Swaziland SACMEQ III Report

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Foreword

The report is a culmination of more than five years of hard work by the Ministry's national research team. Educational research is an integral part of any Ministry of Education and Training. Research informs the Ministry of its successes and challenges in the provision of education. The evaluation data and information is then used to derive new policies that aim to address challenges and reinforce successes. The Government of Swaziland is committed to provision of a quality education to all its citizens irrespective of location, religion and socio-economic status. This goal is contained in the Ministry's strategic plans which outlines the nation's commitment to increase access, enhance quality and relevance of education, and also improve the equitable allocation of resources both material and human and to ensure that the system is efficient. It is very important that the Ministry monitors its progress towards the country's national agenda and also to ensure that it commits itself to the achievement of MDG and EFA goals.

The Ministry of Education and Training wishes to pass its sincere gratitude to all stakeholders who have played a critical role in this project. This includes the pupils, who were part of the study, their teachers and head teachers for allowing the Ministry to disturb their schedules.

Furthermore the Ministry would like to thank its partners in this exercise, such as UNESCO and UNICEF who have supported the research team in all the stages of the process. This document will go a long way in guiding future decision and policy making in the country. It is the hope of the Ministry that educators and stakeholders in education will take this report forward and further investigate the issues that have been raised in this report so as to improve not only themselves but the future of every Swazi child.

Last but not the least the Ministry will like to extend appreciation to the International Institute for Educational Planning (IIEP), Paris and the SACMEQ Coordinating Centre for the support, training and guidance which has been provided to the researchers. A great foundation has been laid for future research.

Minister of Education and Training

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Abbreviations

ECCD	**Early Childhood Care and Development**
ECCE	**Early Childhood Care and Education**
EFA	**Education for All**
FPE	**Free Primary Education**
FAO	**Food and Agriculture Organisation**
ICT	**Information Communication Technology**
ISCED	**International Standard for the Classification of Education**
IIEP	**International Institute for Educational Planning**
MDG	**Millennium Development Goals**
MOET	**Ministry of Education and Training**
NDS	**National Development Strategy**
NETIP	**National Education and Training Improvement Programme**
NCP	**Neighbourhood Care Point**
OVC	**Orphans and Vulnerable Children**
SACU	**South African Customs Union**
SACMEQ	**South and East African Consortium for Monitoring Educational Quality**
UNICEF	**United National Children Fund**

Overview of the SACMEQ Project

The Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) is a research project that was initiated under the auspices of UNESCO by the International Institute for Educational Planning (IIEP), which is based in Paris, France in collaboration with ministries of education in sub-Saharan Africa. It began as a small project in Zimbabwe in 1991 – 1992. It was officially launched in 1995 by seven ministries of education, Kenya, Malawi, Mauritius, Namibia, Tanzania, Zambia and Zimbabwe. In 1997, SACMEQ was registered as a non-government organisation with a membership of 15 Ministries of Education (Botswana, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, **Swaziland,** Tanzania (mainland), Tanzania (Zanzibar), Uganda, Zambia and Zimbabwe).

Mission

SACMEQ's mission is to undertake integrated research and training activities that will: (a) Expand opportunities for educational planners and researchers in ministries of education to gain technical skills required to monitor and evaluate general conditions of schooling and quality of basic education systems: (b) undertake research that generates information which can be used by decision makers (evidence – based decisions) to plan improvements in the quality of education.

SACMEQ Projects

There have been three projects thus far, namely SACMEQ I (1994-1998), SACMEQ II (1998-2004) and SACMEQ III (2005-2010). Although Swaziland was a member of SACMEQ during the SACMEQ I project it only took part in the research under the last two projects, namely SACMEQ II and SACMEQ III. The Table below shows the growth the sample size over the last three projects There are fifteen countries participating in SACMEQ, and these are Botswana, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania (Mainland), Tanzania (Zanzibar), Uganda, Zambia, and Zimbabwe. The overall decision-making for which research SACMEQ undertakes is the SACMEQ's Assembly of Ministers that consists of the fifteen Ministries of Education of the participating countries. The SACMEQ Co-ordinating Centre (SCC) headed by a full time Director is located in the UNESCO Office in Harare, Zimbabwe.

Table 1: Size of the Samples

SACMEQ Project	No. Pupils	No. Schools	No. Teachers	No. Head Teachers
Project I	20 000	1 000	0	0
Project II	40 000	2 000	5 300	2 000
Project III	61 396	2 779	8 026	2 779

Swaziland has participated in the last two SACMEQ studies, SACMEQ II and SACMEQ III in 2000 and 2007 respectively. The studies provided some kind of baseline for inputs to primary schools and for monitoring the *quality* of primary education across educational districts after the achievement of spaces for universal primary education in the mid 1980's. This has been valuable information in that the MOE has managed to review what it has achieved since the National Education Review Commission (NERCOM) in 1985. The studies have also provided insight into the disparities in the districts in terms of resources both material and human so as to inform resource allocation in the future. The study provided reliable information to emerging concerns that will affect the equitable distribution of a quality education to all children in the country. From the school profiles the Ministry was able to appreciate the differences between schools, communities and to have a measure of the poverty of certain communities and their schools. The studies also provided for the monitoring and reporting on some aspects of quality at primary level. As is goal number 2 of the Education for All (EFA 2015) agenda, "ensure that all children get a primary education of good quality" SACMEQ has indeed provided insight into where Swaziland

stands in the region and internationally. SACMEQ has also provided reliable information to development partners to guide their decisions on how and where to channel their assistance, where it is needed most, in line conformity with Ministry priorities.

In 2010 the Government of Swaziland introduced state funded primary education which was aimed to facilitate the achievement of universal primary education. This very gigantic step resulted in increase in allocation of educational inputs such as pupils' materials, primary school infrastructure and increase in enrolment. It thus important for the country to assess whether these increases in the supply and demand for education have not compromised the conditions associated with quality of education.

The overall aims of SACMEQ are to:

- determine if Reading and Mathematics *achievement* of Grade 6 learners and their teachers;
- determine if the *conditions of primary schooling* have improved;
- determine changes in the *degree of equity* with regard to the allocation of human and material resources across educational regions and between schools within the regions;
- undertake a special sub-study of the effect of HIV/AIDS (including poverty) on the functioning of primary schools through an HIV and AIDS Information and Knowledge test for both pupils and teachers and
- identify the major factors affecting learner achievement

This report is on the findings of the SACMEQ III Project, which was undertaken between 2007 and 2010.

Executive Summary

The Government of the Kingdom Swaziland has continued to scale up the accessibility of a quality primary education through the huge investments that it has made to improve the learning and teaching environment in all public schools of the country. This investment began in the early 2000s through provision of free textbooks, stationery, school feeding and culminated in the provision of a state funded primary education programme in 2010, which was coded, "Free Primary Education (FPE). During this period Government also facilitated the education of orphaned and vulnerable children (OVC) by provision of not only educational grants but also psycho-social support to all OVC. In 2010 the education system witnessed increases in enrolment due to the Free Primary Education (FPE). This suggested that major successes were achieved in increasing access to primary education. Increasing access was one part of the equation; efforts are had to be made to also address issues around equity, quality and relevance of education. The SACMEQ Projects have raised very important issues in the past especially in the area of equitable quality education. It is important that the country sustains the gains that have been made.

Regionally the country has fared well under the SACMEQ III Project, and it has performed above average when compared with the other SACMEQ countries. However there has been a need to zero-in on very important aspects of the education system in terms of the quality (supply and delivery) of education. One of the worrying issues that came out of the research has been the amount of repetition at primary level. SACMEQ studies in have revealed that more 60 percent of the Grade 6 pupils reported to have repeated **at least once in their educational history** – this is not a good attribute of a quality education. This scenario when coupled with an annual primary repetition rate of more 15 percent presents a gloomy picture of the education system. Grade repetition rates in Swaziland are relatively higher than the other SACMEQ countries and there is need for them to be addressed. This can be either through formulation of appropriate policies or revamping of teaching/learning processes in the country.

The results also indicated a general improvement in resource allocation to schools when compared with SACMEQ II findings. This showed commitment by the Ministry of Education in putting more quality educational inputs to primary education. However, there are other issues that need to be looked in terms of ensuring that the inputs are distributed equitably across and within the schools in the regions. Swaziland recorded a high pupil-book ratio, which meant that every Swazi child had a book especially in the core subjects; this meant on average every Grade 6 pupil in Swaziland had a personal textbook in the core subject areas. Other research has alluded to the fact that on average children who have their own textbooks perform better than those who share textbooks. In addition to pupils' texts, the results also indicate that almost all teachers do have Teachers' Guides which are crucial in guiding the teaching/learning process.

Coming to the issue of delivery of education, the study also revealed an improvement in achievement levels of both Grade 6 pupils and their teachers in areas of literacy and numeracy. However, it has also raised issues that need to come out in the open especially on the role of the teachers. There was an overall twenty percentage increase in the mean score for Grade 6 pupils and their teachers, which showed an improvement in general. However, the performance had a gender bias. There is still a need to encourage more girls to take science and mathematics. The study has revealed that as in SACMEQ II, girls still performed better on average in Reading than in Mathematics, and boys performed better than girls in Mathematics. There is need that this is addressed early enough so that girls are encouraged to take up mathematics and science subjects early in their education. An initial stage maybe will be to train more female teachers in the Sciences (teaching science and mathematics) so as to encourage more girls to be comfortable in these subject areas.

Another feature was the discrepancy in the teaching methods employed by the schools. The Ministry needs to either reconfirm its stand of whole class teaching or reinforce specialised teaching. It appears as if schools do as they see fit. The study revealed that in some schools class teaching is used whilst others schools specialise whilst others offer a combination of the two. This meant that there were three different models in operation in the

country. This tends to make it difficult to allocate teachers equitably; those who specialise tend to use more human resources than those who teach the whole class. A clear uniform policy will ensure that teaching resources are not wasted. Current economic challenges do not allow primary teachers to "claim" to be able to teach one subject. On the other hand it can be argued that "specialised teachers" tend to be more confident in their subject areas.

Last but in no way the least, there is an outmost necessity to put the teaching about HIV and AIDS up in the Ministry and country's agenda. Although Swaziland performed better than most of the countries in the study the results were very misleading. The country scores were on average higher than that of that other countries however, on average the achievement was still low – did not reach the required standard. On average, the study revealed that the Swazi child is not adequately taught about the pandemic in school. The study also revealed that there was a high discrepancy in the Knowledge and Skill levels in HIV/AIDS of Grade 6 teachers and their pupils. Teachers obtained very high scores which meant they had the information but **did not** effectively pass it on to their pupils – the knowledge gap was high. This is an emergency. It suggested that either there was no teaching about HIV/AIDS or teachers could not present the information and knowledge in a way that children could understand. When the fact that HIV/AIDS is taught "cross-curricular" is considered, results indicated that this paradigm of delivery was not working. This meant the Ministry had to develop relevant curriculum materials, allocate a time slot for HIV/AIDS in the time table and teach it as one of the core subjects. In Swaziland this should be a priority considering the extent of the effects that have been caused by the pandemic. Having it cross curricular with no time slot does not give it the attention it deserves, this is a life and death issue.

It is however encouraging to report that the country has begun to seriously consider the suggestions that have been raised in the report. A panel for the development of Health Education where HIV and AIDS issues feature prominently has been established. Work is already at an advanced stage in development of curriculum and learning materials. This will address the way the content is delivered, what is being delivered and will be responsive to the needs of the child. This shows that Government has taken the results of the study with the due weight they deserve.

The SACMEQ project has achieved its major objective, that of training educational planners in research, this report is indicative of this milestone. It has also raised key policy suggestions, some which have already been incorporated into the national strategy. A by product of the report is a Monitoring and Evaluation framework for the implementation of the free primary education. The report does confirm that Government has indeed made provisions for free primary education and that on average teachers and pupils have performed favourable over the last five years. The challenge will be to maintain and sustain all the positive indicators that have been achieved. In mapping a forward strategy the Ministry will have to develop a system of Monitoring and Evaluation and ensure that the practices and methodologies under which the SACMEQ project operate are institutionalised to inform the M&E framework for the National Education Training Improvement Programme (NETIP).

Chapter 1
Setting the Scene

1.0 Introduction

The underlying framework for development in Swaziland is grounded on its Poverty Reduction Strategy Programme (PRSP). The PRSP is the backbone of development in Swaziland, and its main aim is to reduce poverty, inequity and disparities nationally, regionally, down to community level. At community level this includes disparities at school level. The PRSP document is also an operationalisation of a long-term strategy that was developed by the country the National Development Strategy (NDS) in the late nineties. The NDS is the vision 2020 for Swaziland which aims to eradicate poverty by 2022.

The PRSP programme is structured on six pillars. These pillars serve to provide focus and direction for Government and civil society to engage, they are:

(i) Macro-economic stability and accelerated economic growth based on broad participation;
(ii) Empowering of the poor to generate income and reduce inequalities;
(iii) Fair distribution of the benefits of growth through fiscal policy
(iv) Human capital development
(v) Improving the quality of life for the poor and
(vi) Improving governance and strengthening institutions.

The Education Sector is under the fourth pillar – human development. In addition to education sector, this pillar also includes other social sectors such as health, sanitation, housing, employment and security. The main thrust is to enable the poor to break the cycle of poverty and illiteracy and ensure that every citizen participates fully in the society. As signatory to the UN declarations, Swaziland is keen on the attainment of all the MDGs.

The main focus for the education sector is the achievement of universal basic education, which is both an MDG and Education for All (EFA) goal. The vehicle to achieve this goal is the achievement of universal primary education. In Swaziland basic education includes three years of lower secondary education, making basic education a ten year programme. The country has made huge investments in ensuring that Swazi citizens have access to primary education of good quality. Primary education became a [1]constitutional right in 2005, this therefore indicated commitment by the country towards attainment of the MDGs and also breaking the cycle of poverty. Achievement of [2]access to education (free and compulsory primary education in public schools) is a national policy directive, thus the Ministry is charged at ensuring that all children do get access to a high quality primary education. However in breaking the cycle the Government has had to take into consideration the prevailing economic situation nationally, regionally and internationally.

1.1 Socio-economic Environment

Swaziland is part of the Southern African Customs Union (SACU) and like a number of countries within the region, and it has recently faced challenges regarding its fiscal situation. The revenue from SACU has shrunk considerably and this has demanded that the country impose a 'belt-tightening' policy. The

[1] Article 29 (6) of the constitution states, *"[1]Every Swazi child within three years of the commencement of this constitution will have a right to free education in public schools at least up to the end of primary school, beginning with first grade".*
Swaziland Government Gazette Extraordinary, VOL XLIII, July 26th, 2005. No. 73

[2] Prime Minister, Swaziland: Implementation of the Directive Principles of State Policy, 4.1, 4.6, 4.7, 4.8 :Parliament , December 2009

shrinking of the SACU receipts, increase in recurrent expenditure (about 30 percent of the GDP) and the global meltdown has besieged the country with major financing challenges.

The high recurrent expenditure in Swaziland has been largely due to public service salaries which grew from 46.5 percent in the financial year 2002.2003 to about 53.6 in 2008/2009. A large proportion of this expenditure is teacher salaries which make up more than 50 percent of this expenditure.

In addition to these challenges is the HIV/AIDS situation which is at the core of eroding both financial and human capital in the country. The HIV/AIDS prevalence rates in 2007 were at 19 percent nationally, at 26 percent for the 15 to 49 year and 59 percent for women between 25 and 29. Swaziland cannot debate the socio-economic especially poverty issues without including the HIV/AIDS situation, this scourge has contributed to increased poverty. Traditionally the country has a high dependency ratio, and if the working population is being cut down by the pandemic then it follows that poverty levels will increase. This lowers the human development index of the country.

Another worrying feature of the social picture of Swaziland is the incidence of HIV/AIDS infected children under the age of five years. This suggests that they are and will be taking antiretroviral therapy. This puts additional pressure not only to the health of these children but on also on their education. They will need counselling on a daily basis, psychosocial care, feeding and teachers would be expected to adjust to their situation. Teachers themselves need to also be trained to deal and cope with the changing role in the classroom.

Another feature of the country is its relatively high Gini coefficient, where only a small fraction (about 5%) claims more than half of the revenue (54%). This scenario sets a scene where it is only a few that reap some of the limited successes of the country. This is why the PRSP is at the centre of development in the country.

1.2 The Health Sector

The Education and Health sectors are very important to development, thus it is also important that when one looks at the education of the children, special attention is also paid to health. The health system consists of three main levels, primary, secondary and tertiary which sounds the same as education levels. Their responsibility is also hierarchal by nature, beginning with the community based health care, clinics and outreach services then to health centres finally to national hospitals. All the levels are critical to education, and the fight against the HIV/AIDS scourge.

In fighting the disease Government engages in prevention, treatment, care and support. All these different mechanisms need the nation to be educated on how to prevent, treat, take care and support people infected or affected by the disease. This Government is doing through a number of partners local and international, and to show commitment it has created an institution, the National Emergency Response Council on HIV/AIDS (NERCHA) which coordinates all effort nationally.

The Ministry of Health and the Ministry of Education and Training are equal partners in the fight of the HIV/AIDS in schools. A number of activities are on going and are coordinated through the Health Unit (Guidance and Counselling) in the Ministry of Education.

1.3 The Education Sector

The Education and Training Ministry is the lead agency in the provision of education and training in the country. Education and training is important to Swaziland because it is not a resource rich country, thus its economic growth is determined by the human capital growth, where education is central. This outlines the importance of pillar 4 in the PRSP not only as an educational target but also a developmental goal for the country. None of the other goals can be achieved without an education – it is a vehicle to achieve all the MGDs.

The broad policy objectives of the Ministry are (i) Access and equity (ii) Quality of education (iii) the relevance and importantly (iv) gender equality and protection.

These objectives are embodied in the Ministry's vision, *'[3]to provide relevant and affordable education and training opportunities for all age groups of the entire populace of the Kingdom of Swaziland in order to develop all positive of life for self-reliance, social and economic development and global competitiveness'.*

Education in Swaziland is largely a partnership between Government (major player), the community and private stakeholders. Government contributes to more than three quarters, through the provision of teachers, infrastructure, teaching and learning materials and communities contribute through building of schools (infrastructure). The education system is largely public, with a few germinating private schools.

1.3.1 Structure of the Education system

The system is largely formal; there are a few non-formal, informal and other programmes such as open and distance learning which exist. The formal education system begins at Early Childhood Care and Development to Tertiary levels of education. The system is quite large at the bottom and tapers to a handful of tertiary education institutions, this hands itself to a very selective education process, less than 20 percent who enter grade 1 reach post secondary education. The key sub-sector levels are:

(a) Early Childhood Care and Development (ECCD) – ISCED Level 0

This sub-sector includes child care, kindergarten and preschool. Formal preschools begins at age 5 to 8, where ages 5 to 6 is reception grade and the ages 6 to 8 are already in primary school. This responsibility is shared between the Ministry of Education and Training and the Ministry of Health, where the latter concentrates on the earlier part of ECCD. This sector is largely in private hands, and is quite expensive. There are more than 1200 such centres in the country, but due to their nature it is hard to always keep track of them.

The Ministry provides inspection and guidance services to the centres. This includes curriculum and training of the educators. To a large extent the educators of this level do not have a nationally defined qualification for this level of education, but some are retired primary school teachers. All salaries and infrastructure needs are paid by the owners; this is one of the contributing factors to the costs.

From an education perspective, the Ministry encourages children to go through preschool, but it is not a prerequisite for entry into grade 1. However, there has been a tendency by some schools to prefer those that have gone through this level of training. The Ministry is working on a policy that will guide education at this level.

[3] National Education Policy Statement, 1999

(b) Primary education – ISCED Level 1

As mentioned earlier, primary education has been declared free and compulsory in Swaziland. The official entry age is 6, but this has been altered by the introduction of the free primary education which expanded the ages to include ages 7 to 9. This meant that in 2010, when free primary education was implemented a number of children above the age of six would have entered the system. As the official entry age is six years, this initiative might affect our future enrolment rates.

The number of primary schools in the country is 620; with an enrolment exceeding 240 000 and these are distributed throughout the four regions. The cycle takes seven years and culminates with an end of cycle (Grade 7) examination – the Swaziland Primary Certificate Examination which determines entry into secondary education. The average pupil-teacher ratio is 1:40.

In 2010 the country began implementing free and compulsory primary education in the first two grades; in 2011 this programme would have expanded to grade 3. The introduction of free primary education is done in phases where a grade is added each year. This means that, for example in 2011, from grade 1 to 3, parents only have to provide uniforms, travelling costs and other utility costs. From grade 4 to 7, a subsidised education programme is offered; pupils get free textbooks and stationery. Parents have to pay school fees for these classes

This means Swaziland's free primary education will be in grade 7 in the year 2015. This is one situation that is encouraging in that there is hope that by 2015, the country would have hit, major milestones on the achievement of universal primary education.

(c) Lower Secondary education (ISCED 2)

Secondary education is composed of the lower which is from form 1 to form 3. This lower part of secondary education (ISCED 2) completes the basic education level for the country. Most secondary schools are part of high schools except for new schools, thus in most cases even budgetary allocations and resources are split into the two levels of secondary education. This cycle also ends with a locally administered terminal examination at the end of form 3, the Junior Certificate Examination which determines the entry into higher secondary education. The classes at this stage are larger because of the successes of primary education, but tend to gradually decrease as you go up due to attrition.

Secondary education is not as subsidised as primary education, even the lower (basic education) part is not. This means that whatever gains are being made at primary the fruits will not be harvested at secondary education if Government does not make major investments in lower secondary. The current scenario is the transition rates from primary to secondary are very low, due to limited space.

(d) High Secondary (ISCED 3)

There are 220 high schools, these include lower secondary schools. This is the last cycle of general education in Swaziland. Traditionally it culminated with a General Certificate in Secondary Education (GCSE), however Swaziland has since localised this examination which is now called the Swaziland General Certificate of Secondary Education. This is also a competitive examination which determines entry into post secondary and tertiary education levels. These syllabuses are structured according to the International General Certificate of Secondary Education (IGCSE). Recently the demand for spaces at tertiary levels has seen some schools offering an extra year, the Advanced Subsidiary Level which is equivalent to an A-level.

Only a small fraction (less than 25 percent) of those who entered grade 1 reaches this level of education. The system is highly competitive. Like lower secondary education there is little in terms of support at this level of education.

(e) Post-Secondary (ISCED 4)

This level of education is very small in Swaziland. This is because there are a few official institutions that offer training at this level of education. Most post secondary qualifications in Swaziland are classified into tertiary because of the entry requirements and duration of study. However, there are a few courses that may meet the criteria for classification into ISCED 4, most of which are in the colleges of vocational training.

Vocational training does exist in Swaziland, however a few institutions are under Government, and a large proportion is in private hands.

(f) Tertiary (ISCED 5)

Swaziland has for some time being having one university and four colleges. This comprised all tertiary education; however there has been a sudden increase in these institutions to meet the demand for education. The currently unique situation is that education at this level of education is highly subsidised. Students are offered a grant of which they pay back about 55 percent to Government.

1.3.2 The administration of the Education System

The country is divided into four administrative regions, namely Hhohho which has the capital city of the country, Lubombo, a rural region which is where the sugar belt is based, Manzini, the hub of Swaziland, a densely populated region and Shiselweni another rural region. These administrative regions also form the four educational regions which are all headed by Regional Education Officers. These officers are responsible for all educational institutions and processes in their respective regions.

The overall administration of the Ministry is centralised, resources are distributed from national office, and the regions have been allocated a small budget largely for running the offices. Allocation of teachers, infrastructure and learning materials is coordinated at national office, the regions are however active participants of the process.

1.3.3 The Financing of the Education System

As indicated earlier education in Swaziland is largely financed by the Government. There are a few totally private educational institutions in the country, less than 5 percent. Government provides a budget to education which is for both recurrent and capital expenditures. Table 1.0 indicates the financial expenditures for the Social Services Sector over the total Government expenditure over a 5 year period.

The figures presented in Table 1.0 indicated that the Government of Swaziland has been allocated on average 22 percent of its national expenditure to education. This allocation includes a capital component which only 3.1 percent of the total capital expenditure of government. This suggested that a large component of the Ministry's budget is for recurrent costs.

Table 1.0 Recurrent and Capital Expenditure, Social Services Sector, 2004/5 to 2008/9

	2004/05	2005/06	2006/07	2007/08	2008/09	Annual Avg share of Total Budget
SOCIAL SERVICES						
Education	1 316.5	1 280.1	1 471.6	1 594.4	1 821.1	22.0%
Health	443.5	509.7	621.3	763.9	837.7	9.2%
Social Protection	107.5	140.7	187.8	310.8	354.6	3.1%
Housing and Amenities	206.4	247.2	75.2	222.1	280.2	3.0%
Water Resources Man	216.9	228.9	119.3	543.5	423.9	4.1%
Total Government Exp	5 762.1	5 826.0	6 120.0	7 216.3	9 569.8	100.0%

Source: Ministry of Finance, Estimates Book: 2010

1.3.4 Challenges within the primary sub-sector

The Government recently introduced free and compulsory primary education in all public schools in the country. This has been done in phases; in 2010 it was introduced in grades 1 and 2. Theoretically, this meant that children only had to 'show' up in school. As with all initiatives there were a few challenges, some of which could have been better addressed had the Ministry made use of some of the key findings in the SACMEQ II reports. These challenges included:

- High repetition rates at primary level, about 15 percent. The effect of repetition on both the system and the pupil are known. Overall, repetition is a waste, it demoralises the child if no remedial action takes places, where a child undergoes the same process that cause the failure. Sending a pupil to repeat a class without adjusting the learning conditions is a waste, pupil will repeat again if not drop out of school.

- The success of free primary education is in completion of primary school. If pupils will still go through the inefficient system and not complete primary education then there will be positive results. The success of the programme should be increased completion, survival and transition rates into lower secondary. If under the FPE children will still fail, repeat and dropout there will be no overall impact of the programme. This programme should be accompanied by a review of the Ministry's internal efficiency indicators, such as a review of repetition (and implementation by all schools).

- Accommodation is another issue. The increase in enrolment exerted additional pressure on the system. Government responded to this by increases the number of classes in grade 1 and 2. As the programme is being implemented the demand for space and teachers have increased. This has placed additional pressure on Government in provision of classes, materials and payment of the additional teachers. This has been difficult considering the country economic outlook. Funding FPE will continue to increase recurrent costs in education and this will need additional funds to be channelled to education.

  Apart from space the other issue is that of having a wide range of ages in the children that have enrolled for the FPE programme. There are some children as old as ten years old that have enrolled in grade 1. This presents a number of educational (pedagogical issues), Psychological,

developmental challenges to the teaching and learning process. Some teachers might be overwhelmed by the variation in age.

In addition would be class sizes. As parents and pupils prefer urban schools (due to inequity in supply of educational inputs) the city schools have bigger classrooms. If one considers the size of the classroom, the variation in age and other socio-economic situation the compounded effects of these individual indicators can have a negative effect on the success of the programme.

- Allocation of teachers and resources. Results of the SACMEQ II revealed that rural schools tended to perform less favourably and this was largely contributed by the poor state of the schools, in terms of educational resources and teachers. If these results were taken into consideration efforts would have been made to ensure that 'every Swazi child receives education of high quality irrespective of location', this is not the case, rural schools are still worse off. It then does not make educational sense to try to compare the results of these schools because the circumstances are not the same.

- The pyramidical structure of the education system means not all those who pass the end of primary examination will, get space in form 1. The transition rates from primary are low. This has led to a situation where the end of primary examination is 'a ticket' into form 1. The failure to accommodate all those who pass including third class passes render the FPE not complete, a successful FPE should see all primary school pupils going into form 1 so as to achieve the MDG and EFA goals.

- Proper use of existing facilities and resources. The Government has put a lot of money into textbooks and stationery. There is an additional demand for primary qualified teachers in the country. Government has addressed this through increase in the number of trainee teachers, there is need to monitor the situation to ensure that once we have reached out target we reduce intake because we might have an over supply of these teachers.

  Materials like books need a strong monitoring system, Government should not be seen to be procuring new books every year when the school life of a textbook is four years. There is need to monitor this budget line as it can be used to address other issues.

As indicated above these challenges can be best addressed through the use of results from enquiry and research. There is need to use the data to plan for education and ensure that indeed education is equitably distributed.

1.3.5 Recent educational innovations

A number of innovations are taking place in the Ministry under the PRSP framework. These include a review of a number of Acts and policy documents that have been outdated. The Ministry is reviewing the national education strategy, and aims to develop a National Educational and Training Improvement Plan of Action (NETIP), a long term strategy that will guide the development of education for the next decades. This has been facilitated through efforts from the Government of Swaziland, the European Union, the World Bank, UN agencies such as UNICEF and UNESCO and the people of Swaziland. This has seen a review of the National Education and Training Policy, The Teaching Service Act, the Educational Council Act, Registration of Schools and formulation of National Register of Schools, Review of the Technical and Vocational Educational Training (TVET), Special Education Needs (SEN), Early Childhood Care and Development (ECCD), Health HIV/AIDS Education Sector Policy and tertiary level policies etc.

All these policies and acts are meant to provide an enabling environment for the achievement of the core values of the education system which is:

a) Access
b) Equity
c) Quality
d) Relevance

1.3.5.1 Access and Equity

The Government of Swaziland has made major investments in education to improve access. These initiatives include free textbooks and stationery (includes Braille materials for the visually challenged) to all pupils attending public primary education. These efforts have been complemented by introduction of a School Capitation Grant and a Bursary Fund for orphans and vulnerable children. The Capitation Grant is only applicable to public primary schools. Schools under this grant are expected to increase access especially to OVC, and also to ensure that all pupils especially OVC complete primary education. This is a per-capita grant allocated to the school, derived from the number of children enrolled in that given year. Bursaries are given to those OVC who are still not part of the Capitation Grant, i.e. the Capitation Grant and Bursary Grants cannot be implemented in the same school concurrently.

These initiatives have increased access to primary schools. There has been success in terms of access in that enrolment rates have increased, the gross enrolment rate has increased to 105 percent with the net enrolment rate about 87%. However, there are still some challenges regarding equity. This kind of allocation has tended to be biased on schools with large enrolments which most often are those schools that have been in existence for sometime, and are mostly in the urban setting. Indeed access has been increased but the major consequence has been inequity since schools that are large and with more resources are receiving even more funds and resources.

Government has also increased capacity for primary education with investment in classrooms and teachers. The major challenges have been around equity; schools are not at the same level of development, some need more funding than others. Teachers tend to focus attention on schools that have resources for their well-being; rural schools which usually do not have some amenities such as electricity and water tend to get 'temporary teachers' who most often are not adequately qualified. The rural/urban discrepancy is there and still needs to be addressed.

1.3.5.2 Quality

The quality of education is a multifaceted concept, the thrust of the Ministry has been the upgrading of educational inputs to primary education, both human and materials. The major inputs include those that have been outlined above. The free textbook and stationery programme has ensured a 1 to 1 ratio in text and stationery materials in primary schools. The Ministry has also increased the intake of primary teacher in all three training colleges, putting rightly qualified teachers in all schools.

However, there is still room for improvement in the assessment of educational quality in terms of the process and products (outputs). The major assessment is at the end of primary, by then it is too late to make any remedial action. Assessment within the grades does occur but this does not assess 'what the pupils have learnt and their achievement', it is still to a large extent a norm-referenced assessment to determine progress to the next stage. The high repetition rates (15% at primary) are testimony to this situation. This high rate of repetition may suggest that the quality is compromised somehow.

Investments into education through educational inputs need to be complemented by educational assessments and research which aims to improve education. These include focussing on early

interventions than waiting for failure at grade 7, closely monitoring low-achievers and slow learners and designing of appropriate remedial lessons, increasing parental involvement in education, providing at risk children (including OVC) with extended opportunities such as psycho-social care, improvement of assessment techniques – tests and quizzes are not the only forms of assessment. Teachers need to assess pupils through their participation in the classrooms activities.

There is need for investment in activities which look at quality in all dimensions, inputs, process and outputs.

1.3.5.3 Relevance

One of the aspirations of the PRSP is to break the cycle of poverty and sickness. Education has been used to break the cycle through provision of educational experiences that respond to nowadays challenges. This includes education that provides life skills, health information, critically education about the HIV/AIDS and an education with an entrepreneurship attitude. This the Ministry has done through diversification of the curriculum, and providing training to serving teachers on the new trends and technologies including the use of ICT.

However, there is need for additional efforts in the area of health and life skills education especially considering the HIV/AIDS situation in the country. Current trends has been integrating life skills in all subjects, this is to ensure that every teacher and every learner talks about the scourge. However this effort has been watered down due to lack on monitoring in class, there is no mechanisms to ensure that all teachers do teach about HIV/AIDS. There are no mechanisms to test what teachers, inspectors, pupils know about the pandemic. Making HIV/AIDS a cross cutting issue is camouflaging the problem everyone will claim its there but no one will ever know what is being taught and how this contributes to enabling pupils, teachers and nation at large change their behaviour. HIV/AIDS is a 'life and death' issue, it needs to be at the centre of education and be provided the due attention it deserves.

The Ministry has introduced practical subjects at primary level and is trying to instil a culture that will look at practical subjects as an option/choice of education rather than a 'forced landing' for those students that have failed in the sciences options. This is also doing through continuous review of the curriculum and policies.

1.3.5.4 Cross cutting issues

One of the controversial issues is the inclusion of HIV/AIDS as a cross cutting issue rather than a core issue. However, the Ministry has endeavoured in providing education around the pandemic and also providing a safe and secure environment that is conducive for learning and teaching. This has seen the introduction of counselling services in schools for both learners and teachers.

In Special Education Needs (SEN) provision of learning materials and modification of infrastructure has been reviewed. The Ministry is advocating for an inclusion policy thus all structures are being modified to enable all children including SEN to access them.

Nutrition is another core issue. The Ministry introduced school feeding in all primary schools to ensure that all children attending schools do get at least one nutritional meal a day. This meal has proved to be core in ensuring children especially in rural areas attend regularly thus decreasing the extent of absenteeism which normally leads to dropout.

1.3.6 Efficiency of the education system

1.3.6.1 Internal

One major compromising factor in the education system is the high repetition rate, which in most cases is school imposed. These high repetition rates tend to contribute to dropout, resulting in a lower number of pupils completing primary education in time. There is need for the Ministry to address the high repetition rate, apart from wasting resourcing; it does not improve anything if the children are made to repeat without any remedial action.

The current trend is that more than 60 percent of primary school children have repeated at least once in the cycle, this is very inefficient and contributes to a low survival rate to the end of the cycle, where about 55 percent of the pupil who start at grade 1 reach end of primary.

Government investments in books, stationery, and feeding was meant to lower those who may be hindered to complete the cycle by other socio-economic factors, there is need for the Ministry to focus on educational issues and improve the quality of teaching and learning.

1.3.7 Monitoring and Evaluation

One of the core products of undertaking studies such as those undertaken under SACMEQ is to facilitate for the monitoring and evaluation of the education system. It is quite common to use the end of year results as indicators of achievement of both the pupils and the education system.

Monitoring and evaluation should be part of the planning process. To make a complete assessment of the education we need to assess the inputs to education versus the process and results. Assessment of school achievement should also take into considerations, the different conditions that exist in the schools, in terms of the socio-economic situation, the qualifications of the teachers and the head teacher, the materials that are available to the schools and the immediate community. It is only when these have been analysed that we can effectively delve into the results. In SACMEQ a complete analysis is made of all the educational inputs, the process and then the results are also considered.

It is thus imperative that the Ministry continuously monitors the education system to ensure that there is equity in the distribution of resources. The results on these monitoring and evaluation process should then be use to monitor planning. The Ministry began this process in 2010 where it produced a comprehensive infrastructure report, which outlined the infrastructure that existed in all the schools in the country, number and conditions of these structures. This report will guide the allocation of resources in the next plan period.

The Structure of the Report

The main of the report is to outline and make an assessment of the quality of the country's primary education system by examining whether the learning and teaching environment has improved or detoriated in the past five years. Data collection was focused on Grade 6 pupils, their teachers and school heads. The first two chapters are focused on setting the scene for the report and on how the study was conducted. SACMEQ projects follow a defined methodology for the research that is highly coordinated, Chapter II has been modified but the details of this chapter are as contained in Chapter II of the Swaziland SACMEQ II report.

Chapter 3: **Pupils and their learning environment**. This chapter is concerned with the personal characteristics of Grade 6 pupils and their learning environments. It also examines home environment contexts that might have an impact on their learning outcomes. The basic objective was to make an assessment of the attributes of pupils that could have had an impact on their educational performance.

Chapter 4: **Teachers Characteristics and the Views on the Educational Infrastructure, Organization and Operation of schools and problems with Pupils and Staff.** This chapter examines teachers' characteristics in terms of: their personal, environmental and community attributes. The teachers have been grouped according to the subjects that they taught in 2007: reading teacher, mathematics and the health.

Chapter 5: **School Head Teacher Characteristics and the Views on the Educational Infrastructure, Organization and Operation of schools and problems with Pupils and Staff.** This chapter examines head teachers' characteristics in terms of: their personality, academic and professional qualifications, experience, management style, the immediate environment and how the head responds to it. In this chapter "school heads" and "head teachers" have been used interchangeably.

Chapter 6: **Equity in the allocation of teaching and learning (materials) resources among the regions and among the schools within regions.** This chapter presents research findings on school resources educational inputs) that were available in schools where Grade 6 pupils attended in Swaziland. This was based on a list of basic teaching and learning resources and environment that should be available in any primary schools for a quality education to occur.

Chapter 7: **Pupil and Teacher Competencies in Literacy and Numeracy.** In this chapter research findings on Reading (English) and Mathematics achievement levels for Grade 6 pupils and their teachers are presented.

Chapter 8: **Knowledge and Skill Levels for Pupils and their Teachers in HIV and AIDS**. 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.

Chapter 9: **Agenda for Action**. Chapter 9 explores means and measures that have to be undertaken so as to operationalise the policy suggestions. All policy options that have been raised in preceding chapters have been analysed and categorised into four groups and then linked to the section (organ) that will need to coordinate further work, the requirements, and levels of engagement and costs that may be involved.

Forward looking

The results of studies like those of SACMEQ should not be taken as just research for the sake of research but as a critical process in the evaluation of the education cycle at primary levels. There is need that some of the findings be incorporated into plans of some key departments, i.e. curriculum issues that may have cropped up, assessment and examination techniques and allocation of both human and material resources by the Ministry's planning unit and the Teaching Service Commission.

It was very enriching for the team that developed national education strategy - the National Education and Training Improvement Plan (NETIP) to consider the results of the SACMEQ II findings on achievement. These were put into use in that some of the strategies in the national strategy will address the key findings on achievement and have had a bearing in setting up a programme to improve the numeracy and literacy skills at primary level. Numeracy and Literacy have become core issues at primary to further improve the skills of primary school going pupils.

The construction of the tests can also assist in improvement of assessment materials within the school. Some tests or examinations seldom have comparable data. This means results from one to another year cannot be compared as the test were totally different, and there are seldom test items that are included to match the level of achievement in different years. SACMEQ has managed to develop a bank or items which were graded into the eight levels of achievement, thus every item in the tests can be graded against this standard. This means under SACMEQ a test that measures all the competency levels can be constructed, such a test can enable one to judge the level of achievement of a pupil even if the year in which the tests has been taken are different. Test development in Swaziland can improve if it could be ensured that the tests follow a 'normal distribution' even in terms of the difficulty of tests items. This is only possible when test items have undergone a vigorous analysis where there have been placed in their respective level of difficulty. Some tests or examinations may be constructed that they are 'difficult' or 'easy' if there was no coding according to difficulty of the items.

There is also need for dedicated efforts in ensuring that educational inputs are also equitable distributed. Unequal distribution of education results does not have any positive impacts on the system in fact it increases discrepancies where schools that have resources tend to given more resources and do even better that small, isolated rural schools. This report will present findings into research that was done to assess the conditions that contribute to effective learning and teaching.

CHAPTER 2
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 III project in 2007 were, therefore, the same as in SACMEQ II**. 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 [4]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.

A unique feature of the SACMEQ III research project was the inclusion of the HIV and AIDS knowledge test (HAKT) for Grade 6 pupils and their teachers. The SACMEQ HAKT was designed to provide a valid assessment of pupil and teacher knowledge about HIV and AIDS with respect to the topics specified in official school curriculum frameworks, textbooks, and teaching materials used by the SACMEQ countries. The 86 HAKT test items covered 43 curriculum topics, and they were focused on an assessment of "the basic knowledge about HIV-AIDS that is required for protecting and promoting health". These topics covered five main areas: definitions and terminology; transmission mechanisms; avoidance behaviours; diagnosis and treatment; and myths and misconceptions.

Overall, the SACMEQ III project did however represent a major increase in the scale and complexity of SACMEQ's research and training programmes. The focus of the project was on conditions of schooling and the quality of education in fifteen school systems: Botswana, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania (Mainland), Tanzania (Zanzibar), Uganda, Zambia, and Zimbabwe. The purpose of the project was to gather information on: (a) the general conditions of schooling, (b) the reading and mathematics achievement levels of Grade 6 learners and their teachers, and (c) the knowledge that learners and their teachers have about HIV and AIDS. The main data collection for the regional project covered a total of around 60 000 pupils, 8 000 teachers, and 2 800 school heads. In Swaziland, the coverage was 4030 pupils, 358 teachers and 172 school heads.

In Swaziland, the study was conducted and coordinated by the EMIS unit, which is based in the Research and Planning section. To a large extent a number of the main activities were managed by the permanent staff. The staff was involved from developmental (pilot) stages to the final survey, this ensured a stable and experienced staff was involved in all the critical stages.

[4] Printed copies of the report are available at the national commission for UNESCO's library, 5th floor MOET building.

In this chapter specific aspects of the methodology followed in the SACMEQ III project have been outlined and this includes a description of the sample used, data collection, cleaning and analysis.

The Study Population

(a) Desired Target Population

The desired target population definition for the SACMEQ III Project was exactly the same (except for the year) 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 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 II, special schools which provide education to pupils with severe educational needs were excluded from the SACMEQ III sample. "Small" mainstream schools which had less than 25 pupils enrolled in Grade 6 in 2007 were also allocated to the excluded population to reduce data collection costs – without the risk of leading to 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". In Table 2.1 the numbers of schools and pupils in the desired, defined and excluded populations for Swaziland have been presented.

Table 2.1: Desired, Defined, and Excluded Populations for Swaziland

	Desired		Defined		Excluded		Pupils %
	Schools	Pupils	Schools	Pupils	Schools	Pupils	
Swaziland	551	31856	496	30922	55	934	2.93%

From the last column of **Table 2.1** it can be observed that the excluded population of pupils was 2.93% percent which was less than the stipulated 5 percent to meet the SACMEQ criteria for accuracy in large-scale assessment data.

Data Collection

In this report "Data Collection" includes preparations before the field work, the actual field work and activities that followed field work.

Preparations for the main data review

Preparations focused on instrument review, communication to schools, printing and distribution of instruments and training of data collectors.

(a) Instrument review

As soon as the SACMEQ Assembly of Ministers took a decision to conduct the SACMEQ III project in 2007 the National Research Coordinators (NRCs), under the auspices of the SACMEQ Coordinating Centre based at the IIEP in Paris, set out to prepare and update the instruments (tests and questionnaires). Between 2005 and 2006 the SACMEQ Coordinating Centre hosted at least three working sessions for the National Research Coordinator NRCs in South Africa, Paris and Botswana, that were focused on reviewing existing test items and ensuring that, where there had been curriculum changes, the items were still relevant. Invariably, there were no significant changes on

the Reading and Mathematics test items. The HIV and Aids items, which were new, were piloted, first in a few primary schools in Botswana and then in individual member countries. The pilot study was intended to ensure that the language in the HAKT test was accessible to pupils, that there were no cultural biases in the items and pupils could follow how to write their responses.

The final statistical and content validity and reliability checks of the instruments were carried out by specialists at the SACMEQ Coordinating Centre who then declared the instruments ready to print and take to the field.

(b) Communication to schools

The process of informing the schools and the sector of the pending study began as early as the pilot stage. All primary schools and Regional Education Offices were aware of the study but not aware of which schools were in the sample. The schools in the sample were notified by the office of the Principal Secretary through the Director of Education and their respective regional education offices. This was done in two stages, first schools were informed that they were in the sample then they were later informed of the dates the research team were going to come to their schools and that on those days they should prepare all Grade 6 pupils, teachers and classrooms. Each region was requested to assign an inspector to monitor the research at regional level, however in addition the SACMEQ team also had Regional SACMEQ coordinators who were in charge of all activities. In addition to these officers, one of the two National SACMEQ Research Coordinators was given responsibility of chief coordinator and would move through the regions monitoring the fluency of the surveys. All schools were called and reminded of the survey dates, this was to ensure that even if there was a local or school activity on that day, the Grade 6 classes will be available for the survey.

(c) Printing and distribution of data collection instruments

Data collection instruments included: (a) School Head Booklets, (b) School Information Forms, (c) Teacher Booklets, (d) Pupil Booklets and (e) School and Pupil Name Forms. Each SACMEQ country received print-ready copies from the SACMEQ Coordinating Centre and was responsible for printing correct numbers of copies for their respective schools. In Swaziland these were printed through locally 'Government cleared' print houses which understood Government and professional protocols. This was to ensure that they were no leakage of the instruments and that the materials were of professional quality. The printing process itself was done after two checks, where the printer made a few copies which were proof read and checked by the SACMEQ team before the final print was run. All instruments were rechecked, coded and packaged in preparation for the survey. All work related to the printing and packaging of the data collection instruments was undertaken under strict security arrangements – so that there was no possibility of a "leakage" of information about the content of the pupil and teacher Reading and Mathematics tests.

The Team leaders were responsible for checking the accuracy of the instruments in terms correctness of numbers and languages before carrying the instruments to the schools. The first level of checking was during the data collection training sessions and the data collectors were charged to do further and final checks a day before the data collection. One unique aspect of data collection in Swaziland was that for the majority of the schools were reachable; however some of the data collection teams had to leave very early (4:00Am) for the furthest schools. As it was summer the days were longer. After each visit another team was based at central office where all 'returning instruments' were checked so that if there were any queries or gaps they were put down in writing for the field teams to address.

(d) Training of data collectors

In Swaziland a total of 60 data collectors were trained, this training included four regional education inspectors who were to 'manage' the teams in the four regions. The first day was dedicated to training the data collectors on the conduct of the study and what it entails. This was an overview. The inspectors also trained the teams on conduct when they visit the schools – the protocols and expected behaviours (including dress code) when in the schools. Some of the things included aspects that are also covered in the "SACMEQ Data Collectors Manual". It

was emphasised that teams were expected to respect all school protocols but were to take charge of the survey when in schools. This was to ensure that all SACMEQ criteria are fulfilled, such as securing of classrooms, arrangement with school feeding, class registers and room for the Grade 6 teachers to do their instruments.

The second day involved an intensive study of the Manual for Data Collectors. This document set down, in sequential order, all of the actions to be taken by the data collector from the time of receiving packages of data collection instruments to the time when the data collector had completed the data collection and was preparing all materials for return.

On the third day of training the NRCs presented a "simulated" data collection exercise in which they acted as a data collectors and some of the trainees took the roles of pupils, teachers, School Heads and the rest were observers who ensured that the data collectors' manual and protocol was followed as agreed upon. This was followed by a discussion on the role play where all discrepancies were outlined and remedied. All protocols were observed including protocol of the schools, this was important because in Swaziland we arrived before assembly and it was important that certain norms are observed.

The fourth day involved a second "simulated" data collection whereby the trainees undertook and supervised a full-fledged data collection in five schools that were not involved in the main data collection. The experiences gathered during these exercises were shared and discussed on the last day of training. This was to ensure that all data collectors understood the procedures to be completed within schools. By the fifth day the NRCs had identified all trainees that could be given responsibilities of being team leaders in the teams (pairs) that went to schools. On this day we also dedicated some time on the HIV/AIDS questionnaire and the way it should be administrated.

Main Data Collection

"Main Data Collection" in this report refers to the actual field work. Two trained data collectors were assigned to each sampled school to administer the instruments. Special effort was made to ensure that the data collections were conducted according to explicit and fully-scripted steps so that the same verbal instructions were used (for pupils, teachers, and School Heads) by the data collectors in all sample schools in all countries for each aspect of the data collection. This was a very important feature of the study because the validity of cross-national comparisons arising from the data analyses depended, in large part, on achieving carefully structured and standardized data collection environments.

In Swaziland data was collected in September 2007 in 172 sample schools that were involved. Two days of data collection were required for each sample school. On the first day the data collectors had to sample learners from all the Grade 6 classes in the sampled schools, using a list (derived from the Grade 6 class Registers) of provided random numbers. The sampled learners were then given the pupil questionnaire, the HAKT and the Reading test. On the second day they were given the Mathematics test. Part of the pupil questionnaire required learners to get confirmation of the accuracy of the information from their parents and so the questionnaire was taken home and returned the following day.

In addition to completing a questionnaire, one teacher who taught the majority of the sampled pupils for each of Reading, Mathematics and Life Orientation (for the HIV and Aids test) also completed the relevant tests. In Swaziland in most cases the HIV and AIDS test was completed by the Guidance and Counselling teachers.

The data collectors were provided with a 40-point checklist in order to ensure that they completed all important tasks that were required before, during, and after their visits to schools. Each task was cross-referenced to specific pages of instructions in the data collectors' manual. The data collectors also checked all completed questionnaires (pupil, teacher, and school head) and, if necessary, obtained any missing or incomplete information on the second day before they left the school.

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" (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 than 25 in a school, all the Grade 6 pupils were included in the sample.

For a detailed account of how the sampling of schools and pupils was carried out, including the software that was used in the SACMEQ III project the reader may refer to Ross and Saito (in press). The numbers of schools and pupils in the planned and actually achieved Swaziland sample have been presented in Table 2.2.

Table 2.2: Planned and Achieved Samples for SACMEQ III in Swaziland

	SACMEQ III			
Swaziland	**Schools**		pupil**s**	
	Planned	Achieved	Planned	Achieved
	172	172	4300	4030

From Table 2.2 it can be seen that the planned Swaziland sample was 172 schools and 4300 pupils. The achieved sample comprised of 172 schools and 4 300 pupils. Reasons for not attaining the planned number for were due to pupils who were sampled in the sampled schools but were not available on the day of data collection were not replaced.

Response rates, design effects, effective sample sizes

The size and the quality of the sample are critical to the accuracy of the research. The response rate, the design effect and the effective sample size are some of the characteristics that SACMEQ monitors in all the projects. The response rates, design effects and effective sample sizes for the SACMEQ III project in Swaziland have been presented in Table 2.3.

The figures in first two columns under the heading "Response Rate %" in Table 2.3 are the response rates for schools and pupils, respectively. The third, fourth and fifth columns under the heading "Design Effects" are numbers (ratios) that indicate the amount of "sampling error" associated with the two-stage sample for each of Reading, Mathematics and HAKT estimates. Columns six, seven and eight under the heading "Effective Sample Sizes" are numbers of sample units (pupils) in a simple random sample that would give the same level of accuracy as the two-stage sample that was used in the study for each of Reading, Mathematics and HAKT.

Table 2.3: Response Rates, Design Effects, Effective Sample Sizes for Tanzania in SACMEQ III

	Response Rate (%)		Design Effect			Effective Sample Size		
	Schools	**Pupils**	**Reading**	**Maths**	**HAKT**	**Reading**	**Maths**	**HAKT**
Swaziland	100%	94%	8.6	6.1	8.6	470	657	470

The following observations can be made from Table 2.3:

Response rate in surveys refers to the percentage of the total sample units that were planned who actually participate in the study. The SACMEQ rule is that the overall response rate for both the schools and the pupils should not be less than 90%. In the SACMEQ III project the Swaziland overall response rates for schools and

learners were 100% and 94%, respectively. The overall response rate in SACMEQ III was higher than in SACMEQ II which stood at 99% for schools and 92% for pupils.

Design effect is a number (ratio) which indicates the amount of "sampling error" that is introduced by the use of a clustered (two-stage) sampling method in relation to the "sampling error" that would result if a simple random sample of the same size had been used. Alternatively, the "design effect" is the ratio of the variance (of the sample mean) for a multi-stage sample to the variance for a simple random sample of the same size. Applied to SACMEQ III, this means that for Reading the achieved two-stage sample of 4 030 had a variance (of the sample mean) which was 8.6 times the variance that would be realized if a simple random sample of the same size was used. For Mathematics this ratio was 6.1 while for HAKT it was 8.6. Generally, the inaccuracy associated with a multi-stage sample is many times greater than the inaccuracy associated with a simple random sample of the same size.

Effective sample size is calculated from the design effect. It is the size of a simple random sample that would be required to give the same level of accuracy as the given multi-stage sample. For Reading in this case, a simple random sample of 470 pupils would have given the same level of accuracy as the two-stage sample of 4 030 pupils. The "Effective Sample Size" for Reading = 4 030/8.6 = 469 pupils. Possible (small) inaccuracies in this calculation may be due to the fact that not all 4 030 pupils in Swaziland took *all* three tests. The "Effective Sample Sizes" of each of Mathematics and HAKT can be calculated in the same way provided care is taken to use the correct values. Generally, the "Effective Sample Size" will be smaller than the given actual multi-stage sample.

The sample designs used in the SACMEQ III Project were selected so as to meet the standards set down by the International Association for the Evaluation of Educational Achievement (IEA). These standards require that sample estimates of important pupil population parameters in multi-stage designs should have sampling accuracy that was at least equivalent to a simple random sample of 400 learners (thereby guaranteeing 95 percent confidence limits for sample means of plus or minus one tenth of a learner standard deviation unit). The Swaziland sample sizes exceeded this threshold in all the three tests that were administered.

Data entry, Data checking and Data cleaning

In this section the processes that were followed at national level to check, enter and clean the data have been described.

(a) Data Checking and Data Entry

Data punching was centralised in Swaziland and was done at 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 as a 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, (ii) 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 day. All instruments were analysed using the guidelines provided by the SACMEQ Coordinating Centre. Linkages between questions such as logical linkages between questions made sense (for example, they had to verify if the two questions to School Heads concerning "Do you have a school library?" and "How many books do you have in your school library?" were answered consistently), and of course whether Teachers would also give same response when asked the same questions. This was a very important exercise, the first step of data punching; this meant from the start the data was cleaned.

Data punching was done by the core EMIS team. Data punchers were supervised by the National Research Coordinators (NRC), who themselves had undergone vigorous training on the data entry software. Data was captured into computers using the WINDEM software that was supplied by the SACMEQ Coordinating Centre.

Data were "double entered" in order to monitor accuracy. Data punchers were allowed to punch data for a period not exceeding three hours at a time and were compelled to 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 were to follow in their respective countries.

At individual country level, NRCs followed a "cyclical" process whereby data files were cleaned by the NRC and then emailed to the Coordinating Centre for checking and then emailed back to the NRC for further cleaning. The data cleaning process in Swaziland had fewer 'cleaning cycles' an indication of the quality of the 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, this reduced 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 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 and 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.

To illustrate, with the merged file it was possible to examine questions of the following kind: "What are the average Reading and Mathematics test scores (based on information taken from the pupil tests) for groups of pupils who attend urban or rural schools (based on information taken from the School Head questionnaire), and who are taught by male or female teachers (based on information taken from the teacher questionnaire)?"

The calculation of sampling weights could only be conducted after all files had been cleaned and merged. Sampling weights were used to adjust for missing data and for variations in probabilities of selection that arose from the application of stratified multi-stage sample designs. There were also certain country-specific aspects of the sampling procedures, and these had to be reflected in the calculation of sampling weights.

Two forms of sampling weights were prepared for the SACMEQ III Project. The first sampling weight (RF2) was the inverse of the probability of selecting a pupil into the sample. These "raising factors" were equal to the number of pupils in the defined target population that were "represented by a single pupil" in the sample. The second sampling weight (pweight2) was obtained by multiplying the raising factors by a constant so that the sum of the sampling weights was equal to the achieved sample size. A detailed account of weighting procedures can be found in Ross et al (2003).

Analysing the data

The data analyses for the SACMEQ III Project were very clearly defined because they were focussed specifically on generating results that could be used to "fill in the blank entries" in given Dummy Tables. There were two main tasks in this area. First, SPSS software was used to construct new variables (often referred to as "indices") or to re-

code existing variables. For example, an index of "socioeconomic level" was constructed by combining re-coded pupils' homes and the number of possessions in pupils' homes. Second, the Coordinating Centre's specialized data analysis software, IIEP-JACK, was used to "fill" the Dummy Tables with appropriate estimates and corresponding sampling errors.

Writing the SACMEQ III Policy Reports

The NRCs commenced the process of drafting their national educational policy reports during 2009. Two workshops held in Paris during September 2009 and September 2010 were organized to support the NRCs in this work. These workshops permitted the NRT to work together and exchange ideas concerning the policy implications of the research results.

Conclusion

The aim of this Chapter was to describe the research procedures that were applied for the execution of the SACMEQ III project. The Chapter was prepared to give an overview of how the study was conducted in Swaziland. The sample design procedures and the construction of the Reading and Mathematics tests for pupils and their teachers were to a large extent modelled on the SACMEQ II project.

Following the trend started in the SACMEQ II project, the third SACMEQ project moved away from traditional approaches to the calculation of test scores (based on numbers of correct responses to test items) towards the use of Modern Item Response Theory to generate descriptions of "levels of increasing pupil competence". This approach to describing pupil Reading and Mathematics achievement offered a mechanism for describing the performance of pupils in a manner that was more meaningful within a teaching and learning context.

Chapter 3
The Pupils and their learning environment

Background

This chapter is concerned with the personal characteristics of Grade 6 pupils and their learning environments. It has also examined home environment contexts that might have an impact on their learning outcomes. The basic objective was to make an assessment of the attributes of pupils that could have had an impact on their educational performance. These factors were examined at two time periods that corresponded to the two most recent SACMEQ policy studies: 2000 (SACMEQ II Project) and 2007 (SACMEQ III Project). Thus the data analysed both the levels and trends in pupil characteristics and their home and learning environments. It was very important for Swaziland to look at the trends in these factors because since 2000 the Government has increased various subsidies at primary school level with the aim of improving the well-being of pupils and their educational achievement levels.

It is important for Swaziland Government to be informed about these matters so as ensure that in allocation of resources to primary schools it is able to address areas where there are imbalances across schools nationally, especially if those imbalances are associated with pupils/schools that are drawn from different socio-economic backgrounds. The Swaziland government has made major inroads in making education more accessible through subsidies that have been defined to promote universal primary education. These subsidies have included free textbooks in 2003, free stationery in 2005, and support for the payment of school fees for orphaned and vulnerable children in 2003.

Note on the interpretation of the data

Before presenting the results, two points should be stressed. The first is that the variables presented in this chapter and later chapters represent a small of a larger number of variables for which data were collected. At some later stage the Ministry will prepare a separate publication containing statistics for all variables in the study.

The second point is that it is very important to interpret each statistic in association with its sampling error. It will be recalled from the previous chapter that the sample was drawn in order to yield standard errors of sampling for pupils in Grade 6 in Swaziland, such that a sample estimate of a population percentage would have a standard error of 2.5 percent. For this level of sampling accuracy we can be sure 19 times out of 20 that the population value of a percentage lies within plus or minus 5 percent of the estimate derived from the sample. This is the same level of accuracy as would be expected from a simple random sample of 400 pupils. The sampling errors for means are also given in the tables; the aim was also to have standard errors that were equal to or less than a simple random sample of 400 pupils.

Where a percentage or a mean is presented for a sub-group (such as for districts) then the standard error will be greater than for the sample as a whole. This occurs, in part, because the sample sizes for sub-groups are smaller than the total sample size.

Had smaller standard errors for districts been required, this would have increased the size of the total sample and also of the budget required to undertake a much larger field data collection.

For example, consider the first column of entries in Table 3.1. The average age of pupils in months at the time of data collection is presented separately for each district and for Swaziland overall. The standard error (SE) of each average is also presented. For the first collection, and the standard error for this estimate was 13.9 years That is, there were 19 chances in 20 that the average age of the population of Grade 6 pupils in the Hhohho district was

13.9, plus or minus 2 x (0.11). In other words we can be 95 percent confident that the population value for age in Hhohho district was between 13.79 years and 14.10 years.

It is important to note that the value of the standard error for each estimate changed form district to district. The variation was caused by two main factors: differences in the distribution of pupils among schools within districts, and the structure of the sample design within each district. The smallest standard error of 0.60 months occurred for the sample estimate of average age for the whole population of Grade 6 pupils in Swaziland. This result was to be expected because overall sample estimates were based on a much larger sample of schools and pupils than the corresponding estimate for any single district.

In interpreting the values in Table 3.1 and other tables throughout this report, it is important to remember that the percentages and means are presented in terms of pupils. That is, pupils are the units of analysis – even though some variables in this report refer to teachers or schools. Where a percentage for a variable that described teachers is presented, this percentage should be interpreted as "the stated percentages of pupils were in schools with teachers having the particular characteristic". Similarly, a percentage for a variable that describes schools should be interpreted as "the stated percentages of pupils were in schools with the particular characteristic".

General Policy Concern 1

What were the personal characteristics and home background characteristics of Grade 6 Pupils that might have implications for monitoring equity, and /or that impact upon teaching and learning?

Age and Gender of Grade 6 pupils

The Ministry's admission is policy is that children should be aged six years and older over in order to enter primary education. There is also an upper limit of age nine years, which means that a child who is older than nine years should also not be allowed to enter Grade 1. This policy was defined to avoid large variations in age within Grade levels. However, in some rural schools there are cases of older children entering the school system. In some rural areas boys tended to go to schools later than girls because they have to look after family live stock. In some urban areas the situation is quite different in that there are schools that will enrol children who are below the age of six. The Ministry of Education and Training is in the process of developing a parallel curriculum for over-aged children at primary school level, the National Upper Education Programme, which will enable these children to complete primary school and then return to normal formal secondary school.

(a) Gender distribution in Grade 6 Pupils in SACMEQ II and SACMEQ III

The first two columns in Table 3.1 present the proportion of girls that were enrolled in primary schools and their average ages for both SACMEQ II and SACMEQ III. The figures at national level were close to 50 percent on both occasions, and at regional levels there were small variations of several percentage points around national figures. In fact, at the regional level the figures tended to be shifting closer to 50 percent in 2007 than they were in 2000.These results indicated that there was a situation of gender equity for Grade 6 enrolment in 2007.

Table 3.1 Percentages and means for girls, age, number of days absent, grade repetition and pre-school attendance

For 2000 (SACMEQ II)	Girls		Age		Days absent[1]		Repetition[2]		Pre-school[3]	
	%	SE	Mean	SE	Mean	SE	%	SE	%	SE
Hhohho	47.1	1.11	13.9	0.11	0.8	0.10	55.2	3.18	××	××
Lubombo	53.8	2.02	14.0	0.08	0.8	0.08	59.9	2.64	××	××
Manzini	53.3	2.10	13.8	0.09	1.0	0.12	64.0	2.62	××	××
Shiselweni	53.6	1.45	13.9	0.09	0.6	0.07	58.6	2.25	××	××
Swaziland	**51.6**	**0.86**	**13.9**	**0.05**	**0.8**	**0.05**	**59.3**	**1.39**		

For 2007 (SACMEQ III)	Girls		Age		Days absent		Repetition		Pre-school	
	%	SE	Mean	SE	Mean	SE	%	SE	%	SE
Hhohho	51.0	1.10	13.7	0.09	0.3	0.05	58.1	2.20	69.5	3.52
Lubombo	49.1	1.76	14.1	0.11	0.4	0.07	53.8	2.74	63.1	3.17
Manzini	48.9	1.48	13.7	0.09	0.5	0.07	54.6	2.49	71.0	2.83
Shiselweni	51.3	1.20	13.9	0.09	0.3	0.05	59.2	2.66	60.0	3.47
Swaziland	**50.1**	**0.69**	**13.9**	**0.05**	**0.4**	**0.03**	**56.4**	**1.26**	**66.4**	**1.64**

One of the interesting features about the trend in gender enrolment between 2000 and 2007 was that Hhohho increased the representation of girls by about 4 percent and the other regions had a decrease by around 2.5 to 4 percent. These movements over a seven year period are small – but it would be worthwhile to examine why Hhohho was able to move against the general trend.

Policy Suggestion 3.1: The Research and Planning Unit should examine the population trends and dynamics in the Hhohho region with a view to finding out why the percentage participation of females has improved while in the other three regions it has shown opposite trends.

(b) Age Distribution of Grade 6 Pupils in SACMEQ II and SACMEQ III

Swaziland has endeavoured to ensure that all its citizens have access to education, especially primary education. The Ministry's benchmark is that no child should have to travel more than 5 kilometres to school at primary level. However, the true picture is that in some areas children may have to travel more than 5 kilometres. In those areas where pupils' homes are far from school there is a possibility that children will be enrolled when they are older. This provides one example of why age of school enrolment can be determined by external factors. In Swaziland there are three main factors that can affect timely enrolment, these are:

(i) Financial Reasons

In Swaziland a relatively smaller proportion of the population is working or in some kind of formal employment. Current statistics indicate that there is a 30 percent unemployment rate. In addition, a substantial proportion of the population lives on subsistence farming. These are families that rely on agricultural produce in order to survive on a day by day basis. In some cases such families often need to sell a part of their harvest or their livestock in order to send their children to school. If the weather conditions have not been good then both the harvest and livestock numbers can be poor-and therefore they will need to struggle in order to send their children to school. This poverty situation is compounded by the fact that Swaziland also has a number of children who are classified as orphaned and vulnerable children (OVC). These OVC children do not have the means to participate in education because of lack of necessities - such as food, psycho-social care and health requirements. It is a fact that despite best efforts of the Government to provide

resources such as the free textbooks, free stationery, and subsidised education, there are still many children who may not attend due to other costs associated with uniforms, travel to schools, and food.

The Government has introduced a bursary scheme where it pays for the fees of the OVC pupils. The amount paid is based on an average figure that was determined to be enough to cater for most school needs. However, some schools believe that the needs of OVC pupils exceeded this national figure, and consequently have introduced "top-up" fees. These fees have discouraged OVC pupils from attending school and consequently some have dropped off.

(ii) Feeding Schemes

A number of primary schools do offer school feeding. This is largely a combined effort by UNICEF, FAO, and Government of Swaziland. However, there are some schools that may not offer adequate or enough food. In some communities children will not go school if there is no feeding program, or if the food that is offered is not considered good enough. Some of the children then leave school and go what is called Neighbourhood Care Points (NCP) which are said to offer better quality food and more regular meals.

NCPs are in the Chiefdoms. There are more than 300 Chiefdoms in Swaziland, and these tend to be closer to the places where pupils stay-which makes them more convenient than going to school. Many NCPs are preferred by children because they provide meals even on weekends and holidays when schools are closed.

(iii) Distance to School

As mentioned, earlier the national benchmark limit for distance travelled to school is 5 kilometres. However, in some rural areas this benchmark limit is not always applied and therefore some children have to travel for longer distances. Quite often younger children and those children who might be sick cannot cope with walking long distances, and therefore will not attend school. Instead, they opt to go to school when they are older and stronger. Distances to school are usually greater in regions such as Lubombo and Shiselweni because they have less developed road networks.

The results in Table 3.1 indicated that the average age of 13.9 years for a Grade 6 pupil has not changed between SACMEQ II and SACMEQ III. That is, there has been negligible change in Grade 6 pupil average age between 2000 and 2007 for the nation as a whole and for the regions. In both 2000 and 2007 Grade 6 pupils in Hhohho and Manzini were slightly older than pupils from Lubombo.

(c) Pupil Absenteeism

The SACMEQ research examined the absenteeism of Grade 6 pupils in Swaziland. Absenteeism is normally defined as when a pupil does not turn up for class on a given school day. In some cases it can include cases where the pupils turn up after the first period has elapsed – after the attendance register has been called. The SACMEQ research considered the number of days that pupils were absent in the month prior to the data collection, which was August for Swaziland. The results have been presented in the third column of Table 3.1.

The results indicated a marked improvement in attendance between 2000 and 2007. The average number of days absent dropped by half from 0.8 days in one month to 0.4. This was a very important result for Swaziland; however it is not completely clear why this improvement occurred.

Policy Suggestion 3.2: The Director of Education needs to institute a study to be carried out by inspectors to investigate the reasons why the rate of attendance for Grade 6 pupils improved substantially between 2000 and 2007.

(d) Grade Repetition

The SACMEQ research showed that Swaziland had a very high grade repetition rate in comparison with other SACMEQ countries. The SACMEQ definition of repetition was, "the number of Grade 6 pupils who had indicated that they repeated a grade at least once". Therefore it is very important for Swaziland to understand more about the phenomena of grade repetition, what causes it and what effects it has on the pupils, school and the education system at large.

In Swaziland the benchmark is that the repetition rate should not exceed 10 percent per academic year, however this benchmark is not monitored and it is common for annual repetition rates to exceed this figure.

There are a number of forms of repetition in Swaziland some are voluntary and some are based on school dimensions. The most common would be school-based; where the school decides that some pupils may not be in a position to proceed to the next grade or to pass their end of year examinations thus they are required to repeat a grade. Parental objections are rare, and in some cases parents may suggest that their child should repeat a grade for the same reasons mentioned above.

Repetition is not good for an education system because it represents wastage and inefficiency. In most cases it results in larger classes that require more teachers and classrooms. In Swaziland the average repetition rate across all primary school grade levels over the last decade has been around 15 percent, which far exceeds the official benchmark limit of 10 percent.

The results for both SACMEQ II and SACMEQ III in Table 3.1 show that the on average the repetition rate for Grade 6 pupils was over 50 percent for SACMEQ II and SACMEQ III. The results also indicated that the Manzini and Lubombo regions achieved reductions in grade repetition: Manzini improved by 10.6 percent and Lubombo improved by 6.1 percent.

Policy suggestion 3.3: The Ministry of Education and Training should commission a comprehensive study to find out the main causes of grade repetition in Swaziland.

Policy suggestion 3.4: The Director of Education should set in place firm and clear policies on grade repetition – including benchmark limits that are enforced and monitored by the Research and Planning Unit. If the policies include automatic promotion then this should be accompanied by initiatives that would identify, and assist low achievers through some remedial initiatives which should be instituted in all primary schools.

(e) Attendance at Pre-School

Swaziland defines its pre-school as the stage before entrance to primary education and it is usually described as part of Early Childhood Care and Development (ECCD). Preschool is not compulsory for entry into Grade 1. Despite the fact that it is not compulsory prerequisite, some primary school head teachers have a tendency to prefer children who have attended some form of preschool. This has its pros and cons but the fact is that this has resulted in parents making substantial investments in preschool education in for their children despite the fact that it is far more expensive than primary education.

The Ministry provides guidance and inspection even though it is mostly delivered by private providers. It has four inspectors per region who inspect the ECCD centres and also provide training to those that teach in these centres. A high number of teachers at this level of education are not trained thus the role of these inspectors is critical.

The SACMEQ III project explored the proportion of Grade 6 pupils that claimed to have attended preschool education. The results have been presented in the final column of Table 3.1. The results indicated that at national level two thirds of Grade 6 pupils had attended preschool. The higher percentage attendees were around 70 percent in the Manzini and Hhohho regions. This was as expected because a number of urban schools in these two regions have informally linked up with some preschools as their "feeder" centres. The percentage attendees were also quite good in other regions. These results suggest that preschool coverage is fairly widespread throughout Swaziland.

Policy Suggestion 3.5: The Ministry EMIS unit, in collaboration with the Early Childhood Care and Development Inspectorate, should to set up a Register and database for all ECCD centres in order to collect and analyse data that should be used to plan educational provision for Grade 1 entry to schools.

Policy Suggestion 3.6: The Director of Education should move towards a policy of compulsory ECCD for all children by delivering it as part of the Free Primary Education programme.

Policy Suggestion 3.7: The Ministry's Planning Unit should institute a feasibility study into costs associated with moving ECCD out of the private sector and making it a public entity. This study will also need to examine and include issues such as infrastructure, teachers and other resources.

General Policy Concern 2

What were the home context factors experienced by the Grade 6 pupil that might impact upon teaching/learning of the pupil?

Background

The home environment of pupils makes a major contribution to the learning process and achievement of pupils. As mentioned in the first chapter of this report, Swaziland is a relatively poor country where those that are employed have limited financial resources.

In Swazi culture the concept of socioeconomic status of a home have a variety of interpretations. There are some "poor" families that would have more than 100 cattle, and there are "well-off" families with not even one goat. For purposes of SACMEQ used indicators that would easily avoided the issue of livestock in discussions of socioeconomic status, because of the complexity and different values attached to livestock across the SACMEQ countries. For the measurement of socioeconomic status (SES) the study used indicators such as having a radio, TV, computers, clean piped water, electricity etc.

The SACMEQ III Project focussed on the home environment of pupils in the place where they stayed during school week. It was considered that this home environment provided the most influence on the pupils' educational achievement.

(a) Language spoken at home

In Swaziland there are two main languages, these are Siswati and English, with the latter being the language of instruction from Grade 4 onwards. The speaking of English (language of instruction) at home was thought to provide an indirect measure of whether the members of the family were literate.

The results for the proportion of pupils speaking the language of instruction at home have been given in the first column of Table 3.2. The results indicated a general improvement from 63.8 percent in 2000 to 76.9 percent in 2007.

Table 3.2 Percentages and means for selected home environment variables

For 2000 (SACMEQ II)	Spoke the language of instruction at home		Pupil SES index		Meals per week		Number of siblings		Both parents alive	
	%	SE	Mean	SE	Mean	SE	Mean	SE	%	SE
Hhohho	66.0	3.80	521.1	10.13	18.2	0.47	××	××	××	××
Lubombo	67.8	3.92	512.9	7.37	18.1	0.29	××	××	××	××
Manzini	65.6	4.81	530.8	8.32	18.6	0.25	××	××	××	××
Shiselweni	55.5	4.43	495.7	4.97	18.1	0.33	××	××	××	××
Swaziland	**63.8**	**2.14**	**516.2**	**4.24**	**18.3**	**0.18**	××	××	××	××

For 2007 (SACMEQ III)	Spoke the language of instruction at home		Pupil SES index		Meals per week		Number of siblings		Both parents alive	
	%	SE	Mean	SE	Mean	SE	Mean	SE	%	SE
Hhohho	79.4	2.91	539.9	7.60	18.9	0.18	4.7	0.16	65.6	1.72
Lubombo	79.2	3.38	507.0	6.77	18.3	0.32	5.0	0.13	60.6	1.92
Manzini	79.5	2.51	548.7	7.49	18.6	0.21	4.7	0.17	62.8	1.83
Shiselweni	68.9	3.84	503.6	6.33	18.1	0.25	4.9	0.18	59.0	1.79
Swaziland	**76.9**	**1.58**	**527.5**	**3.63**	**18.5**	**0.12**	**4.8**	**0.08**	**62.2**	**0.91**

(b) Pupil SES

For the SACMEQ research programme a special index of socioeconomic status (SES) was developed which was constructed by combining information about the education level of parents, the number of books in the home, the number of possessions in the home, and the quality of the materials used in the construction of the home. This index was transformed so that it had a mean of 500 and a standard deviation of 100 across all SACMEQ countries in the SACMEQ II Project. The average scores for Swaziland and the educational regions have been presented in the second column of Table 3.2.

The results indicated that the SES level of pupils' homes in Swaziland was above the SACMEQ average of 500. In fact SES levels in Swaziland improved during 2000 - 2007 from an average of 516.2 to 527.5. There was a clear division in SES levels among the regions-with pupils from Hhohho and Manzini living in relatively wealthier homes than pupils from Lubombo and Shiselweni living in relatively poorer homes.

The Lubombo region moved against the national trend by showing a decline in SES between 2000 and 2007. However, the decline in SES for Lubombo was only around 6 scale points – which was smaller than the standard error of the estimates in 2000 and 2007.

(c) Number of meals per week

It is estimated that in Swaziland more than two thirds of the population lives on less than a dollar a day. Swaziland has therefore taken the issue of school feeding as an essential incentive for ensuring that children are healthy and that they attend school. The meal that is provided by Government to pupils in school is considered very important and the policy is that every child in the country should at least have one meal of high nutritional value per day. It has been noted (although not documented) that pupils will generally attend every day if the school serves a good meal, and good meals are associated with improved health, concentration, and achievement.

In SACMEQ research pupils were asked about the number of meals that they ate each day for breakfast, lunch and dinner. A score of 21 indicated that they had all the meals in a week, and zero indicated that they did not eat at all. The national and regional average scores on this variable were very similar at around 18.0 to 18.5 in both 2000 and 2007. This confirmed that the average grade 6 pupil did at least have three meals on most days. In Swaziland primary school going children are guaranteed at least one meal a day on week days because schools have to serve one full meal during the school break/lunch hour. The assumption is that the meal served is of good nutritional value.

Policy Suggestion 3.7: The Senior Inspector for Home Economics and the Ministry's Nutritionist need to undertake a study which will assess the nutritional value of the meals that are served by schools against a nationally set standard. This will ensure that all children get a meal of good value irrespective of location of the school; this will also help identify schools where the UNICEF and FAO can compliment work that is done by the schools themselves.

(d) Number of Siblings

The size of the Swazi family has both cultural and economic attributes. The Swazi word "family" takes a broader sense than in the western world - including people who are not immediate family members. In rural areas it is still possible to find a family unit where a number of individual families living together as one big family. However this traditional arrangement is disappearing due to the pressures of poverty and the high incidence of orphans.

In the SACMEQ III Project Grade 6 pupils were asked to indicate the number of siblings they had. The average numbers of siblings for Swaziland and the regions have been presented in Table 3.2. The results indicated that Grade 6 pupils had an average of around 5 siblings. There was little variation across the regions; however Lubombo pupils appeared to come from slightly bigger families.

(e) Both Parents Alive

Swaziland is one of the SACMEQ countries that have been hit hard by the HIV/AIDS pandemic and consequently a substantial number of Grade 6 pupils have lost their parents due to the HIV/AIDS and related illnesses. The SACMEQ III Project made an attempt to assess these losses by estimating the percentage of pupils who had both parents alive. The results have been presented in the last column of Table 3.2. The results indicated that only

around two thirds of the Grade 6 pupils had both parents alive. This meant that around one third of Grade 6 pupils were orphans. This suggested a bleak future for these children.

Policy Suggestion 3.8: Deputy Prime Minister's Welfare Department should launch a policy research study that will examine options for Swaziland's response to assisting communities in which very large proportions of the children are orphans.

Further research is certainly required in order to identify regions and schools where there is need for support. It has been noted that children who live alone, do not have enough to eat, and lack psycho-social support have a tendency to drop out and are prone to be abused.

(f) Parental Education

The study also investigated the education levels of parents of the average grade 6 pupil. The study investigated each parental level of education and later these were used to generate a Parent Education Index by summing up the individual results. The results for mother, father and the parental index are presented in Table 3.3. The coding was as it was in the SACMEQ II study, 1= no school, 2=some primary education, 3=completed primary, 4=some secondary, 5 =completed secondary and 6=post secondary.

The results indicated that the average Grade 6 pupil had who had completed primary education. The results for SACMEQ III indicated an improvement in the level of education achieved by parents from 3.5 in 2000 to 3.7 in 2007. The trend is that the Parent Education Index increased from 7.2 to 7.6 in the period, indicating that Grade 6 pupils had better educated parents in SACMEQ III than in SACMEQ II.

Table 3.3:Means for parental education

For 2000	Mother education		Father education		Total parental education	
(SACMEQ II)	Mean	SE	Mean	SE	Mean	SE
Hhohho	3.4	0.13	3.6	0.15	7.0	0.26
Lubombo	3.3	0.10	3.6	0.12	7.0	0.21
Manzini	3.8	0.11	4.0	0.12	7.7	0.21
Shiselweni	3.4	0.10	3.5	0.11	6.9	0.20
Swaziland	**3.5**	**0.06**	**3.7**	**0.07**	**7.2**	**0.12**

For 2007	Mother education		Father education		Total parental education	
(SACMEQ III)	Mean	SE	Mean	SE	Mean	SE
Hhohho	3.8	0.11	4.0	0.11	7.8	0.22
Lubombo	3.4	0.09	3.5	0.11	6.9	0.20
Manzini	4.1	0.10	4.3	0.11	8.3	0.21
Shiselweni	3.5	0.09	3.5	0.09	7.0	0.17
Swaziland	**3.7**	**0.05**	**3.9**	**0.05**	**7.6**	**0.10**

(g) Household tasks

The SACMEQ III study collected information about the links of household work that they do to put emphasis on situation of the African child. The pupils were asked to identify the work that they are required to do at their homes from a list of nine household tasks. Each pupil was given a score of 1 for each task, and these were summarised to give a total score with a maximum value of 9. The results have been presented in Table 3.4. The results indicated a national mean score of 6.4. There was negligible variation between the regions.

When asked how many of them look after sick relatives, the results indicated that around two thirds of Grade 6 pupils were involved in this task. In Swaziland “sick relatives” most often than not refers to people who are terminally ill due to illnesses that are related to HIV/AIDS. The Ministry of Education has recently expanded support for those children by providing counselling services.

Table 3.4: Percentages for pupil household tasks in SACMEQ III

	Looking after relatives/ sick		House -work		Laundry /ironing		Fetching water		Collecting/ chopping firewood		Shopping		Gardening		Livestock duties		Family business		Number of tasks	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	Mean	SE
Hhohho	61.7	2.16	98.8	0.42	91.6	1.01	81.0	2.80	77.9	3.16	74.8	2.67	52.2	2.08	35.2	2.54	52.0	2.25	6.3	0.10
Lubombo	59.5	2.97	98.2	0.62	94.4	0.89	84.1	3.30	83.5	3.18	71.8	2.93	58.6	2.52	42.3	2.48	50.3	2.36	6.4	0.11
Manzini	63.1	1.92	98.2	0.45	90.9	1.20	79.2	2.76	74.9	3.43	74.9	2.35	54.7	1.87	38.8	2.64	50.2	1.96	6.2	0.11
Shiselweni	67.5	2.23	98.8	0.34	95.9	0.69	89.7	1.53	91.6	1.19	69.1	1.86	56.6	2.01	43.6	2.16	51.0	2.42	6.6	0.07
Swaziland	**63.0**	**1.14**	**98.5**	**0.23**	**92.9**	**0.51**	**83.1**	**1.34**	**81.3**	**1.50**	**72.9**	**1.24**	**55.3**	**1.05**	**39.6**	**1.25**	**50.9**	**1.12**	**6.4**	**0.05**

Policy suggestion 3.9: The Ministry of Education's Guidance and Counselling should to ensure that there are trained in counsellors in every school and that infrastructure such as counselling rooms are available.

The results also indicated that almost all the Grade 6 pupils do some housework (98.5%), laundry (92.9%) and collecting water (83.1%).

From a national perspective it was quite revealing to note that on average a lower proportion of Grade 6 pupils reported that they looked after livestock (39.6%). This was surprising considering that looking after cattle is a Swazi boy's traditional pastime. This could be attributed to the fact that the study included girls who normally do not look after livestock, and the fact that many families are so poor that they no longer have livestock.

General Policy Concern 3
Did Grade 6 pupils have adequate access to classroom materials in order to effectively participate in their lessons?

(a) Learning materials owned by pupils

This is a very important aspect of the education system in Swaziland. The Government of Swaziland has made considerable progress in providing learning materials to all primary school children in public schools. The results of this particular section are important as they will provide insights into the success or failure of the initiatives that were undertaken during the period, 2000 to 2007, namely free textbooks (2003), free stationery (2005), and OVC bursaries (2003).

There were eight key learning materials that were identified and coded with value of 1. This implied that if all the Grade 6 pupils in the sample possessed all the materials they would have recorded a national average of 8.0. Swaziland recorded 6.8, which works out to about 85 percent. This national average for SACMEQ III (6.8) represented an improvement compared with the value (6.1) obtained for SACMEQ III in 2000.

Table 3.5 Percentages of pupils with at least one of the various learning materials

For 2000 (SACMEQ II)	Exercise book		Notebook		Pencil		Sharpener		Eraser		Ruler		Ball pen		File/ folder		Total Learning materials	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	Mean	SE
Hhohho	98.7	0.59	94.6	1.84	93.0	2.15	67.8	3.70	69.2	3.04	86.2	2.33	96.2	0.78	16.7	3.22	6.2	0.11
Lubombo	97.5	1.53	88.6	3.74	90.8	2.02	62.9	4.74	63.9	3.93	85.5	2.75	93.6	1.70	23.1	4.77	6.1	0.16
Manzini	99.6	0.20	89.9	4.43	93.4	1.55	69.8	3.54	67.6	3.28	87.4	1.83	92.5	1.50	19.4	3.84	6.2	0.09
Shiselweni	99.5	0.27	90.9	3.54	88.3	4.40	58.8	5.07	68.8	4.24	88.0	2.29	96.0	0.96	12.4	3.78	6.0	0.16
Swaziland	**98.9**	**0.35**	**91.3**	**1.73**	**91.6**	**1.40**	**65.3**	**2.17**	**67.6**	**1.79**	**86.8**	**1.13**	**94.6**	**0.63**	**17.7**	**1.94**	**6.1**	**0.06**

For 2007 (SACMEQ III)	Exercise book		Notebook		Pencil		Sharpener		Eraser		Ruler		Ball pen		Files/ folder		Total Learning materials	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	Mean	SE
Hhohho	100.0	0.00	97.5	2.50	97.9	0.86	88.0	2.53	84.4	2.31	93.8	1.30	98.6	0.40	18.3	3.21	6.8	0.07
Lubombo	100.0	0.00	97.0	2.95	98.0	0.76	89.1	2.42	89.3	2.20	95.4	1.32	97.9	0.57	18.5	5.53	6.9	0.09
Manzini	100.0	0.00	100.0	0.00	98.2	0.53	90.2	2.02	85.6	2.42	92.7	1.35	99.1	0.34	23.7	4.60	6.9	0.07
Shiselweni	100.0	0.00	90.8	5.15	99.0	0.33	87.4	1.99	87.9	2.37	95.0	1.02	99.4	0.47	15.7	4.01	6.8	0.08
Swaziland	**100.0**	**0.00**	**96.6**	**1.52**	**98.3**	**0.33**	**88.7**	**1.13**	**86.5**	**1.19**	**94.1**	**0.64**	**98.8**	**0.22**	**19.3**	**2.17**	**6.8**	**0.04**

The results indicated that on average, all grade 6 pupils had most of the required materials in 2007. This could be attributed to the investments mentioned earlier. The conclusion would be that the resourcing programmes were meeting their targets. There was however concern with the notebook situation in Shiselweni, the result indicated no improvement between 2000 and 2007, and therefore there is need for an investigation.

Policy Suggestion 3.10: The Chief Inspector Primary should investigate why the number of notebooks in Shiselweni has not changed.

There was no major improvement in the proportion of grade 6 pupils who owned personal files/folders. The results indicated that only 17.7 percent had folders in 2000 compared to the 19.3 percent in 2007. This was not surprising because most primary school pupils used exercise books and notebooks.

(b) Textbook ownership

Textbooks provided a uniform foundation for the lesson as all pupils follow a national defined text. A national text also provides for experiences that have been developed through local subjects' panels as such the materials which are nationally developed tend to give teachers of grade 6 pupils a structure. If every child has a text, then the teacher has to facilitate through provision of adequate learning environment. The Ministry of Education and Training textbook programme supplies textbooks to schools with the aim that every pupil has a personal copy. This also includes a Teacher's Guide and Workbooks. In Swaziland the provision of textbooks was seen as critical to effective teaching.

The SACMEQ results for textbook use in class have been presented in Table 3.6 for both SACMEQ II and SACMEQ III.

Table 3.6 Percentages for textbook ownership in class

For 2000 (SACMEQ II)	Reading textbook						Mathematics textbook					
	No textbook		Share textbook		Own textbook		No textbook		Share textbook		Own textbook	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	8.7	3.11	13.7	3.28	77.6	4.52	5.4	3.31	9.6	2.95	85.1	4.26
Lubombo	3.6	1.00	28.9	6.63	67.6	6.49	2.1	0.85	31.7	6.72	66.2	6.82
Manzini	4.8	1.65	25.9	6.68	69.4	6.70	4.7	1.93	27.1	6.56	68.1	6.51
Shiselweni	5.3	1.82	13.2	4.34	81.5	4.70	2.8	1.22	20.5	9.61	76.7	9.39
Swaziland	**5.8**	**1.15**	**19.9**	**2.70**	**74.3**	**2.86**	**4.0**	**1.17**	**21.3**	**3.31**	**74.7**	**3.37**

For 2007 (SACMEQ III)	Reading textbook						Mathematics textbook					
	No textbook		Share textbook		Own textbook		No textbook		Share textbook		Own textbook	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	0.0	0.00	2.2	2.17	97.8	2.17	0.0	0.00	0.3	0.21	99.7	0.21
Lubombo	0.1	0.11	0.5	0.40	99.4	0.44	0.2	0.16	0.3	0.17	99.5	0.22
Manzini	0.1	0.09	0.3	0.17	99.6	0.18	0.0	0.00	0.1	0.11	99.9	0.11
Shiselweni	0.0	0.00	0.0	0.00	100.0	0.00	0.0	0.00	0.1	0.08	99.9	0.08
Swaziland	**0.0**	**0.03**	**0.8**	**0.58**	**99.2**	**0.59**	**0.0**	**0.03**	**0.2**	**0.08**	**99.8**	**0.08**

The results indicated that there was an improvement in textbook provision between 2000 and 2009. For Swaziland overall in 2000 around three quarters of the Grade 6 pupils had their own textbooks for reading and mathematics. By 2007 this figure had increased to the stage whereby nearly 100 percent of Grade 6 pupils had their own textbooks.

There were some minor pockets where Grade 6 pupils were sharing textbooks. For example, in Hhohho 2.2 percent of Grade 6 pupils responded that they were sharing a reading textbook. Given the national policy of aiming for 100 percent coverage for textbooks this figure (although small) was surprising. It might be the case that small numbers of pupils had lost their textbooks and these had not been replaced.

Policy Suggestion 3.11: The National SACMEQ Coordinating team need to investigate why some schools in their regions did not report a 100 percent response rate in textbook ownership.

This could a management issue where school head teachers are not reporting lost textbooks, as such are not replacing them.

General Policy Concern 3
Did Grade 6 pupils get homework and was the homework being made part of the teaching and learning process?

(a) Homework given and support given from home and school

Primary schools in Swaziland are encouraged to give pupils homework. It is an expectation that the pupil will get assistance to do the homework at home and that the homework will be marked by the teacher the following lesson. It is good practice for the teacher to give homework and also mark the homework that was given. Parents are also encouraged to participate in the process they are expected to endorse all homework and to assist their children.

In order to make an assessment into the effectiveness of giving homework the SACMEQ study also investigated whether the homework was marked by the teacher, whether the pupils got support at home and whether the teachers explained homework. The results have been presented in Table 3.7

Table 3.7 Percentages for various aspects of homework in SACMEQ III

	Homework - given by teacher		Homework - help at home		Homework - corrected by teacher		Homework - explained by teacher	
	%	SE	%	SE	%	SE	%	SE
Hhohho	99.7	0.23	24.9	4.81	76.6	6.62	59.3	7.73
Lubombo	99.9	0.10	18.9	3.51	77.8	6.86	58.5	8.33
Manzini	99.7	0.15	19.7	2.30	54.5	6.86	40.0	6.68
Shiselweni	97.0	2.76	20.0	3.28	59.4	7.62	48.2	7.96
Swaziland	**99.1**	**0.66**	**21.0**	**1.78**	**66.1**	**3.53**	**50.8**	**3.81**

The results indicated that teachers do give homework to Grade 6 pupils However, much of this homework is not explained by the teacher, not corrected by the teacher, and the pupils receive very little help at home with the homework.

The very low levels of teacher explanation and teacher correction of homework in Manzini and Shiselweni were a cause for concern. The results indicated that almost half of the teachers of Grade 6 pupils in Manzini and Shiselweni did not mark the homework they gave to pupils. From the same regions more than half, 60 percent in Manzini and 50 percent in Shiselweni did not explain the homework.

Policy suggestion 3.12: The Regional Education Officer for Manzini and Shiselweni should undertake occasional inspections in primary schools where they go through pupils' exercise books to check whether teachers mark homework.

Although the other regions Manzini and Lubombo recorded slightly higher proportions of marked and explained homework, the levels are also not satisfactory. All homework should be marked and explained. Homework is a paradigm of teaching that needs to be followed up. It would seem that teachers do not know why they give homework if they do not mark it.

Policy Suggestion 3.13: The Director of Inservice should arrange some workshops for primary school teachers on the use of homework as a teaching method.

General Policy Concern 4
Did Grade 6 Pupils have access to information and services about HIV/AIDS and did they make optimal use of them

This is a new section in the pupil chapter; it has been brought about by the effect of HIV/AIDS in sub-Saharan Africa. As highlighted in the introductory chapter, Swaziland is one of the SACMEQ countries with a very high prevalence rate. This has unfortunately led to a number of mothers giving birth to HIV children.

The Ministry of Education and Training and the Ministry of Health have collaborated and developed programmes that have attempted to alleviate this situation through education. The most effective method has been educating the society about HIV/AIDS, and the Swaziland Government expended an enormous amount of effort and resources in an attempt to ensure that every person, irrespective of location, does access information and services on HIV/AIDS. SACMEQ III also viewed this subject as very important and asked pupils to respond to some questions about the activities at school and at home.

(a) Testing for HIV/AIDS

Grade 6 pupils were asked to indicate the distance between their homes and the nearest centre where it was possible to have an HIV/AIDS test. The pupils indicated whether the centre was "within walking distance" and/or at a "nearby town". Their responses have been presented in Table 3.8.

Table 3.8 Percentages for places where an HIV/AIDS test can be taken within walking distance and in a nearby town

	Walking Distance		Nearby Town	
District	%	SE	%	SE
Hhohho	17.5	4.1	75.3	5.9
Lubombo	26.9	6.4	79.5	6.0
Manzini	28.9	5.3	81.3	4.4
Shiselweni	30.6	6.9	79.6	5.2
Swaziland	**25.9**	**2.8**	**78.9**	**2.7**

For Swaziland overall around one in four pupils were living in places where they could walk to a testing site and only around three quarters had a centre in a nearby town. Given that HIV/AIDS has been a major problem in Swaziland, the results indicated the need for more testing and counselling centres to be located nearer to communities. Hhohho pupils appeared to be the most isolated – with only one in six pupils being located within walking distance of a testing centre. Having a testing centre within walking distance would definitely encourage more people to test, especially if travelling to the centre was costly.

The results also indicated that about 13.5 percent of the Grade 6 pupils did not know whether there were any testing centres within walking distance. This is worrying because it meant that some children were not aware of social services within their community.

(b) Sources of Information on HIV/AIDS

One of the 'mottos' that were employed by the country was that of safe-guarding the window of hope, which was largely the young children who had not been infected by the pandemic. In addition to this hope was education around the subject. The Government employed a number of strategies in educating the nation; it used the print, electronic, audio and visual mediums that were available. Schools were also encouraged to talk about HIV/AIDS in the classrooms,

churches were also asked to preach about the subject, in fact in Swaziland there is a saying that goes, "[5]I AIDS yindzaba yetfu sonkhe". This expression was to remove the stigma associated with the scourge and to encourage people to talk about it, so that they will also get tested and live a better life. SACMEQ III asked grade 6 pupils to indicate where they got information about HIV/AIDS. The different responses and percentages are presented in Table 3.9

The results indicated that almost (100%) pupils got information from school, through lessons from the teacher. This indicated a major role that the teachers played in informing children about the HIV/AIDS. The results indicated that the teacher and the radio were the commonly used sources for information.

Table 3.9 Percentages for sources of information on HIV/AIDS

Swaziland	Hhohho		Lubombo		Manzini		Shiselweni		Swaziland	
	%	SE	%	SE	%	SE	%	SE	%	SE
Radio	**96.5**	7.0	**97.4**	1.0	**97.6**	6.0	**98.7**	5.0	**97.5**	0.3
TV	**72.9**	3.8	**79.3**	3	**79.7**	2.7	**70.1**	3.9	**75.5**	1.7
Video Player	**23**	3.6	**16**	3.1	**14.4**	2.1	**15.9**	4.1	**17.3**	1.6
Internet	**3**	1.1	**7**	3.0	**3.8**	1.2	**9.0**	3.0	**2.3**	0.5
Computer	**6.9**	1.3	**4.2**	1.1	**6.6**	1.7	**3.1**	8.0	**5.4**	0.7
Poster	**78.7**	3.7	**81.2**	3.8	**85**	2.4	**80.8**	3.5	**81.6**	1.7
Books	**92.2**	1.2	**92.8**	1.5	**93.3**	1.3	**94.9**	1.0	**93.3**	0.6
Magazine	**82.9**	3.1	**83.5**	2.9	**87.6**	2.0	**83.1**	3.4	**84.5**	1.4
Drama	**74.5**	4.1	**76.3**	5	**72.7**	4.1	**69.2**	5.0	**73.1**	2.3
School Club	**23.5**	5.4	**40.7**	7.8	**23.3**	5.2	**23.8**	6.1	**26.9**	3.0
Cinema	**16.4**	32	**12.3**	4.1	**14.5**	2.8	**10.1**	4.0	**13.5**	1.7
Recreational	**53.2**	5.7	**56.3**	6.8	**58.5**	5.3	**45.5**	5.5	**52.1**	2.9
Classroom	**100**	0	**100**	0	**100**	0	**100**	0	**100**	0
Hospital	**76.8**	3.7	**84.4**	3.8	**86.2**	2.8	**87.9**	2.9	**83.7**	1.7
Teachers	**100**	0	**99.8**	0.2	**100**	0	**100**	0	**100**	0
Friends	**67.6**	3.8	**74.4**	4.7	**71.4**	3.2	**61**	4.1	**70.4**	2.0
Counselor	**40.2**	4.8	**42.9**	5.6	**38.7**	4.6	**43**	4.7	**40.9**	2.4
Peer Educator	**42.3**	5.5	**49.1**	6.3	**49.1**	4.7	**40.6**	5.1	**45.3**	2.7
Doctor	**54.6**	5.8	**60.3**	6.1	**70.5**	4.3	**71.7**	4.7	**64.5**	2.6
Community health	**60.7**	5.2	**71.2**	4.5	**64.2**	3.9	**76.4**	3.5	**67.5**	2.2
Church	**55.7**	4.8	**56**	4.6	**57.5**	3.5	**55.1**	4.1	**56.2**	2.1
Person with HIV	**34.7**	4.9	**37**	4.8	**32.4**	4.0	**40.7**	5.0	**35.9**	2.4
Family/relatives	**79.1**	3.4	**79.6**	3.3	**83.3**	2.1	**84.1**	2.1	**81.6**	1.4

[5] "HIV/AIDS; it is everyone's (business) story" let us discuss it amongst ourselves whenever, and wherever we meet.

Policy Suggestion 3.14: The Director of Education and the Ministry's Information Officer should to strengthen the Ministry's representation in the Swaziland Broadcasting and Information Unit (radio) and ensure that it continues to educate about HIV/AIDS

(c) Best Sources for Information on HIV/AIDS

It was clear from Table 3.9 that Grade 6 pupils used many different information sources to obtain knowledge about HIV/AIDS. However, it was very important to know which sources were most valued by pupils. Therefore the pupils were asked to indicate the best source of information for them. Grade 6 pupils chose radios, television and performance (drama, plays, and concert) as the best sources of information.

Table 3.10 Percentages of the three choices chosen by pupils as best sources for HIV/AIDS Information

	Radio		TV		Performance	
District	%	SE	%	SE	%	SE
Hhohho	**30.0**	4.0	**14.1**	2.1	**14.1**	3.7
Lubombo	**22.5**	3.5	**13.6**	2.2	**11.3**	3.1
Manzini	**25.8**	2.7	**21.4**	2.3	**5.7**	1.0
Shiselweni	**36.6**	4.0	**11.1**	1.6	**7.4**	1.7
Swaziland	**28.8**	1.8	**15.5**	1.1	**9.5**	1.3

The overwhelming choice of the pupils was the radio – with 28.8 percent of Grade 6 pupils indicating that this was their best source of information. Television came next with 15.5 percent of the pupils, and then came performance with 9.5 percent.

The results confirmed the need for the Government to strengthen the educational programmes currently offered through the radio. The radio was probably preferred above the television because most families were more likely to have a radio.

The most important element of performance was probably role play. In Swaziland role play is a common feature in all school gatherings, and it has become one of the best methods to teach about HIV/AIDS. These results certainly present a challenge to the Ministry and country because they meant that best option for the country is to continue using the radio as a key element in delivering knowledge about HIV/AIDS to young people.

(d) Attitudes and stigmatisation

One of the key factors that militate against successes the country had achieved in educating about HIV/AIDS is stigmatisation. The SACMEQ III Project asked pupils about their responses to a friend who had tested positive. The results are presented in Table 3.11. It is important for the Ministry to know how children feel about other children that have tested positive to HIV/AIDS.

Table 3.11 Percentages of Pupils' responses to friend who discloses positive status

	More Friendly		Same as before		Avoid friend		Not Sure	
District	%	SE	%	SE	%	SE	%	SE
Hhohho	30.9	3.6	21.5	2.0	10.8	2.4	36.8	3.3
Lubombo	28.8	2.9	29.5	3.1	8.2	1.6	33.5	3.0
Manzini	24.4	1.9	31.0	2.1	11.5	1.9	33.2	2.4
Shiselweni	25.1	2.6	26.0	2.8	16.6	2.4	32.2	3.3
Swaziland	**27.2**	**1.4**	**27.0**	**1.2**	**11.9**	**1.1**	**34.0**	**1.5**

The results in Table 3.11 indicated that more than half (54.2%) of the Grade 6 pupils responded positively, by indicating that they would either be more friendly or the same as before. However, it was worrying to note that the other half of the pupils (45.9%) responded that that they would avoid the friend or they were not sure. The Ministry needs to do because negative and uninformed attitudes towards HIV/AIDS positive people may result in many people not seeking assistance or not being tested for their status.

Policy Suggestion 3.15: The Ministry Health Unit should asked to review Swaziland Education HIV/AIDS prevention programmes to ensure that they are delivering appropriate knowledge providing children with positive attitudes towards people who are HIV positive.

The SACMEQ III Project collected further data on attitudes by asking Grade 6 pupils whether they thought that fellow pupils or teacher should be allowed to come to school if they tested positive for HIV. The results have been presented in Table 3.12

Table 3.12 Percentages of Pupils' responses when asked whether a fellow pupil or teacher should continue coming to school whilst infected with HIV

	Pupil		Teacher	
District	%	SE	%	SE
Hhohho	74.38	3.19	65.9	3.9
Lubombo	68.67	3.65	65.2	3.6
Manzini	69.24	2.83	63.5	3
Shiselweni	74.42	3.35	69.6	3.6
Swaziland	71.72	1.61	65.91	1.77

The results indicated that only 70 percent of the pupils would have allowed their fellow pupils to continue with their education. About 30 percent of the pupils indicated either that they would not or that they were not sure what they would do. It is worrying that pupils had not totally resolved the problem of stigmatisation.

Policy suggestion 3.16: The Ministry's Health Unit needs to strengthen its curriculum materials in areas of stigmatisation, at primary level. This can be done through extensive education and formation school health clubs.

What was further worrying was that fewer pupils responded that they would allow their positive teachers to continue to come to school. The results indicated that pupils were more flexible to fellow pupils than their teachers. The results need to be taken seriously in Swaziland - especially with the high prevalence rates. It is possible that some of the

children had seen some of their teachers dying from AIDS related illnesses and were traumatised. In the early years of the pandemic teachers with HIV/AIDS problems were encouraged to continue teaching/working. Ill teachers did not want to take sick leave for fear of their salaries being terminated. Their continued stay in the school may have affected the pupils. Another view could be related to education because ill teachers often did not teach but sat in the administration/staff room all day. As a result replacement teachers could not be employed because these sick teachers were still in school. Consequently, it is likely that some pupils could have thought it better ill teachers should not come to school.

Policy Suggestion 3.17: The Ministry's inspection unit should undertake an audit to find out how many teachers are actually not teaching because of HIV/AIDS related illnesses. The findings of this report would provide important inputs to the Ministry's HIV/AIDS Strategic Policy.

It has been widely recognised that there is need for both additional teacher counselling services and an expanded provision of relief teachers. The Ministry needs to know where the sick teachers are so as to be able to offer support services.

Policy Suggestion 3.18: The Director of the Health Unit should ensure that counselling rooms are installed across the regions especially in the schools where the audit unveils serious HIV/AIDS problems.

The Ministry's policy is that HIV/AIDS prevention educational programmes should be delivered by all schools. The Ministry advocated for the programmes to be included in all subjects such that every teacher would spend some time talking about the HIV/AIDS. In Swaziland there are some schools that have dedicated teachers (Guidance and Counselling) who have the responsibility in this area. In addition there are materials that have been developed, but sometimes there are no fixed time slots in the time table. SACMEQ was also keen to know how this was subject was being taught because a subject without either a time slot or a common curriculum can often be forgotten and/or avoided by teachers. Grade 6 pupils were asked therefore to indicate the activities that took place in their HIV/AIDS lessons; they have been presented in Table 3.13.

Table 3.14 Percentages of Grade 6 Class Activities during HIV/AIDS lessons

Activity	%	SE
Reading materials	68.1	3.5
Lesson by Teacher	99	0.6
Video	4.1	1.4
Radio	11.4	2.2
Able to ask questions	96.5	1.2
Talk by person with HIV	7.7	2.1
Group Discussions	44.9	3.8
Hospital/Care Centre	1.8	0.9
Completed a Questionnaire	30.6	3.5

The results indicated that all Grade 6 pupils (99.0%) received lessons about HIV/AIDS from a teacher and they were able to ask questions (96.5%). This provided clear evidence that they were willing to provide lessons and to teach about the

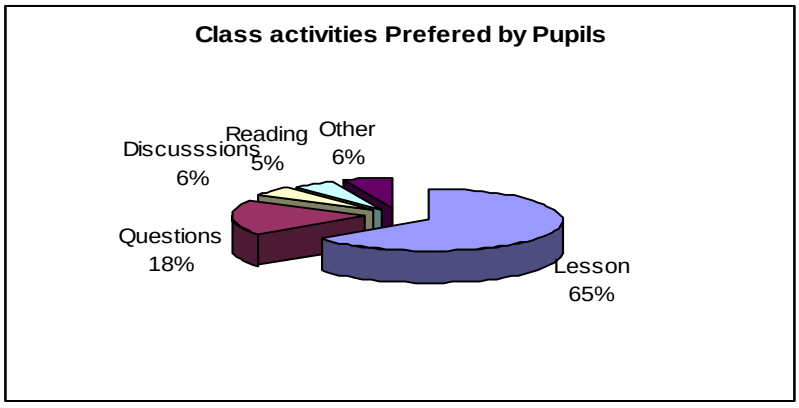
HIV/AIDS. These lessons appeared to provide opportunities for pupils to read about HIV/AIDS (68.1%) and to engage in group discussions (44.9%). Some teachers even used the radio programmes to supplement their lessons (11.4%).

Policy Suggestion 3.19: The Ministry of Education and Training should take action to ensure that HIV/AIDS prevention education programmes are given a specific time allocation and a time slot in the time table. The goal should be to ensure that at least one period a week is dedicated to Health issues including HIV/AIDS.

The current situation is that the Ministry knows that teachers are teaching about HIV/AIDS, but they really do not know either what is it that teachers teach, how is it taught. Wrong messages can do more harm than no information at all; it is in this regard that the suggestion needs to be considered seriously. HIV/AIDS is a life and death issue, there is not second chance thus it has to be done well the first time.

The need for the Ministry to develop a specific subject on HIV/AIDS rather than treating it as a 'cross-cutting' subject was further emphasised in the pupils responses when they were asked to indicate their "best" class activity – what they liked doing in class. The results have been presented in Chart 3.1.

Chart 3.1 Best Activities during HIV/AIDS Classes



Grade 6 pupils indicated that they preferred the lesson led by their teachers which carries an important message that they trust information and knowledge obtained from their teachers. The Ministry needs to embrace this result and strengthen the capacity of teachers in this area.

Conclusion

To summarise, there are very critical issues that have come out of this chapter. First and foremost the Ministry of Education needs to review the way HIV/AIDS is being taught in schools, and to allocate a specific time slot in the time table for this subject. This subject needs special attention, not only to empower the pupils but also to equip teachers with skills and knowledge to deal with pupils who may be infected or affected by the scourge. Three in ten children in Swaziland are considered orphans or vulnerable. HIV/AIDS doesn't offer anyone a second chance, it is critical to prevent infection, and education is the best vehicle for this message.

The Ministry and UNICEF programme for Schools as Centres of Care and Support needs support. Pyscho-social services are critical in the schools for both pupils and teachers. The building of counselling rooms needs to be strengthened.

The SACMEQ III Project revealed that the grade repetition rates in Swaziland need to be reviewed. This can be either through formulation of appropriate policies or revamping of teaching/learning processes in the country. However, automatic promotion be considered- provided other measures such as remedial teaching and support are in place.

It was discouraging to discover that not all homework is marked. Homework that is given should be marked by the teacher and the teacher should also explain the homework. This could be a contributing factor to the high repetition rate. Teachers might be giving homework as ways of having parents teach their children. All homework must to be marked. Inspectors need to increase their pedagogical inspections, go through exercise books of the learners, and also the teachers' preparation books.

Chapter 4
Teachers Characteristics and the Views on the Educational Infrastructure, Organization and Operation of schools and problems with Pupils and Staff

Introduction

Swaziland defines a teacher as someone who has undergone training as a teacher and possesses a teaching qualification. The country has three major colleges that are responsible for training primary school teachers: Ngwane Teacher Training College, Nazarene Teacher Training, and William Pitcher Training College. These colleges began by offering a two year certificate course which was later upgraded to a three year diploma course. This meant that older teachers have generally trained for two years and younger ones for three years. Recent trends have seen the University of Swaziland offering primary level qualifications at degree level.

Traditionally all primary school teachers are supposed to teach all subjects. That is most school teachers would have practiced "grade-teaching". However, in recent years there has been an emergence of specialization whereby some teachers claimed to have 'specialized' in certain subjects. This was trend arose because in the diploma and degree programmes trainee teachers were asked to choose one or two subjects in their final year to research on. This has been understood as specialization in some quarters.

This chapter will examine teachers' characteristics were in terms of: their personal, environmental and community attributes. The teachers have been grouped according to the subjects that they taught in 2007: reading teacher, mathematics and the health.

The SACMEQ III Project also assessed the knowledge of Grade 6 had about HIV/AIDS. It should however be highlighted that the health education teachers underwent the same pre-service training as the rest of the teachers and did not major in any health related subject. They became health and HIV/AIDS because they were chosen to be "Guidance and Counselling Teachers". Guidance and counselling is not a subject in the national curriculum nor is HIV/AIDS, it is said to be "cross-cutting", and thus there is also a notion that every teacher could be a guidance and counselling teacher.

General Policy concern 5
What were the personal characteristics of Grade 6 teachers, and what was the condition of their housing

(a) Age, and Gender of Grade 6 Teachers

Information on the age and gender of teachers of Grade 6 pupils in SACMEQ II and SACMEQ III has been presented in Table 4.1. Swaziland tested three sets of teachers, those who taught reading (English), those who taught mathematics and those who taught the HIV/AIDS programme. For purposes of analyses the teachers were defined by these categories. However the fact is that **all** teachers teach **all** subjects at primary school level

Table 4.1: Means, percentages and sampling errors for age and gender of reading, mathematics and health teachers, SACMEQ II and SACMEQ III

SACMEQII	Reading Teacher				Mathematics Teacher			
	Age (years)		Gender (female)		Age (years)		Gender (female)	
	Mean	SE	%	SE	Mean	SE	%	SE
Hhohho	34.8	1.21	70.6	7.88	34.6	1.09	52.7	8.49
Lubombo	34.4	1.72	61.3	8.47	33.9	1.5	45.0	9.49
Manzini	33.4	1.14	67.4	8.27	33.9	1.16	51.8	8.27
Shiselweni	36.4	1.12	73	8.1	33.6	1.0	55.9	10.75
Swaziland	34.7	0.64	68.5	4.06	34.0	0.59	51.7	4.48

SACMEQIII	Reading				Mathematics				Health			
	Age (years)		Gender (female)		Age (years)		Gender (female)		Age (years)		Gender (female)	
	Mean	SE	%	SE	Mean	SE	%	SE	Mean	SE	%	SE
Hhohho	36.9	1.45	65.3	7.4	37.4	1.43	44.2	7.7	41.2	2.27	82.2	11.8
Lubombo	36.9	1.34	74.5	7.5	35.4	1.21	63.9	8.2	33.9	1.28	92.9	7.0
Manzini	36.1	1.09	70.2	6.3	37.1	1.12	59.3	6.9	37.3	2.03	57.4	12.4
Shiselweni	34.4	1.41	69.7	7.7	33.4	1.27	38.8	7.9	34.5	2.08	40.8	16.6
Swaziland	36.1	0.66	69.6	3.6	36.0	0.64	51.3	3.8	36.6	1.0	68.4	6.8

The average ages of the teachers of grade 6 pupils for the years 2000 and 2007 have been given in first column of Table 4.1. The overall impression was that the average age of grade 6 teachers increased slightly from around 34 years to around 36 years between 2000 and 2007. The majority of the teachers were female. However, the results also indicated that a higher percentage of mathematics teachers (around 50 percent) compared with the percentage of reading and health teachers (around 35 percent) who were males. . The variation of ages across the regions was not substantial. However it was observed that health teachers from Lubombo were slightly on average older than all the teachers and that teachers from the Shiselweni region were on average younger.

It was interesting to note the context in the gender of health teachers across the regions. The percentages of these teachers who were female ranged from a low of 40.8 percent in Shiselweni to a high 92.9 percent in Lubombo.

(b) The general condition of teacher housing

Research evidence has suggested that teacher accommodation is one of the contributing factors for effective and good teaching – because teachers who are able to live in housing connected with a school tend to have fewer distractions such as transport. The SACMEQ III Project also asked Grade 6 teachers to describe whether the conditions of their housing according to four categories: “poor”, need “major repairs”, needs “minor repairs” and “good condition”. The SACMEQ study considered condition ‘minor repairs’ and ‘good condition’, were treated as equivalent to acceptable standards. Table 4.2 represents the responses for these three groups.

Table 4.2 Percentage and sampling errors for teacher housing in acceptable conditions.

SACMEQ II				
District	**Reading teacher**		**Mathematics teacher**	
	%	SE	%	SE
Hhohho	57.3	8.86	61.3	8.68
Lubombo	30.6	7.92	48.7	9.45
Manzini	48.3	8.21	42.2	8.17
Shiselweni	31	8.53	32.4	8.58
Swaziland	43.4	4.27	46.7	4.35

SACMEQ III						
District	**Reading teacher**		**Mathematics teacher**		**Health(HIV)**	
	%	SE	%	SE	%	SE
Hhohho	47.0	7.8	36.8	7.5	49.9	16.5
Lubombo	35.2	8.1	47.1	8.5	63.7	14.2
Manzini	55.2	7.0	59.3	6.8	44.3	12.5
Shiselweni	41.1	8.0	40.9	8.0	31.6	15.7
Swaziland	45.7	3.9	46.6	3.8	47.2	7.3

The overall impression was that the status of housing did not show any improvement over the period. Around half of all the teachers reported that their housing was acceptable condition in both 2000 and 2007. There were however some variations across the regions. Reading teachers in Hhohho were less satisfied with their housing, their response dropped from 57.3 percent in 2000 to 47.0 percent in 2007. The opposite trend occurred for Shiselweni where there was a 10.1 percent improvement in rating. A similar trend was also observed in mathematics teachers.

Policy Suggestion 4.1: The EMIS and Planning Unit need to undertake an assessment of teacher housing in Hhohho to determine whether there was need for urgent intervention.

General policy Concern 6
What were the professional characteristics of Grade 6 teachers and did they consider in-service training to be effective in improving their teaching

(a) Academic Level of Grade 6 teachers

The minimum prerequisite for admission to a teacher training college is an O level pass; however students who have gone through "A levels" are also accepted. The highest academic qualification a teacher can obtain is a degree. In Swaziland a teacher with an academic qualification also needs a teacher training certificate in order to be recognised as teacher. This certificate requires training in pedagogy and teaching methodologies. In the SACMEQ III research teachers with a teaching diploma (3-year course) were assumed to had achieved an equivalent of an A level qualification and those with a certificate (2 year course) in teaching an equivalent of senior secondary.

The results indicated that teachers of Grade 6 pupils in 2007 were more academically qualified than in 2000. The number of teachers with a primary certificate dropped from around 10 percent to zero. A major change occurred in the percentages of teachers with a tertiary qualification. For reading and mathematics teachers these jumped from around 10 percent in 2000 to around 30 percent in 2007. It was pleasing to see this major increase in the graduates who had

joined the teaching service. This improvement in teacher quality occurred across all regions. These trends may have also been influenced older less qualified teachers from teaching, or teachers upgrading themselves to degree level.

In health almost all (92.2%) of the teachers were either from A level or tertiary qualified. This needed further scrutiny, these positive attitudes by the degreed teachers might also have implied that these are young teachers from college who have been fully appraised about HIV/AIDS.

Table 4.3 Academic qualification of reading teachers

Reading Teachers: SACMEQ II										
Region	**Primary**		**Junior secondary**		**Senior secondary**		**A-level**		**Tertiary**	
	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	16.4	6.37	2.9	2.89	14.2	6.24	49.1	8.66	17.5	8.08
Lubombo	4.0	2.87	3.7	2.61	6.5	3.79	79.1	6.59	6.7	4.15
Manzini	6.6	5.11	3.8	2.83	17	6.46	58	8.33	14.6	6.02
Shiselweni	10.1	5.14	1.9	1.87	14.3	5.77	63.7	9.12	10	5.19
Swaziland	9.7	2.66	3.1	1.33	13.5	2.97	60.9	4.34	12.8	3.23
Reading Teachers: SACMEQ III										
Region	**Primary**		**Junior secondary**		**Senior secondary**		**A-level**		**Tertiary**	
	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	0	0	0	0	3	3	61.4	7.7	35.5	7.6
Lubombo	0	0	0	0	5.3	3.9	67.1	8.2	27.6	7.8
Manzini	2.4	2.4	0	0	1.5	1.5	56.8	6.9	39.4	6.8
Shiselweni	0	0	0	0	18.6	6.4	49.6	8.2	31.9	7.8
Swaziland	0.7	0.7	0	0	6.7	1.9	58.3	3.8	34.3	3.7

Table 4.4: Academic qualifications of Mathematics teachers

Mathematics Teachers: SACMEQ II										
District	**Primary**		**Junior secondary**		**Senior secondary**		**A-level**		**Tertiary**	
	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	14.3	5.75	1.7	1.71	16	8.34	55.2	8.72	12.8	5.2
Lubombo	4	2.83	1.8	1.83	22.3	8.43	66	8.9	6	3.48
Manzini	5.1	3.71	0.6	0.58	15	5.48	62.8	7.91	16.5	6.21
Shiselweni	10.5	4.78	0	0	22.6	7.36	63	9.02	3.9	2.9
Swaziland	8.8	2.31	1	0.63	18.5	3.63	61.3	4.32	10.4	2.5
Mathematics Teachers: SACMEQ III										
District	**Primary**		**Junior secondary**		**Senior secondary**		**A-level**		**Tertiary**	
	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	2.4	2.4	0	0	0	0	67.5	7.4	30.1	7.2
Lubombo	0	0	0	0	7.2	4.4	61.4	8.3	31.4	7.9
Manzini	1.8	1.8	0	0	1.7	1.7	70.1	6.3	26.3	6.1
Shiselweni	2.6	2.6	2.7	2.7	11.5	5.5	51.3	8.2	31.8	7.7
Swaziland	1.8	1.1	0.6	0.6	4.7	1.7	63.2	3.7	29.6	3.6

Table 4.5 Academic qualifications of Health Teachers

Health Teachers: SACMEQ III										
District	**Primary**		**Junior secondary**		**Senior secondary**		**A-level**		**Tertiary**	
	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	0	0	0	0	0	0	60.5	15.9	39.5	15.9
Lubombo	0	0	0	0	0	0	69.6	13.1	30.4	13.1
Manzini	0	0	0	0	0	0	94.4	5.5	5.6	5.5
Shiselweni	0	0	0	0	11	10.6	67.2	16	21.7	14
Swaziland	0	0	0	0	2.2	2.2	75.5	6.2	22.3	6.0

(b) Professional training and experience of Grade 6 teachers

The amount of professional training and teaching experience associated with Grade 6 teachers in Swaziland has been presented in Table 4.6

Table 4.6 Means and sampling errors for experience and training of reading and mathematics teachers

SACMEQ II								
	Reading teacher				**Mathematics teacher**			
District	**Experience(years)**		**Training(years)**		**Experience(years)**		**Training(years)**	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Hhohho	9.8	1	2.9	0.15	10.1	1.06	2.5	0.12
Lubombo	10.4	1.58	2.6	0.15	9.6	1.37	2.4	0.18
Manzini	8.8	1.04	2.5	0.17	10.2	1.21	2.4	0.12
Shiselweni	11.4	1.1	2.7	0.11	8.8	0.98	2.5	0.15
Swaziland	10.1	0.58	2.7	0.07	9.7	0.58	2.5	0.07

SACMEQ III												
	Reading teacher				**Mathematics teacher**				**Health teacher**			
District	**Experience(years)**		**Training(years)**		**Experience(years)**		**Training(years)**		**Experience(years)**		**Training(years)**	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Hhohho	11.6	1.23	3.1	0.1	12.0	1.3	3	0.12	16.6	2.22	3.2	0.26
Lubombo	11.1	1.37	2.8	0.16	9.6	0.96	2.9	0.16	9.0	1.33	2.9	0.19
Manzini	10.7	1.06	3.1	0.11	12.0	1.09	2.8	0.11	12.0	2.21	2.9	0.13
Shiselweni	9.4	1.45	2.7	0.18	7.6	1.32	2.5	0.21	7.6	1.99	2.8	0.46
Swaziland	10.6	0.64	2.9	0.07	10.5	0.57	2.8	0.08	11.3	1.05	2.9	0.12

The results indicated that in both 2000 and 2007 the average Grade 6 pupil was taught by teachers with about 10 years of experience. In terms of professional training the Grade 6 teachers in 2007 appeared to be slightly better trained (around 2.9 years) compared with their counterparts in 2000 (around 2.6 years). As for the improvement in academic qualifications noted above-this is a very pleasing trend.

(c) In-service training

In Swaziland in-service training is considered to be a very important part of teacher training. A special department was created to in-service teachers and heads of schools at regular intervals with the latest trends and educational paradigms. In some cases it also provided training for teachers on new topics that have been added to the school curriculum. In recent years in-service programmes included educating teachers about HIV/AIDS, management courses for heads of schools, and counselling courses for all teachers. Some courses were held to assist teachers to cope with the challenges brought about by the HIV/AIDS which included courses on counselling and psycho-social care for orphans and vulnerable children. Table 4.9 shows the mean number of courses attended by teachers and the average duration of the courses.

The most notable features of this table were two fold. First, while the average number of courses for reading and mathematics teachers was very similar in 2000 and 2007, the average duration of these courses dropped from around 11 days in 2000 to around 2 days in 2007.

Secondly, the amount of in-service training provided for health teachers was higher in 2007 than the amount provided for the reading and mathematics teachers. At national level Grade 6 health teachers received an average of over 3 in-service courses and the average length of the courses was almost 9 days. Whilst it was very comforting to see that Swaziland had put extra resources into HIV/AIDS in-service training programmes – it was a little worrying that the duration of in-service courses for reading and mathematics had dropped substantially from 2000 to 2007. These trends need to be kept under review.

Policy Suggestion 4.2: The Teacher In-Service Department should establish a system for monitoring the frequency and duration of in-service courses provided for reading and mathematics teachers in primary schools so as to ensure that these programs are fully resourced and able to deliver high quality training.

Table 4.7: Means and sampling errors for teacher in-service courses and days attended between 2000 and 2007 by Grade 6 teachers

SACMEQ II								
	Reading teacher				Mathematics teacher			
District	In-services courses		Days		In-services courses		Days	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Hhohho	2.3	0.44	6.3	1.21	2.4	0.46	14.3	4.52
Lubombo	4.3	1.42	15.7	7.53	3.1	0.73	10	3.52
Manzini	3.2	0.75	16.6	6.93	1.9	0.5	10.8	5.04
Shiselweni	1.9	0.47	7.2	1.49	2.1	0.75	8.2	3.36
Swaziland	2.9	0.39	11.3	2.49	2.3	0.3	11.1	2.17

SACMEQ III												
	Reading teacher				Mathematics teacher				Health Teacher			
District	In-services courses		Days		In-services courses		Days		In-services courses		Days	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Hhohho	1.4	0.38	3.84	1.16	3.2	0.67	8.09	2.28	4.42	1.1	11.2	2.43
Lubombo	1.7	0.44	2.51	0.59	2.7	0.46	4.9	1.14	2.98	0.87	6.2	1.29
Manzini	2.2	0.36	5.31	1.16	2.6	0.39	6.12	1.63	3.75	0.87	11.8	3.89
Shiselweni	1.3	0.24	3.21	0.87	0.95	0.2	4.08	1.94	1.2	0.50	4.4	1.10
Swaziland	1.7	0.18	3.87	0.52	2.4	0.24	5.92	0.93	3.22	0.40	8.8	1.45

Information was collected from teachers concerning whether they thought that the in-service training that they received "was effective in terms of improving teaching". The results have been presented in Table 4.8

The results for 2000 and 2007 indicated that there was a major increase:-in the percentages of teachers who gave a positive response. In only around 40 percent of reading and mathematics teachers rated their in-service courses as effective. However, in 2007 this had increased to around 75 percent for reading, mathematics, and health teachers. The most satisfied teachers in 2007 were those in Hhohho for reading (83.2%), Shiselweni for mathematics (78.7%) and Hhohho/Shiselweni for health (around 83.0%).

The results indicated that teachers' views on the effectiveness of in-service programmes had improved over the period.

Table 4.8 Percentages and sampling errors for the teachers' perception of the effectiveness of the in-service workshops.

SACMEQ II				
	Effectiveness of the in - service courses			
District	Reading in-service courses		Mathematics in-service courses	
	%	SE	%	SE
Hhohho	44.5	8.57	47	8.65
Lubombo	37.2	9.51	42.8	9.57
Manzini	40.4	8.08	32.7	7.7
Shiselweni	44.6	10.91	21.5	7.14
Swaziland	41.9	4.52	36.1	4.24

SACMEQ III						
	Effectiveness of the in - service courses					
District	Reading in-service courses		Mathematics in-service courses		Health	
	%	SE	%	SE	%	SE
Hhohho	83.2	9.0	65.8	9.8	83.4	14.9
Lubombo	81.9	9.7	74.6	9.2	72.9	14.0
Manzini	76.8	7.4	71.1	7.8	63.5	13.2
Shiselweni	69.3	10.1	78.7	9.9	83.0	15.5
Swaziland	77.5	4.5	71.8	4.6	74.1	7.2

Policy Suggestion 4.3: The Director of Education should request the Director of INSET to document any changes that have been made in order to improve in-service teacher training for primary schools over recent years. This documentation should then be used to improve in-service in general for all levels of education.

General Policy Concern 6
How did Grade 6 teachers allocate their time among responsibilities concerned with teaching, preparing lessons and marking?

(a) Lesson plan preparation

All teachers are taught the importance of planning all their lessons. In Swaziland there is documentation and books that are provided to every teacher for lesson planning purposes. In fact one of the responsibilities (duties) of school heads is to ensure that all teachers' preparation books are in order. Table 4.9 presents the time spent on lesson preparation and marking by the grade 6 teachers.

Table 4.9 Means and sampling errors for the teacher time spent on lesson preparation

SACMEQ II				
District	**Reading Teacher**		**Mathematics Teacher**	
	Mean	SE	Mean	SE
Hhohho	13.5	1.52	15	2.39
Lubombo	14.4	1.43	15.7	1.71
Manzini	11.6	1.18	13.3	1.66
Shiselweni	15.3	3.59	16.1	3.41
Swaziland	13.5	1.01	14.9	1.19

SACMEQ III						
District	**Reading Teacher**		**Mathematics Teacher**		**Health teacher**	
	Mean	SE	Mean	SE	Mean	SE
Hhohho	9.98	0.95	12.14	1.17	7.5	2.48
Lubombo	9.69	1.34	9.57	1.05	8.16	1.63
Manzini	10.52	0.92	8.6	0.9	12.23	1.8
Shiselweni	7.42	0.75	7.59	0.68	6.58	1.29
Swaziland	9.48	0.49	9.5	0.49	9.05	0.93

The average time spent on lesson preparation in 2007 was about 9 hours for all teachers, and this dropped a great deal from around 14 to 15 hours in 2000. That is, Grade 6 teachers have reduced the time that they spend preparing for their lessons by around 5 to 6 hours between 2000 and 2007. The most worrying region was the Shiselweni region where the average number of hours had dropped by 50 percent from about 15.0 hours to about 7.5 hours. It was also interesting note the variation in the number of hours per subject, some teachers spent more time preparing whilst others spent less time.

Policy Suggestion 4.4: The Chief Inspector of Primary Schools should commission an audit of Grade 6 teachers Preparation Books, in order to discover why there has been such a dramatic fall in the time spent by teachers on lesson preparation.

General Policy Concern 7
What were the relationships of Grade 6 teachers' (a) subject specialization and teaching (b) teaching approaches/strategies, assessment procedures and (c) meeting with parents?

(a) Specialization

The country's policy at primary level is that all teachers teach all subjects. This has been the official policy, but what is happening on the ground has over the years deviated from this notion without anyone in particular paying much attention to it. At national level, it is understood that teachers do not specialize and yet both in SACMEQ II and SACMEQ III studies revealed that teachers do teach specialized subjects. That is some teachers only teach mathematics and science, whilst others teach only English and siSwati. SACMEQ III decided to investigate and document this practice in schools. The results have been presented in table 4.10

Reading and mathematics teachers were asked to indicate what other subjects they taught besides the subjects who they had been assessed on. That is reading teachers were asked to indicate whether they also taught mathematics, science and social sciences. The study focused on these two types of teachers because SACMEQ II had implied that most teachers in mathematics and science claimed not to teach reading.

Table 4.10 Percentages and sampling errors for Subjects taught by grade 6 reading, mathematics and health teachers.

SACMEQ III: Subjects taught by Grade 6 teachers

Subject taught	Reading teacher		Mathematics teacher		Health teacher	
	%	SE	%	SE	%	SE
Teaches Reading	100	0	22.2	3.2	34.9	6.9
Teaches Mathematics	20.8	3.1	99.7	0.3	41.7	7.1
Science	32.4	3.6	60.3	3.7	58.8	7.2
S.Science	42.9	3.9	32	3.7	38.5	7.1
HIV	38.1	3.8	36.5	3.7	96.1	2.7

As expected 100 percent of all reading teachers claimed to teach reading, nearly all of mathematics teachers also claimed to teach mathematics and, nearly all of health teachers claimed to teach HIV/AIDS related subjects. Around 60 percent of mathematics and health teachers also claimed to teach science. This suggested a relationship between the teaching of mathematics, science and the HIV/AIDS related subjects.

In the case of reading teachers, only 20.8 percent indicated that they also taught mathematics and 38.1 also taught HIV/AIDS related subjects. Similarly very few mathematics teachers (22.2 percent) taught reading. These results were clearly at odds with the official Ministry policy which encouraged "generalist" teachers who teach all of the core subjects – grade teaching.

It was noticeable that a very high percentage of health teachers (58.8%) were also teaching science. This linkage of HIV/AIDS to science teachers may be counterproductive because other subject teachers might begin to think they do not have to educate pupils about the HIV/AIDS.

Table 4.12 Percentages and sampling errors for Subjects which Grade 6 Reading, Mathematics and Health teachers were trained in.

SACMEQ III: Subjects which Grade 6 teachers were trained to teach

Trained to Teach	Reading teacher		Mathematics teacher		Health teacher	
	%	SE	%	SE	%	SE
Reading	76.1	3.3	38.1	3.8	66.2	6.9
Mathematics	49.3	3.9	76.6	3.2	65.8	6.8
Science	52	3.9	75.7	3.3	69.1	6.8
Soc.Science	60	3.9	51.9	3.9	56	7.2
HIV	35.3	3.7	39	3.8	72.2	6.6

The results presented above suggest that there is a need to make it official that subject specialisation does occur at primary school levels. This specialisation may not have happened in all schools but the time has come for the Ministry to review this policy. When primary teacher training colleges upgraded from the PTC to the PTD, they offered student teachers an option to choose two subjects that they would like to pursue further. Some took the sciences option, whilst others took the languages option. Whether by design or fault teachers subsequently tended to think that the subjects they chose in their final year was specialization.

Policy Suggestion 4.5: The Director of Education should commission a study into specialization phenomena with a view to harmonising official Ministry policy and teacher training with what is actually happening with teachers in primary schools.

Policy Suggestion 4.6: The National Examinations Council and the National Curriculum Centre conduct a research study that compares the quality of teaching (in reading, mathematics and HIV/AIDS) that is delivered by "specialist teachers" and "generalist teachers".

(b) Frequency of giving tests

Teachers give tests to pupils in order to assess what has been learned and also to determine whether a lesson has been successful. Some educators believe in having a test or a quiz after each chapter, while others believe in tests every month or every school term. SACMEQ investigated the frequency of taking tests by Grade 6 pupil. The results have been presented in Tables 4.13 to 4.15.

The results were very surprising because they indicated Grade 6 teachers of reading have greatly reduced the frequency of giving tests. The proportion of teachers giving tests dropped from a national average of 39.2 percent in 2000 to only 7.7 percent in 2007. However, when one looked at the 'less often option' it was noted the proportion increased by a 20 percentage points, this suggested that teachers had abandoned giving of tests as a teaching method. There was little variation across the region, suggesting that this was the same procedure nationally.

Table 4.13 Percentages and sampling errors for the frequency of reading tests

Frequency of reading tests						
District	**SACMEQ II**					
	Less often		**2/3 per month**		**1 + per week**	
	%	SE	%	SE	%	SE
Hhohho	35.4	8.98	31.4	7.68	33.2	7.63
Lubombo	21.6	6.69	32.6	8.23	45.8	9.62
Manzini	26.4	7.5	39.3	8.07	34.3	7.54
Shiselweni	24.1	7.6	28.9	8.03	47	10.73
Swaziland	27.5	4.05	33.3	4.03	39.2	4.45
Frequency of reading tests						
District	**SACMEQ III**					
	Less often		**2/3 per month**		**1 + per week**	
	%	SE	%	SE	%	SE
Hhohho	56.4	7.8	37.5	7.5	6	4.2
Lubombo	46.3	8.6	49.3	8.6	4.4	3.2
Manzini	42.3	6.8	48.7	7	9	3.9
Shiselweni	43.9	8.1	45.6	8.2	10.6	5.1
Swaziland	47.2	3.9	45.1	3.9	7.7	2.1

Table 4.14 Percentages and sampling errors for the frequency of mathematics tests

Frequency of mathematics tests						
SACMEQ II	**Less often**		**2/3 per month**		**1 + per week**	
	%	SE	%	SE	%	SE
Hhohho	44.1	8.64	44.9	8.42	10.9	4.87
Lubombo	33.4	8.38	48.0	9.36	18.5	8.66
Manzini	48.6	8.24	46.2	8.1	5.2	2.96
Shiselweni	45.1	10.69	48.1	10.11	6.8	3.65
Swaziland	43.5	4.5	46.6	4.4	9.8	2.53
Frequency of mathematics tests						
SACMEQ III	**Less often**		**2/3 per month**		**1 + per week**	
	%	SE	%	SE	%	SE
Hhohho	65.1	7.3	25.6	6.6	8.7	4.3
Lubombo	56.6	8.6	32.2	8.2	11.1	5.4
Manzini	54.6	6.9	34.9	6.7	10.4	4.1
Shiselweni	53.2	8.1	38.3	7.9	8.5	4.8
Swaziland	57.6	3.8	32.7	3.6	9.7	2.3

Table 4.15 Percentages and sampling errors for the frequency of health (HIV/AIDS) information and skill tests

Frequency of Health (HIV/AIDS) information tests						
SACMEQ III	**Less often**		**2/3 per month**		**Health**	
	%	SE	%	SE	%	SE
Hhohho	64.9	16.2	35.1	16.2	0	0
Lubombo	54.5	14.2	38.4	14	7.1	7
Manzini	60.8	11.9	27.7	11	11.5	7.8
Shiselweni	68.5	15.6	31.5	15.6	0	0
Swaziland	61.5	7.1	32.8	6.9	5.7	3.2

The percentages of teachers giving tests only occasionally (less than 2 or 3 times per month) increased by around 20 percent for the reading teacher and by around 14 percent for the mathematics.

These trends suggest a major change in teaching practices with regard to regularity of pupil assessment. Whether this practice has been approved or even noticed by the inspectors is not completely clear.

Policy suggestion 4.7: The Chief Inspector Primary should investigate why teachers are giving fewer tests in reading and mathematics.

Policy suggestion 4.8: The Ministry should provide guidelines to teachers and teacher training institutes on the official government policy for the frequency of pupil assessment – and then ask inspectors to monitor the implementation of this policy.

The research results and policy suggestions presented above suggest that there might some confusion amongst the teaching force concerning what is expected with respect to pupil assessment. Swaziland has experimented with Continuous Assessment (CA) – however these programmes may not have specified precisely how often assessment should occur.

Policy suggestion 4.9: The Chief Inspector Primary should further clarify with teachers, curriculum developers and inspectors the exact requirements of the "Continuous Assessment (CA)" programme in Swaziland and should ensure that the officially recommended frequencies for classroom tests are adhered to.

One of the key elements of the CA approach is that continuous assessment of pupils should be accompanied by revised seating positions in the classroom whereby the pupil with the higher achievement sits in position 1, the pupil with the second higher achievement sits in position 2, and so on. There is evidence that suggest that this strict adherence to CA procedures has been abandoned by some teachers who prefer to take a Mastery Approach to assessment and to simply specify the skills and knowledge that the pupils need to acquire (or have acquired).

Policy suggestion 4.10: The Research and Planning Unit in collaboration with the National Curriculum Centre should undertake a study on classroom assessment procedures that are actually being applied in classroom across the nation in order to gain more insights into what is being "practiced" and whether this is congruent with the ideal procedures that have been identified for Continuous Assessment (CA) method.

(c) Meeting with parents

In Swaziland it is traditional for the primary schools pupils, teachers and parents to meet when the school reports are distributed. This normally happened every three months at the end of school terms. This probably explains why some schools indicated that they gave tests once in three months. During these meetings it was possible for teachers and parents to discuss pupil performance. If teachers test pupils less frequently it would be a concern as to what they would discuss with parents at these meetings. In the SACMEQ III project teachers were asked how frequently they meet with parents. The results have been summarised in Table 4.16.

The results have been presented in these tables as the percentages that meet with parents at least once per year. It was very pleasing to note that from 2000 to 2007 (for both reading teachers and mathematics teachers) there has been an increase of 100 percent in the percentages that met with parents at least once per year – from around 45 percent to 90 percent. There was very little variation across the regions.

Table 4.16 Percentages and sampling errors of teachers meeting parents each year

Teachers meeting Parents				
SACMEQ II	**Reading teacher meet parents**		**Mathematics teacher meet parents**	
	%	SE	%	SE
Hhohho	57.4	5.22	45.7	5.93
Lubombo	40.0	5.0	34.2	4.71
Manzini	55.4	6.28	51.2	5.68
Shiselweni	35.1	7.34	38.2	6.96
Swaziland	48.2	3.21	43.2	3.02
SACMEQ III	**Reading teacher meet parents**		**Mathematics teacher meet parents**	
	%	SE	%	SE
Hhohho	91.5	4.8	91.5	4.5
Lubombo	91.3	4.9	89.5	5.8
Manzini	91.2	2.7	97.9	2.0
Shiselweni	84.8	6.1	85.2	5.8
Swaziland	91.3	2.3	91.5	2.2

The increase in the amount of meetings between teachers and parents suggested that there were greater levels of cooperation between the school and the home in 2007. Studies have revealed that children do better if the parents and teachers regularly meet to discuss issues around the well-being of the child. Another sign of cooperation between teachers and parents is whether teachers require parents to sign that pupils have completed their homework. Requiring a parent to sign is an indication that the homework is important and also increases the role of the parent in the child's education. The results are presented in Table 4.17

Table 4.17: Percentages and sampling errors of teachers asking parents to sign homework

SACMEQ III: Parents signing homework						
Region	**Reading Teacher**		**Mathematics teacher**		**Health teacher**	
	%	SE	%	SE	%	SE
Hhohho	9.3	4.3	16.4	5.7	21.3	13.5
Lubombo	11.6	5.5	15.9	6.2	0	0
Manzini	17.5	5.4	9.6	4.2	12.3	8.3
Shiselweni	18.8	6.2	5.1	3.6	20.8	13.5
Swaziland	14.5	2.7	11.6	2.5	12.6	4.9

The study revealed that only around 12 to 15 percent of Grade 6 teachers asked parents to sign their children's homework. These were extremely low figures and they indicated that this important linkage between home and school was being ignored by the teachers. This observation, when linked with the fact that many pupils had indicated that teachers do not mark the homework that they gave them, showed that teachers really do not take homework seriously as a teaching method. Schools should consider not giving homework if they are not going to mark it and do not request parents to look at their children's homework.

Policy suggestion 4.11: The Inspectorate should meet with school heads to discuss the steps that should be taken in order to improve linkages between teachers and parents through better forms of communication and cooperation.

(d) Classroom resources

Government policy is clear on construction of classrooms and laboratories. In Swaziland a classroom is fully completed if it has the basic resources that a teacher would need. Table 4.18 presents information on resources that were available in a class where an average Grade 6 pupil attended.

The results indicated that the classroom resource situation was about the same in 2000 and 2007. Almost all the schools had basic resources: chalk, writing boards, teacher chair and table, wall charts and cupboards. However, the number of classroom libraries and book corners decreased substantially from around 45 percent in 2000 to around 12 percent in 2007. The number of bookshelves showed no change between 2000 and 2007 and was very low at 35 percent.

Policy Suggestion 4.12: The Chief Inspector Primary should investigate why there has been a major reduction in the supply of classroom libraries and book boxes in Grade 6 classrooms and bring forward recommendations concerning how to address the situation.

Overall, save for the libraries and shelves the country did very well in provision of class resources.

Provision of classroom resources was observed to be critical in the improvement of the teaching and learning experience in the classroom. It is also important that the Ministry provides resources for teachers, for them to do research and improve their lessons. Swaziland adopted the use of Teacher Innovation and Development Centres (TIDCs) for this purposes. These fall under the under the INSET department. These centres are meant for teachers, they have all the basic resources, equipment for teaching, reproduction of learning materials, literature and other educational resources. Teachers were asked to indicate whether these centres were available within their areas and whether they did use them, if they did for what purposes did they utilize them.

Table 4.18 Percentages and sampling errors for availability of classroom resources for teachers

SACMEQ II: Availability of classroom resources				
Resource	**Reading teacher**		**Mathematics teacher**	
	%	SE	%	SE
Chalk	99.6	0.42	98.2	1.08
A usable writing board	98.1	1.07	97.5	1.28
A teacher chair	87.9	2.62	85.7	3.77
A teacher table	84.9	2.9	87.8	2.62
A wall chart of any kind	79.3	3.55	78.4	3.56
A cupboard	54.4	4.43	55.9	4.42
A classroom library or book corner	45.6	4.43	46.3	4.5
One or more bookshelves	33.6	4.12	35.8	4.44

SACMEQ III: Availability of classroom resources						
Resource	**Reading teacher**		**Mathematics teacher**		**HIV**	
	%	SE	%	SE	%	SE
Chalk	99.6	0.4	100	4	97.4	2.5
A usable writing board	97.8	1.1	99.6	0.4	97.4	2.5
A teacher chair	87.1	2.7	86.6	2.7	85.7	2.5
A teacher table	83.2	2.9	82.2	3	87.3	4.9
A wall chart of any kind	89.9	2.4	90.2	2.3	87.6	5
A cupboard	63.8	3.8	63.2	3.7	68.5	6.9
A classroom library or book corner	12.3	2.6	12.3	2.6	12.8	4.9
One or more bookshelves	33.6	3.7	40	3.8	24.6	6.3

Tables 4.19 and 4.20 present the findings on SACMEQ on the availability and use of the TIDCs.

Table 4.19 Percentages and sampling errors for the availability of education resource centres for teachers.

	Reading Teacher				Mathematics teacher			
District	**None available**		**Have Used**		**None available**		**Have Used**	
	%	SE	%	SE	%	SE	%	SE
Hhohho	26.4	8.66	23.9	6.98	15.9	5.9	35.5	8.08
Lubombo	23.7	7.98	31.7	8.11	19.5	7.66	42.2	9.39
Manzini	15.9	6.22	35.9	7.94	16.9	6.42	37.3	8.05
Shiselweni	21.6	12.7	32.9	8.52	5.1	3.78	49.5	10.31
Swaziland	21.8	4.38	30.9	3.9	14.3	3.02	40.6	4.46

	Reading				Mathematics teacher				Health Teacher			
District	**None available**		**Have Used**		**None available**		**Have Used**		**None available**		**Have Used**	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	5.2	3.7	26.7	6.98	5.2	3.7	30.8	8.08	0	0	47.1	
Lubombo	5	3.5	42.4	8.11	2.4	2.5	60.5	9.39	0	0	54.5	
Manzini	1	1	55.4	7.94	1	1	53.1	8.05	0	0	28.8	
Shiselweni	2.5	2.5	34.7	8.52	2.5	2.5	3.4	10.31	0	0	20.4	
Swaziland	3.3	1.4	40.3	3.9	2.8	1.3	44	4.46	0	0	37.7	

The Government of Swaziland did not build any additional resource centres between 2000 and 2007. However, there was a reduction between 2000 and 2007 in the percentages of teachers who claimed that "no resource centre available". For example in 2000, 21.8 percent reading teachers claimed that there was no resource centre, while the corresponding figure for 2007 was 3.3 percent. However it was disappointing to see that there was a small increase in the use of these centres. For example in 2000, 30.9 percent of the reading teachers indicated that they used resource centres, while the corresponding figure for 2007 was only 40.3 percent.

Using or visiting the teacher centres did not indicate what teachers did at these centres. SACMEQ therefore collected information about what teachers did in these centres. The results of this analysis are presented in tables 4.20.

Table 4.20 Percentages and sampling errors for the purpose of using of education resource centres by reading teachers.

SACMEQ II: Reading								
District	**Borrow material**		**Make material**		**Training**		**Speak with teachers/staff**	
	%	SE	%	SE	%	SE	%	SE
Hhohho	10.5	5.2	9.3	5.21	16.4	6.15	10.1	4.74
Lubombo	5.8	4.26	12.7	5.7	18.5	6.34	22	7.04
Manzini	15.7	6.43	11.9	5.66	24	7.17	21.3	6.83
Shiselweni	18.7	6.51	10.6	4.9	19.8	6.53	20.8	6.63
Swaziland	13	2.88	11	2.69	19.7	3.32	18.1	3.11
SACMEQ III: Reading								
District	**Borrow material**		**Make material**		**Training**		**Speak with teachers/staff**	
	%	SE	%	SE	%	SE	%	SE
Hhohho	11.6	5.3	11.3	5.2	18.8	6.3	23.6	6.8
Lubombo	5.6	3.9	5.6	3.9	33.8	8.2	27.8	7.6
Manzini	26.3	6.4	16.1	5.3	39.6	7.1	33	6.7
Shiselweni	17	6	8.5	4.2	29.6	7.4	21.4	6.6
Swaziland	16.1	2.9	11	2.5	30.5	3.6	26.8	3.5

The results presented in Table 4.20 indicated that in 2000 and 2007 the teacher centres were mainly used for training and for mainly discussions with teachers from other schools. Very little effort seems to have been put into either borrowing materials or making materials. The general pattern of responses was similar for both reading and mathematics teachers. The results were disappointing. It seems that teachers only used the teacher centres because they were involved in Ministry-organised training programmes with other teachers. They did not see the centre as a resource for borrowing or making teaching materials.

Table 4.20 Percentages and sampling errors for the purpose of using of education resource centres by mathematics teachers.

SACMEQ II: Mathematics teacher								
District	**Borrow material**		**Make material**		**Training**		**Speak with teachers**	
	%	SE	%	SE	%	SE	%	SE
Hhohho	11.7	5.04	14.8	5.73	31.8	7.89	28.5	7.59
Lubombo	15	8.57	22.9	9.04	18.3	6.52	30.5	9.23
Manzini	14.4	5.78	18.7	6.35	21.5	7.14	28.4	7.65
Shiselweni	18.9	6.52	14.6	5.99	35.4	11.34	38.7	11.1
Swaziland	14.8	3.09	17.4	3.31	27.2	4.24	31.3	4.39
SACMEQ III: Mathematics								
District	**Borrow material**		**Make material**		**Training**		**Speak with teachers**	
	%	SE	%	SE	%	SE	%	SE
Hhohho	15	5.7	8.8	4	24.1	6.9	25.6	7
Lubombo	13.7	5.8	8.5	4.8	49.5	8.6	33.3	8.1
Manzini	18.5	5.5	21.1	5.8	23.8	6	33.1	6.7
Shiselweni	19.1	6.3	4.8	3.3	21.6	6.7	16.5	6
Swaziland	16.8	2.9	11.5	2.4	28.4	3.5	27.2	3.5

Policy Suggestion 4.13: The Planning Unit should undertake a full audit of the purposes and practices of the teacher centres (TIDC) with the aims of: (a) reviewing their mission, (b) taking stock of the materials that they have and need, and (c) making teachers aware of these valuable teaching resources.

General Policy Concern
Did Grade 6 teachers have access to information and services about HIV/AIDS and did they make optimal use of them

(a) Testing sites and attitudes to testing

In this section, the SACMEQ team in Swaziland agreed to present data on two major fronts: (i) Data that were considered generic was obtained from the Grade 6 reading teacher - this means the reading teachers' responses were used in analyses and report writing; and (ii) data that might show different patterns across subject areas were reported for all Grade 6 teachers. In the question where teachers were asked the distance to testing sites, it was the reading teacher, data that was considered to be more representative and stable than the other two teachers because of the numbers that were involved.

Table 4.22 Access to testing sites in places where teachers live and their nearest towns

SACMEQ III				
Region	Home Area		Town	
	%YES	SE	%YES	SE
Hhohho	45.9	7.8	87.1	5.1
Lubombo	40.0	8.4	88.0	5.8
Manzini	42.8	7.1	83.3	5.3
Shiselweni	38.9	8.0	90.8	4.5
Swaziland	42.1	3.9	87.0	0

Teachers were asked to indicate whether there were HIV/AIDS testing sites within walking distances from the places where they lived. This was aimed at looking at whether distance and associated costs might be a barrier to testing. Nationally, more than half (57.9%) the Grade 6 teachers claimed that there were no testing sites that were within the immediate community. About nine in ten teachers (87%) indicated that there were testing centres in a nearby town area. The results suggested that for many teachers the testing would have required expenditure on transport. Variation among the regions was minimal. Grade 6 teachers were also asked whether (a) they would test if they had to pay for the tests, or if (b) the test was free. The results have been presented in Table 4.23.

Table 4.23 Percentages of teachers who would test if test was free or came at a cost

SACMEQ III												
	Pay						**Free**					
Region	**Read**		**Mathematics**		**HIV**		**Read**		**Mathematics**		**HIV**	
	%YES	**SE**	**%YES**	**SE**	**%YES**	**SE**	**%YES**	**SE**	**%YES**	**SE**	**%YES**	**SE**
Hhohho	59.8	7.6	56.8	7.7	59.3	16	86.4	5.4	91.6	4.4	90.2	9.4
Lubombo	68.5	8.1	64.3	8.3	84.4	10.3	88.1	5.7	87.7	5.9	100	0
Manzini	64.2	6.8	58.3	6.9	58.3	12	95.7	2.7	83.7	5.6	100	0
Shiselweni	63.9	7.9	56.4	8.1	49	17.2	97.3	2.7	83.7	5.6	100	0
Swaziland	63.8	3.8	58.6	3.9	63.5	6.9	92.1	2.1	88.5	2.6	98.0	0

About 60 percent of the Grade 6 teachers indicated that they would test even if they had to pay for the tests. When asked if they would have tested if the tests were free nine in ten indicated that they would have tested.

What was interesting about the responses was that Government of Swaziland had all along made testing free. This suggested that teachers might not be were not aware that testing is free in public centres. Swaziland's focus in fighting HIV/AIDS is prevention of infection. Maybe a good start would be to ensure that the public knows that tests are free.

(b) Perceptions about the HIV/AIDS of teachers

The study also asked teachers to indicate the risk of them and their colleagues catching the virus. This question was 'loaded' in that it was a simple response from low risk to very high risk, but the core of the answer would have been a straight no, which would have indicated that teachers were practicing behaviour that was not a danger to them. The responses from all the different teachers is presented in Tables 4.23 to 2.25

Table 4.23 Percentages and sampling errors of self-assessment of risk of infection by reading teachers

Reading Teacher										
Region	No		Low		Medium		High		Very High	
	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	23.7	6.9	44.8	7.8	8.2	4.1	21.1	6.5	2.2	2.2
Lubombo	13.7	8.3	37.3	8.3	20.7	7.1	12.5	6	15.7	6.1
Manzini	27.5	6.3	36.0	6.8	16.8	5.4	12.6	4.7	7.1	3.1
Shiselweni	29.7	7.3	48.2	8.2	15.9	6	3.4	3.3	2.8	2.8
Swaziland	24.3	3.3	41.5	3.9	15.1	2.8	12.7	2.6	6.5	1.8

Table 4.24 Percentages and sampling errors of self-assessment of risk of infection by mathematics teachers.

Mathematics Teacher										
Region	No		Low		Medium		High		Very High	
	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	20.1	6.2	43.2	7.8	18.4	6	14.3	5.6	4	2.8
Lubombo	36.6	8.3	44.4	8.5	11.8	5.6	2.4	2.5	4.8	3.4
Manzini	17.8	5.4	39.6	6.8	15.5	5.2	13.8	4.7	13.2	4.8
Shiselweni	21.2	6.5	31.3	7.7	31.6	7.6	5.1	3.5	10.8	5.2
Swaziland	22.9	3.2	39.6	3.8	19.4	3.1	9.6	2.3	8.5	2.2

Table 4.25 Percentages and sampling errors of health teachers' risk to getting infected

Health Teacher										
Region	No		Low		Medium		High		Very High	
	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	18.9	12.5	52.3	16.3	11.8	11.1	7.6	7.5	9.5	9.2
Lubombo	37.8	13.7	33.9	13.9	15.4	10.4	13.0	8.9	0	0
Manzini	6.3	4.4	53.2	12.5	15.3	8.4	13.5	9.0	11.7	7.9
Shiselweni	20.6	13.4	35.5	16.9	23.4	14.6	20.6	13.4	0	0
Swaziland	20.0	5.6	44.3	7.3	16.3	5.4	13.6	4.9	5.8	3.3

The response patterns for self assessment of risk were very similar for the reading, mathematics and health teachers. Around 65 percent of teachers considered themselves to be "no risk" or "low risk". However, it was very concerning to see that around 35 percent of all teachers considered themselves to be "medium risk" or "higher". This admission indicated that quite a large number of teachers may have been involved in high-risk behaviours.

Teachers were also asked to make an assessment of the risk of infection for other teaching colleagues. The responses have been summarised in tables 4.26 to 4.28.

Table 4.26 Percentages and errors reading teachers' assessments of other teachers' risk of infection.

Reading teacher										
Region	No		Low		Medium		High		Very High	
	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	17.1	6.1	33.6	7.4	18.2	5.9	26.3	7	4.8	3.1
Lubombo	17.7	6.3	39.1	8.3	26.9	7.6	5.7	3.9	13.6	5.8
Manzini	21.6	5.6	41.2	6.9	18.3	5.3	10.9	4.4	8	3.5
Shiselweni	13.7	5.3	42.6	8	36	8	2.2	2.2	5.5	3.8
Swaziland	17.2	2.9	39.1	3.8	24.2	3.3	11.9	2.5	7.7	2

Table 4.27 Percentages and errors of mathematics teachers' assessment of other teachers' risk of infection

Mathematics teacher										
Region	No		Low		Medium		High		Very High	
	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	14.7	5.3	42.9	7.8	22.7	6.9	12.7	5.5	7	3.4
Lubombo	24	7.4	53.6	8.6	12.4	5.6	7.3	4.1	2.8	2.8
Manzini	13.3	4.5	34.9	6.8	19.8	5.3	17.9	5.1	14.1	5
Shiselweni	19.2	6.3	28.2	7.4	39.1	8	7.9	4.5	5.5	3.9
Swaziland	17.2	2.9	39.1	3.8	23.7	3.3	12	2.5	7.9	2.1

Table 4.28 Percentages and errors health teachers' assessment of other teachers' risk of infection

	Health Teacher									
Region	No		Low		Medium		High		Very High	
	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	7.4	7.3	24.7	15.2	30.2	14.9	20.6	13.2	17.1	11.4
Lubombo	37.8	13.7	27.9	13.5	21.4	11.5	13	8.9	0	0
Manzini	6.3	4.4	36.5	12.1	33.2	11.3	19.1	10.1	4.9	4.9
Shiselweni	20.6	13.4	9.1	8.9	33.3	16.1	20.5	13.4	16.5	14.8
Swaziland	17.7	5.2	26.3	6.6	29.5	6.6	18.1	5.6	8.5	4.3

The results presented in Table 4.26 to 4.28 were a cause for great concern. At national level around 45 to 55 percent of the teachers assessed their colleagues' risk of infection as "medium" to "very high". The main message arising from these tables and the earlier tables focussed on self assessment of risk was that it would appear that many teachers seemed that they have accepted that they were in danger of HIV infection. While it must be acknowledged that the teachers' responses were only perceptions – it also must be accepted that this was a very negative attitude to have about teachers' future health status. The worrying aspect of these results was the possibility that "accepting" that there was a high risk of infection could lead to a lack of caution concerning whether or not to participate in high risk behaviours. This is an area of teacher welfare that should receive more attention the Ministry of Education's experienced psychologists (Guidance and Counselling).

(c) Sources of information and workshops

The teachers were asked to indicate the various sources from which they obtained information about HIV and AIDS. Their responses have been summarised in Table 4.29.

There were many sources of information. However, almost all teachers (more than 90%) indicated that they obtained information from radio, TV, posters, books, magazines, hospitals and friends.

Table 4.29 Percentages and sampling errors for teacher source of information on HIV/AIDS

Source of Information	%	SE
Radio	100.0	0.0
TV	94.9	1.7
Video Player	60.3	3.8
Internet	25.5	3.4
Computer	31.4	3.6
Poster Billboard	96.8	1.3
Book	98.6	1.0
Magazine/Newspaper	99.3	0.7
Drama	87.6	2.5
Cinema	40.7	3.8
School Club	48.9	3.8
Recreational actvts	54.0	3.9
Pre service Training	53.0	3.9
Services Training	61.6	3.7
Hospital	93.3	1.9
Teacher / school Head	70.2	3.6
Friend	92.1	2.1
Counsellor	67.9	3.6
Peer Education	70.6	3.6
Doctor	73.4	3.4
Health worker	66.9	3.7
Religious Person	77.3	3.2
HIV+ Person	78.1	3.2
Family Relatives	84.0	2.8

A follow up question was put to the teachers which asked them to name their "best source of information". The most popular source was the "electronic media" (TV and radio) with 25.9 percent followed by "a person living with HIV" (14.7%) and magazines and newspapers (9.9%).

The study was also interested in finding out whether the teachers of grade 6 pupils had attended any workshops on HIV/AIDS. The results have been presented in table 4.30

Table 4.30 Mean and sampling errors for the number of days attending an HIV/AIDS workshop

SACMEQ III						
District	**Reading teacher**		**Mathematics teacher**		**Health(HIV)**	
	Mean	SE	Mean	SE	~~Mean~~	SE
Hhohho	2.16	0.7	2.05	0.7	10.65	3.54
Lubombo	2.64	1.4	2.24	0.6	9.24	1.54
Manzini	5.69	1.7	4.17	1.4	9.68	3.09
Shiselweni	2.33	0.7	1.5	0.5	2.74	1.27
Swaziland	3.36	0.7	2.05	0.7	8.36	1.4

As expected there were more workshop/training days for the health teacher on HIV/AIDS than the other two teachers. Health teachers attended on average around 8 days whilst the reading and mathematics teachers attended 2 and 3 days respectively. However, the results did raise the following issue: Since Swaziland does not have 'permanent dedicated posts' for HIV/AIDS teachers the health teachers were normally guidance and counselling teachers. Therefore did it make any sense to give them more training when it is possible that they might not agree to be guidance teachers in future years? In Swaziland the guidance and counselling responsibility is rotated amongst staff.

Policy suggestion 4.14: The Ministry of Education has to take seriously the HIV/AIDS situation and create posts or link posts with this responsibility to ensure that there is a teacher set aside for this responsibility. If there are not enough posts maybe this responsibility can be given to deputy school heads. These are teachers who normally do not move from school to school except on promotion. Even when promoted their skills and information would not be lost.

The type of training received on HIV/AIDS comes was further investigated to find out what actually goes on during these workshops. Teachers were asked to indicate the activities that they did during the workshops and on which activities they found interesting. The results have been presented in Table 4.31 and 4.32. Grade 6 indicated that they preferred information from a person living with HIV/AIDS and also where they are being given a chance to ask questions. The bottom line was that they wanted to hear from the "horses' mouth". This was interesting, although there were aware of the other sources including the media they preferred to be engaged by someone living with the virus.

Table 4.31 Percentages and sampling errors for activities undertaken during HIV/AIDS workshops

HIV/AIDS Workshop Activities		
Activity	%	SE
Reading	37.4	3.7
Lecture	35.1	3.7
Given Contacts	32.3	3.6
Watched Video	25.5	3.3
Listened to Radio	13.2	2.6
Asked Question	37.3	3.7
Person Talked	26.0	3.3
Group Discussion	33.3	3.6
Visited hospital	5.8	1.8
Completed questionnaire	23.7	3.3
Role Play	23.2	3.3
Handle Pupil	32.7	3.6
Demonstrations	29.0	3.5
Condoms Available	27.1	3.4

4.32 Percentages and errors for teachers best HIV/AIDS workshop activities

HIV/AIDS Workshop Activities		
Best Activity	%	SE
Person Living with HIV	23.7	3.7
Asked questions	5.0	3.7
Watched Video	18.5	3.7
Reading Materials/Pamphlets	11.7	3.6
Lecturer	11.2	3.3
Practical demonstrations.	7.2	2.6

In Swaziland there are a number of organizations of people living with the virus. Maybe there is need for the Ministry to consider them in training teachers on the virus.

Policy suggestion 4.15: The Director of Education and Director of Health Education (Guidance and Counselling) should increase awareness courses in all regions. They should engage people living with the virus to give the talks.

(d) Stigmatization and attitudes

One major effect contributing to some people not testing for HIV/AIDS is stigmatization, the fear that when the members of their community discover that they are positive then certain community members will develop negative attitudes towards them. Teachers were asked to indicate how they would respond if they discovered that one of the pupils or fellow teachers had tested positive to the virus. The results have been presented in Table 4.33.

Table 4.33 Percentages and standard errors for teachers on whether they would allow a HIV positive pupil or teacher to continue attending school

SACMEQ III	Allow Pupil						Allow Teachers					
	Reading		Mathematics		HIV		Reading		Mathematics		HIV	
	%yes	SE	%yes	SE	%yes	SE	%yes	SE	%yes	SE	%yes	SE
Swaziland	98.1	1.1	97.6	1.2	100	0	95.2	1.7	95.7	1.6	98.1	1.9

The results indicated that teachers would not have stigmatized any pupil or teacher. Almost all health teachers indicated that they would allow pupils to attend classes, and also allow teachers to continue teaching.

The last question that was asked teachers was whether they had tested for HIV/AIDS in the last three years. The responses are presented in Table 4.34 it was comforting to observe that around half of the teachers had tested for HIV/AIDS. A slightly higher percentage of health teachers had been tested. The highest percentage of teachers (75.7%) that had tested were from the health teachers from the Lubombo region. The lowest were the health teachers of the Shiselweni regions.

4.34 Percentages and sampling errors for teachers who have tested for HIV

	SACMEQ III					
District	**Reading teacher**		**Mathematics teacher**		**Health(HIV)**	
	Yes (%)	SE	Yes (%)	SE	Yes (%)	SE
Hhohho	51.4	7.8	48.6	7.8	61.4	15.8
Lubombo	51.4	8.6	50.8	8.6	75.7	12.4
Manzini	55.7	6.8	47.8	6.8	56.3	12.5
Shiselweni	48.0	8.2	44.6	8.1	35.6	16.9
Swaziland	51.9	3.9	47.8	3.9	58.3	7.2

Conclusion

In Swaziland the role of Guidance and Counselling teachers is not a subject responsibility, any teacher can be “appointed” to serve as a guidance teacher. In most situations such responsibilities change hands each year. This essentially means that either the issue ends up with no home and master. Therefore no teachers might feel obliged to research, read more, and ensure that children get all the information they need. Ideally, this subject should be given a time slot and a teacher, if not then the Ministry needs to reinforce the Guidance and Counselling services currently stationed at the Regional Education Offices, these officers can visit schools more often.

Chapter 5

School Head Teacher Characteristics and the Views on the Educational Infrastructure, Organization and Operation of schools and problems with Pupils and Staff

Introduction

The role of the head teacher is a dynamic and demanding. Most head teachers only underwent "teacher training", but the current demands require them to multitask and perform a variety of tasks and roles. School heads have to be teachers, to be leaders, have to manage resources-act as accountants and project manager, have to offer psycho-social support to pupils, teachers and parents, and manage all matters of the school. However, there is a trend where the effectiveness of a school head is at times only judged by the performance of the pupils at the end of external examinations.

Head teachers in Swaziland are faced with a number of problems like having run schools with diminishing resources, a sizeable number of pupils are orphans and vulnerable and might not have means to pay all the fees that are charged at school. This then requires the head teacher to devise means of optimizing the resources that are made available by Government.

This chapter will examine head teachers' characteristics in terms of: their personality, academic and professional qualifications, experience, management style, the immediate environment and how the head responds to it. In this chapter "school heads" and "head teachers" will be used interchangeably.

The SACMEQ III project also investigated the resources and infrastructure that is available for the head teachers in the schools and, also how their schools responded to current challenges including the HIV/AIDS pandemic.

General Policy Concern 8
What were the personal characteristics of school heads?

Head teachers are first and foremost teachers. In Swaziland head teachers are recruited through the Teaching Service Commission. In most cases they have to apply for the headship post. This ensures that the candidate is also interested in the position. The common criteria used by the TSC are qualifications (academic and professional), experience and a sound professional track record.

(a) Age and Gender of the Head teachers

The results on the assessment of age and gender of school heads have been presented in Table 5.1. The average ages of head teachers of Grade 6 pupils have been given on the first column of Table 5.1 for the years 2000 and 2007. The overall impression was that an average age of school head had not changed much, it increased from 48.3 years in 2000 to about 50 years in 2007.

Table 5.1 Means, percentages and sampling errors for School Head and Gender

SACMEQ II	District	Age(years)		Gender(female)	
		Mean	SE	%	SE
	Hhohho	48.4	1.01	40.8	8.22
	Lubombo	47.7	1.17	46.8	9.33
	Manzini	47.9	1.06	32.9	7.95
	Shiselweni	49.0	1.22	42.1	11
	Swaziland	48.3	0.55	40.1	4.47

SACMEQ III	District	Age(years)		Gender(female)	
		Mean	SE	%	SE
	Hhohho	49.36	0.88	36.5	7.4
	Lubombo	49.31	1.25	51.2	8.64
	Manzini	50.87	0.76	27.7	6.31
	Shiselweni	49.98	0.92	25.5	6.95
	Swaziland	**49.95**	**0.46**	**34.2**	**3.63**

The majority of head teachers where Grade 6 attended were male. The results in 2007 also indicated that the proportion of male head teachers had increased from around 60 percent in 2000 to around 66 percent in 2007. However, there was variation across the regions, in Shiselweni only around 26 percent of the school heads were male as opposed to about 50 percent in Lubombo. In fact major gender discrepancies were observed in Manzini and Shiselweni where only 28 percent and 26 percent of head teacher were female as opposed to 51.2 percent and 36.5 in Lubombo and Hhohho respectively.

The low proportion of female school heads is worrying when one considers that fact that more than 60 percent of the teachers at this level of education are female.

Policy Suggestion 5.1: The TSC should revisit their criteria for the recruitment of head teachers. The gender imbalances suggest that there might need for "positive discrimination" and put more women in leadership positions.

(b) Teaching experience and Training of the Head Teachers

Head teachers are expected to undertake regular training especially on courses related to supervision and management. These are offered by the INSET department of the Ministry of Education and Training. The SACMEQ III research also looked at the professional qualifications and profiles of head teachers, the results have been presented in Table 5.2

Table 5.2 Means and Sampling errors for the teaching experience and training of the school heads, SACMEQ II and SACMEQ III.

SACMEQ II	District	Experience (years)		Teacher training (year) (year)		Specialised training (weeks)	
		Mean	SE	Mean	SE	Mean	SE
	Hhohho	24	1.26	2.3	0.12	8.6	1.6
	Lubombo	21.6	1.17	2.5	0.16	9.0	2.11
	Manzini	22.2	0.98	2.3	0.15	10.3	2.9
	Shiselweni	22.1	1.19	2.4	0.25	4.7	0.62
	Swaziland	22.6	0.59	2.4	0.08	8.2	1.01

SACMEQ III	District	Experience (years)		Teacher training (years)		Specialised training (weeks)		Training in Health/HIV (days)	
		Mean	SE	Mean	SE	Mean	SE		
	Hhohho	23.5	1.04	2.63	0.11	30.3	9.90	5.86	1.02
	Lubombo	24.1	1.32	2.31	0.11	16.6	3.10	5.04	1.00
	Manzini	25.5	0.86	2.44	0.10	30.6	10.8	3.45	0.63
	Shiselweni	24.6	1.10	2.46	0.14	23.7	7.80	6.40	2.13
	Swaziland	**24.5**	**0.52**	**2.47**	**0.63**	**26.2**	**4.6**	**5.10**	**0.63**

The experiences for the average head teachers are given in the first column in the above table. The results indicated on average the experience of head teachers had increased slightly from 22.6 years in 2000 to 24.5 years in 2007.There was very little variation in years of experience across the regions.

The results also indicated that there was very little change in the duration of teacher training done by head teachers in 2000 and 2007, in both cases it was around 2.4 years. The slight increase in 2007 might be contributed to a small number of head teachers who had pursued a four year Bachelor's degree programme.

There was however a great improvement in the number of weeks attending specialized training courses. The number of weeks of "specialized training" increased from 8.2 weeks in 2000 to 26.2 weeks in 2007. The content of these training included courses such as: management courses, courses in life skills and other courses that were launched to help school heads cope with the challenges brought about by poverty and the HIV/AIDS. There was concern that the Lubombo school heads on average attended around half (16.6 weeks) the time. These need to be investigated as it may suggest that the courses were held in urban areas such as Manzini and Mbabane – in the cities.

It should worry the Ministry that head teachers in 2000 attended on average 8 days, and in 2007 the number had increased to 26.2 days. It implied that maybe head teachers were spending less time in school.

The results also suggested that workshops on HIV/AIDS were equitable distributed across the region, there was very little variation in the number of days attended by school heads across the regions.

Policy Suggestion 5.2: The Director of Education and the Chief Inspector Primary should undertake an audit into the nature and content of these courses that are being attended by school heads so as to assess their effectiveness to their work.

Table 5.3 Means and sampling errors based on years (altogether) as a school head

SACMEQ II	District	This school		Altogether	
		Mean	SE	Mean	SE
	Hhohho	9.4	1.25	11.4	1.32
	Lubombo	7.9	1.13	11.0	1.16
	Manzini	7.6	0.9	11.5	1.16
	Shiselweni	9.3	1.01	13.3	1.26
	Swaziland	8.6	0.55	11.8	0.63

SACMEQ III	District	Altogether	
		Mean	SE
	Hhohho	10.2	1.27
	Lubombo	13.2	1.40
	Manzini	13.5	1.23
	Shiselweni	12.5	1.48
	Swaziland	**12.3**	**0.67**

The average years experience as head for schools head teachers have been presented in Table 5.3. The overall picture was that head teachers in 2007 (12.3 years) had slightly more experience than those their counterparts in 2000, (11.8 years).

General Policy concern 9
What were the School Heads' view on (a) daily activities (b) organizational policies (c) community input, and problems with pupils and staff?

This section will examine the head teachers views and dedication they afforded to their different tasks.

(a) Teaching

The Ministry's policy is that all teachers should teach, and this includes school heads. However school heads have to take a lighter load, fewer periods than regular staff. The policy is fourteen 30-minute periods per week as opposed to the average of 27 periods for a normal teacher. Table 5.5 presents the findings on the teaching activity of school heads.

Table 5.5 School head teaching minutes per week

SACMEQ II	District	School head teaching minutes (per week)	
		Mean	SE
	Hhohho	374.5	62.94
	Lubombo	480.0	101.23
	Manzini	464.8	93.17
	Shiselweni	390.9	41.03
	Swaziland	423.9	38.34

SACMEQ III	District	School head teaching minutes (per week)	
		Mean	SE
	Hhohho	229.4	40.22
	Lubombo	216.8	29.53
	Manzini	194.0	29.0
	Shiselweni	278.1	36.67
	Swaziland	**227.8**	**17.38**

The number of minutes spent by head teachers teaching dropped from 423.9 in 2000 to 227.8 in 2007. This represented a drop of about 50 percent, which meant that head teachers had decreased the number of periods from an average of 14.1 in 2000 to 7.1 in 2007. The overall impression is that head teachers have greatly reduced their teaching time and some might no longer be teaching any classes. Does this mean school heads are now only administrators? If that is the case maybe it is better for the Ministry to entitle the role of educational (pedagogical) supervision to deputy school heads as some school heads might not have the time to even supervise teaching.

Policy Suggestion 5.3: The Director of Education should hold a seminar with all school heads to find out reasons why head teachers are no longer teaching with a view to normalize the situation.

(b) Activities undertaken by the School Heads

SACMEQ also investigated the importance head teachers associated with various tasks. The results have been presented in Table 5.6.

One striking observation was that the level at which head teachers viewed the importance of their tasks in 2007 had dropped substantially from the levels of the year 2000. This suggested that head teachers in 2007 might have been less motivated than they were in 2000. However, the greatest concern was the drop in the level of importance associated with "professional development of school heads", which dropped from 94.9 percent in 2000 to 21.8 percent in 2007. This suggested that head teacher in 2007 did not believe their development was important.

Table 5.6 The Importance of various school heads tasks

SACMEQ II	**Task**	**Percentage rating as "very important"**	
		%	SE
	Professional development(school heads)	94.9	2.02
	Monitoring pupils progress	94.5	1.72
	Administrative tasks	91.8	2.08
	Professional development(Teachers)	83.3	3.08
	Discuss education objectives with teaching staff	76.3	4.1
	Contact with community	69.5	4.24
SACMEQ III	**Task**	**Percentage rating as "very important"**	
		%	SE
	Discuss education objectives with teaching staff	76.5	3.3
	Monitoring pupils progress	75.2	3.4
	Administrative tasks	70.6	3.6
	Professional development(Teachers)	36.0	3.8
	Professional development(School Heads)	21.8	3.2
	Contact with community	20.0	3.1

Policy suggestion 5.4: The Executive Secretary of the Teaching Service Commission (TSC) and Director of Education should undertake a survey to find out why head teachers do not think their professional development is important. The study should investigate the change of perception.

(c) Pupil behavioural problems

School heads were asked to indicate the frequency of them having to deal with pupils on some listed behavioural problems. The responses of the school heads have been presented in Table 5.7.

Table 5.7 Pupils behavioural problems SACMEQ II and SACMEQ III

SACMEQ II

Frequency of pupil behavioural problem	Indicating 'never' occurs	
	%	SE
Physical injury to staff	93.8	1.77
Sexual harassment of teachers	91.9	2.14
Alcohol abuse	77.4	3.77
Drug abuse	76.0	3.78
Intimidation of teachers/staff	68.7	4.00
Sexual harassment of pupils	66.4	4.18
Vandalism	49.9	4.41
Classroom disturbance	46.2	4.36
Skipping classes	32.6	3.99
Use of abusive language	25.1	4.03
Cheating	21.5	3.93
Intimidation of pupils	21.0	3.25
Theft	19.9	3.88
Fights	10.4	3.46
Dropping out of school	7.1	2.06
Health problems	2.9	1.32
Arriving late at school	0.9	0.67

SACMEQ III

Frequency of pupil behavioural problem	Indicating 'never' occurs	
	%	SE
Sexual harassment of teachers	94.0	0.17
Physical injury to staff	89.0	2.50
Alcohol abuse	67.0	3.70
Drug abuse	66.0	3.70
Intimidation of teachers/staff	63.0	3.70
Sexual harassment of pupils	61.0	3.90
Vandalism	47.0	3.90
Classroom disturbance	45.0	3.90
Skipping classes	37.0	3.80
Use of abusive language	20.0	3.10
Cheating	20.0	3.20
Intimidation of pupils	13.0	2.60
Theft	16.0	2.90
Fights	5.0	1.60
Dropping out of school	5.0	1.70
Health problems	1.0	0.70
Arriving late at school	1.0	0.60

The results indicated that there have been slight improvements in these problem behaviours between 2000 and 2007. However, this improvement is not major; it suggested that such behaviours were still existent in schools.

Policy Suggestion 5.5: The Ministry of Education and Training should integrate the Schools as Centres of Care and Support project into their main programmes. The results indicated that the pilots have worked as more children are staying in school and not dropping out.

The study also asked school heads to identify main teacher behavioural problems. The results have being presented in table 5.8

(d) Teacher behavioural problems

On average the results indicated that there were slight improvements from 2000. There are behaviours that seemed to be as common in Grade 6 pupils and their teachers, such health, arrival late, skipping class, absenteeism, bullying. All these have not changed much since 2000. This suggested that some of the problems had become endemic and there was need for major action. It is worrying that levels of skipping classes, bullying and intimidation are as they were in SACMEQ II.

Table 5.8 Teacher behavioural problems

SACMEQ II

Frequency of teacher behavioural problem	Indicating 'never' occurs	
	%	SE
Sexual harassment of teachers	96.5	1.41
Sexual harassment of pupils	95.9	1.39
Drug abuse	89.0	2.56
Alcohol abuse	79.9	3.57
Use of abusive language	69.2	4.05
Intimidation or bullying of pupils	64.8	3.98
Skipping classes	64.4	4.13
Absenteeism	39.3	4.42
Arriving late at school	13.9	2.79
Health problems	7.7	2.13

SACMEQ III

Frequency of teacher behavioural problem	Indicating 'never' occurs	
	%	SE
Sexual harassment of teachers	91.0	2.3
Sexual harassment of pupils	89.0	2.4
Drug abuse	85.0	2.8
Alcohol abuse	81.0	3.1
Use of abusive language	63.0	3.8
Intimidation or bullying of pupils	68.0	3.7
Skipping classes	66.0	3.8
Absenteeism	36.0	3.8
Arriving late at school	9.0	2.3
Health problems	8.0	2.0

The results were not very encouraging; they indicated that just as in SACMEQ II, school heads also had major problems with teachers in 2007; these included health problems (92%), arriving late (91%) and absenteeism (64%). The main concern is that when teacher lateness and pupil lateness are considered simultaneously they present a picture of a system in crises. This suggested that there are sessions where some of the pupils do nothing.

Policy Suggestion 5.6: The National Commission for UNESCO and the Ministry's EMIS unit should re-launch the District Educational Management Information Systems (DEMIS) in the regions to keep track of attendance records of the pupils, teachers and school heads.

There is need to explore the absenteeism, arriving late and health problems as a package. The evidence suggested that some of the teachers might not be healthy. The DEMIS might provide insights into the

causes, and if it is caused by the HIV/AIDS then the Ministry should provide essential services and support to schools.

General Policy Concern 10
What were the School Heads views on general school infrastructure and the conditions of school buildings?

The SACMEQ III research also looked at the availability of some key educational infrastructure (facilities) in schools; the results have been presented in Tables 5.9

Table 5.9 Percentages and sampling errors for schools with general facilities

Facility	SACMEQ II		SACMEQ III	
	Percentage with facility			
School buildings	**%**	**SE**	**%**	**SE**
School library	21.0	3.35	17.6	3.01
School hall	29.4	4.01	21.4	3.25
Staff room	55.9	4.28	63.5	3.77
School head's office	76.8	3.47	74.0	3.39
Store room	56.2	4.37	59.1	3.87
Cafeteria	10.1	2.56	10.3	2.28
School grounds				
Sports area/ playground	81.2	3.29	80.3	3.09
School garden	72.9	3.72	78.5	3.17
General services				
Piped water/well or bore- hole	83.5	3.08	89.6	2.44
Electricity	47.0	4.36	90.4	2.39
Telephone	56.2	4.43	71.4	3.5
Equipment				
First-aid kit	53.6	4.25	70.0	3.53
Fax machine	5.0	1.99	12.8	2.63
Typewriter	71.4	3.79	57.6	3.80
Duplicator	64.9	4.05	63.5	3.74
Radio	11.0	3.15	10.1	2.32
Tape recorder	4.8	1.63	3.1	1.32
Television set	6.4	1.85	10.2	2.35
Video-cassette recorder	4.0	1.82	4.3	2.12
Photocopier	27.3	3.74	71.1	3.52
Computer	11.0	2.75	54.7	3.92
Health Resources				
Guidance and Counselling Room			8.2	2.20
Sick bay			3.3	1.30
Male/Female condoms (staff)			2.7	1.20
Male/Female condoms (pupils)			0.5	0.50

(e) Infrastructure – General facilities

There are basic buildings that are to be available in all schools; these include school classrooms, administration block, store room, staffroom and library. The results indicated that there was no major change in the availability of infrastructure between 2000 and 2007. However, results of both SACMEQ II (21.0%) and SACMEQ III (17.6%) indicated that on average one in five of Grade 6 pupils came from a school that did not have a library

(f) Conditions of classrooms

On average, the Grade 6 pupils spend more than 90 percent of their time inside the classroom. The research study also investigated the conditions of the Grade 6 classrooms. The school heads were asked to indicate the state of their classrooms. The results have been presented in Table 5.10.

Table 5.10 Percentages of conditions of Classrooms – SACMEQ III

Conditions of Classrooms	% Yes	SE
Needs rebuilding	5.65	1.73
Some major repairs	42.1	3.92
All classrooms need minor repairs	18.8	3.07
Some classrooms need repairs	30.9	3.66
All classrooms in good condition	2.47	1.13

A few school heads (2.47%) indicated that all their classrooms were in good condition. This suggested that the other schools heads (97.53%) indicated that their classrooms needed some repairs. Of these around 42.1 percent indicated that their classrooms need major repairs and 5.65 percent indicated that they needed new buildings. This suggested that around half (49.75%) of the school heads were in schools that needed some infrastructure intervention.

Policy suggestion 5.7: The Planning Unit should develop and manage an infrastructure database for all schools and use this system for the allocation of schools resources (buildings and repair) in an equitable fashion.

Schools that need major repairs should be a priority. In general "different schools should be treated differently" and there should be efforts to make schools be of the same size than to make some schools to big and thus taking all resources to one location.

General Policy Concern 11
Did Grade 6 School Heads have access to information and services about HIV/AIDS and did they make optimal use of them

(a) Access to testing sites

In Swaziland, home area meant where school head resides when school is in session. It should be noted that in Swaziland most school heads are housed by the schools. This suggested that the responses in this section are based on the "school home". Head teachers were asked to indicate whether there were

HIV/AIDS testing sites within walking distances from the places where they lived. This was aimed at looking at whether distance and associated costs might be a barrier to testing.

Table 5.11 Access to testing sites in places where school heads live and their nearest towns

Access to HIV Test		Home Area		Town Area	
	Region	% Yes	SE	% Yes	SE
	Hhohho	32.4	7.4	91.5	4.1
	Lubombo	42.0	8.5	93.4	4.6
	Manzini	32.6	6.7	79.0	5.8
	Shiselweni	34.0	7.8	88.6	5.0
	Swaziland	34.7	3.8	87.4	2.6

The results indicated that one in three (34.7%) heads of schools had access to testing sites as the places where they lived when school were in session. About nine in ten (87.4%) head teachers indicated that there were testing centres in a nearby town. Variation among the regions was minimal. The suggested that nationally head teachers would have had to travel to testing sites in nearby town to get tested. School heads were also asked whether (a) they would test if they had to pay for the tests, or if (b) the test was free. The results have been presented in Table 5.12.

(b) Taking of HIV test

Nationally, more than half (55.1%) the school heads claimed that would tests for HIV/AIDS even if they had to pay for it. There was some little variation among the regions, however, about half (50.1%) of the school heads in Manzini indicated that they would not test if they had to pay. The results also suggested that an overwhelming majority (89.3%) school heads in Swaziland would test if testing was free.

Table 5.12 Percentages and sampling errors for teachers who would test if test was free or came at a cost

Take HIV Test		Pay		Free	
	Region	% Yes	SE	% Yes	SE
	Hhohho	60.0	7.8	88.4	5.6
	Lubombo	52.6	8.6	95.4	3.4
	Manzini	50.1	7.2	85.8	5.1
	Shiselweni	58.1	8.0	89.8	4.9
		55.1	3.9	89.3	2.5

The results indicated that if Swaziland wanted to increase its testing rate it had to ensure that testing is provided free in all sites. The Government of Swaziland could reach more people if it used schools as counselling and testing sites because there are fewer clinics/hospitals in the country. In addition testing should be free.

Policy suggestion 5.8: The Director of Schools Health should engage the Ministry of Health and explore using mobile testing sites in schools especially in the rural areas.

There is also need to appreciate that HIV/AIDS has no 'second chance' thus all services should be provided by appropriately qualified and trained professionals. There is more damage done in wrong counselling, wrong testing than no testing at all, thus these sites should match the local standard in any registered public health facility.

(c)Risks of getting infected with HIV

In Swaziland most infections are through heterosexual relationships. There is a very low incidence of drug use and homosexalism. SACMEQ III asked school heads of the risks of getting infected with HIV/AIDS. The results of the responses have been presented in Table 5.13

Table 5.13 Percentages and errors of risks of getting infected with the HIV/AIDS for school heads and their teachers

Risk of getting Infected with HIV	School Head		Teacher	
	% Yes	SE	% Yes	SE
None	18.2	3.04	14.1	2.74
Low	40.8	3.86	37.2	3.81
Medium	13.0	2.70	18.3	3.11
High	12.9	2.55	13.7	2.60
Very high	15.1	2.73	16.7	2.87

School head teachers were asked to indicate the risk of them and their teachers getting infected from: (i) none, (ii) low, (iii) medium, (iv) high and (v) very high. Nationally the results were worrying. Only 18.2 percent of school heads indicated that they had no risk of getting infected. It was only 40.8 percent of these that claimed that had a low risk. However, the majority (81.8%) claimed that they did stand a chance of getting infected.

It was interesting however, that school heads thought that their teachers stood a higher risk of infection than them. Around 85.9 percent of school heads claimed that their teachers stood a risk of being infected. This suggested that maybe school heads were worried about behavioural patterns of their teachers. On the whole the responses by head teachers suggested that there was a lot of behavioural tendencies that needed to be changed in the school and community.

(d) Sources of Information

The head teachers were also asked to indicate the various sources from which they obtained information about HIV and AIDS. Their responses have been summarised in Table 5.14.

Table 5.14 Percentages and errors of sources of Information

Source of Information	% Yes	SE
Radio	99.5	0.5
Television	97.4	1.2
Video	66.6	3.7
Internet	10.8	2.5
Computer	7.8	2.1
Poster	93.6	1.8
Books	98.7	0.9
Newspaper	97.5	1.1
Drama	90.9	2.2
Cinema	45.2	3.9
Club	54.1	3.8
Recreation	59.4	3.9
Preservice	42.1	3.8
Inservice	68.1	3.6
Hospital	91.8	2.2
Teacher	86.1	2.8
Friend	90.1	2.3
Counsellor	77.9	0.3
Educator	80.8	3.1
Doctor	68.3	3.7
Communication	79.8	3.3
Church	79.1	3.3
Living with HIV	82.4	3.0
Family	84.2	2.9

What was immediately observable from the results was that heads of schools got their information from the radio (99.5%), TV (97.4%), Books (98.7%), Posters (93.6%), Drama (90.9%), newspapers (97.5%), hospital (91.8%) and friend (90.1%). The SACMEQ III research also investigated further which source of information was the best for the school heads. The results have been presented in Table 5.15.

Table 5.15 Percentages and errors for school heads best information source

Best source HIV information	% Yes	SE
Person living	19.7	3.1
Television	18.4	3
Radio	13.2	2.8
Counsellor	9.0	2.1
Drama	8.3	2.2

School heads preferred to be informed by a person living with AIDS, this suggested that, “seeing is believing” they needed to hear from someone who has gone through the toils of being infected.

Policy Suggestion 5.9: The Ministry of Education's Health Unit should increase HIV/AIDS awareness campaigns and use "Heroes/Sheroes" who are living with the virus to build capacity in all schools.

(e) Attitudes of school heads towards pupils and teachers infected with AIDS

The SACMEQ III research also investigated the attitudes of head teachers to pupils and teachers who had indicated that they were infected with the virus. The results have been presented in Table 5.16.

Table 5.16 Percentages and errors for school heads allowing infected pupils and teachers to continue coming to school

Allow to continue coming to school	Pupil		Teacher	
	% Yes	SE	% Yes	SE
Hhohho	100	0	100	0
Lubombo	97.9	2.1	97.9	2.1
Manzini	98	2	96.2	2.7
Shiselweni	97.9	2.1	95.1	3.5
Swaziland	98.5	0.9	97.3	1.2

The national response was very encouraging. Results indicated that Grade 6 pupils attended schools (98.5%) where the school heads had a very positive attitude towards people suffering from AIDS.

f) School Policies on long-term sicknesses' of teachers

All teachers in public schools are employed by the Teaching Service Commission (TSC) and, as such they are treated as public servants. Teachers are entitled to "paid sick leave". Teachers can apply for the sick leave which can be extended even for six months.

It is not uncommon for teachers to take the long leave and break it now and then so as not to stay at home for a six month stretch. Sometimes they stay at home but the head teachers might not report them for sympathy reasons, or let them come to school but sit in the staff room. Table 5.15 presents findings of school policy on long term sickness of teachers.

Table 5.16 School Policy on long term sickness

School Policy on teacher with long-term sickness (HIV)	Hhohho	Lubombo	Manzini	Shiselweni	Swaziland
Stay at Home	37.6	43.5	37.6	39.9	39.3
Come, but no duties	2.5	0.0	2.2	3.6	2.2
Come, but not teacher (other)	6.7	16.9	7.2	12.5	10.2
Try to teach	53.2	39.6	53.0	44.0	48.3

Head teachers were asked whether they would prefer infected (sick) teachers to (i) stay at home, (ii) come to school and sit in the staff room, (iii) come to school and not teach but do other school duties and (iv) try to teach. About two in five (39.3%) head teachers claimed that they would prefer the teachers to stay at home. A few (2.2%) indicated that they would allow teachers to come in and do

nothing. About half indicated that they would ask their teachers to teach "try to teach". The majority of head teachers suggested that they preferred teachers coming to school.

Policy Suggestion 5.10: Sick teachers cannot teach effectively and might even affect their pupils emotionally and psychologically. The TSC should devise means to ensure and encourage sick teachers who are not fit to teach to take sick leave and explore means of engaging relief teachers. This may include introducing a concept of "volunteer teachers" who may be drawn from currently unemployed graduates.

g) Have school heads tested for HIV

SACMEQ III asked school heads to indicate whether they ever tested for HIV. The question was simple, and open ended, it did not even specify the period. Head teachers were not expected to declare their results. The results have been presented in Table 5.17.

Table 5.17 Percentages and sampling errors for head teachers who have tested for HIV

Tested for HIV	% Yes	SE
Hhohho	34.2	7.5
Lubombo	67.6	8.0
Manzini	39.5	7.0
Shiselweni	35.9	7.8
Swaziland	**42.8**	**3.8**

Only two in five head teachers tested for HIV on average nationally. This was a very low rate. There was variation among the regions, most head teachers from Lubombo (67.6%) indicated that they had tested. In the other regions around 36 percent indicated that they had tested, this was low.

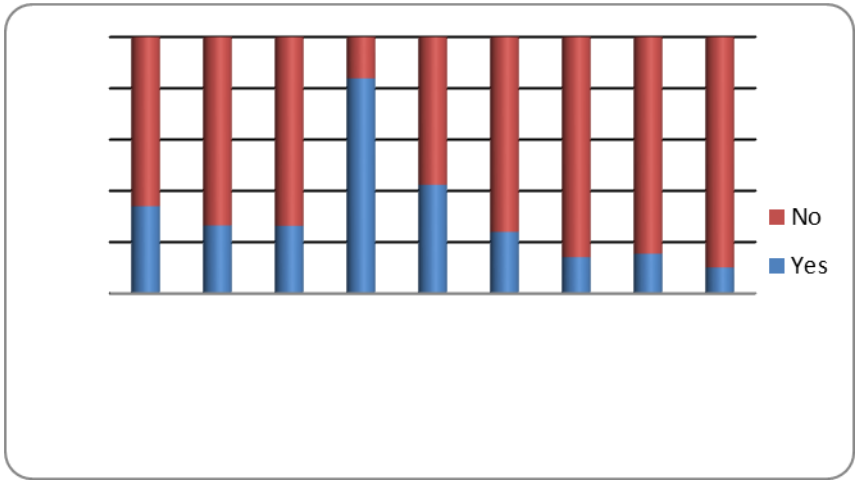
Policy Suggestion 5.11: Teachers should to be encouraged to go for testing, maybe the senior staff of the Ministry should lead the way by testing in public as a publicity campaign.

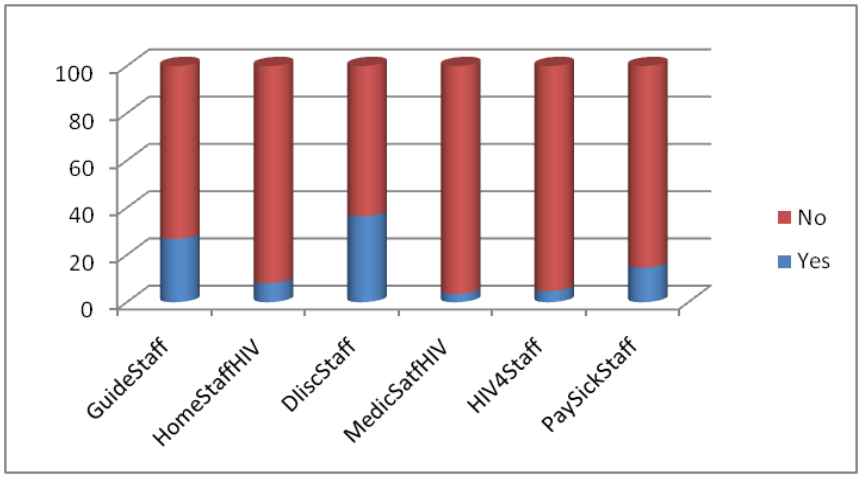
There are a number of agencies, including public and private, that are involved in the issues around HIV/AIDS, and they all interact and engage with the schools. SACMEQ III investigated the kind of support and the type of agency that is involved in supporting pupils and schools.

This next section will focus on activities that happened in the schools and homes in 2007. Heads of schools were asked to indicate whether any activities in support of OVC, pupils and staff infected with HIV/AIDS did occur and who was involved. The responses have been presented in charts to follow.

(i) Support that has been given to Pupils, their teachers and schools concerning HIV/AIDS

Chart 5.1 Responses to Events happened in Schools and Community in 2007: Pupils and Staff

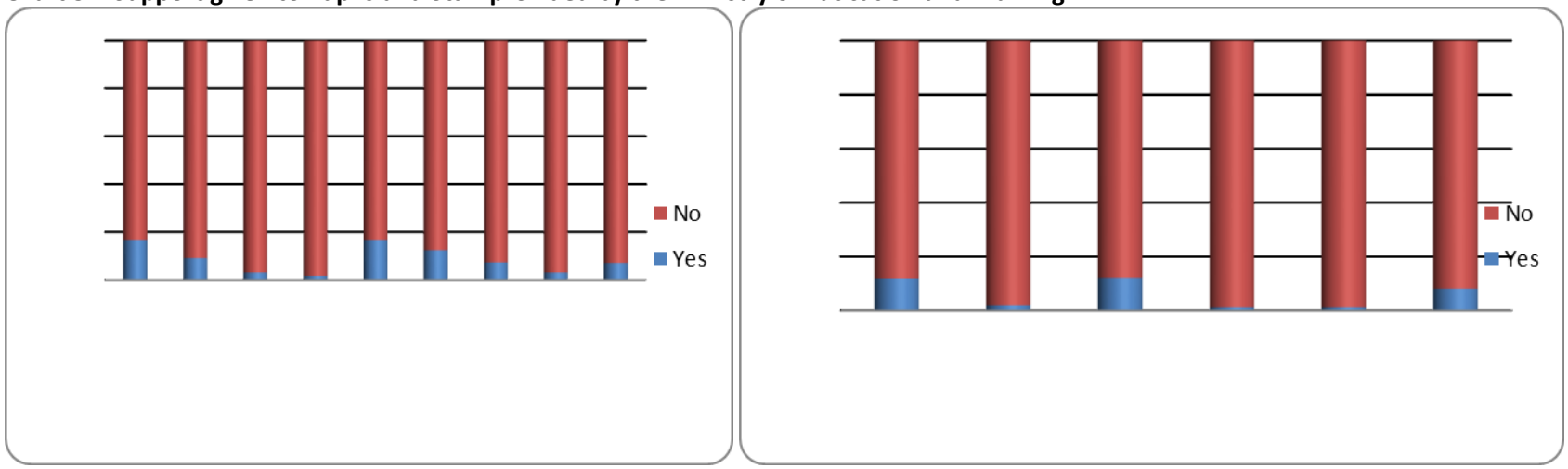




The results showed that there was support given to both pupils and staff, in school and at home. Most school heads indicated (83.8%) indicated that they did visit pupils who had AIDS related diseases. This was followed by around 40 percent head teacher who claimed that they held discussions with pupils on combating stigma and discrimination against HIV/AIDS. This was a good indication that the school heads did follow up some of their pupils who went sick and had dropped out due to sickness or other related issues.

Results suggested that most common activity between head teachers and staff (36.4%) was discussing about combating stigma and discrimination. What was surprising is the impression that there was very little support in the schools in form of support guidance and counselling for OVC and pupils with HIV/AIDS, the support was only 33.9 percent and 26.5 percent respectively. The least supported activities were provision of medical supplies (3.5%) and HIV/AIDS testing (4.8%).

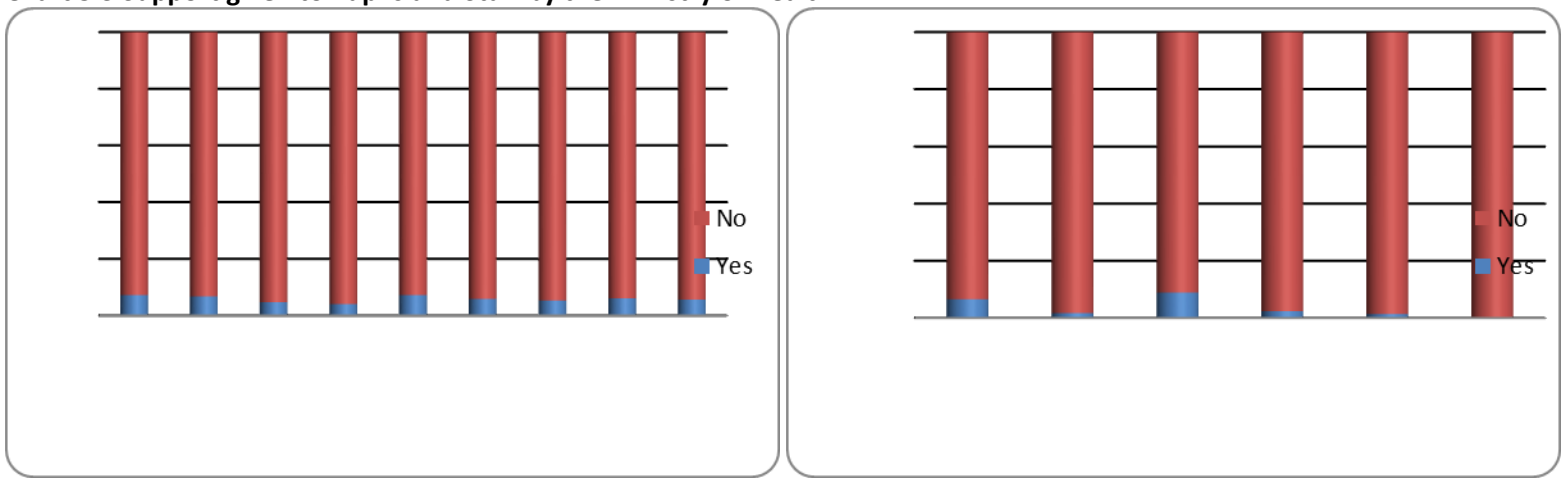
Chart 5.2 Support given to Pupils and Staff provided by the Ministry of Education and Training



Although the results indicated that the Ministry of education was supporting all the activities, the proportion of school heads indicating support was very disappointing, on average, less than 10 percent. It was surprising because the Ministry of Education did give support in the form of payment fees for OVC and procurement of other materials. Maybe school heads did not indicate the support because they believed since it was also issued to every pupil there was no need to report on it.

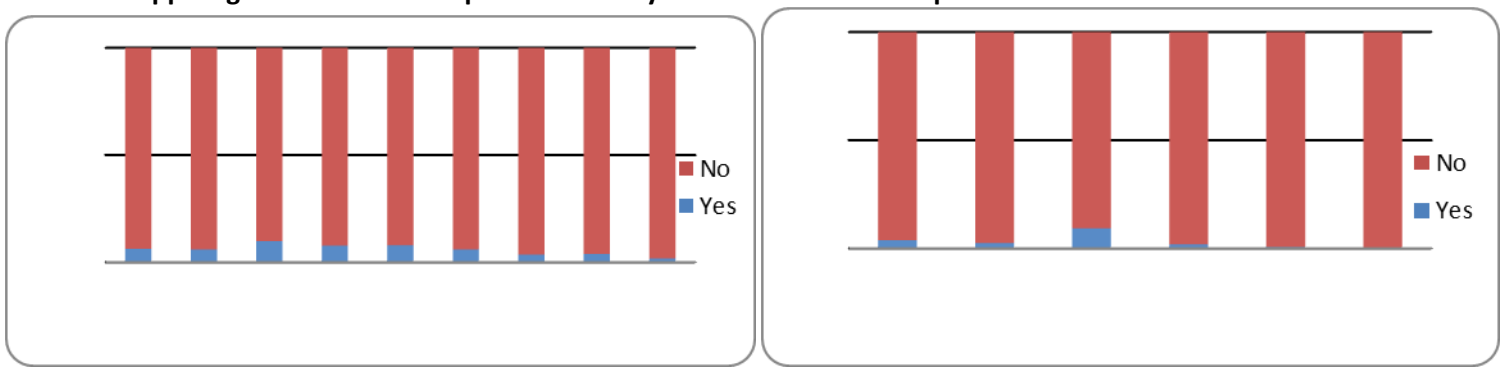
The Ministry of Education has professionals, who are tasked with supporting OVC and other health issues. The results raised core issues in the work that Guidance and Counselling officers do at regional and school level. The low rating suggested that these officers do not go schools. In fact a number of issues fell on their laps. The conclusion that could be drawn is that these officers, held 'discussion' somewhere not in the schools. Nationally, the results also indicated that very little support was given to infected teachers by the Ministry of Education and Training. Head teachers were also asked to indicate support they received from the Ministry Health. The results have been presented in Chart 5.3.

Chart 5.3 Support given to Pupils and Staff by the Ministry of Health



There was no presence from the Ministry of Health in the schools. One would have expected that the Health Unit under the Regional Education Offices would have taken a bigger role in the issue. Only an average of 5 percent of the school heads reported that they were supported by the Ministry of Health with pupil issues and 4 percent on staff issues. This was very discouraging. These results suggested that the Ministry of Health did not use the schools as community centres, for educating and informing not only about HIV/AIDS but other health issues. This raised a scenario where the two core ministries in the fight against HIV/AIDS are not going to grassroots level.

Chart 5.4 Support given to Grade 6 Pupils and Staff by other Government Departments

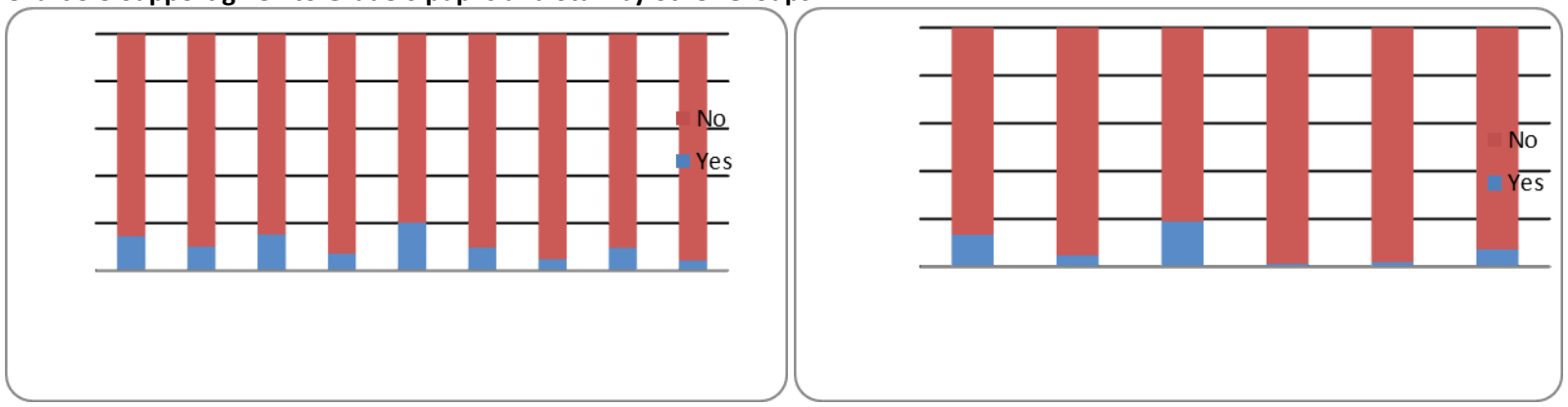


There was activity from other Government agencies. Results indicated that schools did get support, mainly in the form of guidance and counselling and home visits. Discussion amongst staff and discussion with pupils had the highest response; this meant that there were a lot of 'talking about', and no materials support. It was possible that almost all the engagements by all the Government agencies was 'awareness-campaigns'.

In the last chart, by other groups it was meant groups such as non-governmental organization, international organizations, church and community based organizations. They also featured but also a very percentage was reported. In summary the results show that the average grade 6 pupil (OVC and HIV infected) was getting very minimal support. What was also observed is that these other agencies were also involved in 'talking about' the scourge, the highest proportions.

From a quantitative point of view the results indicate that there were a lot of discussion, talk shows, and debates, campaigns where the issue is being discussed and debated but very little in terms of support is reaching those who need the assistance. It was encouraging to note that some agencies did contribute in paying staff that had taken over positions of sick staff, but generally the 'sufferers' did not seem to get the assistance they need. This presented a situation where all actors are talking about the situation and not alleviating the situation that those who are sick are in.

Chart 5.5 Support given to Grade 6 pupils and Staff by other Groups



Policy Suggestion 5.12: The Ministry of Education needs to strengthen the teaching and learning about HIV/AIDS. The Director of Education in collaboration with the Director of the National Curriculum Centre and the Director of the Health Unit should develop curriculum and create a subject slot for health and HIV/AIDS related issues.

This foundation should be strengthened by involving the other agencies such the Ministry of Health and the National Emergency for Response to HIV/AIDS. It is time that Swaziland began to do something about the situation.

Conclusion

The role of the head teacher is that of leadership, both in administration and educational. Swaziland has witnessed head teachers moving away from educational issues and concentrating more on the administration aspects of the schools. This is a response to outside pressures; they have to contend with diminishing school resources, HIV/AIDS – sick teachers and pupils. Unfortunately Government has contributed to this scenario, by also having workshops, and training during school days, head teachers have then reduced their teaching loads claiming they have to be 'free' to attend these courses. If school heads are removed from teaching then their roles as leaders in issues of pedagogy are reduced. This then suggested that maybe the school deputies should take over this role of being senior teacher.

It was also revealing to note that most school heads had attended courses on HIV/AIDS; however, when asked about their risk and that of their teachers getting infected most of them expressed some hesitation. This meant that maybe they thought there was risk. This could have implied that maybe they were aware of certain behaviours that would contribute to them being infected. This confirmed a popular feeling that 'people know about HIV/AIDS but it is the behaviour change that is a problem'. The fact that close to half of the teachers tested for HIV should be recommended and encouraged.

Chapter 6

Equity in the allocation of teaching and learning (materials) resources among the regions and among the schools within regions

Introduction

This chapter will present research findings on school resources (educational inputs) that were available in schools where Grade 6 pupils attended in Swaziland. This was based on a list of basic teaching and learning resources and environment that should be available in any primary schools for a quality education to occur. The rationale of this enquiry was to find out if educational and human resources were equitable distributed in all schools in the country, whether there were any differences due to the size of the schools, the infrastructure in the schools, the location of the schools (rural/urban) and other attributes such as management.

Swaziland system is still centralized, all resources both material and human are distributed from national office. The greatest challenge is ensuring that resources reach all schools and ensure that education is equitably distributed in the four regions of the country. The Government of Swaziland launched a number of interventions at primary school level, which aimed to improve the quality of education, these included the:

(i) Free textbooks and teaching guides for the core subjects to all public primary schools. This programme was initiated in 2003. All pupils at primary level, grade 1 to grade 7 are issued textbooks annually. The textbooks are and remain the property of the Government but are kept in the schools. The system is like a 'book rental scheme' where the school is given a quota equivalent to the enrolment of the school. These books are kept for four years before being replaced (worn out).

(ii) Free stationery to all pupils in public primary schools. In 2005 Government also initiated a system of issuing out free stationery to all pupils in public schools. This includes pencil, rulers, rubbers, mathematical instruments in higher grades.

(iii) OVC and Capitation Grants. Due to the HIV/AIDS and other health and societal issues such as poverty the Government of Swaziland introduced an Orphan and Vulnerable Children (OVC) grant. This grant was issued to children who qualified and each was awarded about US $50.00 for a year- dependent on budgetary allocations and number of OVC. These funds became part of the school fund. In some schools this grant was deemed not enough to cater for pupil costs whilst other schools especially in rural areas it was more than enough. The Government of Swaziland also introduced a "Capitation Grant", a pupil based funding scheme which allocated a grant of about one hundred Emalangeni (about US $12) to all children in the schools. OVC received an additional US $12. This means each OVC got US S24 and a 'fee paying' child got US $12. Schools that received the OVC Grants did not qualify for the Capitation Grant. In some schools these funds increased the school funds tremendously and schools were able to use the extra income for other projects.

It is under this framework that the chapter will explore whether there were variations in inputs to education among the four regions and among schools within the regions. The results will provide a framework that will serve as an assessment of the allocation of the resources to schools. They will also provide a framework for planning for the provision of supplementary resources and facilities to achieve a more equitable distribution.

The chapter will begin by presenting results of the 2007 (SACMEQ III) findings and then explore the changes in trend between SACMEQ II and SACMEQ III. There will be comparison of national standards against both national and regional benchmarks.

(a)Variation among districts

This study used a statistic called the coefficient of intraclass correlation (rho) to divide the variation inputs among schools into two components: (a) among districts and (b) among schools within districts. The value of rho varies from 0 (complete equity among districts) to 1.00 (Compete inequity among districts).

To illustrate the meaning of rho consider the following example. Assuming a system allocates resources to schools equally or more or less equally such that when one calculates the average resource levels for districts, one finds that they are more or less the same – except for minor chance differences. In such a system the value of rho would be close to zero, because of small variations among the districts. In such a case most of the variation would be among schools within districts.

In a school system where there is large variation in resource allocation at district level due to administrative decisions, geographical differentiation, or other reasons, there would be large variations among districts. In this case the value of rho would approach unity. A large proportion of the variation would be due to variation among districts and there would be little variation among schools within districts. As a further illustration a case where rho is 0.30. This would mean 30 percent of the variation could be attributed to differences among districts and 70 percent to differences among schools within districts.

(b) Variation among schools within districts

To qualify differences among schools within the districts the study will make a comparison of the differences among schools within districts with the variation among schools at national level. This simplified to the following formula:
Standard deviation for schools in a district Divided by Standard deviation for schools in the nation multiplied by (100) one hundred.

The standard deviation of an indicator for a particular district measures the amount of variation among schools within that district, whereas the standard deviation for the whole country measures the variation among schools for the nation. Thus the ratio of the standard deviation for

schools in a district to the standard deviation for the nation expressed as a percentage provides a measure of the degree of equity within a district compared with the national picture.

To clarify the interpretation of the ratios it might be helpful to consider two hypothetical districts: Districts 2. Assume that an indicator has a ratio of 80 percent for District A and 160 percent for District B. This would mean that the variation in resource levels among schools in district A would be 20 percent less than the variation in resource levels among schools in the whole nation. In contrast, the variation among schools in District B would be 60 percent higher than the nation. In other words, there is a more equitable allocation of resources among schools within District A.

Policy Concern 11

Have Essential Classroom Resources been allocated in an equitable fashion among districts and schools within districts?

Schools were asked to indicate which learning and teaching materials, equipment and facilities were available in the schools. The results have been presented in Table 6.1. The Free Stationery and Free textbooks scheme for the primary sub-sector should have contributed to all Grade 6 pupils and their teachers reporting positive to availability of teaching and learning materials. The national benchmarks 100 percent or a one to one ratio for textbooks and teachers guides. The picture for learning materials was quite favourable in SACMEQ III all core indicators reported percentage points above 90 percent.

Table 6.1: Percentages for Essential Classroom Resources for Swaziland (SACMEQ II and SACMEQ III)

2000	TEACHING & LEARNING MATERIALS												EQUIPMENT & FACILITIES									
	Teacher Guide (Reading)		Teacher Guide (Math)		Dictionary		Exercise Book & Pen/Pencil & Ruler		Own Reading Textbooks		Own Math Textbooks		Writing Board		Pupil Sitting & Writing Place		Teacher Table & Chair		Library (Class/School)		Radio		Water	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	96.8	2.37	98.5	1.56	93.1	3.58	84.8	2.25	77.6	4.52	85.1	4.26	100.0	0.00	98.7	0.64	81.1	6.12	56.2	8.70	13.7	7.37	83.7	6.08
Lubombo	100.0	0.00	98.1	1.95	90.1	4.86	83.5	3.14	67.6	6.49	66.2	6.82	100.0	0.00	96.8	1.67	77.9	7.09	57.4	8.96	14.5	6.89	85.4	6.47
Manzini	93.1	3.98	87.1	5.92	88.2	4.79	86.7	1.94	69.4	6.70	68.1	6.51	95.3	3.31	99.1	0.49	83.3	6.02	52.1	8.16	13.5	6.06	88.5	4.75
Shiselweni	94.2	4.09	92.0	4.59	90.0	4.79	87.1	2.18	81.5	4.70	76.7	9.39	97.7	2.30	99.2	0.53	80.7	6.62	41.0	9.20	1.6	1.63	75.8	7.48
SWAZILAND	**95.8**	**1.62**	**93.7**	**2.09**	**90.4**	**2.25**	**85.6**	**1.16**	**74.3**	**2.86**	**74.7**	**3.37**	**98.1**	**1.07**	**98.5**	**0.42**	**81.0**	**3.21**	**51.7**	**4.47**	**11.0**	**3.13**	**83.5**	**3.07**

2007	TEACHING & LEARNING MATERIALS												EQUIPMENT & FACILITIES									
	Teacher Guide (Reading)		Teacher Guide (Math)		Dictionary		Exercise Book & Pen/Pencil & Ruler		Own Reading Textbooks		Own Math Textbooks		Writing Board		Pupil Sitting & Writing Place		Teacher Table & Chair		Library (Class/School)		Radio		Water	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	97.7	2.32	98.0	2.04	89.9	4.86	93.6	1.31	97.8	2.17	99.7	0.21	98.0	2.05	100.0	0.00	83.1	5.80	28.3	6.93	11.5	5.00	93.5	3.83
Lubombo	100.0	0.00	100.0	0.00	93.8	4.39	95.3	1.33	99.4	0.44	99.5	0.22	100.0	0.00	100.0	0.00	78.2	7.41	15.5	6.60	14.9	6.27	91.0	5.10
Manzini	100.0	0.00	99.1	0.87	95.8	2.94	92.7	1.35	99.6	0.18	99.9	0.11	98.8	1.25	99.9	0.07	78.5	5.91	34.4	6.77	9.7	3.95	92.7	3.57
Shiselweni	94.9	3.59	95.1	3.42	90.3	4.70	94.9	1.06	100.0	0.00	99.9	0.08	94.4	3.87	100.0	0.00	76.0	6.94	21.0	6.73	5.0	3.50	80.0	6.91
SWAZILAND	**98.2**	**1.05**	**98.0**	**1.01**	**92.5**	**2.11**	**94.0**	**0.65**	**99.2**	**0.59**	**99.8**	**0.08**	**97.8**	**1.13**	**100.0**	**0.02**	**79.1**	**3.22**	**25.9**	**3.42**	**10.1**	**2.32**	**89.6**	**2.44**

(a) Distribution of Teaching and Learning Materials

The essential learning and teaching resources included (i) Grade 6 Reading and Mathematics books for pupils, (ii) Teacher Guides in both subject areas for teachers of Grade 6 pupils, (iii) exercise books, (iv) pencils/ pens and a ruler and a (v) dictionary. Results indicated that almost all resources for teaching and learning were available; above nine in ten Grade 6 pupils had access to the listed materials: around 98 percent of teachers had Teachers Guides for Reading and Mathematics, 99 percent of the Grade 6 pupils had their own textbooks for

reading and mathematics (almost 1:1 ratio), 92.5 percent pupils had dictionaries and 94 percent had stationery. This indicated that both programmes were being implemented successfully. This is an area the country had managed to make major gains which need to be sustained.

(b) Distribution of Equipment and Facilities

SACMEQ research also investigated the distribution of equipment and facilities amongst the regions. The equipment was a (i) class writing board, (ii) pupil sitting and writing places, (iii) teacher table/desk and chair, (iv) school or classroom library, (v) radio and (vi) water. Nationally the schools in the country did have the basic equipment and facilities: Almost all schools had writing boards (98.2%), all children claimed to have sitting and writing places, around 80 percent of the teachers had furniture and around 90 percent had access to water. However it was worrying that only 34.4 percent claimed to have a class/school library. In Swaziland the radio is not critical thus the national average of 10 percent was not surprising.

There was however disturbing features in the SACMEQ III research. A number of indicators had detoriated from the results that were obtained in SACMEQ II. The number of pupils that reported to have access to school/class libraries decreased from 51.7 percent to 25.9 percent in 2007. This suggested a reduction of about 50 percent. This was worrying and needs to be investigated.

Policy Concern 12
What Proportion of Schools where Grade 6 pupils attend has the desired physical Resources

The SACMEQ research also identified infrastructure that should be available in the schools pupils attended. The list included (i) head office, (ii) meeting room, (iii) staff room, (iv) class cupboards and bookshelves and a (v) sport facility and (vi) school fencing. Other resources that were also studied included equipment such as electricity, photocopier, television and computer. The results of the survey for SACMEQ II and SACMEQ III have been presented in Table 6.2

Table 6.2: Percentages for Desirable Physical Resources for Swaziland (SACMEQ II and SACMEQ III)

2000	BUILDINGS								EQUIPMENT & FACILITIES													
	Building Conditions		School Head Office		Staff Room		Meeting Hall		Class Cupboard		Class Bookshelf		Sports/Play Ground		School Fence		Electricity		Television		Photocopier		Computer	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	51.7	8.37	76.0	6.77	59.9	8.01	30.9	8.12	62.7	8.16	44.9	8.44	76.9	6.31	61.0	7.99	54.5	8.27	14.2	5.29	31.1	7.25	10.2	4.55
Lubombo	62.1	8.56	80.0	6.92	63.7	8.38	45.0	9.04	47.9	9.28	29.8	7.91	89.7	5.10	54.0	9.12	55.8	8.89	5.9	3.47	37.7	9.38	11.9	6.55
Manzini	47.7	8.18	78.3	6.27	45.8	8.27	24.9	7.40	61.4	7.82	31.6	8.06	80.3	7.18	63.2	8.01	46.0	8.17	1.9	1.93	32.9	7.46	14.1	6.22
Shiselweni	47.3	9.96	73.2	7.73	56.0	9.33	19.7	6.80	41.1	9.23	25.0	7.71	80.5	6.75	60.6	8.95	31.4	8.17	2.3	2.35	7.2	4.51	7.7	4.40
SWAZILAND	**51.6**	**4.39**	**76.8**	**3.46**	**55.9**	**4.26**	**29.4**	**3.99**	**54.4**	**4.41**	**33.6**	**4.10**	**81.2**	**3.28**	**60.2**	**4.25**	**47.0**	**4.34**	**6.4**	**1.85**	**27.3**	**3.72**	**11.0**	**2.74**

2007	BUILDINGS								EQUIPMENT & FACILITIES													
	Building Conditions		School Head Office		Staff Room		Meeting Hall		Class Cupboard		Class Bookshelf		Sports/Play Ground		School Fence		Electricity		Television		Photocopier		Computer	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	49.4	7.87	84.5	5.62	74.5	6.83	18.3	6.03	64.9	7.65	37.6	7.58	81.6	6.03	91.4	4.21	85.6	6.14	15.1	5.49	77.2	6.91	56.3	7.88
Lubombo	49.8	8.65	78.7	6.99	60.5	8.44	23.8	7.48	52.2	8.64	36.2	8.29	84.5	6.05	90.2	5.45	86.7	5.74	5.6	3.89	62.4	8.35	47.7	8.66
Manzini	55.3	7.14	68.0	6.61	55.1	7.16	17.4	5.28	74.7	6.09	38.0	7.03	72.4	6.42	73.6	6.41	93.3	3.40	13.1	4.86	79.4	5.54	60.1	6.94
Shiselweni	53.5	8.18	65.8	7.80	64.1	7.81	28.0	7.58	58.4	8.09	21.4	6.55	85.3	5.74	84.3	6.00	95.2	3.36	4.8	3.42	61.0	7.96	51.8	8.15
SWAZILAND	**52.2**	**3.95**	**74.0**	**3.39**	**63.5**	**3.77**	**21.4**	**3.25**	**63.8**	**3.76**	**33.6**	**3.70**	**80.3**	**3.09**	**84.1**	**2.86**	**90.4**	**2.39**	**10.2**	**2.35**	**71.1**	**3.52**	**54.7**	**3.92**

Nationally, the results indicated a minor improvement between 2000 and 2007. The only marked improvement was observed in the availability of electricity and fencing. The number of schools heads that reported an increase in electricity rose from 47 percent in 2000 to 90.4 percent in 2007. Consequent to this increase was the increase in schools that reported availability of photocopiers and computers, there was a rise from 27.3 percent to 71.1 percent and a rise from 11.0 percent to 54.7 percent for photocopiers and computers respectively between 2000 and 2007.

The overall results indicated a general improvement over the seven year period; however there were also areas of concern. The conditions of the buildings improved only in Manzini and Shiselweni regions. The increase was 8 percent and 6 percent respectively. The situation was the opposite in Hhohho and Lubombo regions, the situation of the buildings had deteriorated, by around 3 percent for Hhohho and about 13 percent in Lubombo.

Another observed anomaly was the fact that in Hhohho and Lubombo there were improvements in school head offices, staff rooms, fencing, electricity, computers and televisions despite the conditions of the school buildings.

Policy Concern 13
What were the percentages of the desirable human resources for Swaziland?

The main human resources in schools are the teachers and the head teachers. The SACMEQ III Research also looked at the profiles of the teachers, head teachers and the environment which they teach in. The results on the (i) gender of head teachers (ii) training of teachers (iii) in-service attended, (iv) subject knowledge (including HIV/AIDS), (v) Class size and (vi) attendance of classes have been presented in Table 6.3.

(a) Head teachers

A desirable head teacher is one that is well qualified and trained for the job. The results suggested that head teachers were more qualified on average in 2007 than in 2000, the proportion of head teachers who had taken senior courses (diploma and bachelors degrees) increased by about 12 percentage points. One striking observation was that the proportion of head teachers who were female dropped from 40.1 percent in 2000 to 34.2 percent in 2007. This was worrying especially when one considers that one of the indicators for gender equity is the increase women in leadership positions. The proportion of head teachers that reported to have had taken management courses although desirable, had dropped slightly by about 3 percentage points. About seven in ten school heads also reported that they had undertaken training in HIV/AIDS, the highest proportion (70%) in Hhohho and the lowest was Shiselweni where 61 percent reported to have got the training.

The results suggested that in Swaziland head teachers were of the desirable type, since most have acquired senior training and had attended management courses. The worrying trend was gender equity. These values did meet the national criteria for qualification.

Table 6.3: Percentages for Desirable Human Resources for Swaziland (SACMEQ II and SACMEQ III)

2000	SCHOOL HEADS								TEACHERS												ENVIRONMENT			
	Female School Heads		**Sch. Head Educ.** – Senior Sec. or more		**Sch. Head. Mngt. Course**		**Sch. Head HIV/AIDS Course**		**Female Reading Teachers**		**In-service Trg.** (Last 3yrs - Rd.Tch)		**Pre-service Trg** (>2yrs - Rd Tch)		**Spec. Training** HIV/AIDS Course		**Teacher Subject Knowledge** (Read.)		**Teacher Subject Knowledge** (Math)		**Acceptable Class Size** (≤ 40)		**Teacher Class Attendance**	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	40.8	8.12	77.1	6.81	97.7	2.33	××	××	70.6	7.78	61.1	8.66	95.0	3.53	××	××	49.4	8.51	46.2	8.39	65.5	7.29	90.0	4.64
Lubombo	46.8	9.14	94.2	3.45	98.2	1.81	××	××	61.3	8.35	58.4	8.79	96.0	2.94	××	××	66.5	7.88	47.3	9.34	71.0	7.22	78.7	7.17
Manzini	32.9	7.87	91.6	4.14	98.1	1.93	××	××	67.4	8.17	53.0	8.22	90.5	5.29	××	××	56.3	8.07	55.8	8.14	66.0	7.90	85.8	5.26
Shiselweni	42.1	10.33	81.7	6.53	95.5	3.26	××	××	73.0	7.88	57.4	9.43	98.2	1.87	××	××	65.1	8.45	54.2	9.44	75.0	10.94	91.4	3.97
SWAZILAND	**40.1**	**4.44**	**85.5**	**2.85**	**97.4**	**1.21**	**××**	**××**	**68.5**	**4.05**	**57.5**	**4.40**	**94.7**	**1.96**	**××**	**××**	**58.4**	**4.32**	**51.0**	**4.44**	**68.9**	**4.15**	**86.9**	**2.63**

2007	SCHOOL HEADS								TEACHERS												ENVIRONMENT			
	Female School Heads		**Sch. Head Educ.** – Senior Sec. or more		**Sch. Head. Mngt. Course**		**Sch. Head HIV/AIDS Course**		**Female Reading Teachers**		**In-service Trg.** (Last 3yrs - Rd.Tch)		**Pre-service Trg** (>2yrs - Rd Tch)		**Spec. Training** HIV/AIDS Course		**Teacher Subject Knowledge** (Read.)		**Teacher Subject Knowledge** (Math)		**Acceptable Class Size** (≤ 40)		**Teacher Class Attendance**	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	36.5	7.40	100.0	0.00	94.9	3.19	70.2	7.08	65.3	7.35	46.5	7.86	100.0	0.00	70.6	7.15	59.8	7.71	47.5	7.79	35.3	7.35	93.9	3.49
Lubombo	51.2	8.64	97.3	2.70	95.1	3.62	69.5	7.94	74.5	7.50	48.9	8.65	94.7	3.93	82.6	6.33	51.9	8.64	55.4	8.68	62.1	8.15	88.9	5.46
Manzini	27.7	6.31	97.8	2.24	96.7	2.35	60.7	7.00	70.2	6.30	67.9	6.55	96.5	2.47	71.2	6.52	65.9	6.55	58.0	6.83	58.0	6.90	86.1	4.95
Shiselweni	25.5	6.95	94.6	3.23	89.1	5.24	61.0	8.03	69.7	7.75	52.6	8.17	88.7	4.98	75.9	6.96	63.7	7.80	57.3	8.06	58.7	7.87	87.5	5.41
SWAZILAND	**34.2**	**3.63**	**97.5**	**1.14**	**94.1**	**1.81**	**65.0**	**3.75**	**69.6**	**3.60**	**54.9**	**3.86**	**95.2**	**1.59**	**74.4**	**3.43**	**61.0**	**3.80**	**54.5**	**3.89**	**53.0**	**3.77**	**89.0**	**2.43**

(b) Teachers

There were three groups of teachers in the study, the reading teachers, mathematics teachers and health teachers. The study observed that there was very little variation in the profiles of the different groups, thus for further analysis the study used the profiles of the Reading teacher. The teachers were investigated for: (i) amount of pre-service (ii) in-service (iii) knowledge of reading (iv) knowledge of mathematics and whether they had undertaken training in HIV/AIDS. In Swaziland we considered the amount of pre-service, in-service and the teacher knowledge of the subject as the desirable indicators.

There were no major differences between 2000 and 2007, however the percentage of teachers who had pursued training programme of two years or greater increased from 94.7 percent to 95.2 percent. The number of teachers who claimed to have had attended some in-service training courses dropped by about 2.6 percentage points. The confidence levels improved slightly, 61 percent of reading teachers claimed to have adequate subject knowledge compared with 58.4 percent in 2000. About 74 percent of teachers claimed to have attended HIV/AIDS courses, this was slightly higher than head teachers (65%). This is quite commendable because it suggested that in six out of ten schools both the school head (65%) and some teachers (74.4%) had had exposure on HIV/AIDS courses which is very critical for the country.

Nationally, the results suggested that teacher were of the desired calibre but worrying trends are that (i) some teachers (about 40 percent of reading teachers) implied that they were not comfortable with the subjects they taught and around (ii) 45.5 percent of Grade 6 reading teachers claimed that they were not comfortable teaching mathematics. This has serious implications in schools that are practicing "Grade/Class teaching" because it meant some pupils were taught by teachers who were not comfortable with their subjects. This raises questions around what is being practiced in the schools-(i) teachers teach subjects that they are comfortable in, (ii) teachers are specialising in teaching and (iii) maybe the specialisation in their pre-service encourages them to specialise.

Policy Suggestion 6.1: The Director of Education and the principals of colleges need investigate the kind of curriculum offered in primary teacher colleges. The investigation to find causes of why teachers are claiming that they are teaching subjects they are not trained to teach.

Policy Suggestion 6.2: The Director of Education set up a Commission to review the Ministry position regarding specialisation at primary level, both in training and in teaching.

(c) Environment

One of the major issues at primary level is class size. Some teachers claim their classes are too big to practice "continuous assessment", some schools claim to have big classes with more 60 pupils in a grade. The national benchmark is 40 pupils per class. SACMEQ III results revealed that although the average class size for the schools in the sample had decreased from 69 in 2000 to 53 in 2007, it was still above the national

benchmark. This suggested that some Grade 6 pupils might be in big classes and might not get the necessary attention required by the Continuous Assessment programme.

The SACMEQ Research Team also developed another approach to scale the different resource levels that exists in schools. They created six levels of School Resources from the lowest level, Level 1 to the highest level, Level 6. The Resource Levels enabled the SACMEQ team to categorise the different schools in the country by using some attributes of the different levels. This made it possible to have a pictorial view of the different kinds of schools, in the different regions of the country. It also enabled SACMEQ Swaziland to assess the kind of resources that Grade 6 pupils were able to access in their schools. The arrangement of the levels is such that as the Levels go up they imply that the schools have met the criteria for the lower Levels, i.e. Level 3 schools possessed resources in excess of those that were in Levels 1 and 2. For quality education to occur schools should have the basic resources, thus it was desirable to have schools in Levels 3 and above. However it was also expected that a few schools would be at Level 6.

Table 6.4 outlines the criteria used to define the six levels. Charts have been developed to illustrate the change in the levels of schools resources between SACMEQ II and SACMEQ III. An attempt has been made to present these trends nationally and regionally.

Table 6.4 Levels of School Resources

Level 1: Insufficient School Resources ○ Playground ○ Building require repairs ○ Non-structured classes ○ Writing board and chalk ○ Have/share sitting place ○ Have/share writing place ○ Share reading textbooks ○ Share mathematics textbooks ○ Exercise books ○ Ballpoint pen ○ Pencil	**Level 2:** Limited School Resources ○ Clinic within 5km ○ Market within 5km ○ Sports ground ○ Water ○ No open air classrooms ○ Permanent structure ○ School head office ○ Teacher chair ○ Teacher table ○ English dictionary in school ○ Ruler	**Level 3:** Basic School Resources ○ Fence ○ Store room ○ Piped water ○ 1 toilet for less than 60 pupils ○ Wall chart in class ○ Map in school ○ Teaching Guides for English and Mathematics ○ English dictionary in class ○ Map of a country ○ Atlas ○ Notebook ○ Eraser ○
Level 4: Comfortable School Resources ○ Electricity ○ School library ○ Class library ○ First Aid kit ○ Radio ○ Telephone ○ Typewriter ○ Cupboard in classroom ○ World map in classroom ○ Map of Africa in classroom ○ Geometric instruments in school ○ Own Reading and Mathematics textbooks ○ Sharpener	**Level 5:** Affluent School Resources ○ Public library within 5km ○ Bookshop within 5km ○ Water tap in a classroom ○ Duplicator ○ Tape recorder ○ Bookshelves in classroom ○ 1 + book/pupil in class library ○ 1 + book/pupil in school library ○ File folder	**Level 6:** Prosperous School Resources ○ Secretary's office ○ School hall ○ Cafeteria ○ Buildings in good condition ○ Teaching space $2m^2$ + per pupil ○ TV ○ VCR/CD/DVD ○ Photocopier ○ Computer ○ Overhead projector ○ Fax machine ○ Film projector

Schools in both SACMEQ II and SACMEQ III were then categorised into these levels. The results have been presented in chart format as shown below.

Chart 6.1: Levels of Schools Resources by Region: SACMEQ II

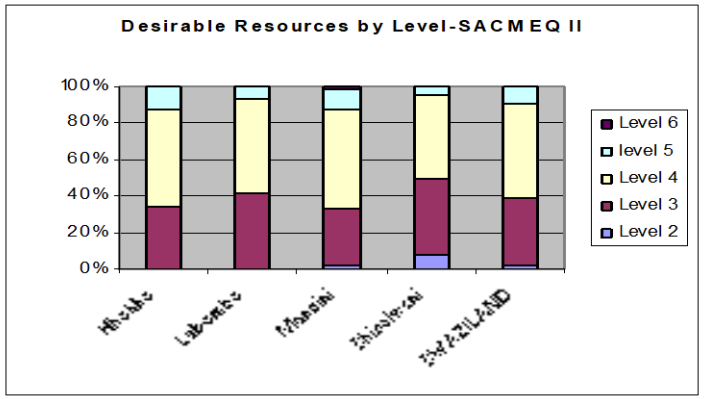
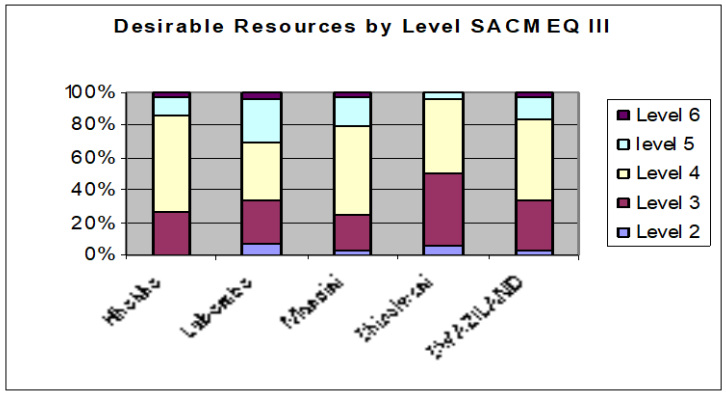


Chart 6.2: Levels of School Resources by Region: SACMEQ III



The results from both SACMEQ II and SACMEQ III indicated that there were no Grade 6 pupils in Swaziland attending schools that were classified at Level 1. That meant on average schools in the country did possess a writing board, chalk, Grade 6 pupils did not share sitting and writing places and, they also did not share Reading and Mathematics textbooks. Nationally in SACMEQ II the results indicated that 61 percent of the schools were in Levels 4 and above, this figure improved to 67.1 percent in SACMEQ III. This meant over the period the resources available to Grade 6 pupils had generally improved. This was also observed in the upward trends in Levels 4, Levels 5 and Level 6.

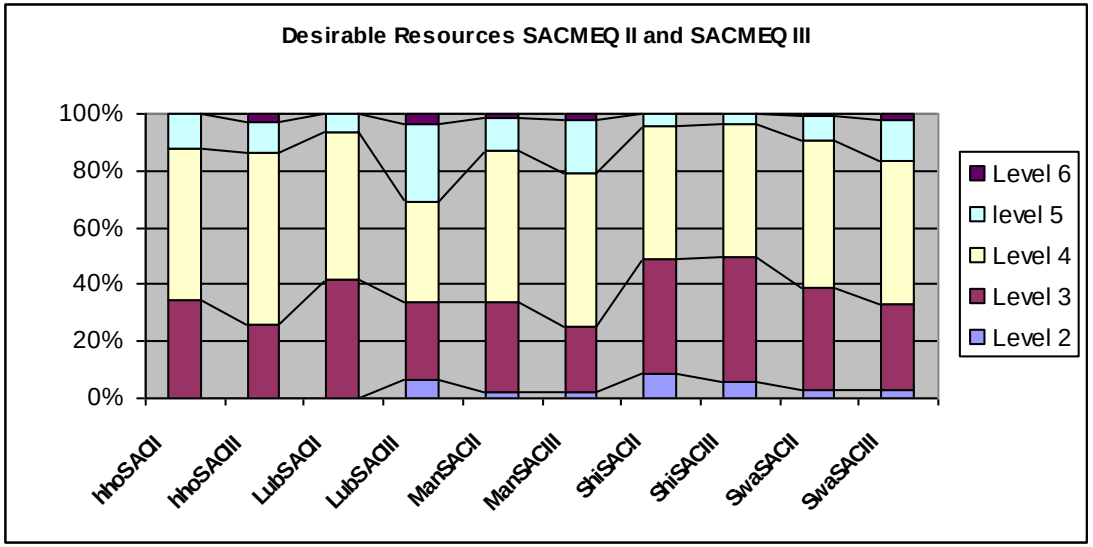
The aim of the Ministry of Education should be to have most schools falling within one category across the regions or have a larger proportion of schools within the desirable levels. Having most schools falling in one category would have meant that the resources were equitably distributed. This would have meant that education was equal irrespective of location of the schools. Currently this is not the case. This therefore it would be hard to implement uniform fees because the schools are not in the same level of development.

Chart 6.2 presented an improving scenario in 2007, schools that in Level 3 were reduced and the proportion of schools in Level 4 and 5 increased. The decreasing proportion of schools from Level 3 and below from SACMEQ II to SACMEQ III indicated that schools where Grade 6 pupils attend improved from being classified as schools with “limited resources” to schools with “basic and better” resources.

The results also indicated that there were marked improvements in the Hhohho region, schools in Level 3 decreased and those in Level 4 increased in SACMEQ III. In Lubombo there was a slight decline in the resources available in the some schools. It seemed that while some schools at level 3 declined to level 2, others upgrade to level 4. At the same time some level 4 upgraded to level 5 and some level 5 to 6. At the regional level, the number of schools which declined are a minority but this trend is worrying as it indicated that the quality improvements in some schools was made at the detriment of equity. In SACMEQ II there were no schools in Level 2, however in SACMEQ III there were schools in Level 2 (6.8%). This situation was however not universal in the region, in that a sizeable number of schools had moved from Level 4 to Level 5, about 20 percent. This situation meant there were some schools in Lubombo which were 'Comfortably Resourced' in 2000 that upgraded to 'Affluently Resource' in 2007.

Chart 6.3 presents the SACMEQ II and SACMEQ III results of the Schools Resource categorisation. Regions in 2000 and 2007 have been put adjacent to each other, i.e. the first two columns represent Hhohho (SACMEQ II) and Hhohho (SACMEQ II) .In the chart the improvement can be observed between the adjacent regions. A negative trend in levels 2 and 3 depicted a desired change in the resources of the schools, because it meant fewer schools fell below level 3 in 2007. A positive trend in levels 4 and above also depicted a desired trend.

Chart 6.3 Levels of Schools Resources by Region: SACMEQ II and SACMEQ III



Form Chart 6.3 the results indicated that for Hhohho more schools upgraded to Level 4, this was a desired trend. The figure also illustrated that in Shiselweni the resources in SACMEQ II and SACMEQ III did not vary much, no additional resources were allocated to schools which were at Level 3 in SACMEQ II.

In Lubombo despite the increased in schools at Level 5 in 2007 there was an emerging proportion of schools in Level 2 which did not feature in 2000. This suggested that the environment in such schools had detoriated, these schools needs to be upgraded.

The results above indicated that schools in Shiselweni did not benefit much in terms of resources within the period. It also indicated that in Lubombo, some schools fell short of the desired minimum.

Policy Suggestion 6.3: The Ministry's Planning Section needs to undertake an infrastructure and resources assessment of primary schools in the Lubombo and Shiselweni region with a view to identify those schools that do not have adequate resources. Alternatively the SACMEQ III team should develop a 'Resource Allocation' priority list based on SACMEQ results for the planning unit which should used in the allocation of resources in future.

An underlying concern is that these two are the regions that are considered poorer of the four. This confirmed the assertion at the beginning of the chapter that schools which have relatively good infrastructure tend to getter more resources and those that are less resourced tended not to get any allocations. This suggested that resources are not channelled to those that need them most.

Policy Suggestion 6.4: The Principal Secretary and the National Commission for UNESCO need to source out funding which will enable some of the permanent Education Planning Officers and Regional Education Officers to attend the Annual Planning Course at the IIEP. There is need for 'evidence based' planning to take hold in the Ministry.

Conclusion

The results indicated a general improvement in resource allocation to schools. This showed commitment by the Ministry of Education in putting more quality educational inputs to primary education. However, there are other issues that need to be looked in terms of ensuring that the inputs are distributed equitably across and within the regions. It would be safe to conclude that pupils generally have the necessary equipment for learning.

Evidence has shown that despite the fact that country supports women empowerment, there was a decrease in schools headed by females despite that there are more female teachers at primary level. The Ministry does need to balance this picture.

When it comes to teachers there is need for the Ministry to either reconfirm its stand of whole class teaching or reinforce specialised teaching. It appears as if schools do as they see fit, some schools do class teaching, others specialise whilst others offer a combination of the two. This tends to make it difficult to allocate teachers equitably; those who specialise tend to use more human resources than those who teach the whole class. A clear uniform policy will ensure that teaching resources are not wasted. Current economic challenges do not allow primary teachers to "claim" to be able to teach one subject. On the other hand it can be argued that "specialised teachers" tend to be more confident in their subject areas. However, the problem is at the resource allocation stage by the national Ministry, if resources are allocated without any formula then there is bound that some schools will get preference due to their location, size and influence. The notion that, "[6]different schools are to be treated

[6] Ken Ross:

differently', needs to apply, and this requires profiling of all schools. There needs to be a non biased criteria to guide the allocation of resources, maybe the Ministry needs to invest in capacity building in key officers especially regional managers – REOs.

Chapter 7
Pupil and Teacher Competencies in Literacy and Numeracy

Introduction

In this chapter research findings on Reading (English) and Mathematics achievement levels for Grade 6 pupils and their teachers will be presented. These Grade 6 tests were developed in consultation with curriculum experts and teachers in the respective countries. The teachers' tests were also constructed in a similar fashion to the pupils' tests and also included some items from the pupils' tests. These common tests items made it possible to place the Grade 6 pupils and their teachers on the same underlying literacy and numeracy scales. All items were piloted in all SACMEQ countries and the best items were selected to design the final tests. Some items were picked from the SACMEQ item bank; these were 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. These 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.

In this chapter results of the SACMEQ III study will be presented first before a comparison of trend from SACMEQ II is analysed.

Three ways of reporting the tests scores

In this chapter we will also present the performance of Grade 6 pupils and teachers in three different ways, (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 Swaziland in the four administrative regions. This is the most familiar method; it is a number presenting average score that has been achieved. This approach 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 of the pupil. This method of reporting achievement is common in some educational systems, even where such reporting is used to measure the competency of a child in order to move to the next level. Tests that are constructed with this model in mine tend to have some bias if not well constructed; they depend on the kind of items that have been included in the test.

However from the content of the test, a particular score can be used to indicate some level of achievement by the pupil. Detailed analysis could also be used to match traditional scores to achievement provided the mean scores can be linked to certain levels of competency that has 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 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 difficultly" dimension and then group them into "clusters" that are linked to common group of skills. 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, e.g. in Reading based on the level of competence the researchers were able to determine and describe whether a pupil was at a lower level of Reading 'emergent reader' as opposed to a 'analytical reader' which is a higher level of Reading.

All these methods were applied on Grade 6 pupils and their teachers' scores.

General Policy concern 14

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 III

The results of the mean scores for Grade 6 pupils and their teachers for SACMEQ II and SACMEQ III have been presented in Table 8.1. Both sets of scores were scaled such that 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.

Swaziland is one of the SACMEQ countries where the Grade 6 pupils and their teachers performed above the SACMEQ III average of 500. The national mean scores in SACMEQ III for pupils in both reading (549.4) and mathematics (540.8) increased by more than 20 points from the SACMEQ II scores of 529.6 and 516.5 for reading and mathematics respectively. Nationally, the performance in mathematics did not improve much.

The SACMEQ III results also indicated that there was no major variation across the regions. However, Manzini region got the highest scores, 556 in Reading and 544.1 in Mathematics.

(b) Reading and Mathematics mean scores for Grade 6 pupils in SACMEQ II and SACMEQ III

Table 7.1 Means for the reading and mathematics test scores of pupils and teachers (SACMEQ II and SACMEQ III)

2000	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**

	PUPILS	TEACHERS

2007	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**

There was one striking issue of concern, the Hhohho region, which was highest performer in 2000 did not perform as well in 2007. The region achieved the second lowest score (547) in reading and the lowest (537.4) in mathematics. This indicated that either the other regions were now performing better or the region had dropped. What was further worrying for the Hhohho region is the high variation in scores as indicated by the higher SE, this indicated a region where reading facilities associated with teaching and learning might not have been homogeneously distributed even within the region itself.

The Lubombo and Manzini regions performed relatively well. The Manzini region came out the "most improved" performer, its mean scores for reading and mathematics had increased by 31 and 35 points respectively in 2007. The Lubombo region fared quite well considering that it had the lowest proportion of schools that fell between level 3 and level 5 in the School Resources levels. This meant that Grade 6 pupils in Lubombo, in schools which are generally not as good in terms of school resources out performed regions such as Hhohho which have relatively better schools.

(c) Reading and mathematics mean scores for Grade 6 teachers in SACMEQ III

The research also looked at the performance of teachers of Grade 6 pupils' in reading and mathematics. The existing policy in Swaziland is that all primary school teachers are to teach all subjects (class teaching) but emerging trends are that some teachers have tended to develop preferences and claimed to have specialised in some subject areas. This was observed when analysis of schools resources was done in that some teachers (about 51%) claimed that they taught subjects where they were not quite comfortable with the subject knowledge. This suggested that there were subjects in which they were 'comfortable' in. This was worrying because it also implied that some Grade 6 pupils were being taught by teachers who were not at all competent in the subjects they taught. It was also observed when the research was done in that in some schools there were indeed specialist teachers. However, under SACMEQ we tested all teachers that were teaching Grade 6 pupils irrespective of whether they specialised or not.

Nationally the mean scores in both subject areas were above the SACMEQ mean of 700, and all regions were above the average. However, the performance in reading (768.2) was slightly lower than that of mathematics (811.1).

Another striking observation was the high variation in the scores for teachers within the regions. This indicated that the teaching force was of different knowledge and skill levels. Form a local context this could be the case as currently there is a great shortage of appropriately qualified teachers at this level of education. Some schools were taught by unqualified staff, some had secondary level qualified teachers whilst most had primary qualified teaching staff. With this variation in teaching qualifications it was an expectation that maybe even their competence and skill levels would be very different.

Policy Suggestion 7.1. The Chief Inspector Primary should engage colleges on the issue of specialisation at primary level. A study be undertaken to investigate whether 'class-teaching' and 'subject specialising' is still relevant for the country considering that some teacher training institutions are supposedly offering their students the option to specialised in the last year of training.

(d) Reading and Mathematics mean scores for Grade 6 teachers in SACMEQ II and SACMEQ III

The study also did a comparison of the trends in achievement from 2000 to 2007. The results are also presented in Table 8.1. Nationally, the results in reading indicated an improvement of about 20 points from 2000 to 2007, and all regions showed an improvement on their regional means. Teachers' reading scores from the Manzini region showed a marked improvement from 747.4 in SACMEQ II to 779.7 in SACMEQ III, about 41 points. However, it was surprising to also note that the Lubombo region did not improve, further that they attained the same average as in SACMEQ II. Although the average is good (above the SACMEQ mean) it presented a scenario where it appeared as if 'nothing' happened in the region. This was not a good result.

In mathematics there are two regions which indicated a drop in performance; these are Hhohho and Manzini, their mean scores dropped by 10 points and 18 points respectively. The fact that the national average only improved by 3 percent also indicated that the teachers' mathematics performance was not encouraging in as far as numeracy is concerned. Although the average is higher than that of reading, the low improvement (change) between SACMEQ II and SACMEQ III indicated that maybe they had reached a ceiling in their performance. On the other hand maybe the results indicated that nationally the mathematics instrument was at a level that was a challenge to grade 6 teachers – very small room for improvement. This then was a bigger problem because it meant that it also limited the pupils' achievement.

There might be a reason for the good teacher performances in reading in the country. Due to the shortage of adequately qualified teachers at primary levels, the Government engaged some secondary school qualified teachers to teach in some primary schools. These were largely teachers who did Humanities (Arts and Languages) at university training level (Bachelors + PGCE).

Policy Suggestion 7.2: The National Curriculum Centre with the national subject panel should undertake a research into the teaching of mathematics at primary level. This research should also look at the teachers and materials that are in the schools.

Policy Suggestion 7.3: The improvement in reading results for teachers and grade 6 pupils could be attributed to a number of things. These include free textbooks, class room libraries and even the secondary qualified teachers in areas of reading. The language subject panels headed by senior inspectors for English and Siswati should to undertake an assessment to determine whether the improvement has been due to the factors listed above.

Policy suggestion 7.4: This study has reconfirmed a suggestion in the SACMEQ II report. The Chief Inspector Primary should to investigate why Swaziland's grade 6 teachers achieved relatively better levels in mathematics than reading. The study needs to also look into why in SACMEQ III mathematics teachers did not improve much on their scores

Policy Concern 15

What was the reading and mathematics achievement levels of important sub-groups of Grade 6 pupils?

(a) Differences in pupil achievement by gender, socio-economic status and school location (SACMEQ III)

Swaziland is a relatively small country; however there is a wide variation in terms of resources across the regions and country. The study identified three main subgroups, namely gender, school location and socio-economic status of the grade 6 pupils. Socio-economic status was determined by making an assessment of the resources (possessions) that were available to the pupils at the places where they lived. The study did not include possessions that were observed in earlier studies not to contribute to the effectiveness of the study, such as ownership of cattle and other livestock.

School location was determined by the researcher and the head teacher of the school. Schools head were asked to grade their school location as rural or urban by considering the local context in which the school is located. In all cases there was an agreement because the researchers would also have made their assessment. In most cases the researchers adopted the Ministry's standards so as to ensure that the results would have a bearing to planning for education.

SACMEQ study also identified possessions which were mapped to determine whether a grade 6 pupil came from a low-SES (possessions less than the recommended minimum) and high-SES where the pupil came from a home with more than average of the number of listed possessions. These possessions included items like, TV, radios, newspapers, piped water, table to write on, electricity and appliances etc. One of the Ministry's goals under primary education is to ensure that all children irrespective of location get the same quality education. The underlying purpose of this assessment was to determine whether indeed education was equal.

Table 7.2 shows the average means scores in reading and mathematics for each of the different subgroups.

Table 7.2 Means for the reading and mathematics test scores of pupils by subgroups (SACMEQ II and SACMEQ III)

	Reading		Mathematics	
2000	Mean	SE	Mean	SE
Pupil gender				
Boys	525.0	4.15	518.9	3.29
Girls	533.9	3.78	514.3	3.93
School location				
Rural	517.8	3.24	510.9	3.36
Urban	557.9	8.45	529.9	7.81
Socioeconomic level				
Low SES (Bottom 25%)	510.7	2.95	507.2	2.89
High SES (Top 25%)	564.2	8.52	536.9	8.05
SWAZILAND	**529.6**	**3.72**	**516.5**	**3.39**

	Reading		Mathematics	
2007	Mean	SE	Mean	SE
Pupil gender				
Boys	545.2	3.19	545.5	2.59
Girls	553.6	3.11	536.2	2.61
School location				
Rural	539.2	3.17	535.6	2.80

Urban	572.6	5.37	552.9	4.08
Socioeconomic level				
Low SES (Bottom 25%)	531.6	3.55	533.4	3.27
High SES (Top 25%)	570.7	4.13	552.4	2.95
SWAZILAND	**549.4**	**2.98**	**540.8**	**2.39**

In gender, the results indicated a small difference between girls and boys performance. The difference was minimal, about only 8 points. However it was observed that girls performed better than boys in reading (by 8 points) and boys fared better in mathematics (about 9 points). The results also indicated that grade 6 boys performed almost the same in both subjects, whilst the low performance in girls' mathematics was more prominent.

There were some discrepancies that were observed in performance of pupils from schools which are from isolated/rural areas than those from an urban setting. The gap was higher in reading, at 33 points whilst it was almost half in mathematics at 17 points. The gaps were also evident in schools of different SES. Pupils from schools from a high SES were 33 points higher than those from a low SES in reading and although the gap was lower (13) in mathematics it also confirmed that pupils from a high-SES out performed their counterparts. It was also interesting to note that the gaps were more defined in reading than in mathematics,

The results on SES and School location demonstrated that in Swaziland there is a correlation between these social subgroups and performance in general. Although this is not strong in mathematics it is clearly defined in reading. Grade 6 pupils from high SES and urban schools performed better than their counterparts from low SES and rural schools.

(b) Differences in pupil achievement by gender, socio-economic status and school location (SACMEQ II and SACMEQ III)

The mean scores of grade 6 pupils of different sub-groups showed an improvement from 2000 to 2007. The increase was about 20 points in both mathematics and reading. However, the results also confirmed the findings of the 2000 report, that there was a consistency in achievement differences between grade 6 pupils from different SES and school location. The trends have not changed, the boys did better in mathematics than girls, and in reading the situation was reversed.

This trend was also observed in SES and school location. However the differences are not as large as they were in SACMEQ II. In SACMEQ II the difference between the mean scores of different SES in reading was 54 points, this figure dropped to 39 points in SACMEQ III. The same trend was also observed in mathematics, the differences in mean scores were 29 points in SACMEQ II which dropped to 13 points in SACMEQ III. These results indicated although the national means score improved there was still a consistency between SES and school location which needs to be

addressed. This suggested that education was generally worse off in rural isolated schools of low SES than those which are in urban setting and with grade 6 pupils coming from relatively higher SES. This suggested that it was better to be a Grade 6 pupil in an high SES and urban located school.

Policy Suggestion 7.5. The Director of Education should work with the Planning unit and Regional Education Officers to ensure that education resources are equitable distributed in the country.

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

Introduction

The Rasch technique was used to in the definition of the eight levels of competency in reading and mathematics. These levels are hierarchical by nature, from the lowest level 1 to the highest 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.

Figure 7.1 shows the shortened name of each level and the reading scores by region.

Figure: 7.1 Reading levels and mean scores for Grade 6 pupil. (SACMEQ III)

Levels	Hhohho	Lubombo	Manzini	Shiselweni	Swaziland
1. Pre-Reading	1	0	0	0	0
2. Emergent Reading	2	1	1	1	1
3. Basic Reading	6	6	5	6	6
4. Reading for Meaning	21	20	19	23	21
5. Interpretive Reading	33	31	35	38	35
6. Inferential Reading	25	29	25	25	26
7. Analytical Reading	10	11	13	7	10
8. Critical Reading	2	2	3	1	2
500 Score	**547**	**552**	**556**	**541**	**549**

Table 6.3 presents the levels that were achieved by the grade 6 pupils in SACMEQ II and SACMEQ III. As illustrated by Figure 6.1 the table outlines the proportion of pupils at the respective level of competence, i.e. 26 percent of Grade 6 pupils nationally, achieved level 6 in reading in SACMEQ III. The analytical presentation of this section will first present the results of the SACMEQ III study and thereafter present the trend from SACMEQ II to SACMEQ III. This is to assess whether there has been changes in the achievement of grade 6 pupils after seven years.

Table 7.3 Percentage of pupils reaching various reading competence levels by region (SACMEQ II and SACMEQ III)

2000	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Level 7		Level 8	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	0.0	0.00	0.9	0.43	8.4	1.29	29.5	2.67	32.9	2.96	17.2	1.95	7.7	1.34	3.4	2.02
Lubombo	0.6	0.49	2.0	1.43	11.8	2.86	27.2	2.36	30.7	3.25	16.3	2.13	9.4	2.45	2.0	1.01
Manzini	0.4	0.22	2.4	0.55	11.6	1.72	31.7	2.73	31.7	2.05	14.3	1.95	6.5	1.55	1.4	0.58
Shiselweni	0.1	0.14	1.7	0.71	12.5	1.53	38.2	3.89	29.6	2.58	13.3	2.51	4.3	1.11	0.4	0.22
SWAZILAND	**0.3**	**0.12**	**1.7**	**0.38**	**10.9**	**0.93**	**31.7**	**1.60**	**31.4**	**1.38**	**15.3**	**1.09**	**6.9**	**0.82**	**1.8**	**0.65**

2007	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Level 7		Level 8	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	0.7	0.50	2.1	0.84	6.0	1.46	21.2	2.24	33.2	2.48	24.8	2.32	9.7	1.80	2.4	0.71
Lubombo	0.1	0.12	1.2	0.59	5.9	1.49	19.8	2.73	31.4	1.88	28.9	2.66	11.1	1.88	1.6	0.63
Manzini	0.0	0.00	0.7	0.26	4.9	0.80	19.4	2.08	34.8	1.80	25.1	1.88	12.6	2.06	2.5	0.67
Shiselweni	0.1	0.09	1.1	0.38	5.7	1.08	22.8	1.95	38.3	1.69	24.9	2.36	6.5	1.21	0.6	0.29
SWAZILAND	**0.2**	**0.14**	**1.2**	**0.28**	**5.6**	**0.60**	**20.7**	**1.12**	**34.5**	**1.01**	**25.7**	**1.14**	**10.1**	**0.92**	**1.8**	**0.31**

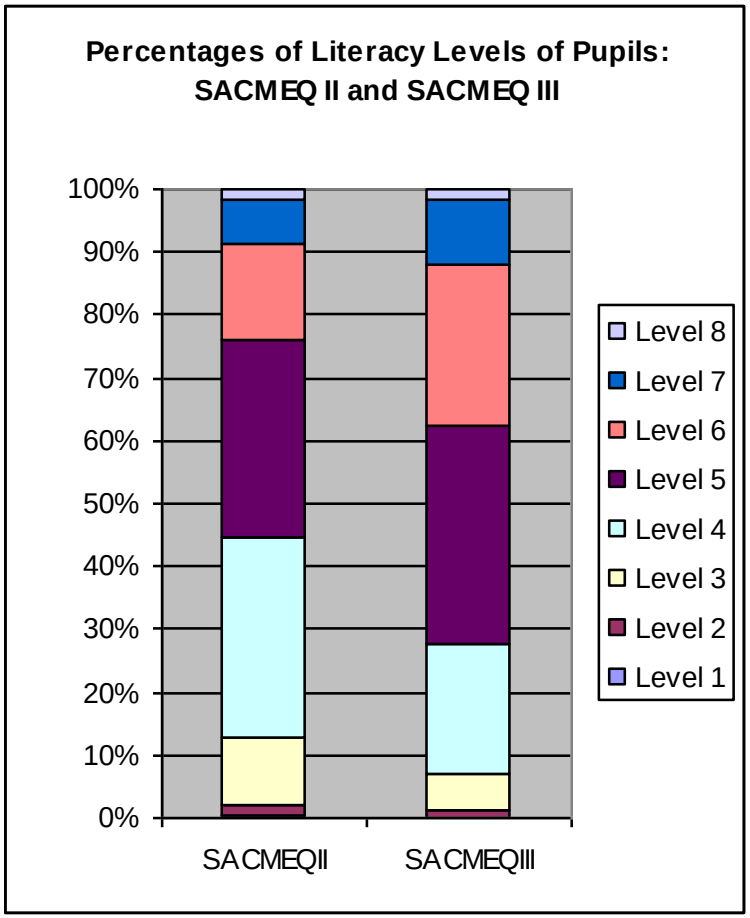
The results indicated that in 2007 about four in five (80.9%) of the grade 6 pupils were located between levels 4 and 6. This meant that around 81 percent of the pupils were able to read for meaning, infer and interpret meaning from passages. There were very small differences across the region. There were pupils from Manzini and Hhohho who reached the highest level (about 4.9 percent) this meant there was good reading in the regions. However, it was also striking to note that in Hhohho there were slightly more pupils in levels 1 and 2. This indicated that there was good and bad reading in this region. The results suggested that in Hhohho there were pockets of success and also areas where there is need to raise pupils from being "poor readers". Nationally, the picture is not bad, only 1.4 percent of grade 6 pupils in Swaziland could have been identified as non readers (levels 1 and 2) in 2007. Further the results indicated that Manzini region did have good reading levels in 2007, a few pupils are in levels 1 to 3 and a reasonable number are at the upper levels from level 6 upwards when compared with the other regions.

(d) Competence levels in reading for Grade 6 Pupils in SACMEQ II and SACMEQ III

One of the key purposes of undertaking the SACMEQ studies is to also enable the countries to observe trends over time. The table above also presented findings from SACMEQ II, thus the research team also undertook an analysis of how reading had evolved over the last seven year in the country. The results indicated a general improvement in that in SACMEQ II about 2 percent of the pupils were non-readers, this proportion was reduced to 1 percent in 2007. This represented an improvement of 50 percent. The situation at the upper levels also improved in that there were 24 percent of the pupils in levels 6 to 8 in 2000, this proportion had also increased to 38 percent in SACMEQ III. A striking observance was that the competence levels for Swaziland shifted to the positive, and that indicated an overall improvement of the competence levels in the country. There

were less pupils falling below level 3, this suggested that reading levels did improve. More pupils in level 5 and above indicated a greater proportion of expert reading in 2007.

Fig 7.2: Percentage of Literacy Levels of Pupils: SACMEQ II and SACMEQ III

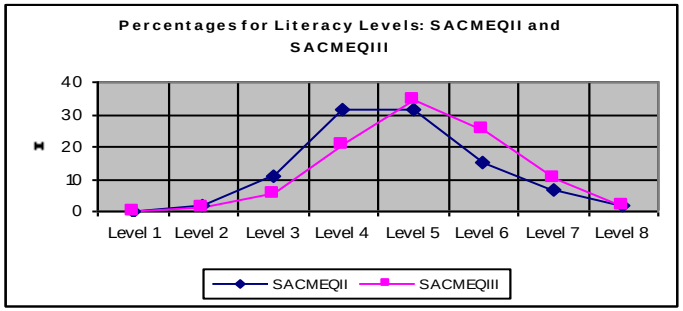


	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
SACMEQII	0.3	1.7	10.9	31.7	31.4	15.3	6.9	1.8
SACMEQIII	0.2	1.2	5.6	20.7	34.5	25.7	10.1	1.8

Figure 7.2 present the percentage of literacy levels in reading in SACMEQ II and SACMEQ III. It was observed that the proportion of pupils in levels 5 and above increased drastically over the seven year period. This confirmed that reading levels in grade 6 had improved. Although these levels increased, there was no major change in level 8.

Another way to look at the trend is to observe the shift. This is presented below.

Fig **7.3 Shift in literacy levels b/n SACMEQII and SACMEQIII**



The slight 'positive skew' of the SACMEQ III line indicated that reading levels had improved. Ideally in a perfect reading situation the skew should be towards level 8.

(e) Competence levels in mathematics for Grade 6 Pupils in SACMEQ III

The different levels of achievement in mathematics of grade 6 pupils are given in table 6.4. These also begin with the lowest level (non-numerate) to the highest level (abstract problem solving).

Table 6.4 Percentage of pupils reaching various mathematics competence levels by region (SACMEQ II and SACMEQ III)

2000	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Level 7		Level 8	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	0.5	0.24	17.1	2.09	44.9	2.34	22.3	2.01	9.7	1.30	3.4	0.87	1.4	0.78	0.7	0.74
Lubombo	0.1	0.14	18.5	1.91	42.8	1.84	24.2	2.27	9.6	1.79	3.8	1.03	0.9	0.61	0.1	0.09
Manzini	1.0	0.36	23.7	2.30	44.8	2.14	21.5	1.78	7.5	1.47	1.4	0.41	0.2	0.15	0.0	0.00
Shiselweni	1.5	1.20	25.9	2.76	44.4	2.16	19.5	2.79	7.6	1.71	1.0	0.47	0.1	0.09	0.0	0.00
SWAZILAND	**0.8**	**0.32**	**21.3**	**1.21**	**44.3**	**1.10**	**21.8**	**1.12**	**8.6**	**0.79**	**2.4**	**0.38**	**0.7**	**0.26**	**0.2**	**0.22**

2007	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Level 7		Level 8	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	0.6	0.49	9.8	2.35	35.3	2.47	36.8	2.45	11.4	1.31	5.9	1.05	0.3	0.16	0.0	0.00
Lubombo	0.1	0.13	8.6	1.69	34.2	2.26	36.3	2.04	15.9	1.88	4.9	1.09	0.0	0.00	0.0	0.00
Manzini	0.1	0.05	7.1	1.05	35.3	1.99	38.7	1.47	12.2	1.37	5.9	1.19	0.7	0.22	0.0	0.00
Shiselweni	0.0	0.00	8.3	1.21	38.0	2.04	35.6	1.77	13.1	1.39	4.8	0.79	0.2	0.17	0.0	0.00
SWAZILAND	**0.2**	**0.14**	**8.4**	**0.83**	**35.7**	**1.10**	**37.0**	**0.98**	**12.9**	**0.74**	**5.4**	**0.54**	**0.3**	**0.09**	**0.0**	**0.00**

The results indicated that a low proportion of pupils managed to reach levels 6 and above, only 5.7 percent. A larger proportion was between levels 3 and 5, which implied that about 86 percent of the pupils were numerate. A small proportion, 8.6 percent were at levels 1 and 2, which meant they were 'non-numerate'.

There were very little differences across the regions; the performance of the pupils was almost the same. A striking observation is the fact that in reading they were marked differences across the regions and that there were more pupils in the higher levels. The scenario suggested that the mathematics achievement was not as good as the reading achievement, in reading more than 38 percent of the pupils were in levels 6 in reading but only 5.7 percent had achieved the same level in mathematics. This was worrying because it suggested that no pupils had the knowledge in mathematics to reach level 8. It raised concerns on the teaching of mathematics. It implied that "problem solving skills" were not taught or not taught well in primary schools in Swaziland.

Figure 6.4 contains the short definition of the different levels is presented.

Figure: 6.4 Mathematics levels and mean scores for Grade 6 pupil.

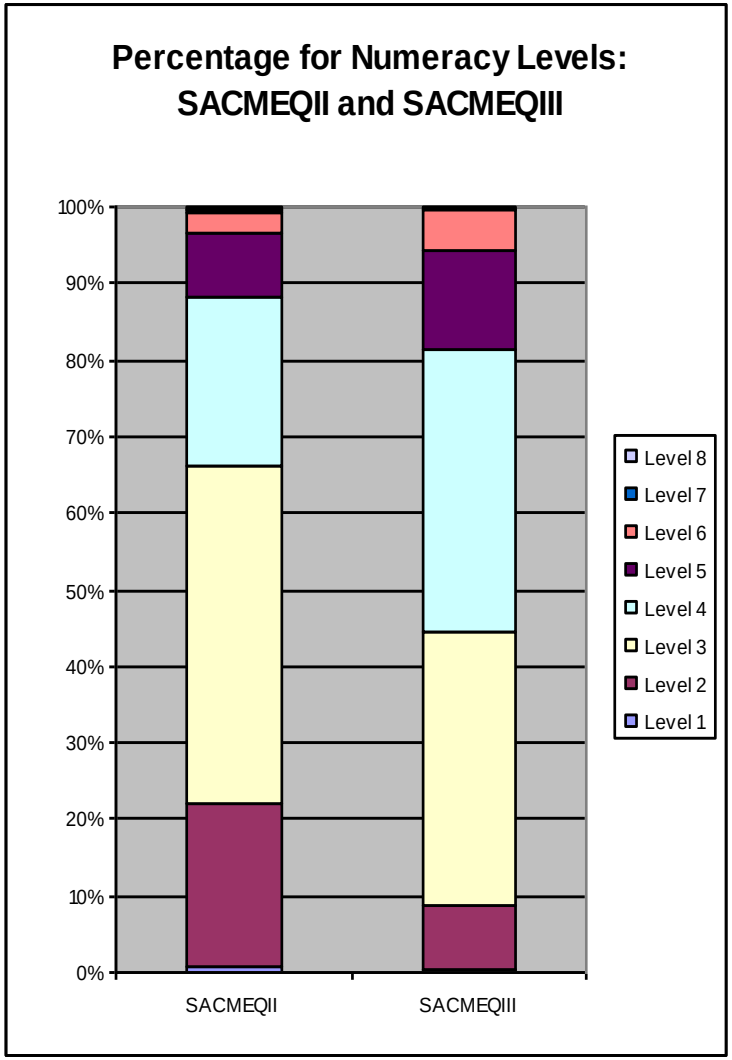
Levels	Hhohho	Lubombo	Manzini	Shiselweni	Swaziland
1. Pre-Numeracy	1	0	0	0	0
2. Emergent Numeracy	10	9	7	8	8
3. Basic Numeracy	35	34	35	38	36
4. Beginning Numeracy	37	36	39	36	37
5. Competent Numeracy	11	16	12	13	13
6. Mathematically skilled	6	5	6	5	5
7. Problem Solving	0	0	1	0	0
8. Abstract Problem Solving	0	0	0	0	0
500 Score	**537**	**543**	**544**	**539**	**541**

(f) Competence levels in mathematics for Grade 6 Pupils in SACMEQ II and SACMEQ III

The results indicated an overall improvement from the 2000 results. The proportion of pupils in levels 1 to 3 had decreased from 66.4 percent to 44.3 percent. This meant more pupils had moved to higher levels of competence. There was also a slight improvement in those in levels 6 and above, the proportion rose from 3.1 percent to 5.7 percent in SACMEQ III. The figures presented a scenario where a larger proportion (37%) of the pupils was in level 4 in 2007 when compared to the 22 percent that was in the same level in year 2000.

It was however worrying to note that in years 2000 and 2007 there was a very low proportion in pupils in levels 7 and above. This suggested that grade 6 pupils in Swaziland did not get much exposure in problem solving in mathematics. However, the situation was not bad because there was a slight increase (3%) in the proportion of pupils in level 6. The dynamics of the mathematics competence levels for grade 6 pupils is presented in figures 6.3 and 6.4.

Fig 7.5: Percentage of Pupils reaching various levels in numeracy

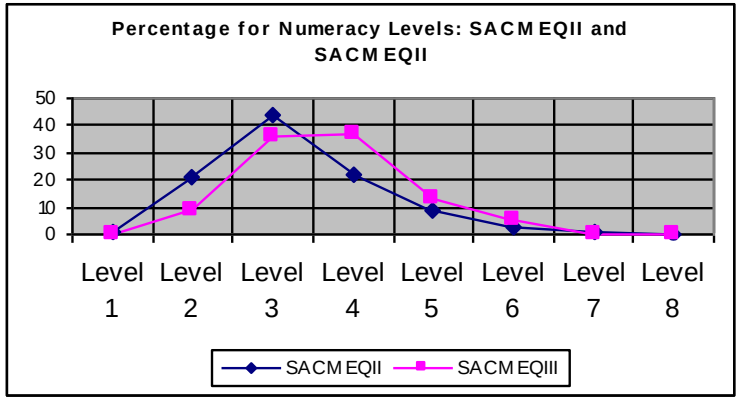


	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
SACMEQII	0.8	21	44	22	8.6	2.4	0.7	0.2
SACMEQIII	0.2	8.4	36	37	13	5.4	0.3	0

It will be observed in Figure 6.3 that levels 3 and below shrunk in SACMEQIII, this confirmed the perception that pupils achieved higher levels in 2007. The fact that higher levels 4, 5 and 6 had increased confirmed this assertion. However, the absence of pupils in levels 7 and 8 was also observed in 2007.

The overall impression of an improvement can also be presented as in figure 7.6 below.

Fig **7.6 Shift in numeracy levels b/n SACMEQII and SACMEQIII**



Like with the reading presentation, figure 6.4 did indicate a slight skew to the positive. This presented a positive trend however; the numbers involved are not as good as in reading.

Policy concern 16

What were the reading and mathematics competence levels of important subgroups of Grade 6 pupils?

Introduction

As presented earlier in the chapter the study also categorised grade 6 pupils according to three sub-groups which were considered important by the counties. These were (i) gender, (ii) school location and (iii) socio-economic status. There were two major categories of school location urban and rural, where rural also included isolated schools. The socio-economic scale was based on the number of selected possessions that the pupil had in the place where they stayed during school time. Grade 6 Pupils were categorised as low-SES (low number of possessions) and high-SES (high number of possessions). The underlying intension was to explore whether any of these sub-groupings had an effect on achievement and levels achieved by the pupils. The achievement levels by the different subgroups in presented in Table 6.5

(a) Differences in pupil competence levels in reading by gender, socio-economic background and school location: SACMEQ III

The results of SACMEQ III indicated that there were "gaps" in the competence levels that were achieved by the different sub-groups. These were not big when considered by gender; both sub-groups had roughly the same proportion of pupils at the different levels of competence. Overall more girls tended to achieve higher levels as compared to boys; the difference however is almost negligible.

The results indicated that pupils from urban schools on average achieved higher competency levels than their counterparts. The results indicated that about 32 percent of rural pupils had achieved levels 6 to 8 as compared to 50 percent that were achieved by urban schools. Results also indicated that there were a few pupils from both settings who were non-literate; however there were about 5 percent more pupils who were non-literate who came from rural schools. The gaps were also higher in the third sub-grouping, the results indicated that on average about half of the grade 6 pupils from a high-SES schools were expert readers (levels 6 to 8) and one in four of the pupils from low-SES schools were expert readers. However, the trend is positive (reduction of the gap between low SES and high SES, the percentage of expert teachers in low SES doubled, not for high SES), which could have indicated that the equity policy should be intensified. The results also indicated that 9.9 percent of pupils from low-SES were non literate as compared to only 3.3 percent from schools of high-SES. A large proportion (63.7%) of low-SES pupils were just beginning to "read with meaning".

Table 7.5 Percentage of pupils reaching various reading competence levels by subgroups (SACMEQ II and SACMEQ III)

2000	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Level 7		Level 8	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Pupil gender																
Boys	0.4	0.23	2.1	0.53	12.4	1.07	31.8	1.51	31.2	1.45	14.3	1.22	6.0	0.99	1.8	0.79
Girls	0.1	0.09	1.4	0.36	9.5	1.06	31.6	2.23	31.5	1.80	16.2	1.40	7.7	1.01	1.9	0.60
School location																
Rural	0.4	0.17	2.0	0.52	12.3	1.11	36.2	1.90	31.0	1.73	13.1	1.27	4.4	0.64	0.5	0.29
Urban	0.0	0.00	1.0	0.37	7.6	1.58	20.8	2.05	32.2	2.26	20.6	1.87	12.9	2.04	5.0	1.99
Socioeconomic level																
Low SES (Bottom 25%)	0.3	0.20	2.3	0.61	12.8	1.41	39.9	1.79	31.1	2.10	10.6	1.36	2.9	0.56	0.1	0.11
High SES (Top 25%)	0.0	0.00	1.5	0.65	6.0	1.01	21.5	2.51	28.1	2.27	21.8	1.89	15.1	1.91	6.0	2.25
SWAZILAND	**0.3**	**0.12**	**1.7**	**0.38**	**10.9**	**0.93**	**31.7**	**1.60**	**31.4**	**1.38**	**15.3**	**1.09**	**6.9**	**0.82**	**1.8**	**0.65**

2007	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Level 7		Level 8	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Pupil gender																
Boys	0.2	0.18	1.8	0.40	7.0	0.78	21.3	1.32	33.8	1.26	24.4	1.26	9.7	1.03	1.7	0.35
Girls	0.2	0.11	0.7	0.24	4.1	0.63	20.2	1.25	35.3	1.28	27.1	1.34	10.5	1.06	1.9	0.41
School location																
Rural	0.3	0.20	1.5	0.38	6.9	0.79	23.3	1.35	35.9	1.16	24.7	1.46	6.6	0.68	0.8	0.22
Urban	0.1	0.07	0.6	0.30	2.6	0.60	14.8	1.84	31.4	1.91	28.2	1.60	18.2	2.27	4.2	0.80
Socioeconomic level																
Low SES (Bottom 25%)	0.4	0.25	2.3	0.83	7.2	1.01	28.0	1.84	35.7	1.80	20.0	1.80	5.4	1.01	0.8	0.30
High SES (Top 25%)	0.0	0.00	0.7	0.26	3.2	0.56	14.9	1.34	31.5	1.51	29.2	1.36	16.7	1.81	3.8	0.72
SWAZILAND	**0.2**	**0.14**	**1.2**	**0.28**	**5.6**	**0.60**	**20.7**	**1.12**	**34.5**	**1.01**	**25.7**	**1.14**	**10.1**	**0.92**	**1.8**	**0.31**

(b) Differences in pupil competence levels in reading by gender, socio-economic background and school location: SACMEQ II and SACMEQ III

The differences in levels of achievement were quite small for gender in both SACMEQII and SACMEQIII. There were some differences in competence levels for both social status and school location. However, the trend between SACMEQ II and SACMEQ III is that all sub-groups achieved higher levels of

competence. This indicated a general improvement during the period; however results also demonstrated that there are consistent achievement differences between Grade 6 pupils from different school location and socio-economic backgrounds.

The two studies indicated that there was a correlation between achievement in terms of competence levels and in terms of mean scores. The results suggested that in Swaziland, pupils from rural/isolated schools and those from low-SES generally do not perform as those from urban and high-SES in reading. This confirmed the SACMEQ II observation that there were strong and consistent achievement differences between Grade 6 pupils from different socio-economic backgrounds and different locations. The results are presented in Table 7.6

(c) Differences in pupil competence levels in mathematics by gender, socio-economic background and school location: SACMEQ III

The "gaps" in the levels of competence were also observed in pupil competence levels in mathematics in SACMEQ III. This is presented in table 7.6. Overall boys tended to achieve higher levels of competence than girls, but the differences were not substantial. In fact both gender featured roughly in the same proportions in all the levels, with boys (7.0%) showing their dominance over girls (4.6%) in levels 5 and above.

School location also appeared to have contributed to some differences in the achievement levels. The results indicated that twice as many pupils from urban schools achieved levels 6 and above. This meant that chances were twice as much for a pupil in an urban school to be numerate than pupils from a rural school. Like reading, it appeared that mathematics performance also favoured urban schools.

Policy Suggestion 7.6. The Senior Inspector Mathematics and panel should investigate why current mathematics results indicate a bias towards male and also why the urban and high SES schools do better because one does not need extra equipment to learn mathematics at this level of education.

Table 7.6 Percentage of pupils reaching various mathematics competence levels by subgroups (SACMEQ II and SACMEQ III)

2000	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Level 7		Level 8	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Pupil gender																
Boys	0.6	0.34	18.1	1.36	46.9	1.71	22.4	1.31	8.6	1.07	2.4	0.51	0.7	0.32	0.2	0.18
Girls	0.9	0.36	24.2	2.00	42.0	1.59	21.2	1.39	8.5	0.85	2.3	0.41	0.6	0.28	0.3	0.26
School location																
Rural	0.8	0.44	22.5	1.42	46.4	1.24	20.8	1.38	7.1	0.87	1.9	0.38	0.4	0.20	0.0	0.03
Urban	0.7	0.30	18.3	2.33	39.4	1.97	24.2	1.78	12.0	1.58	3.4	0.87	1.2	0.74	0.7	0.74
Socioeconomic level																
Low SES (Bottom 25%)	0.4	0.24	23.3	1.77	48.6	1.88	20.2	1.70	5.8	0.89	1.4	0.40	0.3	0.19	0.0	0.00
High SES (Top 25%)	0.4	0.30	17.0	2.09	37.1	2.21	26.1	2.07	12.5	1.36	4.1	0.99	1.8	0.89	0.9	0.83
SWAZILAND	**0.8**	**0.32**	**21.3**	**1.21**	**44.3**	**1.10**	**21.8**	**1.12**	**8.6**	**0.79**	**2.4**	**0.38**	**0.7**	**0.26**	**0.2**	**0.22**

2007	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Level 7		Level 8	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Pupil gender																
Boys	0.0	0.00	7.2	0.92	34.1	1.44	38.1	1.29	13.6	0.89	6.6	0.72	0.4	0.14	0.0	0.00
Girls	0.4	0.27	9.5	0.99	37.3	1.23	35.8	1.15	12.3	0.90	4.3	0.59	0.3	0.12	0.0	0.00
School location																
Rural	0.3	0.20	9.6	1.11	37.7	1.26	36.2	1.28	11.7	0.82	4.2	0.51	0.2	0.09	0.0	0.00
Urban	0.0	0.00	5.5	0.87	31.2	2.16	38.7	1.34	15.7	1.47	8.2	1.27	0.6	0.21	0.0	0.00
Socioeconomic level																
Low SES (Bottom 25%)	0.3	0.21	11.0	1.47	38.3	1.79	33.8	1.75	12.2	1.24	4.2	0.75	0.1	0.10	0.0	0.00
High SES (Top 25%)	0.0	0.00	5.4	0.76	32.2	1.55	39.4	1.20	14.3	1.06	8.1	1.07	0.6	0.19	0.0	0.00
SWAZILAND	**0.2**	**0.14**	**8.4**	**0.83**	**35.7**	**1.10**	**37.0**	**0.98**	**12.9**	**0.74**	**5.4**	**0.54**	**0.3**	**0.09**	**0.0**	**0.00**

SACMEQ III results also indicated that socio economic status contributed to the differences in the levels of achievement in mathematics in Grade 6 pupils. The results in mathematics were almost similar to reading; they indicated that it also favoured high-SES pupils. Results indicated that for every low-SES pupil in levels 6 and above there will two from a high-SES. The results also indicated that there were more (49.6%) low-SES pupils than high-SES pupils (37.6%) in the lower levels – were "non numerate".

(d) Differences in pupil competence levels in mathematics by gender, socio-economic background and school location: SACMEQ II and SACMEQ III

Similar to reading, the results indicated a general improvement in performance by all sub-groupings. Levels achieved in SACMEQ III were of a higher order than in SACMEQ II. This suggested an improvement in the overall mathematical achievement. However, the trends did not change much between the periods. The results indicated a consistent norm that in Swaziland achievement difference in reading and mathematics can be derived from the location of school and the socio-economic status of the pupils.

This state of affairs suggested that between 2000 and 2007 the country did not do enough to ensure that education was distributed equally in the country, across the regions and within the regions. Grade 6 pupils who are from urban schools and those from a high-SES achieved higher scores and higher levels of competence. The unfortunate discrepancy suggested that although the Ministry has allocated additional resources to schools such as textbooks, stationery, feeding and funds the system still had a bias towards those who have.

Policy Suggestion 7.7: Confirm SACMEQ II policy suggestion: The Chief Primary School Inspector should establish a task team to investigate the gaps in pupil achievement levels associated with socio-economic differences and school location differences.

Policy concern 17

What were the reading and mathematics competence levels of Teachers of Grade 6 pupils?

The application of the Rasch Model permitted the Grade 6 pupils in SACMEQ countries to be scored on exactly the same scale as Grade 6 pupils. The details of the technique were described in the second chapter of the document. The levels of competence in reading for grade 6 teachers for SACMEQ II and SACMEQ III are presented in Table 6.7.

Table 7.7 Percentage of teachers reaching various reading competence levels by region (SACMEQ II and SACMEQ III)

2000	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Level 7		Level 8	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	1.7	1.73	23.7	7.22	74.6	7.33
Lubombo	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	4.1	2.98	0.0	0.00	15.6	5.65	80.3	6.29
Manzini	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	7.7	5.31	19.3	5.93	73.1	7.26
Shiselweni	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	22.3	6.82	77.7	6.82
SWAZILAND	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**	**0.8**	**0.58**	**2.6**	**1.60**	**20.5**	**3.30**	**76.0**	**3.59**

2007	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Level 7		Level 8	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	16.0	5.69	84.0	5.69
Lubombo	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	13.7	5.83	86.3	5.83
Manzini	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	13.8	4.90	86.2	4.90
Shiselweni	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	1.6	1.57	7.3	4.19	91.1	4.44
SWAZILAND	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**	**0.4**	**0.37**	**12.8**	**2.60**	**86.8**	**2.62**

(a) Competence Levels in reading for Grade 6 teachers: SACMEQ III

The results indicated that almost all the teachers (99.6%) were operating between levels 7 and 8, the highest competency levels. A small proportion (1.6%) of teachers in the Shiselweni was performing at level 6. This was the only region with teachers at this level. Overall there were small variations between the regions; however Shiselweni also had fewer teachers in level 7 when compared with the other regions. What was striking with Shiselweni is that it had the highest proportion of teachers in level 8. This suggested that the region had some relatively poor teachers but also had the better teachers in reading. This region which is generally a poor region has an emerging phenomenon which needs more research. A number of the poor and isolated schools in this region could be taught by unqualified teachers, giving rise to some operating at level 6. However, it is not unexpected that some grade 6 pupils in this region would have better teachers because the Ministry recently discouraged the employment of unqualified teachers and opted to hire temporary teachers who had a secondary teaching qualification, especially in reading and arts. A number of schools were then taught by temporary secondary degreed teachers. This could have given rise to the high incidence of level 8 teachers in this region. There is need for more research into this phenomenon.

(b) Competence Levels in reading for Grade 6 teachers; SACMEQ II and SACMEQ III

Nationally the results indicated a general improvement in the teachers' performance. In SACMEQ III there no teachers in level 5, the figures suggested that in 2007 reading teachers had achieved levels from level 6 upwards. This was an improvement from 2000. However there were a few areas of concern, in Shiselweni SACMEQ III results indicated that some teachers (1.6%) were in level 6 whereas there were no teachers in this level in SACMEQ II. This suggested that maybe these are teachers who are being engaged in small, rural isolated schools where other teachers do not want to go and teach. It is a common feature to have isolated and rural schools being taught by unqualified teachers from the immediate community. This is because such schools tend not to have resources such as housing, water and electricity. Results from school where the teacher is an untrained community member are expected to achieve lower levels because of lack of training in content and pedagogy.

The Lubombo region improved in that in 2000 it had 4.1 percent of its teachers at level 5, 'reading with meaning', who had not reached the 'evaluation and judgement' stages but none were reported in SACMEQ III. This suggested that maybe those teachers were replaced by qualified teachers, or could have improved themselves professionally, which is a good thing. The fact that in all regions the proportion in level 7 decreased a bit giving rise to an increase in level 8 confirmed the assertion that reading teachers in Swaziland improved over the last seven years.

(c) Competence Levels in mathematics for Grade 6 teachers: SACMEQ III

Table 6.8 presents the percentage of teachers reaching various mathematics competence levels in SACMEQ II and SACMEQ III. The situation in reading in SACMEQ III was not as good as that of reading. The results for teachers of grade 6 pupils are presented in table 6.8. The results indicated that 85 percent of the teachers were in levels 7 and 8; this is about 14 percent less than reading teachers who are at this levels. A greater proportion, one in seven of mathematics teachers were in levels 5 and 6 compared to only one in hundred in reading teachers. The results also indicated minor variations across the regions. There was reason to be worried in Hhohho where less than half of the teachers had reached the highest level. This is compounded by the fact that it had the largest proportion (7.3%) of teachers in level 5.

Table 7.8 Percentage of teachers reaching various mathematics competence levels by region (SACMEQ II and SACMEQ III)

2000	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Level 7		Level 8	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	13.4	5.20	46.0	8.46	40.6	8.23
Lubombo	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	10.9	4.85	46.3	9.32	42.8	9.32
Manzini	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	4.7	3.35	7.1	5.08	39.5	7.79	48.7	8.27
Shiselweni	0.0	0.00	0.0	0.00	2.0	2.04	0.0	0.00	1.8	1.79	14.9	5.97	27.1	7.70	54.2	9.44
SWAZILAND	**0.0**	**0.00**	**0.0**	**0.00**	**0.5**	**0.49**	**0.0**	**0.00**	**1.7**	**1.01**	**11.6**	**2.65**	**39.7**	**4.26**	**46.5**	**4.47**

2007	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Level 7		Level 8	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	7.3	4.20	11.2	5.53	35.7	7.39	45.8	7.77
Lubombo	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	14.5	6.18	33.1	8.29	52.4	8.69
Manzini	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	4.8	3.34	9.1	3.71	36.0	6.79	50.0	6.91
Shiselweni	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	2.8	2.81	9.9	4.83	33.0	7.64	54.3	8.13
SWAZILAND	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**	**4.1**	**1.65**	**10.9**	**2.49**	**34.6**	**3.74**	**50.4**	**3.91**

(d) Competence Levels in mathematics for Grade 6 teachers: SACMEQ II and SACMEQ III

The results for SACMEQ III presented mixed fortunes for Swaziland mathematics. The overall impression was that the results improved. There were gains that were made in that the 2 percent teachers that was in level 3 in Shiselweni region in 2007 shifted to level 5 in 2007, so there was no teacher in SACMEQ in levels 4 and below. Apart from this observable improvement, there was a general upward shift in overall proportions from 46.5 percent in 2000 to 50.4 percent in 2007. However, there was a slight lowering of competence levels in Hhohho, the results indicated that in SACMEQ II there was no teacher in level 5 but there was 7.3 percent incidence in SACMEQ III. The other regions did not change much in this level but Hhohho presented a drastic change, form zero to about 10 percent. This resulted in the national average of 4.1 percent teachers in level 5. This meant on average one in ten of mathematics classes in Hhohho were taught by teachers were not yet mathematically skilled. This was surprising when one considers that grade 6 pupils from the same region performed favourably, and there wasn't much difference with the other regions. These results could have suggested that there might need for two pronged approach in teacher training, for the teachers with highest score maybe there was need to teach them methodology for numeracy while for the others a training should include the core subject, mathematics.

Policy Concern 18

How many pupils and teachers had the acceptable reading skills?

As explained earlier the SACMEQ team and national experts also agreed on two broad levels of performance. These levels were defined similarly for Grade 6 pupils and their teachers. In the case of pupils it were 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). The desired level for pupils gives a rough idea of the proportion of pupil that stood a chance to pass the end of primary examination.

For their teachers SACMEQ looked at the same levels but emphasised that to be an effective teacher, the teachers had to operate at levels higher than those of the pupils. This meant the target was have all teachers in the 'desired levels', at teacher at the minimum level would be a disaster for education.

(a) Pupils and teachers with acceptable reading skills in SACMEQ II and SACMEQ III

Table 7.9 presents, the percentage of pupils and teachers with acceptable skills (SACMEQ II and SACMEQ III). For analysis purposes the report will only look at the pupil performance as the teachers profile did not change. The analysis on the pupils will only compare the SACMEQ II and SACMEQ III results.

Table 7.9 Percentage of pupils and teachers with acceptable reading skills by region (SACMEQ II and SACMEQ III)

	PUPILS				TEACHERS			
	2000		2007		2000		2007	
	%	SE	%	SE	%	SE	%	SE
Hhohho	90.7	1.59	91.2	2.61	100.0	0.00	100.0	0.00
Lubombo	85.6	3.94	92.8	1.91	100.0	0.00	100.0	0.00
Manzini	85.5	1.91	94.4	0.97	100.0	0.00	100.0	0.00
Shiselweni	85.7	1.79	93.2	1.35	100.0	0.00	100.0	0.00
SWAZILAND	**87.1**	**1.15**	**93.0**	**0.91**	**100.0**	**0.00**	**100.0**	**0.00**

The results indicated that more pupils reached the minimum levels in 2007 than 2000, the situation improved by 6 percent. The SACMEQ III survey also indicated that 7 percent of grade 6 did not reach the minimum levels; this meant one in ten grade six pupils were in danger of not passing their end of primary examinations. This is a reason for the Ministry to be concerned because it means on average ten percent of the pupils that may sit the Swaziland Primary leaving exam go into grade 7 with slim chances of passing the exam. However, repetition is not the solution, there is need that teaching is improved to ensure that all children reach the minimum level before they even go into grade 7.

Although the study revealed an improving trend it was worrying to note that in Hhohho this improvement was very small. The results increased by less than a percent, when other regions improved by percent on average. This meant that the region did not improve over the seven year period. The greatest improvement was in the Manzini region, where the proportion increased by ten percent.

(b) Pupils with acceptable reading skills by subgroups (SACMEQ II and SACMEQ III)

The results of pupils reaching the acceptable skill level by sub-group are presented in table 6.10. The intension of this table was to determine whether pupils from any of the sub groups were at a disadvantage. The results indicated an improvement from 2000; a greater percentage indicated that they had reached the acceptable reading skills. The trend has not changed much from what it was in 2000, this was worrying.

The results indicated that girls were doing better than boys. The gap between the two was still about 3 percent. The results also indicated that there were fewer pupils from rural schools who reached the acceptable level in SACMEQ III; the gap was about 5 percent, roughly as it was in SACMEQ II.

The same gap was also evidenced between pupils from a high-SES and those from a low-SES. The results indicated that overall the proportion reaching the acceptable levels increased between 2000 and 2007 but the trend did not change. This confirmed the assertion in the SACMEQ II report that variation in performance could be attributed to school location and socio-economic status of the pupils.

Table 7.10 Percentage of pupils with acceptable reading skills by subgroups (SACMEQ II and SACMEQ III)

	2000		2007	
	%	SE	%	SE
Pupil gender				
Boys	85.1	1.38	91.0	1.11
Girls	88.9	1.21	94.9	0.86
School location				
Rural	85.3	1.45	91.3	1.22
Urban	91.4	1.68	96.7	0.78
Socioeconomic level				
Low SES (Bottom 25%)	84.7	1.65	90.0	1.54
High SES (Top 25%)	92.5	1.41	96.1	0.62
SWAZILAND	**87.1**	**1.15**	**93.0**	**0.91**

The worrying scenario is that rural schools are mostly in the poorer regions such as Lubombo and Shiselweni. The combination of low-SES and location of school could have an adverse effect on children if the Ministry does not make consented efforts to balance it.

Conclusion

Nationally the gender balance improved more in SACMEQ III with all the districts at or very near 50 percent. The results indicated a national improvement of about 20 percent by both girls and boys in both subjects. This suggested that the literacy and numeracy programmes introduced after SACMEQ II results were bearing fruit and needed to be sustained. Boys continued to outperform their female counterparts in mathematics and girls did better in reading than boys. This trend did not change; this suggested that the Ministry had not done enough to address the gender based inequities that were also picked up in 2000. This performance could have also suggested that there was still a “male dominance” in the teaching of mathematics and a “female dominance” in teaching of reading. There was a concern over the fact that the number of female head teachers had dropped from 2000, this suggested that the TSC may have reverted back to appointing of males into headship positions, this needs to be reconsidered.

Chapter 8
Knowledge and Skill Levels for Pupils and their Teachers in HIV and AIDS

Introduction

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 test was developed in consultation with all the HIV/AIDS experts in the ministries of education in the respective (SACMEQ) countries. Teaching and learning materials from all countries were used to come up with the test items. The test was constructed is 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. The items also included some items which were part of the UNGASS. 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. It was an important test for the pupils for they are the "window of hope" for Swaziland.

Swaziland does not have HIV/AIDS as a subject in the curriculum at primary level. The country adopted a cross cutting approach to teaching pupils about HIV/AIDS. This means it is an expectation that all subject teachers will infuse some aspects of the HIV/AIDS in their teaching. Efforts have also been made to make some curriculum materials sensitive to the pandemic, but no official slot in the time table has been allocated to the teaching of HIV/AIDS. In some schools there are teachers who were identified to lead the teaching and programmes associated with HIV/AIDS. These are called 'Guidance and counselling teachers', who are also assigned to teach their core subject areas and also advise on life skills. This meant that in some schools there was no teacher responsible for HIV/AIDS and there was no standard HIV/AIDS curriculum that schools could follow. An important aspect is that in some schools these Guidance and counselling teachers is a responsibility, some schools assign different teachers each academic year.

The tests and questionnaires for Grade 6 pupils was 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 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.

(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.

General Policy Concern 18

What were the average scores and performance levels of grade 6 pupils and their teachers in HIV/AIDS test?

The average scores for Swaziland's grade 6 pupils and their teachers are presented in Table 8.1. The pupil tests were scaled such that the average for whole of SACMEQ was 500 and for their teachers the score was 700.

Table 8.8 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

	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**

Mean Scores

The average score for grade 6 pupils in Swaziland was 530.5 and the average score for grade 6 teachers was 759.1. Both these scores were above the SACMEQ mean score of 500 for pupils and 700 for teachers respectively. This revealed that both the grade 6 pupils and their teachers were above the SACMEQ mean.

The performance of the pupils and teachers across the regions of the country was almost uniform. However pupils from Hhohho and Shiselweni regions performed slightly lower than their counterparts. Teachers from Hhohho achieved an average mean score of 769.6 which outperformed all teachers from the other regions who

got less than 760 on average. There was a concern with scores from Hhohho, the pupils score were the lowest whilst the teachers score were the highest – a huge discrepancy.

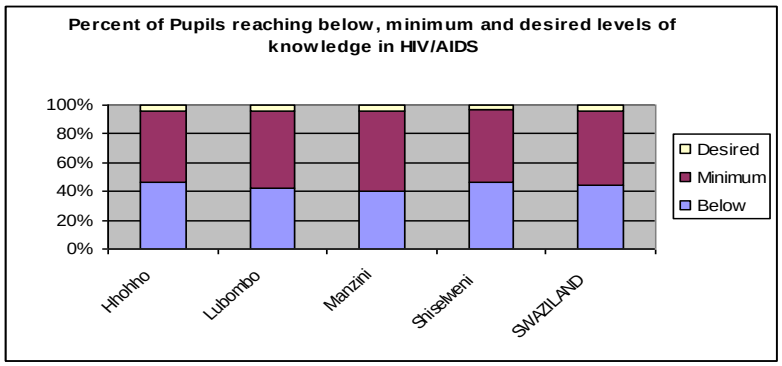
Nationally, there was also an observed high discrepancy between the scores obtained by grade 6 pupils and their teachers. The teachers mean score was quite high (759.1) whilst the pupils mean score was (530.5) which indicated that pupils' scores were at least 200 points lower. This suggested a huge discrepancy in understanding between the two parties.

Expert judgments

The results indicated that a bit more than half of the grade 6 pupils achieved the minimum score. The results also showed that only one in twenty five (4%) of the pupils had reached the desired levels of HIV/AIDS knowledge. Crudely, this meant than 96 percent of the average Grade 6 pupils in Swaziland were at risk due to lack of appropriate information about HIV/AIDS.

It was also noted that all teachers of Grade 6 pupils achieved the minimum levels. This meant that there all teachers (100%) got at least half of the items correct. The results also indicated that close to 90 percent of the teachers of Grade 6 pupils reached the desired levels. This meant almost all teachers in the country did have the required knowledge on HIV/AIDS. It is however worrying that despite the fact that 90 percent of the teachers possessed the desired levels their pupils knew very little. The results thus suggested that there was no correlation between teachers knowledge and pupil performance. What is further worrying is that just about half of grade 6 (43.9%) pupils in Swaziland are at risk because they do not even possess the minimum knowledge. This is summarised in the chart to follow.

Chart 8.1: Percent of Pupils reaching below, minimum and desired levels of Knowledge in HIV/Aids



The results indicated that nationally around 44 percent of the Grade 6 pupils did not even possess the minimum levels of knowledge. These are pupils who could not even guess 50 percent of the test items, i.e. obtained less half of the items correct. These are pupils that need to be 'raised' to reach the minimum threshold or lest they will be lost to the epidemic.

On average only a tiny proportion of Swazi Grade 6 pupils (4%) have information to make the right decisions in as far as HIV/AIDS information is concerned. Critically this means Swazi teachers who know a lot about the pandemic are not doing enough to impact the knowledge to their pupils. The results also indicated that in all regions, the gap between teachers and pupils reaching minimal knowledge was around 50 percentage points. This presented a situation where there is need to focus on how this information is conveyed to the pupils. The delivery of the content is the core issue. This is an issue that is bound to curriculum, official time dedicated to teaching/learning about HIV/AIDS and health issues, method of delivery and the content of what has been taught. This was a shock because it is assumed that teachers "who know" should be able to transmit knowledge to their pupils.

Policy Suggestion 8.1: The results indicated that the teachers of Grade 6 pupils knew quite a lot about HIV/AIDS but their pupils know far less and half did not achieve the minimum levels. The **National Curriculum Centre** (NCC) should to undertake a research that would assess the current methodologies used in the teaching of HIV/AIDS in primary schools. This study should also come with recommendations/strategies/materials on how the teaching can be improved and made more effective.

The bottom line is that the results indicated that the current systems of delivering HIV/AIDS to pupils at this level of education are not adequate – no learning is taking place. The research and enquiry should improve the delivery mechanisms. There will be need that this instrument be administered annually.

General policy Concern 19
What were mean performance on the HAKT of pupils by gender

Differences in pupil performance by gender

The SACMEQ III study also looked at the performance of Grade 6 pupils by gender. There was need to assess the knowledge skills of the girl child who in most cases needs more protection than her counterpart. In Swaziland the Gender Parity Index is 0.90 at primary level. This meant there were almost the same proportions enrolled, thus intervention in school was a viable option. The scores were reported by both the traditional method and expert judgment for both boys and girls. The results have been presented in Table 8.2.

Mean Scores

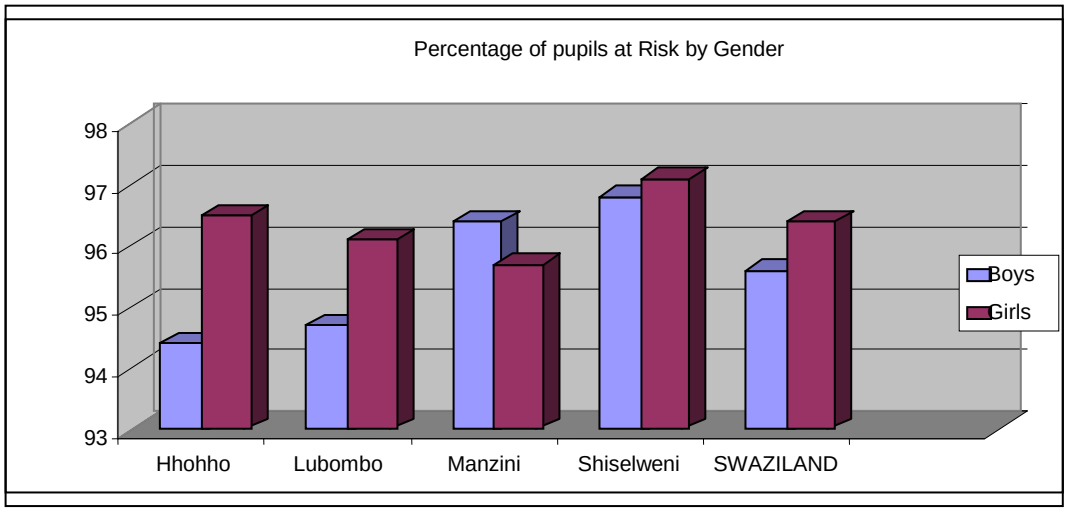
At national level the average scores for the Grade 6 girls and boys were almost the same; however the scores for the boys were on the higher side. This was also the case even within the regions save for Manzini region where the girls obtained an average score of 539.0 and boys obtained 533.3.

Table 8.2 Mean Performance on the HAKT of pupils by gender

	PUPILS											
	Transformed score				Reaching minimum level				Reaching desirable level			
	Boys		Girls		Boys		Girls		Boys		Girls	
	Mean	SE	Mean	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	528.9	8.17	525.0	7.83	50.5	5.04	48.4	4.06	5.6	1.47	3.5	1.30
Lubombo	532.2	8.86	530.7	7.25	53.9	5.04	52.0	4.40	5.3	1.96	3.9	1.46
Manzini	533.3	5.15	539.0	6.07	54.9	3.03	55.9	3.41	3.6	1.05	4.3	1.35
Shiselweni	529.5	5.96	524.4	5.05	52.7	3.81	47.9	3.28	3.2	1.01	2.9	0.90
SWAZILAND	**531.0**	**3.47**	**530.0**	**3.34**	**53.0**	**2.09**	**51.2**	**1.89**	**4.4**	**0.68**	**3.6**	**0.64**

The study revealed that it was Grade 6 boys from the Hhohho (5.6%) and Grade 6 girls from Manzini (4.3%) that had the highest proportion of pupils who had achieved the desired levels of HIV/AIDS. This suggested that around 95.6 percent of boys and 96.4 girls were in danger nationally.

Chart 8.2 Percentage of Grade 6 Pupils who were at risk by Gender



General Policy concern 20

What were the achievement levels of the subgroups?

The study also categorized Grade 6 pupils into two [7]socio-economic status (SES) groups defined as having (i) low number of possessions (low SES) and those having a (ii) high number of possessions (high SES). The intension was to determine whether the socio-economic status of the pupil did have any effect on the knowledge possessed by pupils on HIV/AIDS. Table 3 presents the mean scores, and levels achieving minimum and desired are presented for each of the two subgroups.

Table 8.3 Mean performance on the HAKT of pupils by socioeconomic status

	PUPILS											
	Transformed scores				Reaching minimum level				Reaching desirable level			
	Low SES		High SES		Low SES		High SES		Low SES		High SES	
	Mean	SE	Mean	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	510.5	16.91	549.4	7.31	41.1	8.30	60.4	4.29	**5.1**	3.11	**7.1**	1.97
Lubombo	530.9	10.41	535.1	6.46	51.1	5.84	56.2	4.26	**5.3**	2.11	2.7	1.26
Manzini	525.6	7.34	547.4	7.19	53.8	4.53	60.5	3.40	1.5	1.06	**6.2**	1.87
Shiselweni	520.0	5.23	541.5	5.93	47.5	3.48	58.1	4.29	1.8	1.04	5.8	1.65
SWAZILAND	**522.1**	**4.91**	**545.4**	**3.88**	**48.3**	**2.70**	**59.5**	**2.08**	**3.5**	**0.96**	**5.9**	**1.01**

The results indicated that the gaps between the average scores of Grade 6 pupils with a low SES and those with a high SES are quite substantial. Pupils from a high SES performed better on average than those from a low SES – by at least 20 points. The results also indicated that a higher proportion of Grade 6 pupils with a low SES in Lubombo and Hhohho regions achieved the desirable levels when compared to their counterparts with a low SES from the other two regions. It was surprising that Grade 6 pupils from a low SES in Lubombo outperformed those who were from a high SES in the same region. Further it was intriguing to note that they also out performed all other

[7] SES, Socio Economic Status, was determined by comparing the list of items/possessions available in the place where the Grade 6 pupils live.

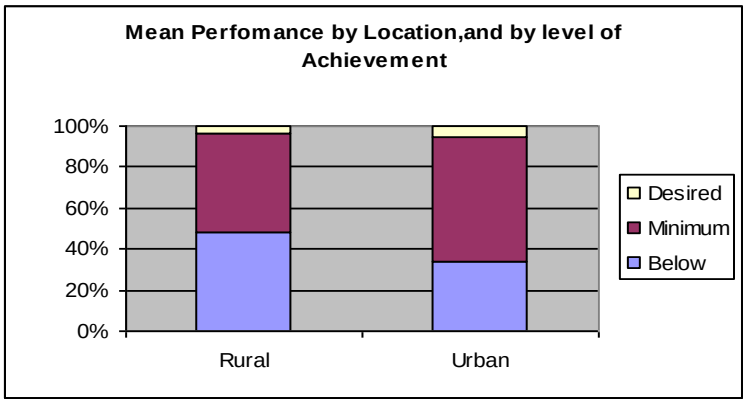
pupils from a low SES in the country, when Lubombo was known to be the poorest of the poor in Swaziland. This trend is peculiar to this region only; the other regions showed a slight correlation between high SES mean scores and levels of achievement. The results indicate a unique trend by SES in Lubombo, the high SES Grade 6 pupils did not fare well when compared with their low SES.

In most analysis, a low SES is often associated with rural communities. The study also looked at how the locations of the schools where Grade 6 pupils attend impacted on their performance in the HAKT. The schools were categorized in two major sub-groups, the urban and rural. The categorization between urban and rural was done before the pilot, during the sampling, thus the results are not at all biased. In table the average scores and level of achievement on HAKT are shown for each of the two sub-groups by region.

Table 8.9 Mean performance on the HAKT of pupils by school location

	PUPILS											
	Transformed scores				Reaching minimum level				Reaching desirable level			
	Rural		Urban		Rural		Urban		Rural		Urban	
	Mean	SE	Mean	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	515.2	9.43	553.6	9.78	41.9	5.19	66.8	5.40	3.7	1.56	6.6	2.59
Lubombo	529.8	8.68	541.2	12.73	51.5	4.78	61.8	8.55	5.2	1.80	0.8	0.88
Manzini	528.6	5.69	544.8	9.27	53.0	3.75	58.1	4.69	2.4	0.79	5.8	1.97
Shiselweni	522.2	5.30	541.9	14.53	47.3	3.53	59.6	8.54	2.6	0.81	4.5	2.21
SWAZILAND	**523.7**	**3.78**	**546.3**	**5.53**	**48.2**	**2.21**	**61.0**	**3.00**	**3.5**	**0.66**	**5.3**	**1.18**

Chart 8.3: Mean Performance by Location and by Level of Achievement



The results in Table indicated that Grade 6 pupils from rural areas performed slightly lower than their counterparts from urban areas, their mean score was 523.7 whilst it was 546.3 for their urban counterparts. There were more pupils from rural locations who performed below the minimum levels. A large proportion of urban Grade 6 pupils are in the minimum level category (see Chart 8.3). What was intriguing was the fact that the mean score by location were quite similar to those by categorized by SES in Table. This suggested that in Swaziland rural schools are more likely to be of low SES than urban schools. The mean scores for Grade 6 pupils in the Hhohho region schools showed a huge discrepancy between rural and urban, close to 40 points difference. This confirms with the low SES Hhohho which was also lower by close to 30 points when compared with the high SES. This suggests that there is very little in terms of teaching children about HIV/AIDS in rural isolated Hhohho schools.

Table also shows that Grade 6 pupils from rural Lubombo outperformed all rural Grade 6 pupils nationally. It indicated that on average for every rural pupil that reached the desirable level in the other regions there would be two from Lubombo. The results indicated that there was something interesting happening in rural and low SES pupils from Lubombo. The local context of this group is that it is one of the poorest regions in the country, closer

to the border with Mozambique, largely rural and has huge sugar cane plantations that run parallel with the mountains dividing Mozambique and Swaziland.

Policy Suggestion 8.2: The higher proportion of Grade 6 pupils in rural Lubombo suggested that there was effective impacting of HIV/AIDS knowledge. The results also suggested that there are other activities that were undertaken in Lubombo in addition to teaching. Maybe there were NGOs based in the regions which had an impact on the skills and knowledge about HIV/AIDS. *The Health Education Unit of the Ministry of Education and Training should undertake an assessment of the schools in the region and document all the good practice. This should inform the in-service and curriculum innovations for the rest of the schools in the country.*

Table 8.3 Mean Performance on the HAKT of teachers by gender

	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**

The results in the Table indicated that 89.1 percent (98.2% male and 85.2% female) of teachers in Swaziland had reached the desired levels of achievement. The table above looked at the performance (scores) of the teachers by gender. The results indicated that male teachers (790.2) of Grade 6 pupils achieved higher mean scores than their female (745.5) counterparts. The difference was more than 40 points, which was quite substantial.

All teachers of Grade 6 pupils reached the minimum levels of achievement; however it is only male teachers from Hhohho and Lubombo regions that had acquired the desired levels of competency. The other male teachers also performed well, more than 94 percent reached the desirable levels. Nationally 15 percent of female teachers of Grade 6 pupils did not reach the desired levels, worse still about one fifth of female teachers from Hhohho (20.3%) and Manzini (19.2%) also did not reach the desired levels. This was worrying because it indicated that Grade 6 pupils in schools taught by these teachers could not be expected even reach the minimum levels of achievement. This is grave, the health and lives of the pupils were seriously compromised.

Policy Suggestion 8.3: The Regional Primary School inspectors for Hhohho region should identify the pockets of schools where teachers performance was low and launch HIV/AIDS awareness/training campaigns in collaboration with the Ministry of Health.

It is worrying that a large majority of Grade 6 pupils did not reach the desired levels of knowledge of HIV/AIDS. All children need to have basic knowledge about HIV/AIDS and health related life skills. It is scarring that in Swaziland there are teachers who have not reached the desired levels of HIV/AIDS who are teaching our children. This is a two pronged battle, capacity building of the teachers and restructuring of the teaching about HIV/AIDS in schools.

General Policy Concern 21
What were the Attitudes of Grade 6 pupils to HIV and AIDS?

This section of the report will present findings on the attitudes, perceptions, fears and myths the Grade 6 pupils, their teachers and head teachers had about HIV/AIDS. 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 virus. They can result in 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.

Stigma not only makes it more difficult for people trying to come to terms with HIV and manage their illness on a personal level, but it also interferes with attempts to fight the epidemic. Grade 6 pupils, their teachers and head teachers were asked about how they feel about being in contact with fellow pupils who are infected. In analyzing these data the SACMEQ III local team considered with seriousness those Grade 6 pupils and their teachers who responded by "**not sure**" and considered this a negative response – one cannot be 'not sure' about a death and life issue. These results have been presented in Table 8.4.

1 ttitudes about HIV and AIDS

Table 8.10 Percentages of pupils, teachers and school heads expressing fear of casual contact with a pupil infected with HIV *(stigma)*

	RESPONSES ON THE POSSIBILITY OF A PUPIL INFECTED WITH HIV TO COTNINUE 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**

The results indicated that around one in ten (12.9%) Grade 6 pupils did not agree with the notion that a pupil infected with HIV should continue to attend school. The results also indicated that 15.3 percent of Grade 6 pupils were not sure, this suggested that they are either not informed or have doubts about something. Essentially this indicated that about one in three (12.9 + 15.3) Grade 6 pupils were not comfortable with the idea of a fellow pupil who is infected with HIV to continue to attend school.

There is however need to look at the results from the view of the Grade 6 pupils, the pupils might not have been necessarily having negative attitudes, they might have been thinking that a person with HIV is very sick and should stay at home. This is stigma based on fear of the unknown or based on ill-informed prejudices. This can be deduced from the proportion of those who responded by saying they were not sure.

It is also equally worrying that there were head teachers and teachers of Grade 6 pupils who had some doubts; the fact only 1.9 percent of Grade 6 teachers and 0.9 percent head teachers respectively indicated that they were not sure was a reason for worry. This suggested that there were teachers and head teachers who still were ill-informed about the pandemic. Teachers from the Lubombo region all indicated that they supported pupil attending, this did conform and might have explained why in some cases pupils from the same region performed well in the HIV/AIDS test. Teachers from Hhohho, about 3 percent were not sure; it can also be linked to the performance of the pupils.

The results also indicated that 2 percent of head teachers of Grade 6 pupils in the Manzini region responded by saying they thought pupils infected with HIV should not attend school. This was the highest proportion of 'adults' that responded negatively. This is reason to be concerned. There were teachers of Grade 6 pupils who did not believe that a pupil infected with HIV should continue with education. Even the fact that there were teachers who responded by saying 'not sure' was equally worrying.

Policy Suggestion 8.4: The Ministry of Education Health Education unit should reinforce its in-service approach to the training of teachers on HIV/AIDS. There are some teachers that obviously have not received any training. All teachers should be in-serviced about the pandemic and if need be it should be a certified course.

Policy Suggestion 8.5: The Director of Education should develop strategies in partnership with NGOs such as UNESCO and UNICEF to ensure that every professional person in the Ministry of Education and Training is informed about HIV/AIDS. There is need to have attendance of an HIV/AIDS knowledge course as a criteria for promotion to headship position for all teachers. Head teachers should also be resource persons for the schools.

Policy Suggestion 8.6: The National Commission for UNESCO and the Under Secretary (Administration) need to strengthen and implement the Ministry's wellness programme to include all regional, institutions and parastatals associated with the Ministry of Education and Training.

Pupils were also asked to indicate whether they would like to have contact with an HIV infected person. The results have been presented in Table 8.5. The first question that was posed was in relation to a friend. Half of Grade 6 pupils were either 'not sure' or claimed that they would 'shun' their friend. The incidence of 'not sure' was 34 percent; this meant one in three of Grade 6 pupils were at risk of discriminating or developing negative attitudes towards those infected with HIV/AIDS.

Table 8.11 Percentages of pupils refusing contact with a person living with HIV or AIDS (Discrimination)

	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**

The results indicated a worrying phenomenon, if 34 percent were not sure of how they would have responded to their friends and 11.9 percent said they would shun their friends, indicated that 45.9 percent Grade 6 pupils stood risk of developing negative and discriminating behaviour. This is discouraging, especially when one considered that these are young children. However, all is not lost; some regions did appear to be on the right track. Lubombo recorded the highest proportion (58.3%) of pupils with a positive attitude or at an informed standpoint. This confirms what other indicators have deduced; it did indicate that Grade 6 pupils from Lubombo were better informed about the pandemic. This was also observed in the proportion of teachers who achieved the desired levels and from Grade 6 pupils who also reached the desired information levels.

When it came to caring for a relative who ill with AIDS, nationally one in five Grade 6 pupils responded to the negative. This meant that Grade 6 pupils believed that caring for a sick relative exposed one to the virus. About one in three were not sure. Again this suggested that a sizeable proportion of Grade 6 pupils were not informed or could not decide. The combination of the indicators suggested again that on average half of the Grade 6 pupils needed some information and teaching about the pandemic. However, there is need for caution as these figures might not represent lack of information only but also 'inbuilt' attitudes brought about by the communities that the pupils come from. A great deal of how we behave is derived from our interaction with the environment that we live in. Hhohho region indicated a worrying trend; the high proportion of pupils who responded that they would not care for ill relative was the highest at 23.1 percent suggested that there was still a lot of negativity in the said community.

2 Risk Perception about HIV and AIDS

The last table in this section presents responses from teachers and head teachers on their assessment on the risk of being infected with the HIV. They were asked them to assess themselves whether they thought they stood a high, medium or low chance of being infected with the virus. The results indicated that on average one in five (19.1%) teachers of Grade 6 pupils thought the stood a high risk of being infected.

Table 8.12 Self risk assessment of being infected with HIV by teachers and school heads

	SELF HIV RISK ASSESSMENT											
	TEACHERS						SCHOOL HEADS					
	No/ Low Risk		Medium Risk		High/Very High Risk		No/ Low Risk		Medium Risk		High/Very High Risk	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Hhohho	68.5	7.29	8.2	4.07	23.3	6.72	56.1	7.76	15.7	5.57	28.2	6.90
Lubombo	51.0	8.67	20.7	7.15	28.2	7.80	69.4	8.15	12.8	6.08	17.8	6.74
Manzini	63.5	6.71	16.8	5.47	19.7	5.34	50.9	7.17	11.7	4.79	37.4	6.82
Shiselweni	78.0	6.98	15.9	6.06	6.2	4.30	64.1	7.86	11.7	5.42	24.2	6.93
SWAZILAND	**65.8**	**3.66**	**15.1**	**2.82**	**19.1**	**3.02**	**59.1**	**3.84**	**13.0**	**2.70**	**28.0**	**3.45**

The results also indicated that a higher proportion of teachers from Hhohho and Lubombo teachers thought they were at high risk. This is worrisome when one considered that Lubombo teachers are informed of the dangers associated with HIV/AIDS, as per their performance in the achievement results in Table 8.8 but still believed they were high risk. This suggested that although teachers knew about the dangers they did not think their behaviour was safe enough – a case of not practising what they preached. The local context is that most primary school teachers are young, live in shared accommodation or rented accommodation within the communities that they

teach in, and move from school to school. It could be that their high risk was contributed by the fact they viewed their living conditions as high risk.

Nationally more teachers (65.8%) thought that they were at lower risk than their head teachers (59.1%). The results also indicated that 28 percent (one third) of head teachers thought were at high risk to be infected. This was worrying, as to why people who are largely senior citizens would have this perception, especially because in Swaziland HIV/AIDS is transmitted through heterosexual sex. Manzini is even more worrying; about two in five head teachers reported that they stood high risk of being infected with HIV/AIDS. If one considered those who reported that they were not sure, nationally it meant that close to 40 percent of head teachers thought they were at medium and high risk.

Policy Suggestion 8.7: The National SACMEQ Coordination Committee has to undertake a study into the head teachers' responses with a view to get more data and information on their perception of the questions. These responses are confusing, they need further enquiry.

Conclusion

The study revealed that there was a high discrepancy in the knowledge of teachers of Grade 6 teachers than their pupils. Teachers obtained very high scores which meant they had the information but did not effectively pass it on to their pupils. This is an emergency. It suggested that either there was no teaching about HIV/AIDS or teachers could not present the information and knowledge in a way that children could understand. However, when the fact that it is being taught "cross-curricular" is considered, results indicated that this paradigm of delivery was not working.

This meant the Ministry has to develop relevant curriculum materials, allocate a time slot for HIV/AIDS in the time table and teach it as one of the core subjects. In Swaziland this should be a priority considering the extent of the effects cause by the pandemic. Having it cross curricular with no time slot does not give it the attention it deserves, this is a life and death issue.

The study also revealed pockets of areas where the Ministry needs to intervene, pupils from northern Hhohho need some education on the disease, and the Ministry needs to level the playing field and mount targeted interventions. Grade 6 pupil s and their teachers appeared to need some assistance.

The study also revealed that there is a possibility that teachers and head teachers might not have changed their behaviour despite of what they know about HIV/AIDS. However, there is need for the Ministry to study this issue further. On one side this could mean that they have doubts on their behaviour or they think with the incidence of HIV/AIDS in their environment, teachers and pupils they fear that they might be infected themselves. This warrants a study into the responses of the head teachers. This is worrying when one considers that in most cases, head teachers are senior citizens, married and tend to live with their families in the schools that they head.

What was also very informative was that the sources of information for both the Grade 6 pupils and their teachers were not school related. Pupils identified the radio, TV and drama as their best sources. The teachers identified that person living with HIV, TV and radio as their best sources. This does suggest that there isn't much happening within the school. The Ministry needs to take a firmer stand, either the HIV/AIDS becomes an official subject and is allocated a time slot or it works through the radio, TV and drama to educate children about the scourge. Maybe there is need that the regional TV programme, "Soul Friends", which runs across the SADC (Southern Africa), is fully integrated and used in class situations. There might be need to invest of visual media.

Chapter 9

Agenda for Action

Introduction

A number of issues, suggestions and policy options have been generated through this research project. These suggestions and policy options will be used by the Swaziland's education sector to make informed decisions and the quality of basic education in the country. Some of the suggestions propose review of policy whilst some may suggest major policy shifts, further enquiry and investments to be made so as to make the education system more responsive to the needs of the country. Chapter 9 will explore means and measures that have to be undertaken so as to operationalise the suggestions. All policy options that have been raised in preceding chapters have been analysed and categorised into four groups and then linked to the section (organ) that will need to coordinate further work, the requirements, and levels of engagement and costs that may be involved.

The action required is for the identified sections to coordinate the activities, such as testing for the validity of the suggestion, modifying the suggestion or implementing the suggestion as is. The suggestions have been agreed upon by the drafting teams, however there will be need for the Ministry to assess and implement some of these suggestions in order to derive the expected results. There will be a tendency for most of the suggestions to be nationally focused, this might be due to the centralised operational system of the country, however where possible some suggestions have been recommended for the regions.

The classification of policy suggestions

All the policy suggestions that were raised were then classified into the four groups as suggested in the SACMEQ II report. These groups have not been changed from those of the SACMEQ II project so as to provide for comparisons across time and to determine which of these suggestions are coming in for the second time. A recurring suggestion may suggest that the Ministry did not effect or implement the initial suggestion. The groups are:

(a) the four groups

Group 1: Review of existing planning, operational, and policy procedures that are entirely within the portfolios of the Ministry of education and may not require large amount of resources (material and financial) to implement. A good illustration would be implementation of the Ministry policy on Grade repetition. The Ministry's official position is that grade repetition should not exceed ten (10%) percent. However SACMEQ studies and other surveys such as the Annual Education Census (AEC) have revealed that on average the repetition at primary levels is above this benchmark. This suggests that the Ministry is failing to ensure that schools implement this policy. This does not any investments or studies, it needs to Director of Education to remind schools of the policy and then ensure that it is adhered to, all other factors being equal.

Group 2: Consultations with staff, community, national stakeholders in education and on issues of the well being of the child**.** The SACMEQ III project included some questions on health and HIV and AIDS. Currently issues like these are cross-cutting in Swaziland, and this then suggests the need to engage even with other stakeholders outside the education sector. Policy suggestions under this group, would involve a review of procedure, revitalisation of key operations, but would need some input from stakeholders both within the public and private sector. One good example is that of publicity and campaigns on HIV and AIDS in selected communities where the information levels were considered low. The suggestions in chapter 9 emphasised the need to engage with the

Ministry of Health and UNICEF. Such an activity could be coordinated by the Ministry of Education but would need funding and experience from other players as identified.

Group 3: Data collection, research, training and consultations with stakeholders for major planning and policy suggestions. Suggestions under this group may require extra and external budgetary support. Activities would include small data collections, trainings, work-shopping, in-service and research activities focussed at collecting key information. For example one of the suggestions is the development of a database for preschool centres in the country. Such a study may require employment of extra data collection and processing. Staff, transport, accommodation, printing and this may demand additional funding outside the normal budget allocation.

Group 4: Investment in Infrastructure and major capacity building: These policy suggestions may require extensive funding and may even require a major project format. A suggestion for the provision of counselling rooms for children and teachers infected and affected by HIV and AIDS in every school was raised in chapter 8. This is very important, not only will it address issues around HIV and AIDS but also counselling services for psychosocial care and support. However provision of such rooms (adequate standards) may require a huge project for building or renovation of existing rooms for such a purpose.

(b) The responsible authority

The overall responsibility of all the policy suggestions lies with the Director of Education whose mandate is to ensure that every child in Swaziland acquires a quality education. Some specific suggestions were issued to some department and sections of the Ministry to ensure that there is coordination and leadership in the work that is involved. The offices that have been listed under column are to provide leadership and report regularly on progress in the implementation of the policy suggestions. Ideally such suggestions should be integrated into their strategic plans and be monitored and evaluated continuously.

(c) Data and Information sources

It is important to identify the possible sources of information and support in the implementation of the policy suggestions. The third column suggests the different stakeholders, institutions and community that would be a source of relevant information and experience. In some cases the Ministry (MOET) has been identified as a source, this would suggest that information is available within the Ministry's departments and sections.

(d) Level

Most of the policy suggestions would indicate that they are to be implemented at national level. This is largely due to the fact that the country's educational system is centralised and all major budgeting and planning is done at national level. In cases where the suggestions have focussed on a specific region/s the region has been identified and listed on the fourth column.

(e) Costs and Time

The approximation of the costs and time involved has been given on the last column. All the policy suggestions will require funding and time, these will vary as the policy suggests. Both constructs "Cost" and "Time" have been divided into three categories, For "Time" there are three broad categories, short (within one financial year), medium (two to three years) this normally would be within a "Rolling plan period" and long-term would be included in more than one plan – a strategic plan. These are policy suggestions that would require to be programmed into the Ministry strategic programmes/plans. For "Costs" the estimates are "Low" which can be

implemented from normal budgets which may only involve realignment of existing budget lines. Medium or moderate would require additional budget line (supplementary funds) or would require major inputs (High).

Table 9.1 Summary of policy suggestions in association with relevant sections and suggested levels of engagement and time and costs involved

Policy Suggestion	Coordination Unit	Data and Information	Level	Costs/Time
Review of existing planning, operation, and policy procedures:				
Policy suggestion 3.4: The Director of Education should set in place firm and clear policies on grade repetition – including benchmark limits that are enforced and monitored by the Research and Planning Unit. If the policies include automatic promotion then this should be accompanied by initiatives that would identify, and assist low achievers through some remedial initiatives which should be instituted in all primary schools	Director of Education	Annual Education Census data	National	Low/short
Policy Suggestion 3.6: The Director of Education should move towards a policy of compulsory ECCD for all children by delivering it as part of the Free Primary Education programme.	Director of Education Executive Secretary TSC and Director Guidance and Counselling	Previous study reports	National	High/medium
Policy suggestion 3.9: The Ministry of Education's Guidance and Counselling should to ensure that there are trained counsellors in every school and that *infrastructure such as counselling rooms is available.*	Director of Education	Schools	National	Medium/medium *Infrastructure need major investment*
Policy Suggestion 3.19: The Ministry of Education and Training should take action to ensure that HIV/AIDS prevention education programmes are given a specific time allocation and a time slot in the time table. The goal should be to ensure that at least one period a week is dedicated to Health issues including HIV/AIDS	Director of education and Director of Curriculum	Schools and stakeholders	National	Low/short
Policy Suggestion 4.2: The Teacher In-Service Department should establish a	Director of INSET	Schools and	National	Low/short

system for monitoring the frequency and duration of in-service courses provided for reading and mathematics teachers in primary schools so as to ensure that these programs are fully resourced and able to deliver high quality training		teachers		
Policy Suggestion 4.3: The Director of Education should request the Director of INSET to document any changes that have been made in order to improve in-service teacher training for primary schools over recent years. This documentation should then be used to improve in-service in general for all levels of education	Director of Education and Director of INSET	School heads	National	Low/short
Policy suggestion 4.7: The Chief Inspector Primary should investigate why teachers are giving fewer tests in reading and mathematics.	Chief Inspector Primary	School heads	National	Low/short
Policy suggestion 4.8: The Ministry should provide guidelines to teachers and teacher training institutes on the official government policy for the frequency of pupil assessment – and then ask inspectors to monitor the implementation of this policy.	Director of Education	Schools and teachers	National	none/short
Policy suggestion 4.9: The Chief Inspector Primary should further clarify with teachers, curriculum developers and inspectors the exact requirements of the "Continuous Assessment (CA)" programme in Swaziland and should ensure that the officially recommended frequencies for classroom tests are adhered to.	Director of Education and Director National Curriculum Centre	Schools, Curriculum designers and Inspector	National	Low/short
Policy suggestion 4.14: The Ministry of Education has to take seriously the HIV/AIDS situation and create posts or link posts with this responsibility to ensure that there is a teacher set aside for this responsibility. If there are not enough posts maybe this responsibility can be given to deputy school heads. These are teachers who normally do not move from school to school except on promotion. Even when promoted their	Director of Education and TSC Commission	MOET management	National	Low/short

skills and information would not be lost.

Policy Suggestion 5.1: The TSC should revisit their criteria for the recruitment of head teachers. The gender imbalances suggest that there might need for "positive discrimination" and put more women in leadership positions.	Executive Secretary - TSC	TSC commission	National	None/immediate
Policy Suggestion 5.2: The Director of Education and the Chief Inspector Primary should undertake an audit into the nature and content of the courses that are being attended by school heads so as to assess their effectiveness to their work.	Director of INSET	Schools	National	Medium/medium
Policy suggestion 5.7: The Planning Unit should develop and manage an infrastructure database for all schools and use this system for the allocation of schools resources (buildings and repair) in an equitable fashion.	Planning Unit	EMIS	National	Medium/long term
Policy Suggestion 5.10: Sick teachers cannot teach effectively and might even affect their pupils emotionally and psychologically. The TSC should devise means to ensure and encourage sick teachers who are not fit to teach to take sick leave and explore means of engaging relief teachers. This may include introducing a concept of "volunteer teachers" who may be drawn from currently unemployed graduates.	Director of Education	MOET management	National	High/medium to long term
Policy Suggestion 5.11: Teachers should to be encouraged to go for testing, maybe the senior staff of the Ministry should lead the way by testing in public as a publicity campaign.	Under Secretary Admin	Education Sector staff	National	None/immediate
Policy Suggestion 5.12: The Ministry of Education needs to strengthen the teaching and learning about HIV/AIDS. The Director of Education in collaboration with the Director of the National Curriculum Centre and the Director of the Health Unit should develop curriculum and create a subject slot for health and HIV/AIDS related	Director of Education	Education and Health Stakeholders	National	Low/immediate. This activity is already being implemented by the Ministry in collaboration with UNICEF

issues. Policy Suggestion				
6.1: The Director of Education and the principals of colleges need investigate the kind of curriculum offered in primary teacher colleges. The investigation to find causes of why teachers are claiming that they are teaching subjects they are not trained to teach.	Director of Education	Colleges and inspectors	National	Low/medium
Policy Suggestion 6.4: The Principal Secretary and the National Commission for UNESCO need to source out funding which will enable some of the permanent Education Planning Officers and Regional Education Officers to attend the Annual Planning Course at the IIEP. There is need for 'evidence based' planning to take hold in the Ministry.	Principal Secretary	IIEP	Central level	High/medium
Policy Suggestion 7.5. The Director of Education should work with the Planning unit and Regional Education Officers to ensure that education resources are equitable distributed in the country.	Planning Unit	EMIS	National	Low/immediate
Group 2: Consultation with Staff, community and national education stakeholders				
Policy Suggestion 3.8: Deputy Prime Minister's (DPM) Welfare Department should launch a policy research study that will examine options for Swaziland's response to assisting communities in which very large proportions of the children are orphans.	Chief Inspector Primary	CSO and DPM	National	High/long-term
Policy suggestion 3.16: The Ministry's Health Unit needs to strengthen its curriculum materials in areas of stigmatisation, at primary level. This can be done through extensive education and formation school health clubs	Director of National curriculum Centre	Subject panels	National	High/immediate
Policy suggestion 4.11: The Inspectorate should meet with school heads to discuss the steps that should be taken in	Chief Inspector Primary and REOs	Schools, teachers and parents	National	High/medium

order to improve linkages between teachers and parents through better forms of communication and cooperation.				
Policy suggestion 4.15: The Director of Education and Director of Health Education (Guidance and Counselling) should increase awareness courses in all regions. They should engage people living with the virus to give the talks.	Director of Guidance and Counselling	Schools and teachers	Regional and National	Medium/short
Policy Suggestion 5.3: The Director of Education should hold a seminar with all school heads to find out reasons why head teachers are no longer teaching with a view to normalize the situation.	Director of Education	School heads	National	Medium/medium
Policy Suggestion 5.5: The Ministry of Education and Training should integrate the Schools as Centres of Care and Support project into their main programmes. The results indicated that the pilots have worked as more children are staying in school and not dropping out.	Director of Health Education Unit	School heads	National	Short/medium
Policy Suggestion 5.6: The National Commission for UNESCO and the Ministry's EMIS unit should re-launch the District Educational Management Information Systems (DEMIS) in the regions to keep track of attendance records of the pupils, teachers and school heads.	EMIS	School heads and REOs	Regional	Short/high
Policy suggestion 5.8: The Director of Schools Health should engage the Ministry of Health and explore using mobile testing sites in schools especially in the rural areas.	Director of Health Unit	School heads and Ministry of Health	National	Medium/medium
Policy Suggestion 6.2: The Director of Education set up a Commission to review the Ministry position regarding specialisation at primary level, both in training and in teaching.	Chief Inspector Higher Education	College principals	National	Low/short
Policy Suggestion 7.1. The Chief Inspector Primary should engage colleges on the issue of specialisation at primary level. A study be undertaken to	Chief Inspector Primary and Higher education	schools	National	Medium/medium

investigate whether 'class-teaching' and 'subject specialising' is still relevant for the country considering that some teacher training institutions are supposedly offering their students the option to specialised in the last year of training.				
Policy Suggestion 8.3: The Regional Primary School inspectors for Hhohho region should indentify the pockets of schools where teachers performance was low and launch HIV/AIDS awareness/training campaigns in collaboration with the Ministry of Health.	Director of Health Education Unit and Hhohho REO	Schools	Regional	medium/medium
Policy Suggestion 8.4: The Ministry of Education Health Education unit should reinforce its in-service approach to the training of teachers on HIV/AIDS. There are some teachers that obviously have not received any training. All teachers should be in-serviced about the pandemic and if need be it should be a certified course.	Director of Health Education Unit & INSET	Schools	National	High/medium
Policy Suggestion 8.5: The Director of Education should develop strategies in partnership with NGOs such as UNESCO and UNICEF to ensure that every professional person in the Ministry of Education and Training is informed about HIV/AIDS. There is need to have attendance of an HIV/AIDS knowledge course as a criteria for promotion to headship position for all teachers. Head teachers should also be resource persons for the schools.	Director of Health Education and Under Secretary (Admin)	MOET staff	National	Low/short
Policy Suggestion 8.6: The National Commission for UNESCO and the Under Secretary (Administration) need to strengthen and implement the Ministry's wellness programme to include all regional, institutions and parastatals associated with the Ministry of Education and Training.	Under Secretary (Admin) & Secretary general for NATCOM	MOET and stakeholders in education	National	Medium/short
Group 3: Data collection, research, training and major consultations with stakeholders for major planning and policy suggestions.				

Policy Suggestion 3.2: The Director of Education needs to institute a study to be carried out by inspectors to investigate the reasons why the rate of attendance for Grade 6 pupils improved substantially between 2000 and 2007.	Chief Inspector Primary	Schools	National	Medium/short
Policy suggestion 3.3: The Ministry of Education and Training should commission a comprehensive study to find out the main causes of grade repetition in Swaziland.	Director of Education	Schools	national	Medium/short
Policy Suggestion 3.5: The Ministry EMIS unit, in collaboration with the Early Childhood Care and Development Inspectorate, should to set up a Register and database for all ECCD centres in order to collect and analyse data that should be used to plan educational provision for Grade 1 entry to schools.	EMIS	Pre-schools and communities	national	Medium/short
Policy Suggestion 3.7: The Senior Inspector for Home Economics and the Ministry's Nutritionist need to undertake a study which will assess the nutritional value of the meals that are served by schools against a nationally set standard. This will ensure that all children get a meal of good value irrespective of location of the school; this will also help identify schools where the UNICEF and FAO can compliment work that is done by the schools themselves.	Senior Inspector Nutrition	Schools	National	Medium/medium
Policy Suggestion 3.10: The Chief Inspector Primary should investigate why the number of notebooks in Shiselweni has not changed	Free Primary Education Unit	Schools	Regional	Low/short
Policy Suggestion 3.11: The National SACMEQ Coordinating team need to investigate why some schools in their regions did not report a 100 percent response rate in textbook ownership	EMIS and Planning Units	schools	National	Medium/short
Policy suggestion 3.12: The Regional Education Officer for Manzini and Shiselweni should undertake occasional inspections in primary schools where	Manzini REO	Schools	Regional	Medium/short

they go through pupils' exercise books to check whether teachers mark homework				
Policy Suggestion 3.13: The Director of In-service should arrange some workshops for primary school teachers on the use of homework as a teaching method	Director INSET	Schools	national	Medium/short
Policy Suggestion 4.4: The Chief Inspector of Primary Schools should commission an audit of Grade 6 teachers Preparation Books, in order to discover why there has been such a dramatic fall in the time spent by teachers on lesson preparation	Chief Inspector Primary	Schools and teachers	National	Low/short
Policy Suggestion 4.5: The Director of Education should commission a study into specialization phenomena with a view to harmonising official Ministry policy and teacher training with what is actually happening with teachers in primary schools	Chief Inspector Higher Education	Teacher Training Colleges	National	Low/short
Policy Suggestion 4.6: The National Examinations Council and the National Curriculum Centre conduct a research study that compares the quality of teaching (in reading, mathematics and HIV/AIDS) that is delivered by "specialist teachers" and "generalist teachers".	Director National Curriculum Centre	Schools	National	High/medium
Policy suggestion 4.10: The Research and Planning Unit in collaboration with the National Curriculum Centre should undertake a study on classroom assessment procedures that are actually being applied in classroom across the nation in order to gain more insights into what is being "practiced" and whether this is congruent with the ideal procedures that have been identified for Continuous Assessment (CA) method.	Director National Curriculum Centre	Schools	national	High/medium
Policy Suggestion 4.12: The Chief Inspector Primary should investigate why there has been a major reduction in the supply of classroom libraries and book boxes in Grade 6 classrooms and bring forward recommendations concerning how to address the	Chief Inspector Primary	Schools	National	Low/short

situation.				
Policy Suggestion 4.13: The Planning Unit should undertake a full audit of the purposes and practices of the teacher centres (TIDC) with the aims of: (a) reviewing their mission, (b) taking stock of the materials that they have and need, and (c) making teachers aware of these valuable teaching resources.	Planning Unit	INSET department and schools	National	Medium/medium
Policy suggestion 5.4: The Executive Secretary of the Teaching Service Commission (TSC) and Director of Education should undertake a survey to find out why head teachers do not think their professional development is important. The study should investigate the change of perception	Director of Education	Teachers	National	Medium/medium
Policy Suggestion 6.3: The Ministry's Planning Section needs to undertake an infrastructure and resources assessment of primary schools in the Lubombo and Shiselweni region with a view to identify those schools that do not have adequate resources. Alternatively the SACMEQ III team should develop a 'Resource Allocation' priority list based on SACMEQ results for the planning unit which should used in the allocation of resources in future.	Planning Unit	Shiselweni and Lubombo schools	Regional	Medium/medium
Policy Suggestion 7.2: The National Curriculum Centre with the national subject panel should undertake a research into the teaching of mathematics at primary level. This research should also look at the teachers and materials that are in the schools.	Director NCC and Senior Inspector Mathematics	Schools	National	Medium/medium
Policy Suggestion 7.3: The improvement in reading results for teachers and grade 6 pupils could be attributed to a number of things. These include free textbooks, class room libraries and even the secondary qualified teachers in areas of reading. The language subject panels headed by senior inspectors for English and Siswati should to undertake an assessment to determine whether the improvement has been due to the	Senior Inspectors Siswati and English	Schools	National	Medium/medium

factors listed above.				
Policy suggestion 7.4: This study has reconfirmed a suggestion in the SACMEQ II report. The Chief Inspector Primary should to investigate why Swaziland's grade 6 teachers achieved relatively better levels in mathematics than reading. The study needs to also look into why in SACMEQ III mathematics teachers did not improve much on their scores	Chief Inspector Primary and Director NCC	Schools	National	Medium/medium
Policy Suggestion 7.6. The Senior Inspector Mathematics and panel should investigate why current mathematics results indicate a bias towards male and also why the urban and high SES schools do better because one does not need extra equipment to learn mathematics at this level of education.	Senior Inspector Mathematics	Schools	National	Medium/medium
Policy Suggestion 7.7: Confirm SACMEQ II policy suggestion: The Chief Primary School Inspector should establish a task team to investigate the gaps in pupil achievement levels associated with socio-economic differences and school location differences.	Chief Inspector Primary	Schools	National	Medium/medium
Policy Suggestion 8.1: The results indicated that the teachers of Grade 6 pupils knew quite a lot about HIV/AIDS but their pupils know far less and half did not achieve the minimum levels. The **National Curriculum Centre** (NCC) should to undertake a research that would assess the current methodologies used in the teaching of HIV/AIDS in primary schools. This study should also come with recommendations/strategies/materials on how the teaching can be improved and made more effective.	Director NCC and Health Education panel	Schools	National	Medium/short
Policy Suggestion 8.2: The higher proportion of Grade 6 pupils in rural Lubombo suggested that there was effective impacting of HIV/AIDS knowledge. The results also suggested that there are other activities that were	Director of Health Education Unit	Lubombo schools	Regional	Medium/medium

undertaken in Lubombo in addition to teaching. Maybe there were NGOs based in the regions which had an impact on the skills and knowledge about HIV/AIDS. *The Health Education Unit of the Ministry of Education and Training should undertake an assessment of the schools in the region and document all the good practice. This should inform the in-service and curriculum innovations for the rest of the schools in the country.*				
Policy Suggestion 8.7: The National SACMEQ Coordination Committee has to undertake a study into the head teachers' responses with a view to get more data and information on their perception of the questions. These responses are confusing, they need further enquiry.	EMIS and Health Education Unit	Schools	National	Medium/short
Group 4: Investment in Infrastructure and Major capacity building				
Policy Suggestion 3.7: The Ministry's Planning Unit should institute a feasibility study into costs associated with moving ECCD out of the private sector and making it a public entity. This study will also need to examine and include issues such as infrastructure, teachers and other resources.	Planning Unit	ECCD centres	National	Low/short/high
Policy suggestion 3.9: The Ministry of Education's Guidance and Counselling should to ensure that there are trained in counsellors in every school and that infrastructure such as counselling rooms are available.	Director Guidance and counselling	Schools	National	High/long
Policy Suggestion 3.18: The Director of the Health Unit should ensure that counselling rooms are installed across the regions especially in the schools where the audit unveils serious HIV/AIDS problems	Director of Health Education unit	Schools	National	High/long

Policy Suggestion 4.1: The EMIS and Planning Unit need to undertake an assessment of teacher housing in Hhohho to determine whether there was need for urgent intervention	Planning Unit	Hhohho schools	Regional	High/medium

Agenda for Action

The SACMEQ III three report comes in an opportune time for Swaziland. The Ministry has just finalised a number of key policy documents, namely the Education Sector Strategic Plan 2010 2022, the Sector Policy and a number of enabling policies which are essential for robust sector reform. The report and the strategic plan have presented the Ministry with valuable information that can be used to develop the proposed National Education and Training Improvement Programme (NETIP) which will be aimed at operationasing the strategic plan of the Ministry. The NETIP will be harvested from the Sector Plan to inform 3-5 year rolling plans which will include some of the policy suggestions that have been raised in the report. It has to be appreciated that in the period leading to the publication of this report some of the policy suggestions have already been operationalised, i.e. the recommendation of having content and time slot dedicated to issues around HIV and AIDS. There will be need to incorporate some of the sound policy suggestions into the NETIP and ensure that they become part of the core plan.

Coordination of the Ministry's responses to the proposed agenda for action

The NETIP will be coordinated by the planning unit. This is the same unit charged with coordination of all the Ministry's activities. It is thus critical that the unit be empowered to strategise and ensure that all proposed policy actions and activities are implemented accordingly. This report will have to be adopted as a planning tool and be used to develop and guide interventions at primary levels. It is important that as the country rolls out the free primary education programme educational quality standards are maintained and sustained.

The Future

The report will have to be presented by the National Research teams to the Ministry's management and all sub-sectors. This process has begun with two very important chapters, that of Pupil and Teacher Achievement and HIV and AIDS Knowledge. These chapters have been presented in great detail to the Ministry the subject panels and the teachers. SACMEQ results are not to be taken as findings only but also used as a Monitoring and Evaluation tool that should inform future agenda for the Ministry. It is important that SACMEQ countries view these reports as measures of their successes and failures and use them to plan for a better education. The research has also raised very important agenda which should be useful in digging deeper to out education system. The results can be used for further enquiry and research, not only within the Ministry of Education and Training but provide a solid foundation for educational research. The research and methodologies that have been employed meet international criteria thus results of such studies have to be taken with the seriousness that they deserve. This could serve as a foundation for huge national agenda to ensure that the aspirations of the country are met.

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