	23.0	1.96	52.8	3.47
Manzini	13.8	1.36	24.6	1.43	61.6	2.08	26.1	2.31	23.5	1.81	50.4	2.83
Shiselweni	12.1	1.57	30.2	2.08	57.7	2.50	25.1	2.74	21.9	2.03	53.0	3.20
SWAZILAND	**11.5**	**0.75**	**27.3**	**0.99**	**61.2**	**1.32**	**23.9**	**1.21**	**24.2**	**0.99**	**51.8**	**1.52**

It was encouraging to note that the proportion of grade 6 pupils who exhibited a positive attitude increased from 54.2 percent (SACMEQ III) to 61.2 percent (SACMEQ IV). This suggested that the pupils had obtained relevant information, since the proportion of those who said they would shun or avoid the friend did not increase.

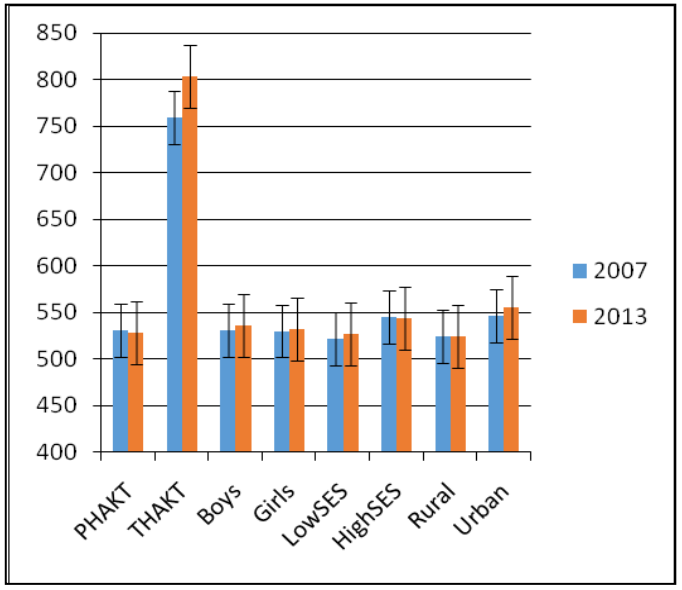
It was, however, revealing to note that the proportion of grade 6 pupils who were willing to care for a relative with AIDS did not change much. In fact, the results indicated that slightly more 23.9 percent would not care for ill relatives. The figures still did not indicate much improvement; about half (48.2 percent) were either not sure or would not care for their ill relatives. This could be an issue of lack of knowledge than discrimination, where the children do not enough information. There is a perception that chances are high to get infected if you are a caregiver and that may be the reason for them being scared.. The fact that 1 in four (24.2%) are not sure indicated lack of information for them to provide a definite answer. Another possibility is that children may fear being around a sick person who they perceived could die at any time, and were not prepared for the trauma that such an experience would bring.

In Swaziland, issues about HIV and AIDS are addressed at all levels, and forums through a variety of media. The results on pupils' attitude towards others infected with HIV indicated that **they do have information or have bad information**. It shows the amount of education that still needs to go on in schools. The results confirm that schools have not made a major impact on the information and knowledge that pupils possess. The results are worrying as they imply the Ministry has not done enough. The results also suggest that there is no education going on in HIV and AIDS, or what had been offered has not changed the pupils' attitude. It is one thing to say "NO", and "YES", but having the same proportions still "NOT SURE", in SACMEQ III and SACMEQ IV meant nothing had changed. This implied that there interventions did not make major impact on the pupils.

Guidance teachers in Swaziland have been trained and capacitated, through a number of programmes, run by agencies such the SADC through the CSTL framework driven by the Guidance department of the Ministry of Education and Training, support agencies such as NERCHA, UNICEF, SAVE Swaziland and others. If teachers are capacitated, then what means/mechanisms are there to ensure that they teach? or share their knowledge and experiences with their pupils? The results suggested that teachers may be attending workshops and in-service training, but they are not doing any teaching on HIV and AIDS in their schools. This could be due to: their lack of commitment, lack of time and allocation in the curriculum, no time allocated in the school time table, no examination, are overwhelmed by having to play roles of teacher and care givers, and other school related issues. This is a serious issue. Swaziland has signed a number of conventions protecting the rights of the child, the same rights embraced by the CSTL Framework. It does not make sense if these are not implemented in the schools. It is the child's right to have an education in a caring and protected environment.

Policy Suggestion: The Director of Education needs to undertake a comprehensive audit of the Life Skills Education (CSTL) in all public primary schools (representative sample), to assess whether schools have the necessary resources to effectively implement the Comprehensive Sexuality Education under the CSTL framework. The study should also highlight possible priority areas that the Ministry needs to focus on.

Summary



The chart summarises the HAKT situation between 2007 and 2013. It presents the scores for grade 6 pupils, their teachers and pupils' sub-groups performance on the HAKT between SACMEQ III and SACMEQ IV. It shows the huge discrepancy between the performance of grade 6 pupils and their teachers. **It also presents the huge gap that has been observed in 2013. The pupils' scores dropped a bit, but the teachers' increased, implying that interventions have worked with grade 6 teachers but have not had any positive impact on the pupils**. The chart also presents results for the different sub-groups for grade 6 pupils – an encouraging.

It is worrying that the results for both SACMEQ III and SACMEQ IV confirmed that the Grade 6 pupils Information and Knowledge levels are lower than that of their teachers. It was worse that the knowledge and information gap also increased during the period, 2007 to 2013. The pupils' performance in the HAKT did not show any improvements; instead they remained roughly the same or in most cases dropped. The mean score for the grade 6 pupils decreased, and so did the number of pupils reaching the minimum levels in the HAKT. Teachers of grade 6 pupils'

mean score increased by 6 percent within the same period, and this resulted in the increased gap between the mean score of pupils and of their teachers. Teachers' results improved.

Their information and knowledge levels in HIV and AIDS, suggested that capacity had been improved. **However, from a developmental point of view, if the observed gains in teachers do not lead to increased performance on the HAKT, or in general information on Health and HIV and AIDS in pupils, then there is not much value, as the main focus should be the window of hope for Swaziland – the child.**

It is encouraging that almost all teachers reached the desired levels in the HAKT,. This suggested that there is potential for grade pupils to learn from teachers, provided there is knowledge and information transfer. The data suggested that this is still lacking; in fact, the results suggested that there has been no effective knowledge transfer, and this needs to be addressed. It was also revealing, that teachers from Lubombo who, in 2007 had performed remarkably, were the worst performers in 2013. It was not then surprising that the pupils from the same region performed poorly. About 2 percent of the teachers from Lubombo did not reach the minimum levels, when all the other regions performed remarkably. This needs further investigation. The schools where the teachers did not reach the minimum level need to be investigated because this is bad for the children in those schools.

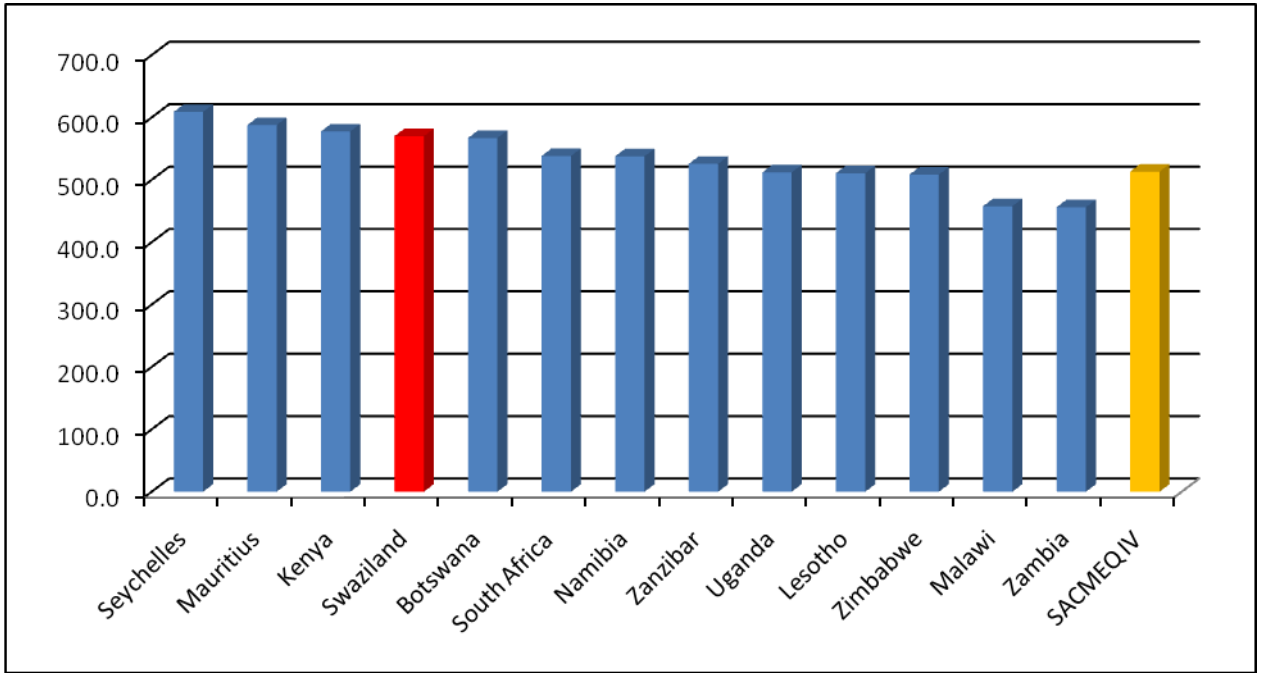
Evidence from the research suggested that teachers' information levels do no translate to pupil knowledge. There is need for the Ministry to investigate barriers to the teaching/learning process. The Ministry and its partners invested in the teaching force, but it benefitted individuals than the system. Another question to ask is: are the system and environment conducive to the teaching and learning on Comprehensive Sexual Education (CSE), which the Ministry has termed Life Skills? Is calling CSE life skills not toning (diluted) down the focus of the pandemic? , Life skills includes other aspects; maybe there is need to call it like it is since teachers may be teaching life skills, but not putting emphasis on the HIV and AIDS. Indeed, there may be no reason to put focus on HIV and AIDS as it is one of the different aspects that fall under the general definition of life skills.

International Results
SACMEQ IV

1. Reading Mean Scores

Reading is English.

Pupil Reading Scores (Mean)	
SAC-country	**Mean Score**
Seychelles	608.9
Mauritius	587.8
Kenya	577.6
Swaziland	**570.1**
Botswana	567.1
South Africa	538.3
Namibia	537.8
Zanzibar	525.7
Uganda	512.0
Lesotho	510.7
Zimbabwe	508.4
Malawi	457.7
Zambia	456.1
SACMEQ IV	**513.3**

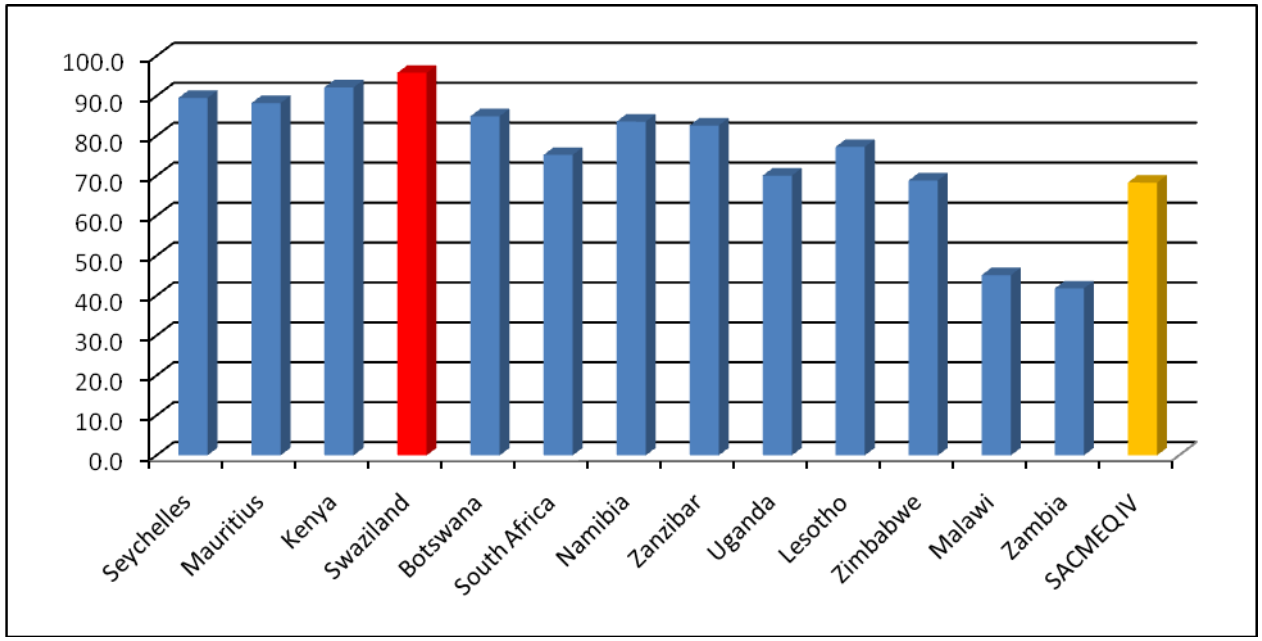


The scores that are presented above are mean scores for the Reading instrument. The last column is the SACMEQ average.

1. **Swaziland achieved the fourth highest means score in the SACMEQ, 570.1 and it performed above the SACMEQ mean of 513.3.**
2. **The country's mean score was highest in the sub-region. It achieved slightly higher than its immediate neighbours.**
3. **Some countries like Uganda, Lesotho, Zimbabwe, Malawi and Zambia got a mean score less than the SACMEQ average.**
4. **Tanzania and Mozambique have not been considered in the presentation because the pupils wrote in different languages and some further analysis is still to be done**.

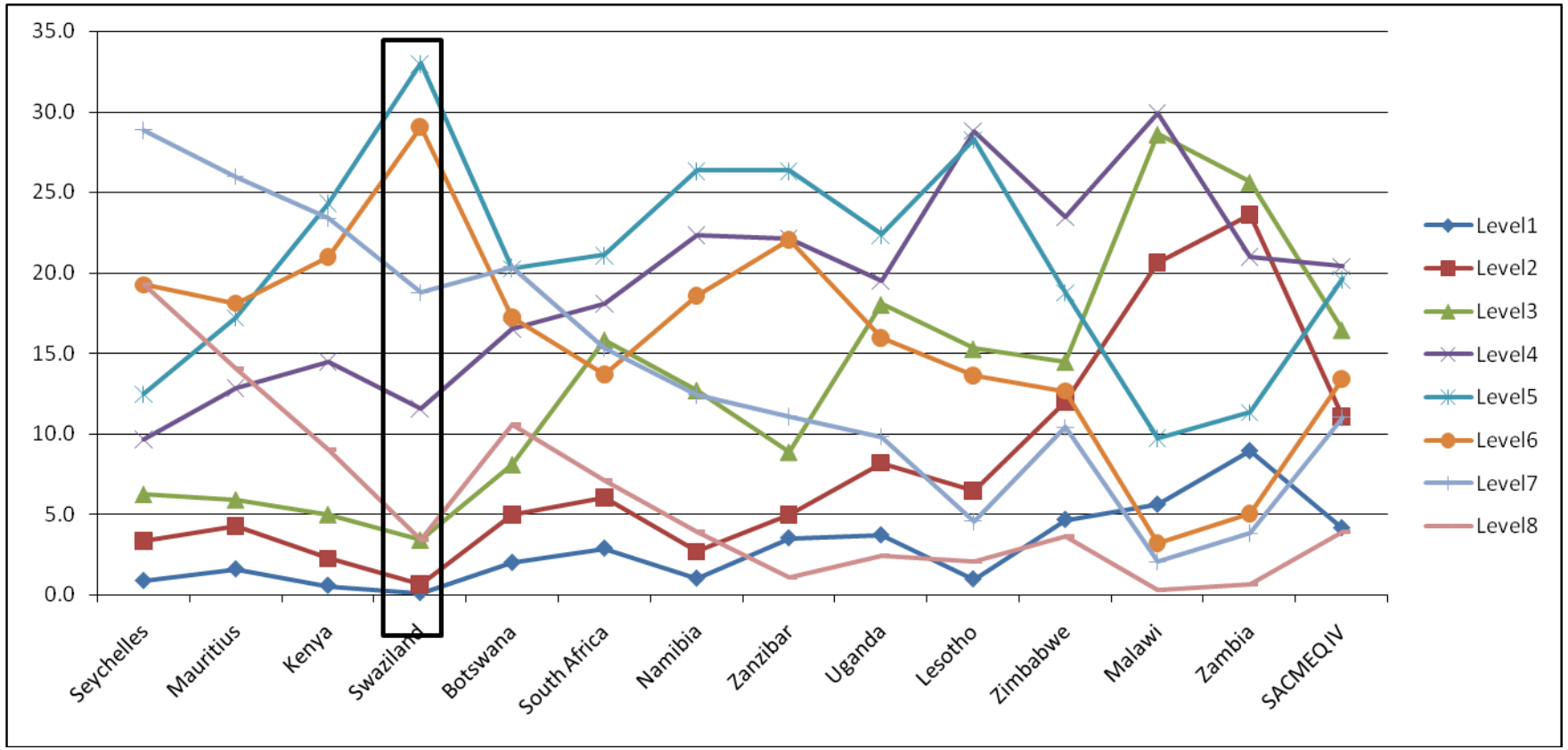
2. Pupils with Acceptable Reading Standards

Reaching Min Standards	
SACcountry	**AcceptRead**
Seychelles	89.5
Mauritius	88.2
Kenya	92.2
Swaziland	**95.8**
Botswana	84.9
South Africa	75.3
Namibia	83.6
Zanzibar	82.6
Uganda	70.1
Lesotho	77.3
Zimbabwe	68.9
Malawi	45.2
Zambia	41.8
SACMEQ IV	**68.3**



As discussed in the brief, SACMEQ countries agreed on a Competency Level that would represent accepted Reading competency at primary level. This was level 5. This meant all pupils who reached level 5 would be considered as possessing acceptable reading level. Data suggested that 95% of grade 6 pupils in the country reached level 5 which is acceptable levels. On average this is good for the country, but as data has shown Swaziland has less pupils at the highest levels, i.e. level 8. The country has few analytical ad critical readers at grade 6. The challenge is for the schools and Ministry to provide extra reading materials and more challenging experiences for the pupils. This system can be used to respond to the SDG (nationally defined levels of achievement). If the country accepts that this level is ideal, then tests can be constructed and analysed to determine how many children have achieved the level. This should mean that even under CBE, we could clearly articulate levels which will be used. However, this would then require some form of national assessment to be conducted.

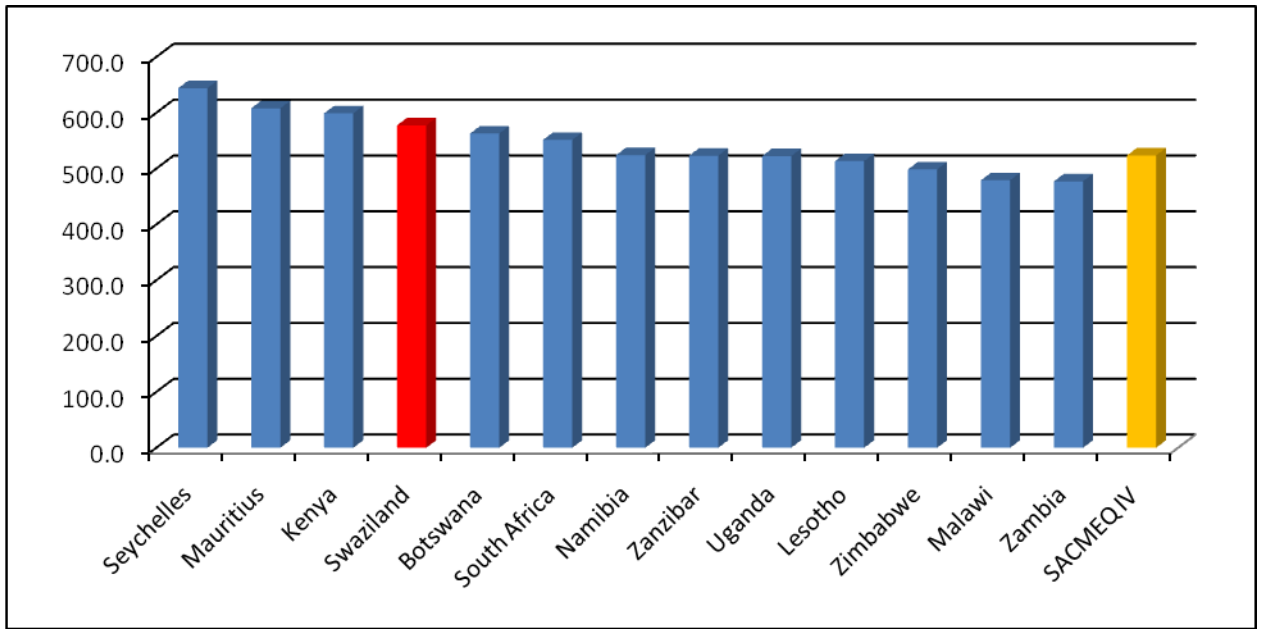
3. Reading Levels of SACMEQ Countries



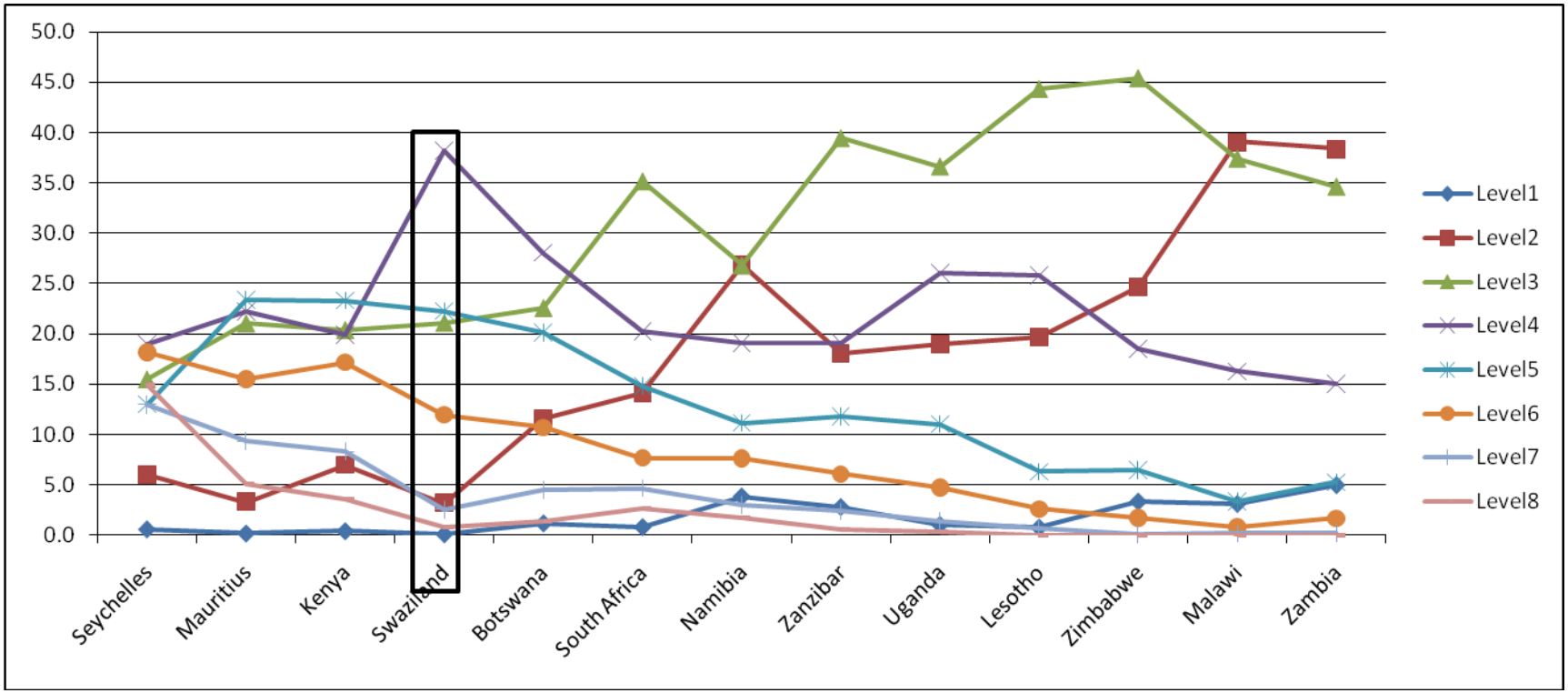
The chart shows that indeed Swaziland had the highest proportion of pupils reaching level 5. There are however fewer pupils in levels 7 and level 8. In fact Swaziland has slightly less than 5% pupils reaching this level, when compared that countries like Seychelles, Mauritius and Kenya. Indeed some of the pupils from other countries operated at even lower levels. What does this mean for the education system? For Swaziland it means a need for more challenging experiences. In other countries a definite need for literacy boosting experiences.

4. Mathematics Mean Scores

Math Mean Scores	
SACcountry	Mean Score
Seychelles	644.1
Mauritius	608.1
Kenya	599.1
Swaziland	**577.6**
Botswana	562.9
South Africa	551.5
Namibia	524.1
Zanzibar	523.2
Uganda	522.4
Lesotho	513.5
Zimbabwe	498.6
Malawi	479.2
Zambia	477.3
SACMEQ IV	**523.5**



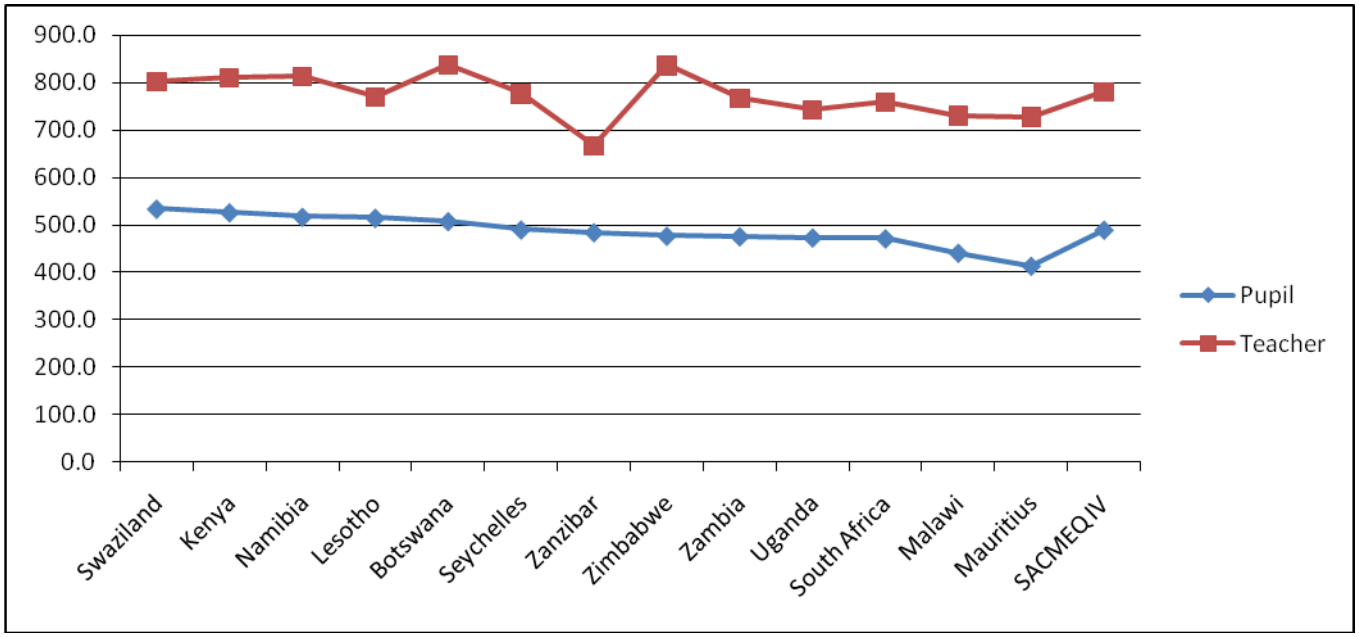
5. Numeracy Levels by Country



Data showed that a large proportion of Swazi pupils were in level 4, a bit lower than in Reading. This suggested that the performance in Mathematics is not as compared to that of Reading, which would imply that more work still needs to be done in Mathematics.

6. HIV and AIDS Health Test (Reading)

SACcountry	Pupil	Teacher	Pupils
Swaziland	**533.9**	**802.4**	**268.5**
Kenya	526.3	810.1	283.8
Namibia	516.6	813.5	296.9
Lesotho	514.5	769.4	254.9
Botswana	507.5	836.9	329.4
Seychelles	489.9	776.8	286.9
Zanzibar	**484.1**	**666.5**	182.4
Zimbabwe	476.6	836.5	359.9
Zambia	475.4	766.4	291.0
Uganda	473.1	742.8	269.7
South Africa	471.1	758.6	287.5
Malawi	440.5	729.3	288.8
Mauritius	413.0	727	314.0
SACMEQ IV	**489.5**	**780.3**	**290.8**

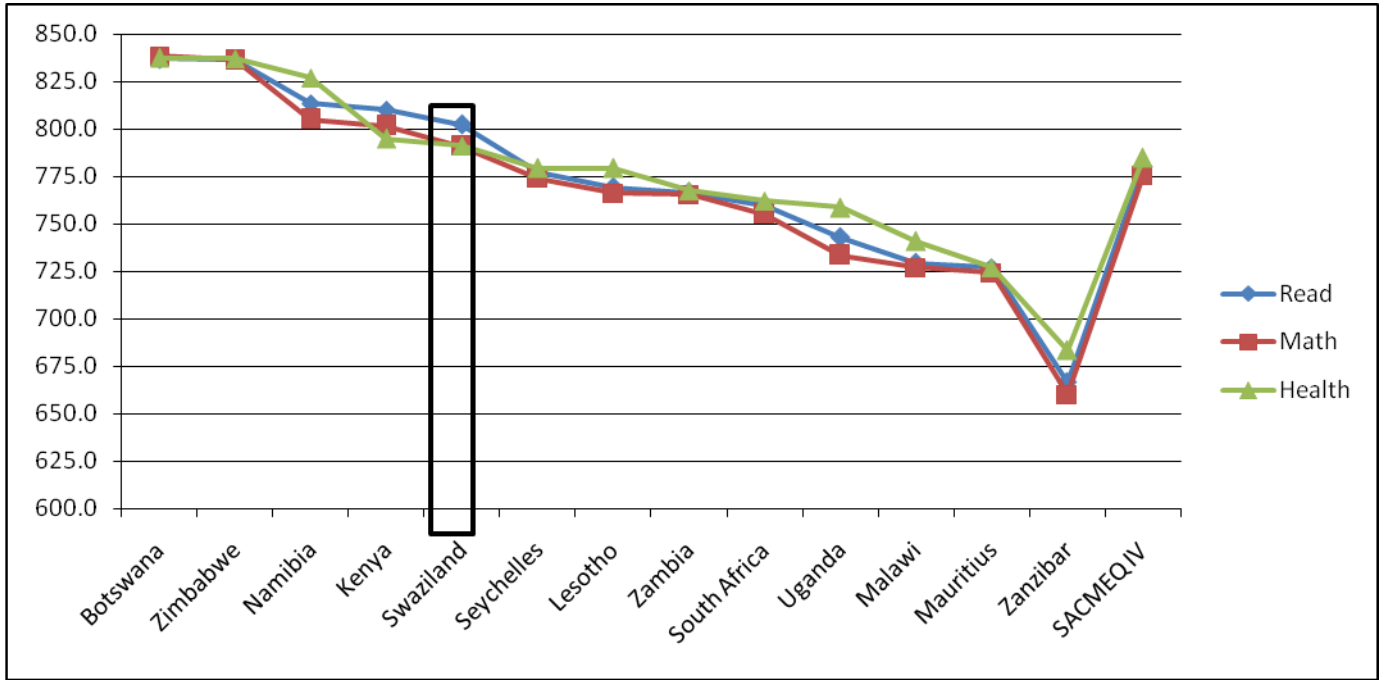


Swaziland pupils achieved the highest mean score in the SACMEQ test. Although the national average had dropped the country still out-performed, the other countries. This indicated gains made by country relative to other countries. Since national knowledge and skill levels are important, the country need not look at this score without the national context. A gap between the pupils and teacher knowledge should be limited.

The achievement gap between pupils and teachers was quite substantial: >250 points. This was common in all the countries, which said despite the interventions, there was still a challenge in pupils getting the knowledge they need. The HAKT is not only about achieving and getting a high score, but a high score represents adequate levels of knowledge and skills that will enable a person to make informed decision about their health and life skills. 'Knowing kutsi inyoka ayifakwa ebahntjini', is good information which will protect our children especially the girl child.

1. Comparisons between Reading Teachers, Mathematics Teachers and Health Teachers (Guidance)

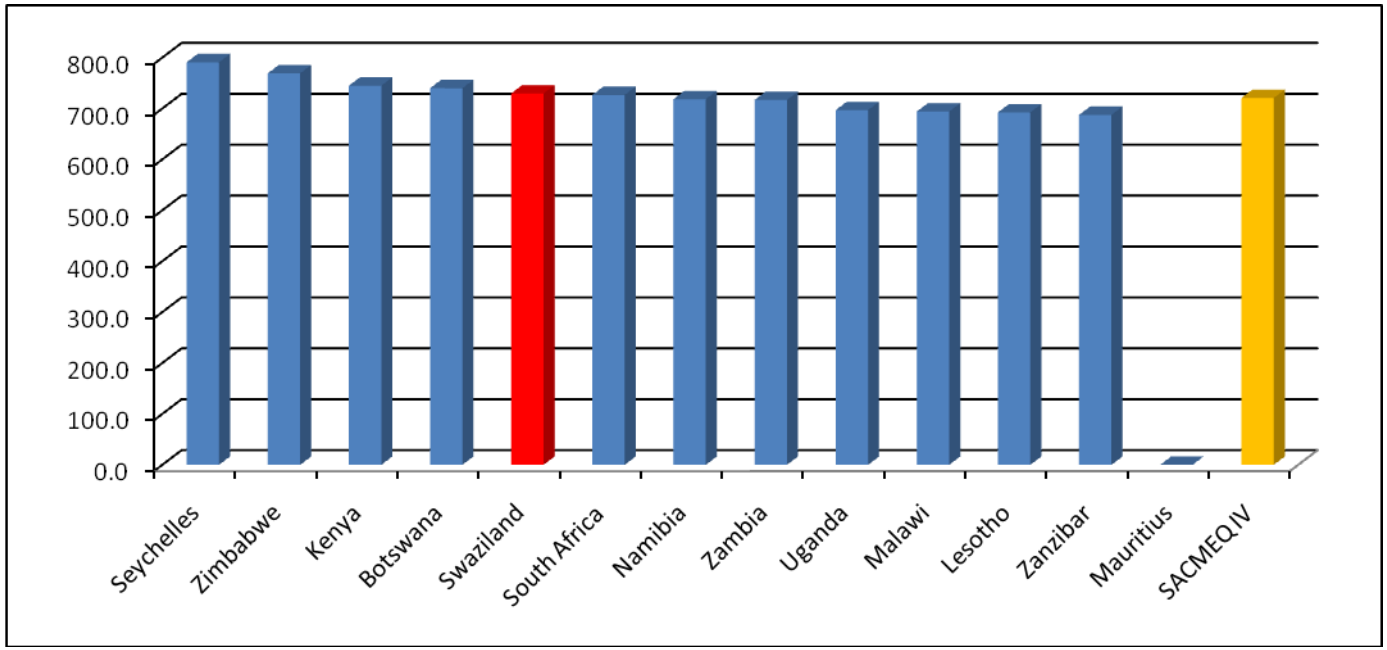
Read, Math and Health Teachers in HAKT			
SACcountry	Read	Math	Health
Botswana	836.9	838.6	837.5
Zimbabwe	836.5	836.3	837.2
Namibia	813.5	804.9	826.9
Kenya	810.1	801.6	794.9
Swaziland	**802.4**	**790.8**	**791.2**
Seychelles	776.8	773.9	779.5
Lesotho	769.4	766.2	779.2
Zambia	766.4	765.4	767.7
South Africa	759.6	755.0	762.1
Uganda	742.8	733.6	758.6
Malawi	729.3	727.0	740.7
Mauritius	727.0	724.2	727.0
Zanzibar	666.5	660.1	683.4
SACMEQ IV	**780.3**	**775.7**	**784.8**



The performance of teachers in the HAKT was almost similar in all the countries. Indeed teachers know quite a lot on the HAKT. However, in the case of Swaziland, although quite negligible, Health teachers were outshone by their Reading counterparts. There is nothing out of the order about this other than asking practical questions. Are Health teachers specifically trained on issues around the HAKT? Or is it because all teachers attended the Guidance in service programmes? Or is this saying maybe what we all know is not what is taught on in serviced, they used their experiential learning and got information, knowledge and skills from other sources than formal classroom or lecture methods. However in Malawi, Namibia and Zambia, there is a marked difference – the Health teacher scores were higher on average. What is this saying going forward? Should have specialist teachers in 'Life-Skills', or let every teacher teach HAKT – yindzaba yetfu sonkhe. It could be a case of the HAKT being too easy to discriminate against those who know and those who do not, or the items to not discriminate.

2. Teacher Reading Scores (mean)

Teacher Reading Scores (Mean)	
SACcountry	**Mean Score**
Seychelles	790.9
Zimbabwe	769.1
Kenya	744.9
Botswana	739.9
Swaziland	**729.6**
South Africa	726.6
Namibia	718.3
Zambia	716.8
Uganda	696.8
Malawi	694.1
Lesotho	692.4
Zanzibar	687.5
Mauritius	x
SACMEQ IV	**720.6**



1. Swaziland achieved the fifth highest mean scores, but generally the performance was almost uniform across the countries.
2. The country performed just above the SACMEQ mean, which was a concern at country level.

Annexes

SACMEQ Tables as generated by the SACMEQ Coordinating Centre.

Pupil Reading

S4 Country	Transformed Scores		Acceptable Reading Skills		Reading Level 1		Reading Level 2		Reading Level 3		Reading Level 4		Reading Level 5		Reading Level 6		Reading Level 7		Reading Level 8	
	Mean	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**
Seychelles	608.9	11.43	89.5	1.20	0.9	0.26	3.4	0.52	6.3	0.80	9.7	1.18	12.4	1.30	19.3	1.60	28.9	1.54	19.3	3.62
Mauritius	587.8	5.25	88.2	0.92	1.6	0.23	4.3	0.49	5.9	0.60	12.9	0.91	17.2	0.94	18.1	0.80	26.0	1.24	14.1	1.34
Kenya	577.6	5.17	92.2	0.93	0.6	0.15	2.3	0.32	5.0	0.64	14.5	1.13	24.3	0.98	21.0	1.01	23.4	1.39	9.0	1.41
Swaziland	570.1	3.36	95.8	0.60	0.1	0.06	0.6	0.21	3.4	0.50	11.6	0.82	33.0	1.19	29.1	1.00	18.8	1.22	3.4	0.76
Botswana	567.1	5.18	84.9	0.97	2.0	0.27	5.0	0.40	8.1	0.61	16.5	1.02	20.2	0.84	17.2	0.77	20.4	1.15	10.6	1.30
RSA	538.3	4.26	75.3	1.23	2.9	0.28	6.0	0.43	15.8	0.78	18.1	0.74	21.1	0.71	13.7	0.60	15.3	0.92	7.1	0.91
Namibia	537.8	2.90	83.6	0.80	1.0	0.13	2.7	0.24	12.7	0.64	22.3	0.82	26.3	0.78	18.6	0.68	12.4	0.80	3.9	0.51
Zanzibar	525.7	2.84	82.6	1.11	3.5	0.38	5.0	0.50	8.9	0.68	22.1	1.02	26.3	0.99	22.1	0.96	11.1	1.06	1.1	0.25
Uganda	512.0	4.48	70.1	1.73	3.7	0.46	8.2	0.69	18.0	1.04	19.5	0.82	22.4	0.94	15.9	0.92	9.8	1.06	2.4	0.47
Lesotho	510.7	3.89	77.3	1.55	1.0	0.21	6.5	0.63	15.3	1.02	28.8	1.12	28.3	1.09	13.6	1.01	4.6	0.62	2.0	0.68
Zimbabwe	508.4	5.50	68.9	1.96	4.7	0.69	12.0	1.04	14.5	0.76	23.4	0.90	18.8	1.00	12.6	0.78	10.4	1.12	3.6	0.73
Malawi	457.7	3.91	45.2	2.43	5.6	0.73	20.6	1.52	28.6	1.41	29.9	1.43	9.7	1.07	3.2	0.62	2.1	0.77	0.3	0.19
Zambia	456.1	3.88	41.8	1.97	9.0	0.71	23.6	1.18	25.6	1.16	21.0	0.82	11.3	1.04	5.1	0.63	3.8	0.75	0.6	0.22
SACMEQ IV	**513.3**	**1.90**	**68.3**	**0.83**	**4.2**	**0.24**	**11.1**	**0.46**	**16.5**	**0.42**	**20.4**	**0.36**	**19.6**	**0.41**	**13.4**	**0.30**	**11.0**	**0.37**	**3.9**	**0.21**

Pupil Mathematics

S4 Country	Transformed Scores		Math Level 1		Math Level 2		Math Level 3		Math Level 4		Math Level 5		Math Level 6		Math Level 7		Math Level 8	
	Mean	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**
Mauritius	644.1	6.71	0.6	0.18	6.0	0.59	15.5	0.96	19.0	1.16	13.0	0.75	18.2	0.80	12.9	0.90	14.9	1.43
Kenya	608.1	5.35	0.2	0.06	3.3	0.50	21.0	1.40	22.2	0.94	23.4	0.91	15.5	0.90	9.3	0.85	5.1	0.85
Seychelles	599.1	8.24	0.4	0.16	6.9	0.93	20.4	1.64	19.9	1.16	23.3	1.41	17.2	1.69	8.3	1.03	3.6	0.92
Swaziland	577.6	3.11	0.1	0.06	3.1	0.41	21.1	1.14	38.2	0.99	22.2	0.85	11.9	0.79	2.5	0.36	0.8	0.37
Botswana	562.9	4.31	1.2	0.18	11.5	0.74	22.6	1.05	28.0	0.96	20.1	0.79	10.7	0.87	4.5	0.62	1.4	0.37
RSA	551.5	4.05	0.8	0.14	14.1	0.76	35.1	1.04	20.3	0.67	14.8	0.73	7.7	0.60	4.6	0.56	2.6	0.47
Zimbabwe	524.1	5.25	3.8	0.41	26.9	1.66	26.8	1.03	19.1	0.84	11.1	0.70	7.6	0.73	3.0	0.47	1.7	0.36
Uganda	523.2	4.23	2.8	0.38	18.0	1.11	39.4	1.22	19.1	0.87	11.7	0.79	6.1	0.78	2.3	0.50	0.6	0.16
Namibia	522.4	2.53	1.0	0.13	18.9	0.77	36.6	0.83	26.0	0.71	11.0	0.58	4.7	0.45	1.3	0.23	0.4	0.11
Lesotho	513.5	2.99	0.8	0.16	19.6	1.23	44.3	1.08	25.8	1.07	6.2	0.57	2.6	0.49	0.6	0.22	0.1	0.04
Zanzibar	498.6	2.29	3.3	0.40	24.6	1.05	45.4	1.17	18.5	1.05	6.4	0.62	1.7	0.34	0.0	0.03	0.0	0.00
Malawi	479.2	2.76	3.1	0.47	39.1	1.71	37.4	1.46	16.3	1.18	3.3	0.55	0.7	0.28	0.1	0.08	0.0	0.00
Zambia	477.3	3.08	4.9	0.50	38.4	1.32	34.6	0.96	15.0	0.97	5.2	0.77	1.6	0.41	0.2	0.08	0.0	0.00

Teachers' Reading

S4 Country	Transformed Scores		Acceptable Reading Skills		Reading Level 1		Reading Level 2		Reading Level 3		Reading Level 4		Reading Level 5		Reading Level 6		Reading Level 7		Reading Level 8	
	Mean	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**
Seychelles	790.9	14.42	100.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	7.7	4.33	92.3	4.33
Zimbabwe	769.1	4.34	100.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.30	0.4	0.41	13.0	2.35	86.3	2.43
Kenya	744.9	7.30	98.8	1.20	1.2	1.20	0.0	0.00	0.0	0.00	0.0	0.00	0.1	0.06	0.7	0.52	20.2	3.34	77.9	3.50
Botswana	739.9	3.76	100.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.7	0.51	1.0	0.48	23.3	2.33	75.1	2.37
Swaziland	729.6	5.54	100.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	2.9	1.34	27.0	3.91	70.1	3.99
RSA	726.6	4.94	100.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.6	0.44	0.8	0.55	6.7	1.55	27.8	2.96	64.0	3.10
Namibia	718.3	3.94	100.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	6.4	1.49	29.4	2.92	64.1	3.05
Zambia	716.8	4.95	100.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.8	0.85	0.6	0.46	3.9	1.60	35.5	3.88	59.2	3.98
Uganda	696.8	5.03	99.1	0.66	0.9	0.66	0.0	0.00	0.0	0.00	0.0	0.00	1.3	0.65	3.2	1.24	45.7	3.49	48.9	3.50
Malawi	694.1	7.18	100.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.7	0.71	4.0	2.48	8.5	2.78	39.0	5.30	47.8	5.42
Lesotho	692.4	4.62	100.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.7	0.72	6.1	1.94	50.0	4.01	43.2	3.98
Zanzibar	687.5	4.54	100.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	1.8	1.26	7.5	2.27	53.4	4.28	37.4	4.20
Mauritius	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
SACMEQ IV	**720.6**	**2.06**	**99.9**	**0.09**	**0.1**	**0.09**	**0.0**	**0.00**	**0.0**	**0.00**	**0.3**	**0.28**	**0.6**	**0.18**	**4.3**	**0.63**	**32.3**	**1.54**	**62.3**	**1.57**

Data suggested that 95% of the grade 6 pupils reached level 5. This table presents a scenario where, about 1% of the teachers of grade 6 pupils reached levels 5 and below. On average this implied that there is a class somewhere in the country where about 40 grade 6 pupils were taught by an unqualified teacher – who was not a competent reader. Is it fair then to have league tables for pupils at the end of the year? And to have "so called better performing schools", when the schools environment varied wildly as data suggested. Unequal schools should never be treated equally.

HAKT for Pupils

S4 Country	Transformed Scores		Reaching Minimum Level		Reaching Desired Level	
	Mean	SE	%	SE	%	SE
Swaziland	533.9	3.62	45.6	2.12	4.7	0.81
Kenya	526.3	4.26	45.1	2.18	9.7	1.07
Namibia	516.6	2.59	37.6	1.34	7.0	0.59
Lesotho	514.5	3.26	41.6	1.73	4.4	0.62
Botswana	507.5	4.57	35.2	2.01	7.9	0.93
Seychelles	489.9	6.84	28.9	3.95	2.1	0.69
Zanzibar	484.1	2.79	27.5	1.40	0.9	0.19
Zimbabwe	476.6	4.65	24.2	1.87	3.0	0.46
Zambia	475.4	4.77	25.9	1.91	2.0	0.37
Uganda	473.1	4.64	30.0	1.76	4.1	0.66
South Africa	471.1	2.93	19.0	1.20	2.0	0.50
Malawi	440.5	4.47	8.9	2.05	0.4	0.25
Mauritius	413.0	3.58	5.5	1.03	0.2	0.14
SACMEQ IV	**489.5**	**1.72**	**30.0**	**0.73**	**4.1**	**0.21**

Reading Teachers

S4 Country	Transformed Scores		Reaching Minimum Level		Reaching Desired Level	
	Mean	SE	%	SE	%	SE
Botswana	836.9	5.11	100.0	0.00	99.1	0.55
Zimbabwe	836.5	6.31	100.0	0.00	97.4	1.11
Namibia	813.5	5.87	100.0	0.00	95.7	1.30
Kenya	810.1	7.93	99.1	0.93	96.8	1.52
Swaziland	802.4	7.42	99.6	0.37	96.2	1.73
Seychelles	776.8	20.35	98.5	1.51	92.7	3.69
Lesotho	769.4	6.41	98.4	1.04	92.5	1.81
Zambia	766.4	8.02	98.9	0.68	92.4	1.94
South Africa	759.6	11.14	97.2	1.67	90.5	2.66
Uganda	742.8	7.59	98.8	0.83	87.1	2.49
Malawi	729.3	9.75	98.2	1.30	77.0	4.96
Mauritius	727.0	6.40	98.8	0.63	75.5	3.10
Zanzibar	666.5	6.19	94.9	1.65	58.8	3.93
SACMEQ IV	**780.3**	**3.12**	**99.0**	**0.26**	**91.5**	**0.76**

Mathematics Teachers

S4 Country	Transformed Scores		Reaching Minimum Level		Reaching Desired Level	
	Mean	SE	%	SE	%	SE
Zimbabwe	838.6	6.76	100.0	0.00	96.5	1.36
Botswana	836.3	5.16	100.0	0.00	99.1	0.55
Swaziland	804.9	7.23	99.2	0.78	96.4	1.63
Kenya	801.6	6.92	100.0	0.00	97.2	1.39
Namibia	790.8	6.39	98.6	0.84	91.8	1.79
Lesotho	773.9	6.02	99.5	0.37	93.3	1.70
Zambia	766.2	8.06	98.9	0.69	92.3	1.95
South Africa	765.4	8.61	98.1	1.32	88.7	2.94
Uganda	755.0	7.89	96.8	1.21	86.4	2.41
Seychelles	733.6	20.82	96.2	3.60	76.2	7.89
Mauritius	727.0	6.40	98.8	0.63	75.5	3.10
Malawi	724.2	10.05	98.4	1.12	76.7	5.14
Zanzibar	660.1	5.98	94.0	2.02	56.2	4.00
SACMEQ IV	**775.7**	**3.22**	**98.7**	**0.33**	**90.3**	**0.80**

Health Teachers

S4 Country	Transformed Scores		Reaching Minimum Level		Reaching Desired Level	
	Mean	SE	%	SE	%	SE
Botswana	837.5	5.12	100.0	0.00	99.1	0.55
Zimbabwe	837.2	6.54	100.0	0.00	96.8	1.27
Namibia	826.9	5.61	100.0	0.00	96.5	1.03
Swaziland	794.9	7.04	100.0	0.00	97.6	1.40
Kenya	791.2	10.52	99.8	0.16	89.1	4.11
Seychelles	779.5	23.57	100.0	0.00	85.9	5.56
Lesotho	779.2	6.23	99.3	0.60	92.7	1.65
Zambia	767.7	8.06	98.9	0.69	92.3	1.95
Uganda	762.1	6.16	99.8	0.19	90.1	2.08
South Africa	758.6	7.46	98.5	0.86	88.9	2.14
Malawi	740.7	9.21	98.5	0.92	79.5	3.98
Mauritius	727.0	6.40	98.8	0.63	75.5	3.10
Zanzibar	683.4	5.58	97.6	1.30	67.9	3.95
SACMEQ IV	**784.8**	**2.85**	**99.3**	**0.22**	**91.6**	**0.71**