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CONTENTS

Chapter 1

Setting for the Study

1.1 Introduction

The aim of this chapter is to set the scene for the results of the Standard 6 study that has been reported in ensuing chapters. The study is part of the work of the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ). The first SACMEQ study took place in 1995/96 but Malawi undertook the data collection only in 1998 due to a delay in funding. It involved a study of reading literacy in Standard 6 pupils. SACMEQ II also focused on Standard 6, but this time it assessed achievement in both mathematics and reading literacy. SACMEQ III study assessed both mathematics and reading literacy and added HIV and AIDS knowledge as a new area of assessment. Malawi has participated in all three SACMEQ studies. The bulk of this report is concerned with the results of SACMEQ I, II and III. In this report, comparisons have also been made between the major results of SACMEQ 1, SACMEQ II and SACMEQ III. This allowed a comparison not only of the achievement outcomes in 1998, 2002 and 2007 but also of some of the major conditions of schooling in Standard 6. The data for this report was collected at the end of the academic year in 2007 in September/October.

1.2 Brief Description of Malawi

Malawi is a land locked country which is situated in the Southern part of the African continent. Malawi has a total land area of 119,140 square kilometers – of which 20 percent is covered by Lake Malawi. Malawi is bordered by Zambia to the West, Tanzania to the North, and Mozambique to the East and South. At the 2008 national census, the country's total population was slightly above 13 million with a population density of 139 people per square kilometer. For administrative purposes, Malawi is divided into three regions (North, Centre, and South) which cover 28 districts. The education sector is divided into six administrative education divisions with 34 education districts. English is the official language used for communication in business and commerce, and it is also used as the language of instruction in all levels of education except in Standards 1 to 4 of primary schooling. In those standards, the

most dominant local language of the area in which the school is located is used as the medium of instruction. English is taught as a subject in all Standards.

Malawi gained independence in 1964 at a time when the 'wind of change' was sweeping across most of the African continent. The country was ruled by a one party system of government (Malawi Congress Party - MCP) under the leadership of Dr Hastings Kamuzu Banda for 30 years up to 1994. Like most African countries, one of the aims of the country at independence was to expand education so that it covered most of the Malawi population and also to make it more relevant to the needs of the society. As a result of the efforts made, the primary education system expanded from a total enrolment of 359,841 in 1964 to 847,157 in 1980 and to 1,895,423 in 1994.

Malawi changed its political system of government from a one party to a multi-party system in May 1994. During the one-party government period, primary school pupils paid school fees. The first government under the multi-party democratic dispensation introduced Free Primary Education (FPE) in the 1994/95 academic year, partly in response to the Jomtien conference on Education for All (EFA) which was held in Thailand in 1990, but also in fulfillment of one of the promises the new government (led by the United Democratic Front party) had made to its electorate. This also formed part of a national policy on poverty alleviation of the Government. The Government had realized that reducing poverty was not possible without sustained economic growth and that economic growth would not happen without investing in education.

As a result of this policy change, more than a million additional pupils joined the primary education system during the first year of the policy change. Consequently, the situation in the education system deteriorated even further. Overcrowding increased, the few resources in schools were inadequate for the increased numbers, and the recruitment of temporary teachers made the teaching and learning process fall short of what was expected. While the Government was already facing difficulties in providing services to meet the educational needs of the country, its problems were compounded with the introduction of FPE. This is the context in which both SACMEQ I and II studies were conducted. SACMEQ III was conducted when the first democratic government had changed leadership. The new government continued with the implementation of FPE but emphasized clear sector plans

which would enable proper implementation of FPE alongside other education programs and projects.

1.3 Structure of the School System

This structure follows an 8-4-4 pattern of education comprising three levels. The primary level, which is an eight-year cycle, runs from Standard 1 through to Standard 8. This level is divided into three sections; infant section which comprises Standards 1 and 2; junior section comprising Standards 3, 4 and 5 and senior section comprising Standards 6, 7 and 8. Secondary level education lasts four years and consists of two cycles- junior (Forms 1 and 2) and senior (Forms 3 and 4) with national examinations after each cycle. The last level is tertiary education, which includes university, technical and vocational, and teacher education.

Primary Level

The official ages for primary level education is 6 to 13 years but there are wide variations in the ages of pupils enrolled, ranging between 4 years in Standard 1 to 18 years in Standard 8. The wide variations are mainly due to late and multiple entries into schools and multiple grade repetitions. The Malawi government maintained a policy of open access (but not compulsory) to primary education for a long time. Until the introduction of the FPE policy, this access had been severely hampered by the charging of user fees, the requirement to wear school uniform and the many other contributions parents were expected to make towards the education of their children.

The average repetition rates at the primary level have increased from 17 percent in 1990/91 to 29 percent in 1994. Kadzamira et al. (1997) contended that the increase in repetition in 1994/95 was largely as a result of the decline in school quality following the expansion of enrolment that occurred as a result of the FPE policy. An equally plausible explanation is that even if standards remained the same, more pupils would fail probably because of the characteristics of the many pupils who joined the system, the characteristics of the teachers and the conditions of learning environment. In general, the quality of education is feared to have deteriorated as evidenced by high pupil to teacher ratios, high pupil to classroom ratios and inadequate teaching and learning materials.

Secondary Level

Secondary education is offered by various categories of institutions: conventional secondary schools, Community Day Secondary Schools (CDSS), open/day secondary schools and private schools. The open/day secondary schools and the private schools mainly cater for those primary school leavers who are not selected into the formal secondary schools by government on the basis of nation-wide Primary School Leaving Certificate Examinations (PSLCE) at the end of the primary cycle. The CDSSs are characterized by high pupil to teacher ratios and have inadequate and unqualified teaching staff and lack instructional materials. Most of the teachers in the CDSSs are former primary school teachers and therefore experience difficulty in teaching secondary school curricula content. This is also true to some extent of the private schools.

Enrolment in secondary education has been steadily increasing from 180,157 in 2004 to 243,838 in 2009. Secondary school net enrolment is estimated at less than 50 percent making it one of the lowest in Africa. As a result, there is stiff competition at the primary to secondary school transition level. The teaching and learning in primary schools therefore tends to be examination oriented. Gender disparities in access and attainment are more pronounced at post primary levels. However, more girls are entering into secondary education as evidenced by the trend from 39 percent in 1995 steadily increasing to 44 percent in 2009. Research evidence has suggested that the family backgrounds of regular secondary school pupils differ markedly. Parents of girls attending secondary school education are better educated and are of a higher socio-economic status than parents of boys (Hyde, 1993 and Chimombo, 1999).

Secondary schools have different characteristics in terms of teachers and financing. In conventional secondary schools most teachers are qualified unlike in CDSSs where the majority of them are under qualified. Teachers who teach in open secondary schools are the same as those teaching in conventional secondary schools.

In terms of financing of Other Recurrent Transactions (ORTs), conventional secondary schools and some approved CDSSs are cost centres and are funded directly from the Ministry of Finance. CDSSs which are not cost-centres receive their funds through the education divisions at the rate of approximately MK 10,000 per month. Grant aided secondary schools receive funds according to an agreement with the Ministry.

Tertiary Level

Tertiary level includes post secondary institutions offering teacher education, technical education, vocational training, and higher education. Malawi's higher education system is still quite small compared to other countries in the region. There are public and private universities but the capacity of private universities is small and as a result, public universities enroll the majority of students. According to the 2008 country status report (CSR), the total university enrolment constituted roughly 0.3 percent of eligible aged students. For both public and private universities, enrolment increased from 4,659 in 2003 to 9,082 in 2008 (CSR, 2008).

There are also other tertiary institutions which provide access to university education through distance education. There are two public universities in Malawi; University of Malawi (UNIMA) and Mzuzu University (MZUNI). For a long time the major public university has been UNIMA which was established in 1965 with the aim of educating, training and producing local manpower for medium and high level managerial positions both in government and in the private sector. In 1998 the government established another public university in the North part of Malawi (Mzuzu University) in order to increase access to university education. During the same period various private universities emerged. The advent of these universities has contributed to the increase of access to university education, though still relatively small. In order to improve access to university education, the Government has planned to construct five more universities over the next ten years. University education normally lasts 4 years; teacher training has traditionally been 2 years, while technical training may last four to five years depending on the field of specialization.

1.4 Administration of School Education

The Ministry of Education has administrative, financial and academic control over primary, secondary, tertiary (including the universities), distance education as well as the training of primary school teachers. The system of education is organized in four tiers. At the top of the national structure is the Minister of Education. While the Ministry of Education plans and administers the system as a whole, the responsibility of managing and administering the three levels below is assigned to one principal secretary who is assisted by heads of departments. The second tier is the division administration. Under the recent efforts to decentralize education services, the previous regions (three) were split into six and renamed divisions each headed by a division manager. The divisions are organized into 34 education districts of

which four are urban. After the introduction of the FPE policy, there was an attempt at improving the management of the education system which saw the districts being demarcated into zones. Each zone is manned by a Primary Education Advisor (PEA) with a maximum number of schools of up to 15[1] and a teacher development centre in each zone. These are expected to play both inspection and supervisory roles in the schools.

On the bottom tier, are the schools. According to the 2009 education statistics, there were 5,106 public primary schools, 687 government secondary schools, 149 grant-aided secondary schools, 285 private secondary schools, 6 Teacher Training Colleges (TTCs), 7 public and private technical colleges in the country.

There are also two autonomous institutions which greatly contribute to education in the country. The Malawi National Examination Board (MANEB), which oversees examinations and the Malawi Institute of Education (MIE), which has, in recent years, played a leading role in curricula and material development, and in-service teacher education. Other institutions include the Centre for Educational Research and Training (CERT) which is a unit attached to the University of Malawi that was established to undertake policy related educational research studies. The Malawi National Commission for UNESCO is a national organization that links government ministries in the fields of education, science, culture, and communication. The Commission provides some training for education personnel in various fields of management. It also helps to solicit funding and to involve the Ministry in UNESCO programs that have a bearing on the development of education in Malawi. The Malawi National Library Service has responsibility for promoting, establishing, equipping, and managing national libraries. Two other ministries are also involved in education on a smaller scale. These are the Ministry of Gender and Community Services which is responsible for early childhood education, and the Ministry of Labor which is responsible for administering National Trade Test examinations in technical and vocational education and training.

1.5 Financing of Education

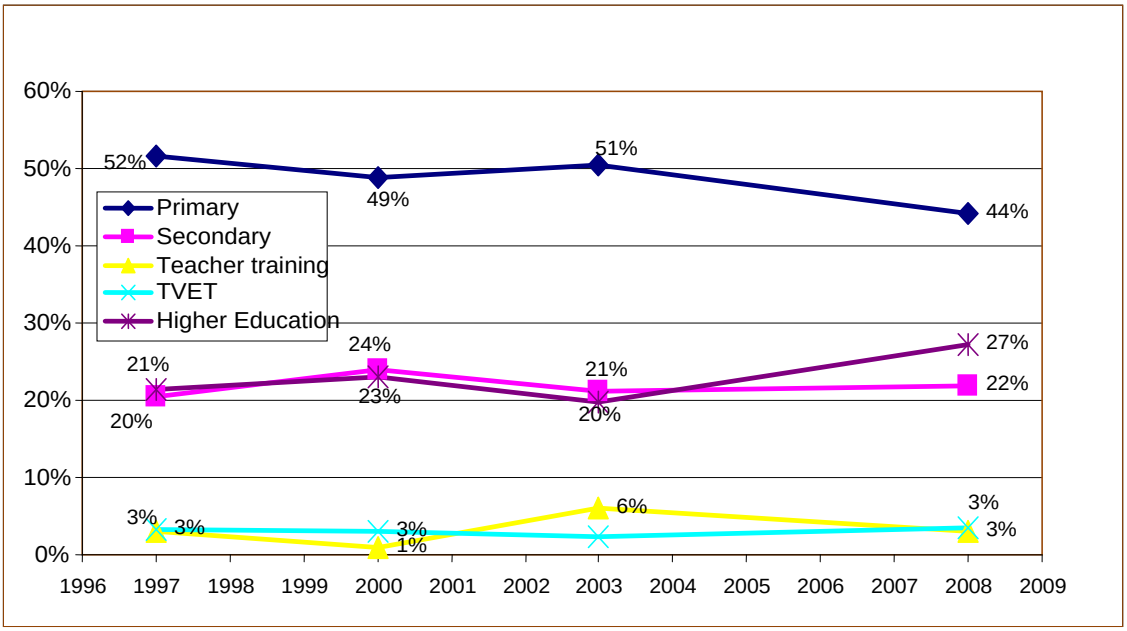
The education sector is implementing Sector Wide Approach (SWAp) as a funding modality in its education programs. The education budget is aligned to the National Education Sector Plan (NESP) and the Education Sector Implementation Plan (ESIP). The government made it

[1] In reality, there may be up to 18 schools in a zone.

clear that any program outside the NESP was not to be funded or allowed even if resources were available. Through the SWAp arrangement, the education sector will access more resources and benefit from development partners and government. Some of the resources in the SWAp are from the EFA fast track initiative. More resources in the SWAp arrangement target the primary education sector. Hence, primary education will have the largest share of resources and the target is to allocate about 65 percent. The resources will enable the Ministry to construct classrooms, provide additional teaching and learning materials, provide school grants, maintain school buildings and finance teacher education.

Although primary education will have the largest share, *Figure 1* below indicates that the budget priority for primary education decreased during the 1996-2008 period, going from 52 percent of the total education recurrent spending in 1996 to 44 percent in 2008. On the other hand it can be seen that other sub sectors such as higher education had their share increased from 21 percent in 1996 to 27 percent in 2008 while the share allocated to secondary, TEVET and teacher training remained almost constant during this period.

Figure 1.0: Distribution of recurrent public expenditure by level of schooling



Source: Malawi Country Status Report, (2008)

The unit cost of education varies according to the subsector. The unit cost at primary level is by far the lowest in comparison to all levels of education. For example, the university student unit cost has persistently remained at over 160 times the primary pupil unit cost. This may mean that total expenditure on primary education has increased faster than total enrolment in

nominal terms, but has not kept pace in real terms. On average the government spends about 6 percent on goods and services at the primary level, compared to about 40 percent at teacher-training colleges, 35 percent at technical and vocational colleges, and about 26 percent at the secondary-education level (Kadzamira et al. (2004). It is important to note that, on average, about 85 percent of the primary education allocation is spent on teachers' salaries.

Table 1.0: Public Recurrent Unit costs by level of schooling (2007)

Education Level/Programme	Students (in public institutions)	Public recurrent expenditure (MK million)	Pub Recurrent Unit cost (MK)	as % of GDP per capita
ECD (level 2)	287 206	20	69	0.20%
Literacy	128 967	61	476	1.3%
Primary	3 264 594	9 857	3 019	8.3%
Secondary	161 575	4 894	30 292	83%
TVET (technical colleges)	4 807	247	51 408	141%
TVET (technical colleges only residential students)	1 810	247	136 529	376%
Teacher Training	6 029	669	110 905	305%
Higher Education	7 700	6 010	780 479	2147%

Source: CSR Report (2008)

According to CSR report (2008), the information in *Table 1.0* above shows that primary education public recurrent unit cost is low as compared to the other sub sectors. The public unit cost at secondary level is ten times higher than at primary level, with a value of around MK 30 000. In terms of GDP per capita, it has increased by a factor of four since 2000 (from 21 percent to 83 percent) (CSR, 2008). Research shows that the various categories of secondary schools differ in unit costs, especially between CDSS and conventional secondary schools.

One year of study in TEVET costs the state MK 51, 408 per student, 17 times the primary level unit cost. The per student recurrent costs for teacher education is at MK 111, 000 and 305 percent of GDP per capita and 37 times the primary level unit cost. The higher education recurrent unit cost is very high (MK 780, 000 or 2,147 percent of GDP per capita) and has

increased a lot since 2000. The public annual cost of one student in public universities is equivalent to the public annual cost of 259 primary level students. The fact that the number of higher education students is very low in Malawi does not help for having economies of scale and constitutes one of the main reasons why the unit cost is so high. Public unit costs for ECD and adult literacy courses are negligible when compared with the other levels of education.

Under the FPE policy, primary education is mostly funded by public resources (92 percent of the total cost). The remaining eight percent comes from private financing which includes contributions from communities, community based organizations, religious bodies, non-governmental organizations and parents. The advent of the decentralization policy in government, enabled government departments to devolve some of their functions to the districts. The Ministry of Education devolved some functions of primary education and pre-school to the districts. In an effort to strengthen the decentralization policy, the Ministry introduced the Direct Support to Schools (DSS) program. The program was aimed at improving the quality of primary education delivery services and supporting the decentralization of the management of education through direct involvement of schools and communities. The program involves the transfer of financial resources (grants) to public primary schools through respective district education offices and assemblies. Public primary schools receive between USD 500 and USD 1,000 from the government under the DSS program. The grants are intended to enable the public primary schools to purchase basic teaching and learning materials and undertake minor repairs of school blocks or other school or classroom resources. School Management Committees (SMCs) elected by Parents Teachers Associations (PTAs) are given the responsibility to manage the grants, undertake the procurement of the school materials and monitor their use in the schools. SMCs are responsible for submitting school improvement plans to the district planning structure at the district assembly through village development committees.

After successfully implementing the program, the Ministry revised it to Primary School Improvement Program (PSIP). Starting from the 2010/11 financial year the DSS is gradually being phased out and is being replaced by the PSIP. The PSIP is based on expenditure per learner and has a target of USD 6.58 per pupil to be achieved by 2014. This program has more components of grants which the first program did not have and this includes: grants to orphans, and grants to pay voluntary teachers where there is a teacher shortage, and teachers who work on double shift. It is envisaged that the delivery of services in schools will improve

through such direct funding. Public primary schools also receive support from the ORTs funding through the Local Government Financing Committees (LGFCs) based on pupil to teacher ratio, distance of school from the district education office, and enrolment. ORTs cater for day-to-day expenses and minor expenses such as utility bills, and procurement of additional instructional materials.

Construction of new schools and classrooms is mainly done with funding support from development partners and contributions from the communities. Donor support has over the years accounted for over 80 percent of the total development budget. Over 60 percent of donor support goes to construction in primary education. Decisions on the construction of new schools and classrooms are done at a national level based on district education plans. At school level, construction of additional classrooms is also done through contributions from community based organizations, NGOs and community members.

Supply of textbooks to schools is done at central level. The policy of textbook provision according to the draft national school textbook policy of 2006 is to allocate one textbook per learner for each subject taught, with replacement carried out every three years. Information on the situation of textbooks in schools is collected from the district education offices and schools through the Education Management Information System (EMIS). Textbook needs per school are computed from the data. Distribution of textbooks to schools is done through the district education offices and is monitored by the supplies unit. There are challenges associated with the distribution chain from the central office to the schools and within schools themselves to do with the poor accessibility of some schools, stockpiling of books by some managers and teachers for various reasons including lack of care of books by pupils and fear of future shortage. Some of the books meant for public primary schools find their way into private schools depriving the public schools of much needed textbooks. Private schools are not allocated textbooks.

1.6 Curriculum Development

Curriculum development is the responsibility of the MIE. MIE was established in 1979 and became operational in April 1982. MIE fulfills the social function of ensuring quality education in Malawi.

The overall mission of the Institute is to contribute to the improvement of the quality of education in Malawi, through:

- Undertaking, encouraging and coordinating curriculum development, evaluation and research,
- Assisting with the training of teachers,
- Providing professional help and services to teachers,
- Arranging for the publication and production of teaching /learning materials.

In the 28 years of MIE's existence, the following activities have been done amongst others:

- ✓ Revision of the primary school curriculum,
- ✓ Development of pupils books and teachers' guides for the schools,
- ✓ In-servicing primary school district inspectors of schools (now called Primary Education Advisors) and Head teachers in the Malawi Institute of Education-Brandon University program and in Malawi School Support Systems Program (MSSSP),
- ✓ Revision of the junior and the senior secondary school curricula,
- ✓ Conducting education – related research,
- ✓ Orientation of PEAs/inspectors, head teachers, and teachers to new curricula,
- ✓ Consultancy service on curriculum development, research, textbook development and in –service courses,
- ✓ Introduction of various education initiatives such as continuous assessment.

The history of innovation in curricula in Malawi can be traced back to immediately after independence. As Hauya (1996) wrote, this was a time for consolidation, experimentation and adaptation. One of the main aims was to produce a sense of consciousness in the new state, to give an education that would support economic development and at the same time sustain the country's cultural heritage. As a first step therefore, the curriculum was to be revised. In 1968, agriculture science was introduced into the primary school curriculum. This was intended to influence Malawi's economic development through improved farm methods, especially through the work of those for whom primary education was terminal. This decision tied in well with the renewed teachings of the Malawi Young Pioneers on the importance of and nobility of manual work and work ethics. It was also an attempt to keep up with neighboring states e.g. Tanzania's education for self-reliance. There was also a general

emphasis on the teaching of science and reflection and the use of local materials from the environment. It was hoped that agriculture would contribute to Malawi's economic development since pupils would be able to use new modern farming methods.

The major curriculum review which is known as Primary Curriculum Assessment Reform (PCAR) was undertaken in 1998 and was aimed at comprehensively changing the primary school curriculum. The new curriculum had key innovations such as breakthrough to literacy methodology as a strategy towards reducing high illiteracy rates that prevailed until Standard 5; the approach to integrate subject areas as a way of reducing curriculum overload. This has brought positive results because Malawi has been able to reduce the curriculum overload through this integration from 14 subjects to nine; Malawi opted for an outcome based education (OBE) curriculum. Having learnt from several countries in Africa and beyond, Malawi developed its own version of OBE. In addition, the new curriculum emphasizes continuous assessment as a way of assisting both fast and slow learners. The assumption is that if continuous assessment is carried out effectively and remedial work is given to those who fail to achieve as others, it will be possible for Malawi to address the problem of high repetition rates through automatic promotion. The curriculum was supposed to introduce a preparatory class as the first year of primary education but the implementation did not succeed. As a result, the reform has created a special package for the first three months of the first year in school called "introduction to school life and learning." The aim of this innovation is to allow learners, most of whom have no chance to attend pre-school, to be introduced appropriately into school by concentrating on socialization techniques, games and psychomotor development such as hand coordination while holding pens.

At implementation level, the new curriculum is facing a number of challenges because most teachers find it too cumbersome in terms of paper work which is more demanding than teaching. As mentioned above pupils in lower classes (standards 1 to 4) use their mother tongue. Although research shows that children learn better in mother tongue in early years of their education, national assessments in literacy have revealed the contrary. Literacy achievements are very low as characterized by high standard repetition.

1.7 Primary Teacher Training

Primary teacher training has traditionally been a two-year program in Malawi. However, programs of one year and three years duration have also been implemented. The one-year course was a intense program (funded by UNICEF) at MIE aimed at training temporary teachers who had some teaching experience but no formal teaching qualification. The second innovative approach to teacher training was the Malawi Special Teacher Education Program (MASTEP). This was a three-year program and its goal was to increase, by 4,500, the supply of appropriately qualified teachers thereby achieving a more 'tolerable' pupil to teacher ratio of 60:1. MASTEP was a combination of a distance mode of training and short residential courses during the long vacations. MASTEP student teachers had full time teaching responsibility in their schools. An evaluation of the program (Kuthemba Mwale, 1995) however indicated that MASTEP was in the short term more expensive than the other two programs.

One of the major strategies which was put in place for the implementation of FPE was the employment of an extra 22,000 temporary teachers. These untrained teachers were given a two-week orientation (basic survival skills) before being posted to schools. A new training program for these untrained teachers called the Malawi Integrated In-service Teacher Education Program (MIITEP) that combined residential and distance modes of training, was instituted in 1997. The course structure for MIITEP consisted of residential training (one term), self-study through self-instructional materials (four terms), supervised teaching in primary schools (five terms), 12 one-day seminars in zonal teacher development centers, 12 assignments (one assignment per subject) and 4 projects. According to *MIITEP News* (1997), 'MIITEP was expected to improve the quality of teaching and learning in primary schools in Malawi by increasing the number of qualified teachers in the education system who were able to demonstrate enhanced professional skills and knowledge' (MIITEP NEWS, 1997, p. 1).

The main problem with MIITEP appeared to be that the school-based component of the program lacked the necessary support for effective implementation. As a result, most of the components (e.g. seminars, school-based supervisions, and manuals) were not in place. Furthermore, many trainees reported (Chimombo, 1999) that they often had to leave their classes to attend to bureaucratic issues, the most common being delayed or unpaid salaries. Thus the teacher training programs under the FPE reform were not able to focus on the in-

depth professional development of the trainees. The main challenge has been how to provide an appropriate high standard of training in what is normally a relatively short period of training time and with limited resources. 'The issue is not simply one of what teachers should teach, but also how they should teach in order to foster effective learning' (Sylva et al., 1995, p. 34). In addition, it seemed imperative that as Malawi struggled with problems of providing EFA, a decision was needed regarding the mode and type of teacher training program that is to be followed in addition to ensuring that trained teachers are equitably distributed among schools, districts and divisions.

After using different modes of teacher training, the Ministry reverted back to the two year teacher training program known as Initial Primary Teacher Education (IPTE). This teacher training program requires the trainee to be at TTC for one year and during the second year, the trainee goes on teaching practice. For this, it is called 1+1 IPTE. This program has produced quite a number of teachers and it is suggested that these teachers are better prepared than those produced under the MIITEP program. The main aim of the IPTE program is to improve the quality of teachers and increase the annual output so that the issue of teacher shortage is addressed. On the other hand, the Government has embarked on construction projects of TTCs in various parts of the country with the aim of increasing the number of teachers in the education system. Furthermore, the Government has introduced another teacher training model whereby teachers are trained through open distance learning. The teacher recruits are trained at the TTCs for a short while and later they are posted to schools to teach under the supervision and assistance of a mentor teacher and a zonal supervisor. However, this program will only run for three years and it is expected to produce 12,000 teachers as output.

1.8 A Review of Education Development Policies

After gaining independence Malawi needed an education system that could afford to accommodate the new aspirations of an independent state. These new aspirations included an expanded primary school system, a larger secondary and tertiary education sector, as well as some vocational education for producing the much-needed skilled manpower to replace the departing expatriates. Other aspirations were those of nationhood, national cohesion and

group solidarity in addition to the production of middle and top-level management personnel to develop and manage the national economy.

This first education development plan (1973-1980) provided only rather limited guidelines for educational development, since it did not cover all levels of the formal education system. During the mid-1980s, there was some evidence that the first education plan did not help the education personnel to establish and run an efficient and qualitative system of education. The reasons were not clear because there was no deliberate attempt to evaluate the plan at the end of its life. It is believed (Kuthemba Mwale, 1998) that the plan started with inbuilt flaws. The second education plan 1985-95 (EDPII) began to shift the emphasis away from post-secondary education in favor of primary education. It sought to improve access, quality and efficiency, particularly at the primary school level. Thus, despite the UNESCO conferences of the early 1960s and beyond, it was not until this second education plan that UPE came into the minds of education policy makers in Malawi.

FPE policy emerged at a time when the government was putting in place a Policy Investment Framework (PIF 2000-2012) (Ministry of Education, 1995). The PIF was a document that defined the Government of Malawi's policies and outlined priority programs of the Ministry of Education Science and Technology (MOEST) planned for a period of 12 years. The PIF was based on a comprehensive analysis of the education sector in Malawi. It was the Government of Malawi's response to poverty alleviation and addressed the national educational goal as spelt out in Vision 2020. It realized that an educated populace can best exploit Malawi's rich natural resources' base and that an educated populace is fully able to participate in a democratic society, is fully aware of its cultural heritage and the need to further develop its culture. The PIF also appreciated the fact that Malawi's education system could not contribute significantly to the alleviation of poverty unless the main constraints facing the education system were addressed. The major challenges in basic education can be identified to be: limited and unequal access to educational opportunities, declining educational quality, a school curriculum which does not effectively address individual and social needs, poor planning and management capacity, and inadequate financing. Although significant policy changes have been made in the past decades, they were in most cases partial and aimed at redressing problems inherited from the past and rarely did they seek to address the educational challenges of the future. The PIF outlined the key policy changes in basic education as follows:

- Basic education was to be expanded beyond the provision of primary education to embrace pre-school provision, adult education and literacy as well as school health and nutrition.
- Decentralization would devolve responsibility for primary education to the district assemblies.
- The share of the education budget devoted to primary education was to increase from 62 percent to at least 65 percent.
- Dropout and repetition rates would be reduced through a combination of advocacy and structural change.
- Primary schools were to become full community primary schools through increasing the autonomy of school management committees.
- A national assessment system was to be established to determine minimum-learning requirements at all levels.

It can be observed that the PIF underlined the importance of paying the greatest attention to the basic education sub-sector. This was in keeping with Article 28 of the UN convention of the human rights of the child which guarantees the right of the child to a basic education of minimum quality to which Malawi is a signatory. However, the achievement of the goals set forth in the PIF requires a challenging program of reforms at all levels. This challenge requires an increasing level of both financial and human resources to overcome current conditions and resource shortages. To provide the quality implied by the policy and standards in the PIF, will require, over time, at least a doubling of current per pupil expenditures. While the PIF wholly subscribed to the philosophy of the medium term expenditure framework (MTEF), it is difficult to see how the objectives set forth in the PIF can be achieved within this philosophy. The level of funding for the PIF policies will always be constrained by the financial ceilings set by the MTEF. Further, as the Ministry and donors strive for the building of the capacity of the Ministry personnel, the Ministry need not be reminded that these efforts are not new and that the main constraint in capacity building in MOEST is the Ministry's inability to train and retain its personnel within the education sector and indeed in the planning unit of the MOEST in particular. As time passed, the Ministry realized that the PIF had some gaps in terms of clear goals, objectives and strategies of each education sub sector. As such, the Ministry felt that there was need to produce a National Education Sector Plan (NESP) and a National Education Implementation Plan (ESIP).

The National Education Sector Plan outlines government's vision of education sector goals, objectives and proposals on how such goals and objectives will be realized over the coming decade (2008-2017). The goals and objectives relate to expanded equitable access to education, improved quality and relevant education and improved governance and management of the same education as three key factors for making a positive difference in education for its citizens and the nation. The NESP realizes the Malawi Growth and Development Strategy which is an overarching policy of the Malawi Government, is the pillar for all socio-economic and industrial growth for Malawi.

Harmonization of the academic calendar

Between 1992 and 1996, Malawi experienced drought which resulted in the shortage of water in some parts of the country. Some schools and colleges in the affected areas could not open on time. This urged the Government to change the school calendar so that the affected schools could be accommodated. The change was affected after consultations with various stakeholders. The consultations indicated that most stakeholders were in favor of the proposed change of the academic calendar which ran from January to November of the same year.

However, in 2009, the Government reverted to the old calendar, September to July, due to various reasons. Firstly, the drought which necessitated the change was no longer there; secondly, this calendar is in line with government's financial year which runs between July and June. Thirdly, the calendar would enable parents to pay fees for their children with ease due to the sale of agricultural produce which is done around the period when schools are starting. Nevertheless, it is argued that the changed calendar is not in line with most SADC countries which start their academic year in January. The change of the calendar is across the board. All academic institutions were affected and they were expected to fully implement it beginning September 2011.

1.9 Perceived importance of SACMEQ

Until the time of SACMEQ I, the only indicator of the achievement of pupils in Malawi was from the Standard 8 PSLCE. One problem was that these data were rarely analyzed to examine either the differences in achievement between the educational administrative

divisions in the country or between different points in time. Thus, there were no skill-based performance standards for the primary cycle. From Standard 1 to 7, assessment is school-based. This creates much scope for arbitrary assessment. All Standard repetitions, as reported by schools, are not based on some standardized criteria-referenced academic performance, but rather they reflect performance in relation to school-level norms, which in turn reflect the teachers' attitude towards the type of tests set, and their judgments in giving marks. Given the overall lack of orientation to the profession, these can be very varied indeed. This means then that the SACMEQ I results in terms of policy suggestions for action proved to be very useful to the Ministry of Education. These policy suggestions were not only to do with the Standard 6 achievement in reading literacy but also with actions required in order to improve the conditions of learning in the schools. The Ministry was therefore more than pleased to participate in SACMEQ II because it provided further information on the conditions of schooling and also measured achievement in reading literacy and mathematics. It would also allow a measure of the change, if any, in achievement levels in the various divisions since the time of SACMEQ I. The Ministry's interest in undertaking SACMEQ II data collection was to examine if there were changes in the overall provision to schools, and whether Standard 6 pupils were achieving any better. After participating in two SACMEQ projects, the Ministry felt satisfied that SACMEQ is indeed a useful tool for monitoring education quality. Although the results were not very pleasing the studies still gave the Government the courage to source more funds and participate in SACMEQ III. Apart from other indicators, the government had particular interest in SACMEQ III because it also tested teachers and pupils knowledge in HIV and AIDS. Considering that the Ministry has a full directorate on school health and nutrition which also includes HIV and AIDS, the results will assist the Ministry in coming up with better strategies on the mitigation of HIV and AIDS in the primary education sub sector

1.10 Structure of the report

The rest of this report is devoted to supplying information from the SACMEQ III study. In Chapter Two, the conduct of the study has been summarized. This involves the establishment of the policy research questions, the development of the instruments and the subsequent scaling procedures, the population tested, the sampling procedures used and the calculation of sampling errors, the data collection, the data entry and the cleaning and weighting of the data.

Data on the pupils and their home backgrounds have been reported in Chapter Three. Information on the teachers' characteristics and their viewpoints on teaching, classroom

resources, professional support, and job satisfaction and schools have been given in Chapter Four. School head teachers' characteristics and their viewpoints on educational infrastructure, the organization and operation of the schools, and problems with pupils and staff are presented in Chapter Five. In Chapter Six, the results of the analysis of the equitable allocation of educational inputs to divisions and also to schools within divisions have been given. The achievement results of both pupils and teachers in reading and mathematics have been reported in Chapter Seven. As pointed out earlier, there is a new chapter on results of HIV and AIDS knowledge which provides the analyses of both teachers and pupils in Chapter eight. In Chapter nine the major results have been summarized and suggestions for action by the Ministry have been made.

1.11 Conclusion

This chapter has provided a nuanced understanding of problems of school participation in Malawi. Together with chapters three, four and five, it is intended to set the scene for a better understanding of the results of the Standard 6 pupils that has been reported in ensuing chapters. Policy interventions will not be meaningful if they are not based on a proper understanding of why and how things happen. There is considerable evidence elsewhere that problems of schooling are mirrored in the social and economic settings in which the school operates.

The Malawi education system more or less mirrors its economic structure. A large proportion of the population receives little formal education, while a small group of people benefit from the education system. While the situation has been aggravated by internal and external shocks that have weakened economic growth and retarded social progress, thus retarding system growth, the introduction of FPE in 1994 seems to have worsened the situation. Consequently, the quality of the education being offered has greatly deteriorated.

Chapter 2

Conduct of the SACMEQ III Project

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 reference should be made to the second chapter of the SACMEQ II report. A unique feature of the SACMEQ III research project was the inclusion of the HIV and AIDS knowledge test (HAKT) for Standard 6 pupils and their teachers.

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 Standard 6 pupils and their teachers, and c) the knowledge that pupils and their teachers have about HIV and AIDS. The main data collection for the project covered a total of around 60,000 pupils, 8,000 teachers, and 2,800 school heads. In Malawi, the coverage was 2,781 pupils, 264 teachers and 139 school heads (SACMEQ, 2010).

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 Standard 6 level in 2007 (at the first week of the eighth 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 15 pupils enrolled in Standard 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. Overall the exclusion rules that were applied to Malawi were:

- Schools with less than 15 Standard 6 pupils, private schools, special schools and "inaccessible" schools.

(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 Malawi have been presented.

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

	Desired		Defined		Excluded		Pupils %
	Schools	Pupils	Schools	Pupils	Schools	Pupils	
Malawi	4237	238797	3483	226970	754	11827	4.95%

From the last column of **Table 2.1** it can be observed that the excluded population of pupils was 4.95 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 Teams (NRTs), under the auspices of the SACMEQ Coordinating Centre 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 NRTs in Cape Town, 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 office of the Director of Education Planning (DEP) informed the sampled schools through the offices of the District Education Managers (DEMs) and the Education Division Managers at the beginning of 2007. Each division identified coordinators of data collection teams from division and district education officials. The teams were responsible for

distributing the data collection schedules, intensifying and monitoring communication to schools in their respective districts.

(c) Printing and distribution of data collection instruments

Data collection instruments included a) School Head Booklets, b) School Information Forms, c) Teacher Booklets, d) Learner Booklets and e) Learner Name Forms. Each participating country received print-ready copies from the Coordinating Centre and were responsible for printing correct numbers of copies for their respective schools.

When all instruments were printed, the NRTs conducted a "hand check" of all materials so as to verify that there were no missing pages or misprints or omissions. 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 printed materials were distributed to leaders of teams that were assigned to collect data in each district. 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.

(d) Training of data collectors

In Malawi 48 data collectors were trained. The training was conducted by the NRC, the DNRCs, and a member of the SACMEQ Scientific Research Committee from the Centre for Educational Research and Training of Chancellor College, University of Malawi. The first day involved official opening by the Director of Education Planning, briefing on the background to SACMEQ and an intensive study of the Manual for Data Collectors. The Manual for Data Collectors 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 from the Ministry of Education, Science and Technology to the time when the data collector had completed the data collection and was preparing all materials for return. On the second day, the trainers presented a "simulated" data collection exercise in which they acted as a data collectors and the trainees took the roles of pupils, teachers, and School Heads. The third day involved a second "simulated" data collection whereby the trainees supervised a full-fledged data collection in several schools that were not involved in the main data collection. The

experiences gathered during these exercises were shared and discussed during a later meeting so that all data collectors understood the procedures to be completed within schools.

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.

The main SACMEQ III data collection occurred for most SACMEQ Ministries of Education in the period September to December 2007. In Malawi data was collected in September 2007 in 139 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 pupils from all the Standard 6 classes in the sampled schools, using a list of provided random numbers. The sampled pupils 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 pupils 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 Skills Education (for the HIV and AIDS test) also completed the relevant tests.

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. The materials were then handed over to the research team coordinator for safekeeping, "hand editing" and dispatching to the National Research Coordinator (NRC) in Lilongwe as soon as all data collection was completed.

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 pupils were sampled from all the Standard 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 Standard 6 pupils at the time of data collection was greater than 25. Where the number of Standard 6 pupils was 25 or less than 25 in a school, all the Standard 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 Malawian sample have been presented in Table 2.2.

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

	Schools		Pupils	
Malawi	Planned	Achieved	Planned	Achieved
	140	139	3,520	2,781

From Table 2.2 it can be seen that the planned Malawian sample was 140 schools and 3,520 pupils. The achieved sample comprised of 139 schools and 2,781 pupils. Reasons for non-participation by the one sampled school was that the data collectors were unable to reach the school because the access road was impassable because a bridge had been washed away during the previous rain season and had not been repaired at the time of the study. A replacement was considered not necessary on the advice of the SACMEQ Coordinating Centre in order not to introduce bias in the sample. Similarly, 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 Malawi 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 Malawi in SACMEQ III

	Response Rate (%)		Design Effect			Effective Sample Size		
	Schools	Pupils	Reading	Maths	HAKT	Reading	Maths	HAKT
Malawi	99%	79%	7.1	5.9	6.7	394	473	414

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 Malawian overall response rates for schools and pupils were 99% and 79%, respectively. The overall response rate in SACMEQ III was less than in SACMEQ II which stood at 100% for schools and 83% 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 2,781 had a variance (of the sample mean) which was 7.1 times the variance that would be realized if a simple random sample of the same size was used. For Mathematics this ratio was 5.9 while for HAKT it was 6.7. 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 394 pupils would have given the same level of accuracy as the two-stage sample of 2,781. The "Effective Sample Size" for Reading = 2,781/7.1= 392. Possible (small) inaccuracies in this calculation may be due to the fact that not all 2,781 pupils in Malawi 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 pupils (thereby guaranteeing 95 percent confidence limits for sample means of plus or minus one tenth of a pupil standard deviation unit). The Malawi sample sizes exceeded this threshold in Mathematics and HAKT. In Reading the random sample of pupils was less than the desired threshold of 400 pupils by 6 pupils.

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

The Malawi NRT received the completed materials from the Research Team coordinators and kept these safely while they were being checked, entered into computers, and then "cleaned" to remove errors prior to data analysis. Data- checking involved the "hand editing" of data collection instruments by a team of trained staff. 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, and (iii) certain 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).

Trained data capturers, supervised by the NRT, entered data into computers using the WINDEM software that was supplied by the SACMEQ Coordinating Centre. Data were "double entered" in order to monitor accuracy. Individual data capturers worked for maximum of eight hours per day, and the whole data entry operation for Malawi was estimated to involve around 60 person days of data entry work.

(b) Data Cleaning

During December 2007 the SACMEQ Coordinating Centre organized a training programme for all NRTs. 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, NRTs followed a "cyclical" process whereby data files were cleaned by the NRT and then emailed to the Coordinating Centre for checking and then emailed back to the NRC for further cleaning. The entire data cleaning process in Malawi lasted seven months, starting in January 2008 and was completed by 31 July 2008. This was much shorter than the 18 months taken to clean the data for the SACMEQ II project.

To clean the data, using the WINDEM software, the NRTs 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 NRT 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 focused 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, IIEPJACK, was used to "fill" the Dummy Tables with appropriate estimates and corresponding sampling errors.

Writing the SACMEQ III Policy Reports

The NRT 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 NRT 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 Malawi. The sample design procedures and the construction of the Reading and Mathematics tests for pupils and their teachers were to a large extent modeled 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.

One of the important messages that emerged from this part of the Project was that the speed at which a cross- national research project proceeds is strongly influenced by the speed with which the slowest country can complete all aspects of its data collection and data preparation.

Chapter 3

Characteristics of Standard 6 Pupils and their Homes

Introduction

The aim of this chapter is to present comprehensive information on some of the characteristics of Standard 6 pupils and their homes. These data have been presented for three reasons. The first is that they represent a 'context' for the later analyses of this report. The second is that since, over time, the levels and distributions of the data may change and thus the data can be used to compare the types of pupils in Standard 6 at different time periods. The third reason is that home background is an important variable in all analyses of educational data. From the home context variables a socio-economic scale were constructed and it was important for the reader to know exactly which variables were included in this scale. It is common sense that schools that have an intake of pupils from 'better' home backgrounds should achieve better than schools that have an intake of pupils from less well-off home backgrounds. Indeed, the research literature abounds with such examples. It is schools that have high scores but have an intake of low socio-economic-status children that are remarkable. Many of the school and teacher variables that appear in later chapters in this report were examined for their effect on pupil achievement. It was important to examine their pristine relationship with achievement but also their effect once the socio-economic status intake of pupils has been taken account of.

A note on the interpretation of the data analyses

Before presenting the results, two points should be stressed. The first is that the variables presented in this chapter represent a small subset of the larger number of variables for which data were collected. The second point is that it is very important to interpret each statistic in association with its sampling error. It will be recalled from Chapter 2 that the sample was drawn in order to yield standard errors of sampling for pupils in Standard 6 in Malawi 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 ±5 percent of the estimate derived from the sample. The sampling errors for means are also given in the tables and the same principle applies for limits of two standard errors of sampling.

Where a percentage or a mean is presented for a sub-group of pupils (such as for divisions) 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 sizes. Had smaller standard errors for sub-groups been required, this would have increased the size of the total sample and also of the budget required to undertake much larger field data collections and data analyses.

To illustrate, consider the first column of entries in *Table 3.1*. The average age of pupils in months at the time of data collection has been presented separately for each division and for Malawi overall. The standard error (SE) of each average has also been presented. For the second division of Central East, the average pupil age was 168.6 months at the time of the data collection, and the standard error for this estimate was 2.67 months. That is, there were 19 chances in 20 that the average age of the population of Standard 6 pupils in the Central East division was 168.6 ± 2(2.67). In other words, we can be 95 percent confident that the population value for the Central East division was between 163.26 and 173.94 months.

It is important to note that the value of the standard error for each estimate changed from division to division. The variation was caused by two main factors: differences in the distribution of pupils among schools within divisions and the structure of the sample design within each division. The smallest standard error of 0.84 months occurred for the sample estimate of average age for the whole population of Standard 6 pupils in Malawi. This result was to be expected because the overall sample estimate, was based on a much larger sample of schools and pupils than the corresponding estimate for any single division.

In interpreting the values in *Table 3.1* and other tables throughout this report, it is important to remember that the percentages and means have been presented in terms of pupils as the units of analysis - even though some variables in this report referred to teachers or schools. Where a percentage for a variable that describes teachers has been presented, this percentage should be interpreted as 'the stated percentage 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 percentage of pupils were in schools with the particular characteristic'. In terms of mean values, a mean value for teachers should be interpreted as meaning that the average Standard 6 pupil in Malawi had a teacher who had that particular

mean and for a school it is that the average Standard 6 pupil was in a school where the head had that particular mean.

As a starting point, in order to guide the data analyses, the very broad educational policy question posed in the title to this chapter was divided into five major general policy concerns.

General Policy Concern 1:
What were the personal characteristics (for example, age and gender) and home background characteristics (for example, parent education, regularity of meals, home language, etc.) of Standard 6 pupils that might have implications for monitoring equity, and/or that might impact upon teaching and learning?

The general policy concerns were further divided into several specific research questions. For example, the policy concern on personnel characteristics and home background of Standard 6 pupils was divided into the following specific research questions:

- What was the age distribution of pupils?
- How many books were there in pupils' homes?
- How regularly did pupils eat meals?
- What was the level of the parents' education?
- What was the gender distribution of pupils?
- What were the detailed home possessions of Standard 6 pupils?
- What was the socio-economic status of pupils' parents in terms of housing conditions (lighting, floor, wall, roof)?
- What were the material home conditions of the Standard 6 pupils?

Pupil Age and Sex

What was the age distribution and sex of Standard 6 pupils?

Information concerning the age distribution of the Standard 6 pupils has been presented in Table 3.1.

Table 3.1 Mean age in months, percentages, and sampling errors for pupil personal and home-related characteristics of girls in Standard 6 (SACMEQ I, II and III)

Division	Age (months)		Sex (female)		**Books at home** (number)		Possessions at home (index)		Meals (index)		**Parent education**	
	Mean	SE	%	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
SACMEQ I												
North	176.0	2.16	47.3	3.00	7.2	1.32	3.8	0.18	11.4	0.10	2.8	0.12
Central East	186.2	1.67	46.6	3.13	13.1	2.81	4.3	0.18	11.4	0.11	2.5	0.09
Central West	184.2	2.15	48.2	2.28	13.4	2.78	4.3	0.28	11.4	0.09	2.8	0.15
South East	182.0	2.48	46.8	3.59	8.7	2.06	4.9	0.34	11.5	0.12	2.9	0.18
South West	174.4	3.10	45.5	3.69	17.7	2.40	5.1	0.33	11.6	0.06	3.4	0.20
Shire Highlands	183.5	1.96	41.8	2.92	8.2	1.83	4.1	0.16	10.9	0.26	2.4	0.08
Malawi	**181.1**	**1.01**	**46.5**	**1.27**	**11.5**	**0.97**	**4.4**	**0.12**	**11.4**	**0.04**	**2.8**	**0.06**
SACMEQ II												
North	171.8	3.47	47.3	2.59	6.9	1.23	3.6	0.37	11.5	0.13	3.2	0.18
Central East	179.9	2.76	46.0	3.73	9.1	2.61	3.3	0.23	11.5	0.14	2.7	0.16
Central West	174.2	2.61	47.1	2.70	9.7	2.90	4.0	0.38	11.4	0.14	2.9	0.14
South East	174.3	3.05	51.8	4.12	9.1	1.85	4.9	0.35	11.0	0.21	3.0	0.22
South West	170.6	2.69	45.8	4.13	18.9	3.60	4.6	0.37	11.5	0.10	3.3	0.17
Shire Highlands	174.0	1.88	49.5	2.50	6.9	1.09	3.7	0.30	10.9	0.18	2.6	0.15
Malawi	**174.0**	**1.19**	**47.8**	**1.34**	**10.1**	**1.07**	**4.0**	**0.15**	**11.3**	**0.06**	**3.0**	**0.07**
SACMEQ III												
North	166.7	2.13	49.3	1.9	8.15	2.17	3.98	0.25	10.52	0.16	3.03	0.12
Central East	168.6	2.67	46.3	3.5	6.72	1.21	3.94	0.31	11.13	0.16	2.91	0.14
Central West	173.2	1.59	48.8	1.9	5.91	0.96	3.69	0.19	10.77	0.12	2.71	0.10
South East	169.5	2.39	47.6	3.3	10.03	5.09	3.95	0.28	11.13	0.14	2.90	0.16
South West	165.8	1.72	52.4	3.4	8.20	0.98	4.55	0.34	11.09	0.10	3.11	0.16
Shire Highlands	170.7	1.64	51.4	2.3	5.56	0.99	3.77	0.16	10.55	0.17	2.73	0.11
Malawi	**169.5**	**0.8**	**49.2**	**1.1**	**7.25**	**0.9**	**3.9**	**0.1**	**10.8**	**0.6**	**2.88**	**0.1**

It can be observed from *Table 3.1* that the average age for all Standard 6 pupils in Malawi in SACMEQ III was 169.5 months. If all pupils had entered school at the official entry age of 6 years, and there had been no standard-repetition, then the expected mean age would have been 152 months. The figure of 169.5 demonstrates that there are still serious problems of overage pupils in Malawi primary schools. However, the mean age of 169.5 in SACMEQ III showed a decrease in age compared to SACMEQ II which had a mean of 174.0 and SACMEQ I with a mean of 181.1. The results show that there is some improvement in terms of the age of children in Standard 6. This might also be an indication that the cohort of overage pupils that had entered the system as a result of the FPE policy in 1994 is gradually leaving the system.

The percentage of females amongst the Standard 6 pupils is also presented in the table. If all went well with pupils' progression through school then a 50/50 split would be expected. Results in *Table 3.1* show that more girls were reaching Standard 6. The percentage of 49.2 in SACMEQ III is an improvement compared to SACMEQ I and II which had percentages of 46.5 and 47.8 respectively. The South West and Shire Highlands division had improved in terms of girls' participation from 45.8 and 49.5 percent in SACMEQ II to 52.4 and 51.4 percent respectively in SACMEQ III. On the other hand, the South East Division dropped from 51.8 in SACMEQ II to 47.6 in SACMEQ III.

Policy Suggestion 3.1. The Ministry of Education should promote and expand interventions that promote girls participation in all primary schools to ensure that more girls are enrolled in schools (such as the establishment of Mother Groups, Readmission policy for school aged mothers, Child Friendly school programs, and Grants to orphaned girls and those in difficult circumstances).

Policy Suggestion 3.2 The Ministry of Education should intensify and enforce the school age entry policy to ensure that children are enrolled in school at the right entry age of six and such efforts should be emphasized in the rural areas.

Books at Home

How many books were there in pupils' homes?

In *Table 3.1* was the mean number of books in Standard 6 pupils' homes is also reported. It can be seen from the table that the mean number of books in the homes of Standard 6 pupils in SACMEQ II was 10.1 down from 11.5 in SACMEQ I. The results of SACMEQ III indicate

a further decrease in the mean number of books in the homes of Standard 6 pupils to 7.25. The South West division had by far the largest mean number of books in the homes of Standard 6 pupils in both SACMEQ I and II (probably because of the urban district of Blantyre). Surprisingly in SACMEQ III, the mean number of books had significantly decreased to 8.20 although it is still above the national average of 7.25. Generally, the average number of books pupils' homes is very small in all the education divisions. This implies that there are not many available resources in the homes of the Standard 6 pupils to aid them in being able to read.

Home Possessions

What were the detailed home possessions of Standard 6 pupils?

The next piece of information presented in *Table 3.1* is the number of possessions, that the pupils stated were in their homes. A question was asked on the pupil questionnaire about thirteen possessions they might have in their home. These were: daily newspaper, weekly or monthly magazine, radio, TV set, video cassette recorder (VCR), cassette player, telephone, car, motorcycle, bicycle, piped water, electricity (mains, generator, solar), and a table to write on. The number of possession owned in the home was summed for each pupil. The lowest score possible was zero and the highest 13. It can be noted from *Table 3.1* that the number of possessions in the homes in SACMEQ III was generally low with a mean of 3.94 possessions in pupils' homes. When compared to the SACMEQ I and II figures, the mean for SACMEQ III was lower with most divisions also showing a decrease in the number of possessions at home. Data on poverty levels is hard to come by but these indicators seem to show that pupils in general come from low socio-economic status backgrounds and that households in Malawi in SACMEQ III were poorer compared to SACMEQ I and II or that poorer pupils have gained accessed to the education system since the previous studies.

Meals Eaten

How regularly did pupils eat meals?

A further question concerned the nutrition of the pupils at least in terms of having three meals a day, even if the nutritional value of each meal was not known. The question asked about a morning meal, a midday meal and an evening meal and how many times a week they ate each of these meals. A score of 3 meant that they did not eat at all while a score of 12 indicated that they ate every meal each day. It can be noted from the information in Table 3.1 that pupils in SACMEQ III had almost the same number of meals per week (10.84) as was the case in

SACMEQ II (11.3). Three divisions were above the national mean. These were Central East (11.13), South East (11.13) and South West (11.09). The results show that most pupils ate meals at least on daily basis.

Parental Education

What was the level of the parents' education?

As for the intellectual milieu characterized by the education of the parents, separate questions were asked of the mothers' and fathers' educational levels. The results were summed and a score of '1' indicated that no parent had received any school education; and a score of 6 indicated that both parents had received university education. Children from the South West division had more educated parents followed by those from the North division. Pupils from the Central West and Shire Highlands reported having lesser-educated parents. Although the national mean of parent education is slightly lower in SACMEQ III, overall, it can be noted that there was no much difference between the education level of Standard 6 pupils in SACMEQ III (2.8) compared to 3.0 in SACMEQ II and 2.8 in SACMEQ I.

Socio-economic background

What was the socio-economic status of pupils' parents in terms of housing conditions (lighting)?

The quality of the lighting the homes had and the materials from which the homes were built are also considered to be indicators of wealth in African homes. In *Table 3.2* below, the information on the types of lighting that the pupils had in their homes is presented.

Table 3.2: Percentages and sampling errors for the lighting in pupils' homes (SACMEQ II and III)

	SACMEQ II							
Division	**No light**		**Candle/Oil Lamp**		**Gas lamp**		**Electric lighting**	
	%	SE	%	SE	%	SE	%	SE
North	1.1	0.62	84.4	6.50	0.8	0.57	13.7	6.32
Central East	3.2	1.11	85.2	4.24	5.7	2.24	5.8	2.67
Central West	1.2	0.52	81.7	5.52	0.5	0.34	16.6	5.47
South East	0.8	0.56	82.8	6.20	2.0	0.95	14.4	5.96
South West	2.3	0.93	72.3	5.54	2.2	0.69	23.3	5.59
Shire Highlands	1.4	0.62	88.5	4.96	1.1	0.60	9.0	4.91
Malawi	**1.6**	**0.29**	**82.3**	**2.33**	**1.8**	**0.37**	**14.3**	**2.26**

Table 3.2 (contd): Percentages and sampling errors for the lighting in pupils' homes (SACMEQ II and III)

Division	SACMEQ III									
	No light		Candle		Paraffin/ Oil Lamp		Gas Lamp		Electric Lighting	
	%	SE	%	SE	%	SE	%	SE	%	SE
North	0.7	0.4	16.5	2.3	63.4	4.2	2.2	1.0	8.7	3.8
Central East	0.0	0.0	18.5	3.1	63.2	5.4	0.7	0.4	12.4	5.3
Central West	0.6	0.3	13.7	2.2	72.3	4.5	1.3	0.5	8.7	2.9
South East	0.3	0.3	10.4	2.6	68.4	5.2	2.5	0.9	16.7	5.0
South West	0.2	0.2	17.4	3.1	58.0	6.8	1.2	0.9	21.9	4.8
Shire Highlands	0.3	0.3	5.5	1.8	80.3	3.2	7.3	1.9	5.1	1.7
Malawi	**0.4**	**0.1**	**13.9**	**1.1**	**67.8**	**2.1**	**2.3**	**0.3**	**11.6**	**1.6**

In SACMEQ II most of the Standard 6 pupils (82.3 percent) indicated that they used candle/oil lamp for lighting. The SACMEQ NRCs decided to separate candles from oil lamps for SACMEQ III. As can be seen from *Table 3.2*, the major source of light in the homes of Standard 6 pupils in SACMEQ III was paraffin oil lamp (67.8 percent) and only 13.9 percent indicated candle. Only 11.6 percent had electricity as source of lighting. South West division had the highest number of homes using electricity (21.9 percent) as compared the other divisions probably because of the urban district of Blantyre. There has been an improvement between 2002 and 2007 in terms of Standard 6 pupils who indicated that they had no light from 1.6 percent down to 0.4 percent. Central East Division did not have any homes with no lighting, an improvement from 3.2 percent in 2002. These results show that most of the Standard 6 pupils do not have access to electric lighting. It should be pointed out that it is very important to have light to be able to read and the results suggest that fewer pupils have no lighting but less have access to electric lighting when compared to 2000.

Structure of Pupil homes

What were the material home conditions of the Standard 6 pupils?

As mentioned above the kind of materials from which the house is built is another aspect of wealth, information about the structure of the floors in pupils' homes has been presented in *Table 3.3*.

Table 3.3 Percentages and sampling errors for structure of floors in pupils' homes (SACMEQ II and III)

	Division	Not sealed		Wood		Cement		Carpet/Tiles		Canvas	
		%	SE	%	SE	%	SE	%	SE	%	SE
SACMEQ II	North	58.0	6.37	1.2	0.57	40.4	6.39	0.5	0.32	-	-
	Central East	68.0	7.53	0.3	0.28	31.7	7.44	0.0	0.00	-	-
	Central West	52.7	5.80	0.4	0.31	46.0	5.64	0.9	0.58	-	-
	South East	59.4	6.72	0.4	0.27	39.8	6.70	0.4	0.26	-	-
	South West	36.8	6.62	0.3	0.29	60.7	6.26	2.2	1.17	-	-
	Shire Highlands	63.9	6.87	0.4	0.36	34.0	6.11	1.7	1.17	-	-
	Malawi	**55.8**	**2.75**	**0.5**	**0.15**	**42.8**	**2.66**	**0.9**	**0.29**	-	-
SACMEQ III	North	52.1	4.8	1.7	0.7	41.9	4.7	1.3	0.4	3.0	0.8
	Central East	58.4	6.1	3.0	1.1	35.8	6.2	1.1	0.5	1.6	0.7
	Central West	59.5	4.6	0.5	0.3	38.8	4.6	0.5	0.3	0.7	0.3
	South East	52.0	6.1	1.4	0.7	44.3	5.7	0.9	0.5	1.5	0.8
	South West	36.5	6.3	3.2	1.1	57.2	5.8	2.7	1.2	0.4	0.3
	Shire Highlands	63.3	3.9	0.7	0.7	35.2	3.8	0.9	0.5	0.0	0.0
	Malawi	**54.3**	**2.2**	**1.6**	**0.3**	**41.6**	**2.1**	**1.2**	**0.2**	**1.2**	**0.2**

In terms of the structure of the floors of the homes of the Standard 6 pupils, it can be seen from *Table 3.3* that the majority of them, 54.3 percent, were coming from homes where the floors were not sealed. However, 41.6 percent of pupils were in homes where the floor had cement. Shire highlands had the highest percentage of pupils (63.3 percent) coming from homes with no sealed floors while the South West division had the highest percentage of pupils (57.2 percent) from homes with cemented floors. This is surprising because the other divisions which had large urban areas such as the Central West, North and Central East, did not show similar results. In the same way, results of SACMEQ II indicated that the majority of pupils (55.8 percent) were coming from homes where the floors had not been sealed and 42.8 percent of the pupils were from homes with cemented floors. The majority of pupils were from Central East (68.0 percent) followed by Shire Highlands (63.9 percent) divisions. It can also be seen that only the South West division had more than half of the pupils with their

households cemented while only 31.7 percent of the pupils in the Central East division were in homes whose floors were cemented.

Quality of Pupil Homes

What was the general condition of the households?

An attempt was then made to construct a measure of the general condition of the households. This information has been presented in *Table 3.4*. The general quality of pupils' homes was derived from an amalgamation of four variables of light, floor, wall and roof. It was possible to sum the values for the floors, walls and roofs because each of the materials given in the tables was considered to be hierarchical in terms of wealth. For example, carpet/tiles was considered to be 'better' than cement that was 'better' than wooden planks and so on. There were five categories for floors, six for walls, and five for roofs, making a high total of 16.

Table 3.4. Means and sampling errors for the general quality of pupils' homes (SACMEQ III)

Division	General quality of pupil's homes (Index)	
	Mean	SE
North	8.7	0.41
Central East	7.9	0.36
Central West	8.9	0.35
South East	8.8	0.39
South West	9.6	0.33
Shire Highlands	8.6	0.40
Malawi	**8.8**	**0.16**

It can be noted from the information about the general quality of pupils' homes that pupils in Standard 6 in Malawi came from homes that had just half (8.8 out of a possible 16) of the expected characteristics that were thought to contribute to good quality of houses. Pupils from the South West division were from homes with better characteristics (mean of 9.6); while those from the Central East and the Shire Highlands divisions were from homes which were generally of poor quality (means of 7.9 and 8.6 respectively). The Shire Highlands and the North divisions also exhibited greater disparity in the general quality of pupils' homes.

Summary

In summary, the problem of over aged children still exists in Malawi primary schools. However, compared to SACMEQ I and SACMEQ II, in SACMEQ III Standard 6 pupils were slightly younger than they were in 1998 and 2002. The proportion of girls in Standard 6 has increased from 1998 to 2007. The same trend appears in some education divisions although most of them still need to put more effort towards the promotion of girls' education. The number of books in the homes was small and the number of possessions was generally low. There has been a significant decrease in the home possessions of the average Standard 6 pupil. Further, very few homes had electricity and in general, Standard 6 pupils came from homes that were of low quality.

Policy Concern 2:

What were the school context factors experienced by Standard 6 pupils that might impact upon teaching/learning and the general functioning of schools?

In trying to examine the context in which Standard 6 pupils were schooling, the above general policy concern was broken down into the following specific research questions:

- What was the location of the school?
- How many days were pupils absent in the previous month, and what were the reasons for these absences?
- What percentage of pupils spoke the language of the test at home?
- How many pupils had repeated a Standard, and were they currently repeating Standard 6?
- How frequently did pupils receive homework in reading and mathematics?
- Did the teachers correct assigned homework?
- Did family members monitor, assist with, request demonstrations, ask questions about, and/or look at, pupils' homework?

School location

*What was the location of the school?*In *Table 3.5*, the percentages of schools in urban areas and the mean distances from school to the nearest service providers in the six divisions for SACMEQ I and SACMEQ II and III have been presented.

Table 3.5: School Location and Mean distances to nearest Service Providers in SACMEQ I, II and III

Division	SACMEQ I				SACMEQ II				SACMEQ III			
	Urban		Distance (km)		Urban		Distance (km)		Urban (City/Town)		Distance (km)	
	%	SE	Mean	SE	%	SE	Mean	SE	%	SE	Mean	SE
North	12.5	6.90	29.8	5.49	21.4	9.69	30.7	6.33	26.6	9.3	22.22	4.20
Central East	28.0	9.17	19.9	3.26	35.5	12.94	13.0	2.69	17.6	8.7	11.22	1.98
Central West	20.0	7.43	24.9	3.46	34.5	9.42	11.0	1.54	26.7	8.4	17.49	2.54
South East	47.6	11.17	14.7	2.10	23.0	9.72	12.8	2.51	17.0	9.3	13.82	2.64
South West	50.0	10.43	12.4	3.21	54.4	11.56	16.0	3.07	41.7	12.0	8.38	1.41
Shire Highlands	8.3	5.76	16.8	2.93	28.6	11.49	16.7	2.69	9.7	6.9	15.67	3.72
Malawi	**27.1**	**3.5**	**20.5**	**1.6**	**33.0**	**4.4**	**16.5**	**1.4**	**23.8**	**3.8**	**15.5**	**1.3**

Access to schools determines what kind of services can be rendered to the schools. In Malawi, the proportion of schools which are situated in the urban areas significantly increased from 27.1 percent in SACMEQ I to 33.0 percent in SACMEQ II. However, in SACMEQ III the results have shown a different pattern. There is a reduced proportion of schools (23.8 percent) situated in urban areas in general. The mean distance of schools to the nearest facilities has significantly dropped down from a mean of 20.5 km in SACMEQ I to a mean of 16.5 km in SACMEQ II and 15.51 km in SACMEQ III indicating that schools are now closer to the service providers (especially in the Central West and Central East divisions). The North and Central West Divisions are still experiencing the problem of considerable distance to service providers means of 22.22 km and 17.49 km respectively. These include health centres, public libraries, bookshops, secondary schools, shopping centres and tarred roads. In divisions where the mean distances have increased it may mean that more schools have been built in rural and remote areas and are not very easily accessible.

Speaking English at Home

What percentage of pupils spoke the language of the test at home?

Two further pieces of information that are important were collected in the study about the homes of the Standard 6 pupils. The first is the extent to which they spoke the language of instruction used in the schools (which is English) when they were outside of the school.

The information in *Table 3.*6 shows that on average, 54.0 percent of the pupils spoke the language of instruction in their home and this is a very significant increase from 40.8 percent

in SACMEQ II. However, in SACMEQ I a higher percentage (69.1 percent) of Standard 6 pupils indicated that they spoke English at home. Significant increases have been noted in the North, Central West and South West divisions. The increase in the percentage of pupils speaking English at home could be explained by an improvement in reading probably accruing from the new primary school curriculum which has a component of continuous assessment and other literacy programs.

Table 3.6: Percentages, mean, and sampling errors for the pupil language, days absent, and repetition in SACMEQ I, II and III.

	Division	Speak English		Days absent		Repetition	
		percent	SE	Mean	SE	%	SE
SACMEQ I	North	61.0	8.59	4.3	0.36	62.4	5.66
	Central East	69.0	4.71	4.3	0.33	58.8	2.70
	Central West	79.3	3.65	3.0	0.21	68.9	2.31
	South East	66.2	6.96	4.0	0.48	59.1	4.00
	South West	65.8	5.79	3.1	0.23	58.9	4.29
	Shire Highlands	66.5	9.13	4.0	0.47	67.1	3.70
	Malawi	**69.1**	**2.49**	**3.7**	**0.13**	**62.9**	**1.57**
SACMEQ II	North	26.2	8.18	1.5	0.19	63.7	5.72
	Central East	52.2	6.57	3.2	0.75	71.1	4.23
	Central West	29.2	6.24	1.1	0.16	70.6	3.11
	South East	32.7	6.68	2.3	0.29	67.7	4.14
	South West	58.7	6.51	2.2	0.32	44.4	6.55
	Shire Highlands	57.8	5.92	2.6	0.27	79.0	4.77
	Malawi	**40.8**	**2.87**	**2.0**	**0.15**	**66.1**	**1.95**
SACMEQ III	North	60.6	5.9	1.77	0.22	48.9	2.8
	Central East	54.3	5.0	1.71	0.23	52.1	3.8
	Central West	55.2	4.6	1.99	0.20	67.4	3.2
	South East	43.2	9.1	1.87	0.33	70.4	4.2
	South West	57.9	7.5	1.03	0.15	57.5	4.1
	Shire Highlands	48.6	8.4	1.27	0.18	64.8	4.5
	Malawi	**54.0**	**2.7**	**1.7**	**0.1**	**60.3**	**1.6**

Grade Repetition

How many pupils had repeated a Standard, were they currently repeating Standard 6?

In *Table 3.6*, information about the incidence of repetition is also presented. Pupils were asked whether they had repeated a Standard since they started school. It can be seen from this table that 60.3 percent of pupils repeated a standard and this was lower than was the case in

SACMEQ II and I where 66.1 and 62.6 percent of pupils respectively reported that they had repeated at least one Standard. The South East division had the highest percent (70.4 percent) of pupils repeating; an increase from 67.7 percent in SACMEQ II. The South West also experienced an increase in repetition from 44.4 percent in SACMEQ II to 57.5 in SACMEQ III. There has been some notable decreases in repetition from SACMEQ II to SACMEQ III in some divisions; Central West from (70.6 percent to 67.4 percent), Central East (71.1 percent to 52.1 percent) Shire Highlands 79.0 percent to 64.8 percent), North (63.7 percent to 48.9 percent) and it was also the only division in which repetition had significantly decreased while the Shire Highlands had the highest percentage of pupils repeating. Problems of repetition have been highlighted in the past by other studies (Williams 1996, Kadzamira et al., 1999, Chimombo 1999, Chimombo et al., 1999) and these represent serious schooling problems in the education system of Malawi. Generally the divisions have shown two different trends indicating an increase and a decrease in repetition. Although there were notable reductions in repetition in some divisions, the percentages were still high.

Table 3.7 What are the levels and trends in Standard repetition in SACMEQ countries

	Repeated at least once		Repeated Standard 6	
Country	**2000**	**2007**	**2000**	**2007**
Botswana	31.4	31.3	5.5	5.2
Kenya	64.1	48.2	17.7	13.8
Lesotho	60.8	51.7	14.6	15.1
Malawi	**66.1**	**60.3**	**12.5**	**15.6**
Mauritius	18.7	22.3	18.2	21.7
Mozambique	78.2	59.6	26.5	5.5
Namibia	54.1	43.2	15.9	17.2
Seychelles	10.3	2.2	2.6	0.3
South Africa	42.3	28.5	12.8	9.5
Swaziland	59.3	56.4	20.6	21.2
Tanzania	23.3	20.4	6.6	1.5
Uganda	52.9	52.7	22.7	27.7
Zambia	51.5	33.6	23.5	7.8
Zanzibar	27.6	15.3	4.7	3.1
Zimbabwe	39.9	31.4	XX	8.5
SACMEQ	**45.8**	**37.1**	**14.6**	**11.6**

It can be seen in *Table 3.7* that Malawi still has high repetition rates because the rates are above the SACMEQ average of 45.8 percent (2000) and 37.1 percent (2007) respectively (see Figure 3.1 in Appendix). In addition, the number of pupils who repeated Standard 6 were lower in 2000 (12.5 percent) than in 2007 (15.6 percent).

Policy suggestion 3.4: MoEST should find ways of reducing repetition in schools. A policy should be introduced to address the issue of repetition.

Absenteeism

How many days were pupils absent in the previous month and what were the reasons for the absences?

In terms of absenteeism, it can also be seen from *Table 3.8* that absenteeism has decreased from SACMEQ I and SACMEQ II to SACMEQ III. Absenteeism has decreased from 3.7 days and 2.0 days to 1.66 days respectively. This trend shows that there is an improvement in daily attendance of school. Similarly almost all divisions have shown an improvement in the number of days pupils absent from school. The pupils were also asked to give the reasons for being absent. In *Table 3.8*, reasons as regards to why pupils were absent have been provided.

Table 3.8. Percentages and sampling errors for reasons of pupils' absenteeism.

	Division	Illness		Family reasons		Fees		Work	
		%	SE	%	SE	%	SE	%	SE
SACMEQ II	North	67.9	4.70	23.9	4.37	0.0	0.00	9.8	2.86
	Central East	68.4	5.51	24.6	3.02	0.0	0.00	8.8	1.66
	Central West	71.5	4.03	18.7	3.12	0.0	0.00	3.6	1.43
	South East	73.8	4.64	31.6	5.57	1.0	0.73	19.2	4.46
	South West	65.9	5.22	26.1	5.58	0.0	0.00	7.5	2.84
	Shire Highlands	65.8	5.17	25.6	3.87	0.0	0.00	15.6	3.32
	Malawi	**69.0**	**1.99**	**24.8**	**1.73**	**0.1**	**0.11**	**10.4**	**1.18**

Table 3.8. Percentages and sampling errors for reasons of pupils' absenteeism.

	Division	Own Illness		Another member of family ill		Visited Doctor		Care Siblings		Funeral	
		%	SE	%	SE	%	SE	%	SE	%	SE
SACMEQ III	North	79.7	2.7	22.0	3.2	32.6	3.6	20.2	4.2	15.6	3.3
	Central East	74.9	3.6	20.7	4.5	25.4	3.9	15.7	2.9	18.6	3.6
	Central West	79.7	2.7	19.2	2.7	23.6	3.3	17.0	3.1	20.1	3.3
	South East	80.0	3.6	13.2	3.6	16.5	4.3	10.1	4.0	5.8	1.9
	South West	70.4	5.6	13.1	3.8	19.5	5.1	8.3	2.8	16.3	3.4
	Shire Highlands	79.5	2.8	13.8	2.4	22.8	5.1	9.4	2.5	16.6	3.5
	Malawi	**76.4**	**1.4**	**17.9**	**1.4**	**24.1**	**1.7**	**14.6**	**1.5**	**16.1**	**1.4**

The results in *Table 3.8* indicate that in SACMEQ III own illness was the most frequently stated reason for being absent from school (76.4 percent) followed by visiting a doctor (24.1 percent) with the least popular reason being caring for siblings (14.6 percent). It can be noted from the results for SACMEQ II in *Table 3.9*, that illness was the also most frequently stated reason for being absent from school. In 2007 the same reason of own illness applied to divisions as the major reason for absenteeism from school and it ranged from 70.4 to 80.0 percent. Although caring for siblings was the least, the North division had the highest percentage of pupils caring for siblings (20.2 percent) compared to South West (8.3 percent) which had the smallest percentage.

Policy Suggestion 3.5. MoEST should find out the type of illness that contributes to absenteeism of most pupils in schools so that it can be tackled through the School Health and Nutrition Programs.

In summarizing this section, it can be noted from the results that compared to previous SACMEQ studies, there were improvements in a number of areas in SACMEQ III such as distance from school to access important services, absenteeism from school, Standard repetition and number of pupils speaking the language of instruction at home.

Homework Given

How frequently did pupils receive homework in reading and mathematics?

One other factor that might contribute to pupil achievement in school is the amount of support that they receive while at home. Here, the report concentrated on assistance in school work and examined the trends in the kinds of help that pupils received in school related work, in general, and reading and mathematics in particular. First, the frequency at which pupils received homework in reading and mathematics has been examined. In *Table 3.9* the information for the frequency of homework given on most days for SACMEQ I, SACMEQ II and SACMEQ III studies is presented.

Table 3.9 Percentages and sampling errors for the frequency of homework given most days

Division	SACMEQ I				SACMEQ II		SACMEQ III	
	Homework on any subject		Reading homework		Mathematics Homework		Homework on any subject	
	%	SE	%	SE	%	SE	%	SE
North	18.8	7.78	5.0	4.58	9.1	6.40	36.4	9.1
Central East	12.8	3.99	11.5	4.80	11.3	5.51	6.3	4.2
Central West	18.2	5.44	6.5	3.91	28.4	7.85	19.8	5.1
South East	14.9	8.44	6.8	6.48	11.2	7.31	14.1	8.4
South West	14.4	6.31	16.1	7.03	22.3	8.11	31.0	9.4
Shire Highlands	19.0	9.00	12.2	6.86	33.2	11.25	8.3	4.8
Malawi	**16.4**	**2.7**	**9.2**	**2.2**	**19.8**	**3.2**	**20.2**	**3.0**

It can be noted from the information in Table 3.9 that in SACMEQ III more pupils reported to have teachers who were giving them homework on any subject. The data indicate an increased percentage of pupils (20.2 percent) who received homework on any subject as compared to SACMEQ I (16.4 percent). There were variations in the divisions. The North division had the highest number of pupils receiving homework (36.4 percent) followed by the South West division (31.0 percent). However, Central East and Shire Highlands had the least number of pupils receiving homework on any subject (6.3 percent and 8.3 percent respectively). The results generally showed that there were inconsistencies in the amount of homework teachers assigned to pupils.

Homework Corrected

Did the teachers correct assigned homework?

It is not enough just to give homework. It is important that the homework given be corrected. An attempt was therefore made to see if the homework which was given by the teachers in the two subjects was corrected. This information is presented in Table 3.10 for SACMEQ II and III. This piece of information was not collected for SACMEQ I.

Table 3.10. Percentages and sampling errors for the frequency of reading homework being corrected by teacher (SACMEQ II)

Division	No homework given		Never corrected		Sometimes corrected		Mostly/always corrected	
	%	SE	%	SE	%	SE	%	SE
SACMEQ II								
North	35.8	10.56	0.0	0.00	20.8	8.50	43.5	10.77
Central East	37.7	14.96	1.6	1.09	30.9	10.16	29.8	9.57
Central West	27.3	9.33	4.1	3.88	15.2	6.62	53.4	9.67
South East	21.5	9.92	0.3	0.23	35.4	10.72	42.8	11.47
South West	33.2	10.65	6.9	6.16	28.9	9.17	31.0	8.32
Shire Highlands	35.2	11.86	1.1	1.06	22.7	9.09	41.0	11.67
Malawi	**31.4**	**4.47**	**2.5**	**1.38**	**24.4**	**3.54**	**41.7**	**4.22**
SACMEQ III								
North	12.7	6.4	1.0	0.6	24.1	6.7	62.2	8.2
Central East	0.0	0.0	0.1	0.1	29.2	10.3	70.7	10.3
Central West	3.4	1.9	6.0	3.4	38.4	7.1	52.3	7.1
South East	2.2	2.0	5.0	3.7	28.1	10.2	64.7	11.0
South West	2.9	1.8	2.6	1.3	26.4	9.4	68.1	10.0
Shire Highlands	8.7	6.1	2.3	1.4	21.5	8.6	67.5	10.4
Malawi	**5.1**	**1.6**	**3.1**	**1.0**	**29.1**	**3.5**	**62.7**	**3.7**

The information in *Table 3.10* shows that there was an improvement in the proportion of Standard 6 pupils not receiving homework at all between SACMEQ II and III. The proportion of the pupils who did not receive homework at all went down from 31.4 percent in SACMEQ II to 5.1 percent in SACMEQ III. Of those who received homework, 3.1 percent reported that their teachers never corrected it while 62.7 percent said that their homework was mostly/always corrected, an improvement from SACMEQ II where only 41.7 percent of pupils indicated the same. No pupils in Central East division indicated that his/her teacher did not give homework. In other words, all pupils in Central East division received homework.

The Central East also had the highest percentage of pupils (70.7 percent) indicating that their teachers always corrected their homework. The proportion of Standard 6 pupils who indicated that their teachers always/mostly corrected their homework ranged between 62.2 percent and 70.7 percent, except for Central West which had by far the least, (52.3 percent), and was below the national average in SACMEQ III.

It is also important to assess whether teachers gave any explanation to the answers of any homework given. This information is presented in *Table 3.11*.

Table 3.11: Percentages and sampling errors for the frequency of teacher's explanations to the answers of any homework given (SACMEQ III)

Division	No homework given		Never explains		Sometimes explains		Mostly Explains		Always Explains	
	%	SE	%	SE	%	SE	%	SE	%	SE
North	12.7	6.4	4.6	2.4	33.7	7.6	17.4	5.6	31.7	7.3
Central East	0.0	0.0	15.3	7.8	24.8	9.6	22.3	9.4	37.7	10.7
Central West	3.4	1.9	10.7	4.1	44.5	7.2	16.3	4.5	25.1	6.1
South East	2.2	2.0	6.4	3.9	28.3	10.1	4.8	3.3	58.3	11.9
South West	2.9	1.8	4.0	1.7	28.5	9.4	15.3	6.6	49.3	11.2
Shire Highlands	8.7	6.1	4.5	2.2	27.2	8.8	18.7	9.0	40.9	10.7
Malawi	**5.1**	**1.6**	**7.9**	**1.8**	**32.9**	**3.6**	**16.1**	**2.6**	**37.9**	**3.8**

It can be noted from Table 3.12 that for any homework given, 7.9 percent of pupils indicated that their teachers never explained the homework to them after correction. Only 37.9 percent of pupils indicated that their teachers always explained the homework while 32.9 percent said sometimes the teacher explained. There were variations in the divisions. The Central East

division had the highest percentage of pupils (15.3 percent) stating that the teacher never explained the assignment. On *teachers explaining sometimes*, the Central West had the highest percentage of pupils (44.5 percent) while on *always explain* the South East had the highest (58.3 percent). In general, the results have showed that not many teachers provided feedback to pupils after correcting their homework.

Policy suggestion 3.6: It is important that all teachers give homework to their pupils in all subjects and correct it. The teacher training institutions should ensure that all teachers in the pre-service programs have been oriented on the importance of giving homework to pupils. This will enable them to identify mastery levels of curriculum content for individual pupils which can guide them in putting in place remedial actions for the weaker pupils.

In this section, it has been showed that there were large variations in the way teachers gave homework and provided feedback to pupils after homework was given. Although most pupils were given homework, not many teachers provided feedback and this was true across all the divisions.

Pupil Place of Living

Where did pupils live during the school week?

Pupils were asked to say whom they were staying with. In Table 3.12 below, information regarding the person who the pupils were staying with during the school week is presented.

Table 3.12 Place where pupils stay during the school week in SACMEQ III

Division	Home with Family		Home with other people		Hostel/Boarding school		Orphanage	
	%	SE	%	SE	%	SE	%	SE
North	92.4	2.4	2.6	0.9	2.7	1.1	1.9	0.9
Central East	91.2	3.7	3.2	1.1	3.7	3.3	0.8	0.5
Central West	98.2	0.7	1.3	0.5	0.5	0.3	0.1	0.1
South East	95.3	2.7	0.6	0.6	3.9	2.7	0.0	0.0
South West	98.3	0.6	0.2	0.2	0.2	0.2	0.0	0.0
Shire Highlands	94.0	2.3	2.2	1.1	1.5	0.9	0.8	0.5
Malawi	**95.1**	**0.9**	**1.8**	**0.3**	**1.9**	**0.7**	**0.6**	**0.2**

The results in *Table 3.12* demonstrate that the majority of the pupils (95.1 percent) were staying with their family, 1.8 percent were staying with other people, 1.9 percent were staying in hostels or boarding schoosl and the remaining (0.6 percent) were staying in orphanages. The North division had slightly a higher proportion of pupils staying in orphanages. The South East and Central East divisions had slighly higher proprtions of pupuils living in hostels or boarding schools. No pupils were staying in orphanages in the South East and South West divisions.

General Policy Concern 3:

Did Standard 6 pupils have sufficient access to classroom materials in order to participate fully in their lessons?

Both teachers and pupils need materials in order to effectively participate in their lessons. Pupils in particular need textbooks in the subjects in which they are learning. They also need other materials like exercise books, pencils, rulers, erasers and other things. A question was therefore posed to find out whether pupils had access to classroom materials. In order to answer the general policy concern above, it was broken down into the following specific research questions:

- What percentage of pupils had reading and mathematics textbooks?

- What percentage of pupils had adequate basic classroom supplies for writing, ruling, erasing, etc?

Pupil Reading and Mathematics Textbooks

What percentage of pupils had reading and mathematics textbooks?

In *Table 3.13* below, the percentages and sampling errors for pupils having own reading and mathematics textbook (SACMEQ I and SACMEQ II) have been presented.

Table 3.13. Percentages and sampling errors for pupils having own reading and mathematics textbook (SACMEQ I and SACMEQ II)

Division	SACMEQ I		SACMEQ II				SACMEQ III			
	Own reading textbook		Own reading textbook		Own mathematics textbook		Own reading textbook		Own mathematics textbook	
	%	SE	%	SE	%	SE	%	SE	%	SE
North	66.3	10.12	60.9	10.31	45.2	10.76	16.1	6.0	22.7	7.5
Central East	67.8	7.43	60.6	11.74	64.4	11.27	30.1	9.6	30.1	12.1
Central West	57.4	7.06	50.0	8.93	59.0	8.40	28.0	7.2	30.5	7.3
South East	58.0	10.91	62.6	10.89	54.1	11.33	29.5	12.2	30.1	12.1
South West	63.3	7.64	35.5	9.99	37.9	10.23	31.2	9.2	16.8	5.0
Shire Highlands	60.3	12.06	80.3	8.60	82.5	8.19	30.8	9.8	18.7	7.9
Malawi	**62.1**	**3.6**	**57.0**	**4.1**	**56.5**	**4.1**	**27.1**	**3.6**	**24.3**	**3.4**

From this table, it can be seen that the percentage of pupils with own reading textbooks decreased dramatically between SACMEQ II and SACMEQ III. On a national level the percentage of pupils with their own reading textbook fell from 57.0 percent in 2002 to 27.1 percent in 2007 for mathematics textbooks there was a similar fall of 32.2 percentage points. Some divisions were better equipped than others in terms of textbooks with 31.2 percent of pupils in South West division having their own reading textbooks compared to only 16.1 percent in North division. 30.5 percent of pupils in Central West had their own mathematics textbook while this figure in South West was only 16.8 percent.

Policy suggestion 3.7 Although Government is providing textbooks to schools, not many pupils have a book of their own and there have been large increases in the percentages of pupils without their own textbook. As such, government should monitor the utilization of textbooks in primary schools and come up with recommendations on textbook usage.

Basic Learning Materials

What percentage of pupils had adequate basic classroom supplies for writing, ruling, erasing, etc.?

In *Table 3.14* and *Table 3.16*, information about the provisions in basic classroom materials like exercise books, notebooks and pencil for the two studies has been presented.

Table 3.14 Percentages and sampling errors for shortages of basic classroom materials: Exercise books, notebook, and pencil. (SACMEQ I, II and III)

Division	SACMEQ I						SACMEQ II					
	Ex. books		Notebook		Pencil		Ex. books		Notebook		Pencil	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
North	8.0	4.49	25.3	9.12	44.8	9.10	0.0	0.00	5.2	3.27	43.2	5.33
Central East	4.6	1.19	5.1	1.34	24.3	5.18	0.2	0.17	2.0	0.91	49.2	9.05
Central West	0.6	0.38	0.4	0.35	17.7	4.07	0.0	0.00	0.8	0.41	42.2	6.04
South East	0.4	0.45	1.1	0.61	18.6	4.22	0.0	0.00	9.4	7.30	32.1	7.38
South West	1.1	0.65	1.1	0.44	25.0	4.43	1.0	0.54	4.7	2.48	30.6	6.10
Shire Highlands	0.7	0.46	0.7	0.50	12.2	4.93	0.0	0.00	2.3	0.91	24.4	5.90
Malawi	**2.6**	**0.81**	**5.7**	**1.60**	**24.4**	**2.35**	**0.2**	**0.09**	**3.8**	**1.26**	**37.8**	**2.76**

Division	SACMEQ III					
	Exercise books		Notebook		Pencil	
	%	SE	%	SE	%	SE
North	1.7	1.2	7.0	2.1	27.3	3.8
Central East	1.0	0.8	1.6	1.0	13.4	3.0
Central West	0.7	0.3	4.9	2.0	17.0	3.7
South East	1.7	0.8	2.9	0.9	16.8	5.8
South West	0.5	0.5	1.4	0.6	21.6	4.8
Shire Highlands	1.0	0.5	5.9	1.5	11.1	3.0
Malawi	**1.1**	**0.3**	**4.2**	**0.7**	**18.2**	**1.7**

It can be noted from *Table 3.14*, that there was a decline in the shortage of exercise books and note books between SCAMEQ I and SACMEQ II, however there has been an increase in the percentage of pupils lacking these two resources between SACMEQ II and SACMEQ III. The reverse is true in regards to the provision of pencils with an increase shortage between SACMEQ I and SACMEQ II and a significant increase in provision between SACMEQ II and SACMEQ III. Overall the progress has been positive and the vast majority of pupils in Malawi now have access to exercise books, notebooks and pencils with the supply of pencils (still only 4 out 5 pupils) the most worrying variable.

Information about the provision of other basic classroom materials is presented in Table 3.15

Table 3.15 Percentages and sampling errors for shortages of basic classroom materials: Eraser, pen, and ruler. (SACMEQ I, II and III)

Division	SACMEQ I						SACMEQ II						SACMEQ III					
	Eraser		Pen		Ruler		Eraser		Pen		Ruler		Eraser		Pen		Ruler	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
North	70.0	7.97	10.0	5.37	86.7	3.87	60.2	4.73	3.5	0.91	40.3	3.59	48.2	4.9	9.1	1.7	26.7	3.7
Central East	68.5	5.15	11.4	4.27	66.2	5.67	78.7	5.51	18.5	5.41	55.6	7.09	47.2	6.1	4.9	1.3	28.2	6.4
Central West	53.6	5.08	0.4	0.25	44.8	4.76	69.5	4.81	4.3	1.45	52.5	5.01	40.7	6.2	3.4	1.1	22.9	4.3
South East	61.1	6.63	2.3	1.22	41.5	5.64	63.7	5.93	7.5	2.34	30.9	3.40	43.2	8.1	6.2	2.0	28.1	5.9
South West	53.7	5.07	4.8	1.42	42.4	4.02	53.3	5.96	5.0	1.62	29.9	5.04	52.2	6.2	8.0	2.1	31.9	4.8
Shire Highlands	46.8	8.36	3.1	1.21	40.7	5.33	70.2	4.29	8.6	2.84	41.4	5.57	34.5	6.6	10.7	2.6	20.5	3.5
Malawi	**59.2**	**2.6**	**5.1**	**1.2**	**54.2**	**2.1**	**65.9**	**2.2**	**7.3**	**1.0**	**42.8**	**2.1**	**44.1**	**2.6**	**6.7**	**0.7**	**26.0**	**2.0**

It can be noted in *Table 3.15* that there were increases in the provision of erasers, pens and rulers between SACMEQ II and SACMEQ III. The increases were particularly significant in relation to erasers, with 44.1 percent of pupils reporting a shortage compared to 65.9 percent in 2002, and rulers, with only 26.0 percent reporting a shortage compared to 42.8 percent in 2002. Some divisions have managed to reduce the shortages much more than other e.g. Central East reduced the shortage of rulers by more than 27 percentage points and South East by only around 3 percentage points. Although the progress is impressive much work remains to be done with approximately half of Standard 6 pupils still reporting a shortage of basic equipment such as erasers.

Policy Suggestion 3.8. The provisions of some basic classroom materials are still quite low. Amidst FPE, the demand for such provisions has become enormous. It is important that the ministry of education comes up with clear guidelines on norms for these provisions to which divisions and district education managers must adhere to.

General Policy Concern 4:

What was the availability of classroom furniture (for example, sitting/writing places, in Standard 6 classrooms?

The quality of teaching and learning that goes on in a classroom depends upon a complex array of factors ranging from teacher preparation to school environment. A teacher can only put skills acquired during training into practice if the required resources are available. In turn, pupils will be able to interact with the teacher if they have the necessary resources at their disposal and are provided with suitable learning conditions. According to the PIF, the Ministry intends to improve the quality of teaching and learning through improved and equitable resource allocation.

Sitting and Writing Places

What percentages of pupils were in classrooms with adequate sitting and writing places?

In *Table 3.16* below, information on the percentages and sampling errors of pupils having sitting and writing places is presented.

Table 3.16. Availability of sitting and writing places

	SACMEQ I				SACMEQ II				SACMEQ III			
	% Having sitting Places		% Having Writing Places		% Having Sitting Places		% Having Writing Places		% Having sitting Places		% Having Writing Places	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
North	26.5	10.03	15.4	8.20	78.3	8.86	76.7	9.06	69.4	9.0	62.6	9.3
Central East	41.4	10.67	31.4	10.05	45.6	13.00	45.0	12.81	46.6	12.0	46.6	12.0
Central West	38.7	8.65	32.0	8.03	58.0	9.31	56.7	9.14	46.7	9.3	45.0	9.3
South East	18.4	9.39	16.8	9.13	43.5	11.35	36.3	10.42	83.7	8.2	68.9	10.7
South West	44.6	9.40	40.4	8.67	34.7	10.33	33.8	10.21	57.7	12.1	57.5	12.0
Shire Highlands	33.7	12.35	31.6	12.15	75.5	11.21	74.7	11.09	81.7	9.7	87.7	8.6
Malawi	**35.1**	**4.1**	**28.7**	**3.8**	**56.4**	**4.4**	**54.5**	**4.3**	**61.9**	**4.2**	**59.1**	**4.3**

In SACMEQ III, results have shown that there is an increased percentage of pupils having sitting and writing places (61.9 percent and 59.1 percent respectively) as compared to

SACMEQ II and I. In SACMEQ II, the percentage of pupils having sitting places was 56.4. This was a significant improvement

from 35.1 percent in SACMEQ I. Similarly there was a significant improvement in the availability of writing places from 28.7 percent in SACMEQ I to 54.5 percent in SACMEQ II. In 2007 the South East and Shire Highlands divisions registered high percentages of pupils having sitting places 83.7 and 81.7 percent respectively. The Central East and Central West Divisions had the lowest percentage of pupils (below 50 percent) having sitting places. In SACMEQ III, Shire Highlands division had the highest number of pupils (87.7 percent) having writing places an improvement from 31.6 percent in SACMEQ I and 74.7 percent in SACMEQ II. In contrast the North and Central West divisions registered a decline from 2002 in the percentage of pupils having sitting places from 76.6 and 56.7 percent to 62.6 and 45 percent respectively. The variations in the divisions may be explained by increased numbers of classrooms constructed which includes the provision of furniture or in some cases the increased number of pupils enrolled in schools which make the resources inadequate. For equitable provision of resources it requires that resources should be made available based on the numbers of pupils in a district or division.

Policy Suggestion 3.9: The relevant MoEST departments in liaison with the supplies unit should put in place mechanisms which ensure that resource distribution to schools in the districts is based on pupils' enrolments.

It is noted then that the overall availability of sitting and writing places significantly increased between SACMEQ I and SACMEQ II although there were slight decreases in the urban districts of the South West division and that this improvement has continued, at the national level, between SACMEQ II and SACMEQ III

General Policy Concern 5:

Has the practice of Standard 6 pupils receiving extra lessons in school subjects outside school hours become widespread, and have these been paid lessons?

In recent years, there has been a trend towards an increase in the number of parents demanding that their children be provided with extra lessons apparently in reaction to the

lowering standards in education. But how widespread are these lessons and do parents pay for them? In order to answer these questions, the policy concern above was divided into the following two research questions:

- What percentage of pupils received extra tuition?
- Was payment made for receiving extra tuition?

Extra Tuition

What percentage of pupils received extra tuition?

In *Table 3.17,* the percentages and sampling errors for the extra tuition taken by pupils outside school hours (SACMEQ I, SACMEQ II and SACMEQ III) have been presented.

Table 3.17 Percentages and sampling errors for the extra tuition taken by pupils outside school hours (SACMEQ I, SACMEQ II and SACMEQ III)

Division	Extra tuition in any subject					
	SACMEQ I		SACMEQ II		SACMEQ III	
	%	SE	%	SE	%	SE
North	17.6	5.05	70.4	9.67	13.7	5.7
Central East	24.7	4.34	77.5	13.65	21.3	6.4
Central West	19.2	3.90	84.1	6.59	12.5	3.3
South East	18.2	3.53	77.4	9.14	15.7	5.6
South West	26.4	4.55	77.2	6.00	19.4	5.1
Shire Highlands	29.9	8.52	91.3	5.84	4.3	2.1
Malawi	22.0	1.95	79.7	3.47	14.3	1.9

Information from *Table 3.17,* shows that between SACMEQ I (1998) and SACMEQ II studies (2002), there was a significant increase in percentage of pupils reporting taking extra tuition outside school hours from 22.0 percent to 79.7 percent. However in SACMEQ III study (2007) the percentage of pupils taking extra tuition outside school hours decreased dramatically to 14.3 percent. The decrease is also true for all divisions. The possible explanation for the decrease is that the Ministry declared paid extra tuition illegal. During SACMEQ II study there was remarkable increase in the percentage of pupils taking extra tuition probably because the Ministry had not yet officially declared extra tuition illegal. On

the other hand, extra tuition is taking place though at a small scale as an indication of the overall loss of confidence by parents in the standards of education being offered by the education system.

In order to understand better the implications of the demand for extra tuition, it is important to see if these extra lessons are paid for or not. This information on the percentages and sampling errors for the payment of extra tuition taken by pupils outside school hours is presented in Table 3.18 below.

Table 3.18. Percentages and sampling errors for the payment of extra tuition taken by pupils outside school hours (SACMEQ II)

Division	There is Money payment		There is no payment		Don't know		Don't take extra lesson	
	%	SE	%	SE	%	SE	%	SE
SACMEQ II								
North	3.5	1.56	9.4	3.86	87.2	4.04	-	
Central East	17.7	3.99	31.3	8.25	51.0	8.50	-	
Central West	4.3	1.56	3.3	1.40	92.5	2.25	-	
South East	5.0	2.36	3.6	2.26	91.4	3.98	-	
South West	23.6	7.29	12.1	4.45	64.3	9.03	-	
Shire Highlands	3.8	2.12	4.4	3.03	91.8	3.77	-	
Malawi	**8.9**	**1.41**	**9.6**	**1.73**	**81.4**	**2.34**	**-**	
SACMEQ III								
North	4.3	2.2	8.7	3.8	-	-	86.3	5.3
Central East	3.2	1.2	18.7	6.7	-	-	78.7	6.4
Central West	2.4	0.9	9.6	3.1	-	-	87.5	3.3
South East	5.4	2.7	9.8	3.7	-	-	84.3	5.6
South West	13.0	3.0	4.9	2.3	-	-	80.6	5.1
Shire Highlands	1.2	0.7	2.5	1.5	-	-	95.7	2.1
Malawi	**4.5**	**0.8**	**9.2**	**1.6**	**-**	**-**	**85.7**	**1.9**

Table 3.18 for SACMEQ III shows that most pupils don't take extra lessons and very few of them pay for the lessons. The percentage of pupils paying for the lessons is very low (4.5 percent) and the same applies to the divisions. It can be concluded that currently not many parents are engaging their children in extra lessons hence the issue of payment might not arise as an issue in the education system. Similarly, in the other studies, it was not possible to get a good picture about whether the extra lessons were paid for or not. Although 79.7 percent of

pupils indicated that they were taking extra lessons in SACMEQ II, 81.4 percent of the pupils expressed that they did not know whether the lessons were paid for or not. It is difficult to come up with an explanation for this scenario. But the fact that a larger percentage (81.4 percent) of the pupils did not know whether the extra lessons they were having were paid for or not, may mean that the practice of conducting extra tuition for pupils may not be as open as it ought to be. In 2007 the highest percentage of pupils saying that the extra lessons were paid for were from the urban division of South West while the highest percentage of those saying they did not pay for extra tuition came from Central East, 18.7 percent.

Conclusion

In summarizing this chapter, it has been noted that there are still serious problems of overage pupils in primary schools. All three SACMEQ studies have shown that there are overage pupils in Standard 6. However, the number of overage Standard 6 pupils is decreasing throughout the studies. The proportion of girls in Standard 6 has increased in the three studies, although there is variation in the divisions; some having higher proportion of girls than others. The number of books in the homes was small and the number of possessions was generally low. There has been a significant decrease in the number possessions in the home of an average Standard 6. Furthermore, very few homes had electricity and in general, Standard 6 pupils came from homes that were of low quality.

It was also noted that the percentage of the schools in the urban areas decreased to 23.8 percent from 33.0 percent in SACMEQ II. There were few specialized buildings in primary schools. On the contrary, there were also indications of improvement in quality of education being offered in schools as exemplified by increasing percentage of pupils who speak English, reduced absenteeism and repetition.

There were large variations in the way teachers gave homework and that only 5 percent of pupils had teachers who never gave homework. The majority of the pupils stayed with their family during the school week. In general, there has been a decrease in the provision of textbooks and this raises questions about the distribution and durability of books that are given to schools. There are also irregularities in the provision of basic learning and classroom materials. The overall availability of sitting and writing places significantly increased in the three studies although there were variations in the divisions.

Chapter 4

Characteristics of Teachers and their Views on Classroom Resources and Professional Support

Introduction

In this chapter some of the characteristics and experiences of Standard 6 teachers have been examined. In Malawi, all primary school teachers are general class teachers. They can teach all subjects and indeed any Standard and where teachers share the same Standard, they also share the subjects among themselves. It is therefore possible sometimes that because of problems of teacher shortages, the same teacher can teach reading and mathematics while in other cases these subjects are taught by different teachers.

A number of policy concerns have been addressed in this chapter. The major questions arising from these policy concerns are:

1. What were the personal characteristics of Standard 6 teachers (for example, age, gender, and socio-economic level), and what was the condition of their housing?

2. What were the professional characteristics of Standard 6 teachers (in terms of academic, professional, and in-service training), and did they consider in-service training to be effective in improving their teaching?

3. What was the availability of classroom furniture for teachers (teacher table, teacher chair, and bookshelves) and classroom equipment (for example, chalkboard, dictionary, maps, book corner, and teachers' guides) in Standard 6 classrooms?

4. How did Standard 6 teachers allocate their time among responsibilities concerned with teaching, preparing lessons, and marking?

5. What were Standard 6 teachers' viewpoints on (a) pupil activities within the classroom (for example, reading aloud, pronouncing, etc.), (b) teaching goals (for example, making learning enjoyable, word attack skills, etc.) (c) teaching approaches/strategies

(for example, questioning, whole class teaching, etc.), (d) assessment procedures, and (e) meeting and communicating with parents?

6. What professional support (in terms of education resource centers, inspections, advisory visits, and school head inputs) was given to Standard 6 teachers?

7. What factors had most impact upon teacher job satisfaction?

Policy Concern 1:

What were the personal characteristics of Standard 6 teachers (for example, age, gender, and socio-economic level), and what was the condition of their housing?

This first section of the chapter examines the personal characteristics of the teachers in terms of age, sex, socio-economic status and living conditions.

What were the ages, gender, and possessions in the home of Standard 6 pupils' teachers?

A sub-sample of Standard 6 teachers was taken in each school. Where the teachers were general class teachers, a sub-sample of three teachers from all such teachers was drawn. Where there were specialist teachers then a sub-sample of three mathematics teachers and three English teachers teaching Standard 6 was drawn, making a total of six teachers from the school. Several important characteristics of teachers were measured. These concerned the age of teachers, their sex , academic qualifications, professional qualifications, years of teaching experience, and the number of in-service courses attended.

(a) Age of Teachers

The average ages of Standard 6 teachers in the various divisions and in Malawi as a whole have been presented in *Table 4.1* and *Table 4.2* for reading and mathematics teachers respectively for SACMEQ I, II and III.

Table 4.1: Means, percentages, and sampling errors for age and gender of reading teachers (SACMEQ I, II & III)

Division	SACMEQ I				SACMEQ II				SACMEQ III			
	Age (years)		Gender (female)		Age (years)		Gender (female)		Age (years)		Gender (female)	
	Mean	SE	%	SE	Mean	SE	%	SE	Mean	SE	%	SE
North	33.9	1.60	35.5	10.30	33.9	1.99	22.9	10.20	35.96	1.62	20.0	8.2
Central East	30.3	1.17	14.3	7.86	29.7	1.01	41.1	13.27	35.43	1.61	27.6	10.0
Central West	29.5	1.37	34.6	9.54	34.5	1.70	30.5	9.18	34.01	0.96	39.8	9.1
South East	29.1	1.67	44.1	12.11	29.9	1.03	7.1	5.07	39.78	2.11	15.0	8.5
South West	29.6	0.93	46.5	10.44	30.6	1.18	57.0	11.40	39.95	2.42	31.6	10.8
Shire Highlands	31.3	1.26	14.3	7.85	34.4	1.97	22.6	10.83	34.84	1.11	10.8	7.4
Malawi	**30.7**	**0.6**	**32.1**	**4.1**	**32.4**	**0.7**	**30.3**	**4.2**	**36.3**	**0.7**	**26.0**	**3.9**

In 1998 (in SACMEQ I), Standard 6 pupils in Malawi had reading teachers whose average age was 30.7 years. In 2002 (in SACMEQ II) the average age of a reading teacher was 32.4 years and in 2007 (SACMEQ III), Standard 6 pupils had a reading teacher who was 36.26 years old on average. Across the divisions, the average age of reading teachers in 2007 ranged from 34.01 years (in the Central West division) to 39.95 years (in the South West division).

Table 4.2. Means, percentages, and sampling errors for age and gender of mathematics teachers (SACMEQ II & III)

Division	SACMEQ II				SACMEQ III			
	Age (years)		Gender (female)		Age (years)		Gender (female)	
	Mean	SE	%	SE	Mean	SE	%	SE
North	35.0	1.62	15.4	8.69	35.98	1.50	11.6	6.4
Central East	32.1	1.17	30.8	12.48	35.24	1.68	16.5	8.2
Central West	32.3	1.25	29.4	9.11	36.85	1.50	36.2	9.0
South East	31.0	1.34	12.8	7.61	42.45	1.74	19.9	9.4
South West	33.1	1.35	55.5	10.60	38.33	2.03	45.4	12.2
Shire Highlands	34.9	1.85	25.3	10.96	34.65	1.09	13.7	7.6
Malawi	**33.1**	**0.6**	**28.1**	**4.1**	**37.07**	**0.7**	**24.7**	**3.7**

The average age of a mathematics teacher in 1998 was 33.1 years whilst in 2002 the average age of a mathematics teacher was 37.07 years. The average age of mathematics teachers in 2007 ranged from 34.65 years in the Shire Highlands division to 42.45 years in the South West division.

Policy Suggestion 4.1: The average ages of both reading and mathematics teachers in Standard 6 have shown a steady increasing trend over the period between 1998 and 2007. This is an indication that the majority youthful teachers that were recruited in the 1990s are steadily growing up and thus requires the Government to start thinking of ways of sustaining the work force in the next couple of decades as many teachers will retire at around the same time.

(b) Sex of teachers

Reading Teachers

In terms of gender, it can be seen from *Table 4.1* and *Table 4.2* that in SACMEQ III, 36.26 percent of the pupils in Standard 6 had female reading teachers compared to 32.4 percent in SACMEQ II and 30.7 percent in SACMEQ I reflecting a moderate increase of less than 10

percentage points over the years. Central West division had the highest number of Standard 6 pupils reporting to have reading female teachers (39.8 percent). Shire Highlands had the least percentage of pupils reporting having female reading teachers (10.8 percent). There was, however, a notable increase in the allocation of female reading teachers to the divisions that were lowest in SACMEQ I and II. The South East division which had the lowest percentage of female reading teachers in Standard 6 in SACMEQ II (7.1 percent) recorded 15 percent of Standard 6 pupils having female reading teachers in SACMEQ III. In SACMEQ II, South West division was the only division whose Standard 6 pupils were well supplied with female reading teachers (57.0 percent). This figure, however, dropped to 31.6 percent in SACMEQ III.

Mathematics

In mathematics, 24.7 percent of the Standard 6 pupils had female mathematics teachers in SACMEQ III compared to 28.1 percent in SACMEQ II indicating a decline. By division, there were significant decreases of more than 10 percentage points in the percentage of pupils with female mathematics teachers between SACMEQ II and III in Central East, South West and Shire Highlands divisions. Central West and South East recorded moderate increases of less than 10 percentage points in the proportion of Standard 6 pupils with female mathematics teachers. The North division had the least percentage of pupils with female mathematics teachers (11.6 percent) in SACMEQ III whilst South West had the highest percentage (45.4 percent).

These statistics agree with the Ministry's basic education statistics (2007), which portray a gender gap between male and female teachers especially in the higher standards (5, 6, 7, and 8). By tradition, most school heads tend to allocate more female teachers to the lower classes than to the senior classes and there are also normally more female teachers in the urban and semi urban areas because female teachers follow their husbands who often work in urban and semi urban areas.

Policy Suggestion 4.2: The wide variations in teacher supply to Standard 6 pupils in terms of gender may mean that the Ministry is not able to effectively manage its teacher gender balance at all levels including at school level. The Ministry therefore should try to strengthen teacher management and deployment/allocation practices at all levels.

Policy Suggestion 4.3: The Ministry should further review the existing arrangements for recruiting, posting and allocating teachers to classes to improve gender equity. Head teachers should be given in-service training as part of the efforts aimed at improving their gender related management skills.

(c) Were the conditions of the teachers' housing acceptable?

Teachers were asked about the conditions of their housing. They were asked to rate them as:

Generally poor or major repairs needed 1

Minor repairs needed or generally good 2

The percentages and sampling errors of pupils with reading and mathematics teachers who answered that the conditions were generally good or that they needed minor repairs for SACMEQ 1, II and III have been presented in *Table 4.3.*

Table 4.3. Percentages and sampling errors for teacher housing in acceptable conditions (SACMEQ 1, II, & III

Division	Teacher housing in acceptable conditions											
	SACMEQ I		SACMEQ II				SACMEQ III					
	Reading teacher		Reading teacher		Mathematics teacher		Reading teacher		Mathematics teacher		Health teacher	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
North	13.4	7.41	19.1	8.98	31.4	10.47	17.7	7.8	19.4	7.8	23.7	8.7
Central East	19.0	8.82	14.5	8.58	10.4	7.87	20.7	9.8	16.0	8.6	18.1	8.8
Central West	21.6	7.56	27.1	8.33	31.6	9.11	24.7	8.4	22.7	7.4	21.1	8.0
South East	17.6	9.59	14.1	6.97	11.1	6.35	33.9	11.6	30.7	11.4	30.7	11.4
South West	17.5	7.71	23.0	10.39	21.5	8.83	22.6	9.6	13.3	6.9	19.4	8.5
Shire Highlands	23.8	9.55	19.2	9.41	18.5	9.09	26.0	9.6	28.5	10.7	28.5	10.7
Malawi	**18.7**	**3.4**	**20.3**	**3.7**	**22.5**	**3.8**	**23.8**	**3.8**	**21.6**	**3.6**	**23.0**	**3.8**

It can be seen from *Table 4.3* that in SACMEQ III, 23.8 percent, 21.6 percent and 23.0 percent of the pupils had reading, mathematics and health teachers, respectively, who declared their housing conditions to be acceptable. The converse of this is that many teachers (up to 76.2 percent of the reading teachers) had declared their housing conditions to be unacceptable. The situation does not seem to have improved much between SACMEQ I, II and III.

Policy Suggestion 4.4: The evidence showed that teachers were generally not happy with their housing conditions. The Government of Malawi introduced housing allowances around the time SACMEQ II was conducted (in 2011/12 Financial year) and the Government is currently implementing a hardship allowance for teachers in rural areas. The impact of such policy initiatives needs to be assessed and the Ministry should continue reviewing the working conditions of teachers so as to improve it in some key areas such as teachers' housing conditions.

The information above has showed that Standard 6 pupils in Malawi were mainly taught by middle aged teachers and that very few of them were females. The conditions of housing for most of these teachers were not acceptable.

Policy Concern 2:

What were the professional characteristics of Standard 6 teachers and did they consider in-service training to be effective in improving their teaching?

Another area of policy concern was the teaching experience and training of the Standard 6 teachers. The teachers were asked about the number of years of teaching experience they had and also about the type of teacher training and education they had received. This information has been presented below in *Table 4.4* and *Table 4.5*.

Table 4.4 Means and sampling errors for experience and training of reading teachers (SACMEQ I, II and III)

Division	SACMEQ I				SACMEQ II							
	Reading teacher				Reading teacher				Mathematics teacher			
	Experience (Years)		Training (Years)		Experience (Years)		Training (Years)		Experience (Years)		Training (Years)	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
North	8.7	1.37	1.6	0.15	9.1	1.51	1.5	0.15	8.3	1.48	1.1	0.20
Central East	6.2	1.17	1.0	0.19	5.8	0.72	1.1	0.27	6.0	0.86	1.5	0.38
Central West	5.9	0.87	1.1	0.16	8.2	1.27	1.4	0.19	7.7	1.09	1.3	0.20
South East	7.8	1.70	1.2	0.24	6.8	0.56	1.6	0.18	6.6	0.64	1.4	0.21
South West	6.2	0.71	1.2	0.17	7.5	1.07	1.7	0.22	8.3	1.02	1.7	0.19
Shire Highlands	6.3	0.98	1.4	0.22	7.8	1.51	1.5	0.23	9.4	1.75	1.7	0.28
Malawi	**6.8**	**0.47**	**1.2**	**0.07**	**7.7**	**0.51**	**1.5**	**0.09**	**7.8**	**0.50**	**1.4**	**0.10**

Table 4.5. Means and sampling errors for experience and training of reading and mathematics teachers (SACMEQ III)

Division	Reading teacher				Mathematics teacher				Health teacher			
	Experience (years)		Training (years)		Experience (years)		Training (years)		Experience (years)		Training (years)	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
North	10.55	1.39	1.66	0.15	11.22	1.29	1.70	0.17	11.61	1.67	1.53	0.15
Central East	9.35	1.36	1.73	0.10	9.53	1.21	1.74	0.15	9.64	1.55	1.79	0.12
Central West	10.05	0.82	1.92	0.14	12.56	1.45	1.95	0.13	11.57	1.23	1.91	0.14
South East	14.15	1.91	1.76	0.15	17.10	1.57	1.82	0.12	14.20	1.88	1.73	0.14
South West	14.70	2.02	1.83	0.16	12.80	1.82	1.83	0.24	13.65	1.67	1.56	0.21
Shire Highlands	11.55	0.82	2.11	0.18	10.78	0.82	2.09	0.18	10.73	0.74	2.12	0.19
Malawi	**11.40**	**0.55**	**1.84**	**0.06**	**12.23**	**0.59**	**1.86**	**0.07**	**11.80**	**0.62**	**1.78**	**0.07**

(a) Years of teaching experience

It can be seen from *Table 4.5* that in SACMEQ III, the average pupil had a reading teacher who had 11.4 years of teaching experience and a mathematics teacher who had 12.2 years of teaching experience. The health teachers for the Standard 6 pupils had 11.8 years of teaching. The South West education division had the highest experience mean with 14.7 years of experience for the reading teacher while the South East education division had the highest number of years for the mathematics teacher with 17.1 years. There was a notable increase in teaching experience between SACMEQ I, II and III with average reading teacher experience increasing from 7.7 in 2002 to 11.4 in 2007 and mathematics teachers increasing from 7.8 in 2002 to 12.2 in 2007.

(b) Years of teacher training

A question was also asked about the number of years of teacher training that the teachers had. The normal teacher-training course in Malawi runs for two years. However in 1994 when Free Primary Education was introduced, a special teacher training program, the Malawi Integrated Teacher Training and Education Program (MITTEP) was introduced which trained teachers through face to face and distance education modes. From *Table 4.5,* it can be seen that the average pupil had reading teachers with 1.84 years of training, mathematics teachers with 1.86 years of training whilst health teachers had an average of 1.78 years of training. This showed that Standard 6 pupils were taught by teachers who had less than the normal two-year training program. It could be assumed that most of the teachers were trained under the MITTEP. The figures have remained below the two years of normal training between SACMEQ I and III even after MIITEP was phased out in 2005. However, the general increase in teacher training years suggests that more fully trained (2 years) teachers are entering the system.

Policy Suggestion 4.5: Many years after the introduction of FPE, Malawi still seems to be struggling in providing the schools with adequate level and quality of teachers. In its quest for finding a solution to the inadequate numbers of qualified teachers in the system by, among others, introducing innovative teacher training programs such as the newly adopted 1 + 1 mode of training, the Ministry of Education should find means for assessing the tradeoffs between the quantity of teachers trained and the level of their quality.

(c) Years of academic education

A question was also asked about the academic education of the Standard 6 teachers. The results of the teachers' responses have been presented in *Table 4.6.* This is compared with SACMEQ II data in *Table 4.7.*

Table 4.6. Academic education of reading teachers (SACMEQ III)

Division	Primary		Junior secondary		Senior secondary		A-level	
	%	SE	%	SE	%	SE	%	SE
North	0.0	0.0	31.0	9.3	69.0	9.3	0.0	0.0
Central East	0.0	0.0	33.0	11.6	62.9	11.9	4.2	4.2
Central West	4.6	3.6	22.7	7.2	70.6	7.9	2.1	2.1
South East	18.7	10.1	41.2	12.0	40.2	13.0	0.0	0.0
South West	0.0	0.0	45.4	11.9	54.6	11.9	0.0	0.0
Shire Highlands	0.0	0.0	33.5	10.7	66.9	10.7	0.0	0.0
Malawi	**3.6**	**1.6**	**32.7**	**4.1**	**62.5**	**4.2**	**1.2**	**0.8**

Table 4.7. Academic education of reading teachers (SACMEQ II)

Division	Primary		Junior secondary		Senior secondary		A-level	
	%	SE	%	SE	%	SE	%	SE
North	0.0	0.00	44.1	11.18	55.9	11.18	0.0	0.00
Central East	0.0	0.00	50.1	13.86	49.9	13.86	0.0	0.00
Central West	3.2	3.19	42.6	9.79	54.2	9.86	0.0	0.00
South East	0.0	0.00	37.5	11.44	62.5	11.44	0.0	0.00
South West	4.9	4.89	36.4	10.81	58.7	11.19	0.0	0.00
Shire Highlands	0.0	0.00	30.8	11.11	69.2	11.11	0.0	0.00
Malawi	**1.5**	**1.09**	**40.7**	**4.56**	**57.8**	**4.58**	**0.0**	**0.00**

It can be seen from *Table 4.6* that 62.5 percent of the pupils were taught by reading teachers who had completed senior secondary while 32.7 percent were being taught by reading teachers with only junior secondary education. Although this is not good enough since government's policy is to phase out teachers with junior secondary school education, compared with SACMEQ II data (see *Table 4.7*) this shows an improvement as 57.8 percent of the pupils were then taught by reading teachers with senior secondary and 40.7 percent with Junior secondary qualifications. In 2007 the Central West division had the highest percentage of pupils being taught by teachers with senior secondary education. Whilst none of the pupils in SACMEQ II had a reading teacher with an A-level education, in SACMEQ III some schools recorded having teachers with A-level academic qualifications in Central East (4.2 percent) and Central West (2.1 percent). The data shows that while South West division registered a reduced percentage of pupils with reading teachers with Primary level of education from 4.9 percent to 0.0 percent, Central West has actually increased the number from 3.2 percent to 4.6 percent and South East has jumped from 0.0 percent to 18.7 percent. There has been a tradition of employing volunteer teachers of late and it is possible that some of the districts in these divisions were hiring the services of volunteers for the teaching of primary schools. While the ministry has been trying to institute a policy of employing Form 4 graduates only for the teaching of primary schools, the above evidence suggests that the teaching profession has not been able to attract such caliber of graduates.

In *Table 4.8*, similar information on the academic qualifications of mathematics teachers has been presented and is compared with SACMEQ II data in *Table 4.9. Table 4.10* presents similar information for health teachers.

Table 4.8 Academic education of mathematics teachers (SACMEQ III)

Division	Primary		Junior secondary		Senior secondary		A-level	
	%	SE	%	SE	%	SE	%	SE
North	0.0	0.0	22.8	7.9	77.2	7.9	0.0	0.0
Central East	0.0	0.0	27.4	10.9	68.4	11.2	4.2	4.2
Central West	3.5	3.5	28.9	8.0	65.3	8.2	2.3	2.3
South East	11.9	8.3	43.3	12.3	44.7	12.9	0.0	0.0
South West	0.0	0.0	50.2	11.9	49.8	11.9	0.0	0.0
Shire Highlands	0.0	0.0	30.6	10.7	69.4	10.7	0.0	0.0
Malawi	**2.4**	**1.4**	**32.5**	**4.1**	**63.8**	**4.1**	**1.2**	**0.9**

Table 4.9 Academic education of mathematics teachers (SACMEQ II)

Division	Primary		Junior secondary		Senior secondary		A-level	
	%	SE	%	SE	%	SE	%	SE
North	0.0	0.00	23.0	9.70	77.0	9.70	0.0	0.00
Central East	0.0	0.00	31.8	12.58	68.2	12.58	0.0	0.00
Central West	0.0	0.00	36.5	9.49	63.5	9.49	0.0	0.00
South East	0.0	0.00	47.9	11.94	52.1	11.94	0.0	0.00
South West	0.0	0.00	23.9	9.18	73.3	9.23	2.8	2.83
Shire Highlands	0.0	0.00	17.6	7.95	82.4	7.95	0.0	0.00
Malawi	**0.0**	**0.00**	**30.6**	**4.17**	**69.0**	**4.17**	**0.4**	**0.44**

Table 4.10 Academic education of health teachers (SACMEQ III)

Division	Primary		Junior secondary		Senior secondary	
	%	SE	%	SE	%	SE
North	0.0	0.0	25.4	8.4	74.6	4.6
Central East	0.0	0.0	37.8	11.5	62.2	11.5
Central West	4.7	3.6	25.1	7.1	70.2	7.8
South East	11.9	8.3	49.7	12.7	38.4	12.9
South West	0.0	0.0	33.0	11.1	67.0	11.1
Shire Highlands	0.0	0.0	24.7	10.5	75.3	10.5
Malawi	**2.8**	**1.4**	**31.3**	**4.0**	**65.9**	**4.1**

It can be seen from *Table 4.8* that 63.8 percent of the Standard 6 pupils were being taught by mathematics teachers who had completed senior secondary education while 32.5 had junior secondary education as their highest academic qualification. This shows a slight drop from SACMEQ II data which showed that 69.0 percent of the pupils were taught by mathematics teachers with senior secondary education and 30.6 percent of them were being taught by teachers with junior secondary education. Unlike in SACMEQ II where the Shire Highlands division had the largest percentage of pupils being taught by mathematics teachers with senior secondary education (82.4 percent), the North division emerged the highest with 77.2 percent of the pupils being taught by teachers with senior secondary education in SACMEQ III. The Shire Highlands dropped to 69.4 percent in SACMEQ III. The Central East and the Central West had some pupils (4.2 percent and 2.3 percent respectively) who were being taught by teachers who had some A-level education. A similar pattern is observed with health teachers (See Table 4.10).

Policy suggestion 4.5. It can be noted from the evidence above that the Ministry of Education has not been able to attract significantly more senior secondary and A-level graduates into the teaching profession. The ministry through the human resource department should therefore try to improve the general conditions of service for teachers so that more

able Form 4 graduates are attracted. In addition, the Ministry should strengthen implementation of policies and programs aimed at encouraging the serving teachers to upgrade their academic qualifications.

How many in service courses did Standard 6 teachers attend?

Teachers were also asked to report on the number of in-service courses they had attended in the past three years. The information on the means and sampling errors for teacher in-service courses and days attended in the last three years (SACMEQ III) has been presented in *Table 4.11*.

Table 4.11. Means and sampling errors for teacher in-service courses and days attended in the last three years (SACMEQ III)

Division	Reading teacher				Mathematics teacher				Health Teacher			
	In-services courses		Days		In-services courses		Days		In-services courses		Days	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
North	1.80	0.93	3.43	1.87	2.10	0.93	3.69	1.84	1.93	0.94	3.93	1.88
Central East	1.26	0.41	6.57	2.89	1.56	0.45	7.93	2.91	1.53	0.48	7.34	3.00
Central West	1.27	0.22	49.43	30.80	1.44	0.29	33.50	23.01	1.59	0.28	28.24	22.49
South East	1.70	0.45	8.37	2.81	1.68	0.43	7.06	2.54	2.06	0.42	9.74	2.74
South West	1.44	0.28	3.91	0.62	0.86	0.21	2.76	0.67	1.21	0.22	4.38	0.79
Shire Highlands	3.10	1.31	6.97	2.38	3.10	1.31	6.97	2.38	3.22	1.37	7.20	2.49
Malawi	**1.69**	**0.27**	**17.08**	**8.04**	**1.76**	**0.28**	**12.85**	**6.06**	**1.86**	**0.28**	**12.06**	**5.94**

Table 4.12. Means and sampling errors for teacher in-service courses and days attended in the last three years (SACMEQ II)

Division	Reading teacher				Mathematics teacher			
	In-services courses		Days		In-services courses		Days	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
North	1.5	0.69	20.7	12.39	0.3	0.20	1.9	1.37
Central East	1.8	1.03	16.9	10.35	1.9	1.21	17.1	12.14
Central West	0.3	0.12	5.3	3.13	0.2	0.08	2.4	0.86
South East	1.0	0.38	17.9	11.19	1.2	0.48	13.3	10.11
South West	0.6	0.38	6.1	4.41	0.8	0.42	5.2	2.30
Shire Highlands	0.4	0.18	27.1	17.60	0.6	0.18	14.0	9.23
Malawi	**0.9**	**0.21**	**14.5**	**4.01**	**0.7**	**0.19**	**7.8**	**2.52**

From *Table 4.11*, it can be seen that the average pupil had reading teachers who had attended 1.69 courses and mathematics teachers who had attended 1.76 courses of in-service. This shows some improvement from the SACMEQ II data (see *Table 4.12*) which were 0.9 and 0.7 respectively. Variations among divisions still exist. The Central West division which had the lowest mean scores in SACMEQ II in reading (0.3), and mathematics (0.2), had made some improvements in SACMEQ III with mean scores of 1.27 in reading, and 1.44 in mathematics.

Central East education division had teachers with the lowest mean score of in-service courses in reading (1.26) in SACMEQ III. South West Education division had teachers with the lowest overall mean scores of in-service courses in mathematics (0.86) and health (1.21). Shire Highlands division had the highest number of in-service courses: reading (3.10), mathematics (3.10) and health (3.22).

Also included in *Table 4.11* and *Table 4.12* was information about the number of days the teachers had attended the in-service courses. The information in *Table 4.11* for SACMEQ III shows that Standard 6 pupils had reading teachers who spent on average 17.08 days of training in three years translating into an average of 7 days per year. Their mathematics teachers on the other hand spent an average of 12.85 days on INSET in three years, translating

into 4.28 days of training per year. Standard 6 pupils in the Central West division had teachers who were exposed to the most number of INSET days, 49.43 days and 33.50 days for reading and mathematics teachers respectively. Pupils in Shire Highlands division had health teachers who were exposed to the most number of days of in-service training.

Policy Suggestion 4.6: The Ministry of Education needs to strengthen and intensify its in-service training programs through the use of its Teacher Development Centers (TDCs) in order to improve the skills of teachers in a fast changing teaching environment. The education divisions and the district education offices need to develop clear in-service training programs which should be reviewed on a regular basis. Priority needs to be given to the untrained teachers.

Policy Suggestion 4.7: The Ministry of Education should develop clear policy guidelines and funding mechanisms for in-service training throughout the country for the divisions and the districts to enhance in-service training which is quite low at the moment and almost non-existent in some areas.

To what extent did teachers find the in-service courses useful?

The teachers were also asked to state to what extent they found these in-service courses useful. The percentages of pupils whose teachers responded that they found the courses effective or very effective have been presented in *Table 4.13*.

Table 4.13 **Percentages and sampling errors for the teachers' perception of effectiveness of reading and mathematics in-service courses (SACMEQ III)**

Division	Effectiveness of the in-service courses					
	Reading in-service courses		Mathematics in-service courses		Health in-service courses	
	%	SE	%	SE	%	SE
North	88.1	8.1	87.4	8.9	89.6	7.1
Central East	67.3	14.2	87.8	8.7	84.9	10.6
Central West	69.1	10.3	89.4	7.2	81.1	8.4
South East	94.2	6.0	86.1	9.9	87.0	9.3
South West	76.7	14.5	60.5	17.7	60.3	15.4
Shire Highlands	67.0	15.5	67.0	14.5	78.1	13.9
Malawi	**75.7**	**5.1**	**81.5**	**4.6**	**79.7**	**4.8**

Table 4.14 **Percentages and sampling errors for the teachers' perception of effectiveness of reading and mathematics in-service courses (SACMEQ II)**

Division	Effectiveness of the in-service courses			
	Reading in-service courses		Mathematics in-service courses	
	%	SE	%	SE
North	38.1	11.08	13.0	7.81
Central East	41.8	14.69	48.2	15.35
Central West	17.0	7.03	9.3	5.06
South East	38.9	11.89	35.2	11.73
South West	20.4	9.05	29.5	10.57
Shire Highlands	26.4	11.09	24.6	10.49
Malawi	**29.1**	**4.33**	**23.8**	**4.00**

It can be noted from *Table 4.13* that 75.7 percent of the pupils had reading teachers who found their in-service courses effective while 81.5 percent of the pupils had mathematics teachers who found their in-service to be effective. Compared with SACMEQ II data, this shows an improvement in terms of teachers satisfaction derived from the courses. In

SACMEQ II only 29.1 percent of the pupils had reading teachers who found their in-service courses effective and only 23.8 percent of the pupils had mathematics teachers who found their in-service to be effective (see *Table 4.14*). This is a positive development and the Ministry needs to enhance its interventions in this respect.

Policy Suggestion 4.8: A study should be conducted on in-service training to identify best practices so that positive aspects observed can be enhanced and additional appropriate areas of need can be addressed.

In summary, the evidence in this section has shown that in terms of the professional characteristics of the teachers, Standard 6 pupils had both reading and mathematics teachers who had a fairly good number of years of teaching experience. However, most of these had less than the two years of normal teacher training. The evidence further showed that the academic qualifications of these teachers were still low although some positive progress had been observed. Some progress had also been made in in-service training, but there was still a need for improvements especially in the divisions that showed slow progress.

Policy Concern 3:

What was the availability of classroom furniture for teachers (teacher table, teacher chair, and bookshelves) and classroom equipment (for example, chalkboard, dictionary, maps, book corner, and teacher guides) in Standard 6 classrooms?

In *Table 4.15* below, the material resources for reading and mathematics teachers at the classroom level in SACMEQ III have been presented. The data for SACMEQ I and II are presented in *Table 4.16*.

Table 4.15: The amount of resources available to reading, mathematics and health teachers in SACMEQ III

Availability of Classroom Resources (SACMEQ III)						
	Reading Teacher		Mathematics Teacher		Health Teacher	
Resource	%	SE	%	SE	%	SE
A usable writing board	88.3	2.8	87.6	2.9	86.2	3.0
Chalk	92.6	2.3	92.7	2.3	93.1	2.2
A wall chart of any kind	71.2	4.1	71.3	4.1	72.9	4.0
A cupboard	35.1	4.2	37.4	4.3	35.3	4.3
One or more bookshelves	23.6	3.8	24.3	3.8	25.4	3.9
A classroom library or book corner	7.6	2.5	7.6	2.5	7.7	2.6
A teacher's Table	44.1	4.2	44.0	4.2	42.0	4.2
A teacher's chair	53.5	4.4	58.7	4.3	56.0	4.4

Table 4.16: The amount of resources available to reading and mathematics teachers in SACMEQ I and II

	Availability of Classroom Resources					
	SACMEQ I		SACMEQ II			
Resource	Reading Teacher		Reading Teacher		Mathematics Teacher	
	%	SE	%	SE	%	SE
A usable writing board	86.1	2.92	94.5	1.99	94.7	2.01
Chalk	96.7	1.50	96.4	1.57	94.9	1.88
A wall chart of any kind	57.5	4.25	58.2	4.54	63.1	4.46
A cupboard	18.1	3.27	51.2	4.65	48.4	4.63
One or more bookshelves	14.9	3.11	17.6	3.32	17.5	3.35
A classroom library or book corner	13.5	3.04	20.4	3.85	18.8	3.71
A teacher Table	41.3	4.29	47.9	4.58	49.1	4.70
A teachers chair	43.9	4.27	50.5	4.65	51.4	4.72

In SACMEQ III, the percentages of pupils who had reading and mathematics teachers with usable blackboards were 88.3 and 87.6 respectively. This is a decrease from SACMEQ II

figures of 94.5 and 94.7 percent respectively. Chalk was available to 92.6 percent of the pupil's teachers in SACMEQ III. The situation had slightly deteriorated as compared to SACMEQ I and II when 96.7 percent and 96.4 percent of pupils (respectively) had reading teachers who indicated that chalk was readily available to them.

On wall charts, there was a significant improvement in SACMEQ III as 71.2 percent of the pupils had teachers who reported having wall charts as compared to 58.2 percent during SACMEQ II and 57.5 percent in SACMEQ I representing an increase of more than ten percentage points. Similarly, 71.3 percent of the pupils had mathematics teachers who had wall charts of some kind, up from 63.1 percent in SACMEQ II. In the case of cupboards availability, there was a significant drop from 51.2 percent in SACMEQ II to 35.1 percent in SACMEQ III. Similarly, for mathematics teachers, there was a drop to 37.4 percent in SACMEQ III down from 48.4 percent in SACMEQ II. As for book shelves, there was a moderate improvement for pupils with reading teachers who reported to have book shelves from 17.6 percent in SACMEQ II to 23.6 percent in SACMEQ III. Only 24.3 percent of the pupils had mathematics teachers who reported having book shelves in SACMEQ III up from 17.5 percent in SACMEQ II. The information in Table 4.15 indicates that the amount of resources available to health teachers were almost the same as those available to reading and mathematics teachers.

The proportion of pupils with reading teachers who had a classroom library or a book corner significantly decreased from 20.4 percent to 7.6 percent between SACMEQ II and III. A similar trend was observed with the percentages of pupils with mathematics teachers who had a classroom library or book corner which dropped from 18.8 percent in SACMEQ II to 7.6 percent in SACMEQ III. There was also a drop in the case of the availability of teacher tables and teacher chairs. In SACMEQ II, 49.1 percent of the pupils had mathematics teachers who had teacher tables. The figure dropped to 44.0 percent in SACMEQ III.

How did Standard 6 teachers allocate their time among responsibilities concerned with teaching, preparing lessons, and marking?

The teachers were also asked to indicate how they were using the time available to effectively deliver in the classrooms. The two main areas under this policy concern were the periods and time spent on teaching per week and the time spent on lesson preparation.

(a) Periods and time spent on teaching per week

In *Table 4.17* (SACMEQ III) and *Table 4.18* (SACMEQ II and I) information about the means and sampling errors for the periods and time spent on teaching per week has been presented.

Table 4.17 Means and sampling errors for the periods and time spent on teaching per week (SACMEQ III)

Division	SACMEQ III									
	Reading teacher				Mathematics teacher				Health teacher	
	Periods per week		Hours per week		Periods per week		Hours per week		Periods per week		Hours per week	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE/	Mean	SE
North	37.27	2.35	21.64	1.36	36.44	2.44	21.24	1.24	35.88	2.59	20.84	1.51
Central East	32.36	3.00	18.88	1.75	35.33	2.55	20.61	1.49	35.54	2.73	20.73	1.79
Central West	30.79	2.41	17.88	1.40	33.34	2.52	19.45	1.47	32.20	2.54	18.79	1.48
South East	35.60	2.46	20.77	1.43	36.29	2.53	21.17	1.47	36.40	2.41	21.23	1.40
South West	28.87	3.48	16.82	2.03	26.90	3.64	15.67	2.12	26.93	3.62	15.69	2.11
Shire Highlands	42.44	1.86	24.76	1.09	43.92	1.33	25.62	0.77	42.30	1.83	24.67	1.07
Malawi	**34.18**	**1.12**	**18.75**	**0.61**	**35.15**	**1.12**	**20.50**	**0.65**	**34.54**	**1.16**	**20.13**	**0.68**

Table 4.18 Means and sampling errors for the periods and time spent on teaching per week (SACMEQ I and II)

Division	SACMEQ I				SACMEQ II							
	Reading teacher				Reading teacher				Mathematics teacher			
	Periods per week		Hours per week		Periods per week		Hours per week		Periods per week		Hours per week	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
North	33.8	2.27	19.0	1.50	32.6	3.01	19.0	1.76	32.4	3.38	18.9	1.97
Central East	30.1	2.77	17.5	1.68	39.6	2.56	23.3	1.42	38.9	3.04	22.7	1.77
Central West	24.5	2.64	15.4	1.56	25.5	2.87	14.9	1.69	21.6	2.77	12.6	1.62
South East	32.2	3.43	17.4	2.05	34.5	3.32	20.0	1.95	32.5	3.90	18.9	2.27
South West	32.8	3.10	20.2	1.76	30.2	3.61	20.0	3.90	29.0	3.72	19.3	3.90
Shire Highlands	33.4	3.12	19.4	1.88	35.0	3.61	20.4	2.11	32.5	3.80	18.9	2.22
Malawi	**30.7**	**1.17**	**17.9**	**0.70**	**32.0**	**1.35**	**19.1**	**0.92**	**30.0**	**1.44**	**17.9**	**0.98**

In terms of time spent on teaching, it can be seen from *Table 4.17* that reading teachers spent 34.18 periods per week teaching while mathematics teachers and health teachers spent 35.15 periods and 34.54 periods respectively. This reflects an increase from 32.0 periods per week and 30.0 periods per week for reading and mathematics teachers respectively from SACMEQ II. The Central West division which consistently had pupils with teachers who spent lesser periods per week teaching between SACMEQ I and II had made some improvements. In SACMEQ III, the South West division had pupils with teachers who spent the least periods per week and the least number of hours per week amongst the six divisions.

Policy Suggestion 4.9. There seems to have been some improvements in terms of staff allocation and management in Central West. However, there is a need to check the staff management in South West division as evidence seems to point to some staffing irregularities in the division. The division manager may wish to closely examine the staffing levels of the districts in the division and explore possibilities of reallocating teachers. There will again be need for accurate and timely data.

(b) Time spent on lesson preparation.

The other policy concern was about the time spent by teachers on lesson preparation. The information on the means and sampling errors for the teachers' time spent on lesson preparation for SACMEQ III has been presented in *Table 4.19* and for SACMEQ I and II in *Table 4.20.*

Table 4.19. Means and sampling errors for the teacher's time spent on lesson preparation (SACMEQ III)

Division	Time spent on lesson preparation					
	SACMEQ III					
	Reading lesson (hours)		Mathematics lesson (hours)		Health lesson (hours)	
	Mean	SE	Mean	SE	Mean	SE
North	15.12	1.42	15.58	1.38	15.14	1.47
Central East	14.74	2.09	14.17	2.19	17.42	1.85
Central West	14.81	1.50	15.79	1.61	15.21	1.58
South East	10.42	1.34	10.03	1.27	9.75	1.20
South West	10.47	1.88	11.16	1.91	12.06	1.88
Shire Highlands	14.51	1.79	14.81	1.82	14.27	1.84
Malawi	**13.66**	**0.70**	**14.00**	**0.73**	**14.27**	**0.70**

Table 4.20. Means and sampling errors for the teacher time spent on lesson preparation (SACMEQ I and SACMEQ II)

Division	Time spent on lesson preparation					
	SACMEQ I		SACMEQ II			
	Reading lesson (hours)		Reading lesson (hours)		Mathematics lesson (hours)	
	Mean	SE	Mean	SE	Mean	SE
North	18.4	3.28	28.0	2.42	27.9	2.92
Central East	25.4	2.92	24.8	2.71	21.4	2.34
Central West	21.0	2.94	26.4	2.19	26.5	2.31
South East	20.0	3.03	27.4	2.11	27.5	2.41
South West	24.0	2.88	22.3	2.44	21.9	2.34
Shire Highlands	16.7	2.34	19.7	1.93	23.2	1.89
Malawi	**21.1**	**1.23**	**25.1**	**0.96**	**25.1**	**1.02**

It can be seen from *Table 4.19* that in SACMEQ III the average pupils had reading teachers who were spending about 13.66 hours for the preparation of lessons. This was a significant drop of more than ten percentage points from 25.1 hours in SACMEQ II (*Table 4.20*). The South East division had pupils with teachers with the lowest mean hours spent in lesson preparation in all three subject areas. The North division remained the division with pupils whose teachers were spending the highest number of hours preparing for a lesson in all subjects in SACMEQ II and III.

In summary, it has been noted that compared to SACMEQ I and II, teachers in SACMEQ III were generally teaching more periods per week. However, the evidence points to some staffing irregularities and in time spent preparing for lessons. The drop in the number of hours spent in lesson preparation between SACMEQ II and III is a cause for concern.

Policy Suggestion 4.10: It appears that the Ministry of Education does not have clear guidelines or a monitoring framework on lesson preparation. It is suggested that the Ministry through the Department of Inspection and Supervision should develop, implement and monitor the implementation of a lesson preparation framework**.**

Policy Concern 4:

What were Standard 6 teachers' viewpoints on (a) pupil activities within the classroom, (b) teaching goals (c) teaching approaches/strategies (d) assessment procedures, and (e) meeting and communicating with parents?

(c) Giving of written tests

An attempt was made to find out how often Standard 6 reading and mathematics teachersgave written tests in their subjects. Information on the percentages and sampling errors for the frequency of reading tests (SACMEQ III, II and I) has been presented in *Table 4.21* and for mathematics tests in *Table 4.22*.

Table 4.21 Percentages and sampling errors for frequency of reading tests (SACMEQ I, II & III)

Division	Frequency of reading tests																	
	SACMEQ I						SACMEQ II						SACMEQ III					
	Less often		2/3 per month		1 + per week		Less often		2/3 per month		1 + per week		Less often		2/3 per month		1 + per week	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
North	13.7	7.52	45.6	10.89	40.8	10.74	7.8	5.42	20.3	8.66	72.0	9.66	17.5	6.8	43.2	10.0	39.2	9.7
Central East	19.0	8.82	33.3	10.58	47.6	11.21	4.9	4.95	29.0	11.88	66.1	12.45	3.3	3.4	43.2	11.8	53.5	11.9
Central West	14.8	6.98	34.8	9.17	50.4	9.65	4.8	3.56	24.3	8.25	70.9	8.67	12.2	5.6	50.4	8.9	37.3	8.8
South East	17.6	9.59	29.4	11.46	52.9	12.55	9.1	6.36	29.0	11.39	61.9	11.81	25.8	10.7	44.3	12.5	30.0	10.9
South West	15.6	7.58	36.3	10.00	48.2	10.68	4.8	3.59	23.4	9.96	71.7	10.26	21.2	9.0	31.8	11.2	47.0	11.1
Shire Highlands	0.0	0.00	28.6	10.13	71.4	10.13	15.3	9.08	19.6	8.39	65.0	11.05	5.6	5.5	65.5	10.7	28.9	10.0
Malawi	**13.9**	**3.10**	**35.4**	**4.2**	**50.7**	**4.4**	**7.3**	**2.20**	**24.2**	**3.9**	**68.5**	**4.2**	**14.0**	**2.8**	**46.7**	**4.4**	**39.4**	**4.3**

It can be seen from *Table 4.21* that in both SACMEQ I and II studies, the tendency was for reading teachers to give tests at least once a week. However, by SACMEQ III the tendency seemed to have shifted to giving reading tests 2/3 times per month. Factors leading to this development are worth investigating. One possible explanation has to do with the reform in assessment procedures advocated under the Primary Curriculum Assessment and Review (PCAR) where continuous assessment is emphasised more.

Table 4.22 **Percentages and sampling errors for frequency of mathematics tests in SACMEQ III and II.**

Division	Frequency of mathematics tests											
	SACMEQ II						SACMEQ III					
	Less often		2/3 per month		1 + per week		Less often		2/3 per month		1 + per week	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
North	9.4	6.59	47.7	11.18	42.9	11.12	26.8	8.8	33.0	9.4	40.1	9.8
Central East	8.9	6.67	12.4	7.43	78.7	9.95	8.1	5.8	41.9	11.7	50.1	12.0
Central West	12.2	6.79	32.0	8.93	55.9	9.92	11.6	5.8	41.8	9.3	46.5	9.2
South East	15.7	7.66	38.8	11.80	45.5	11.91	26.7	10.9	51.0	12.4	22.3	9.4
South West	7.9	5.65	44.0	11.40	48.1	11.41	5.7	4.6	42.7	11.8	51.6	12.0
Shire Highlands	21.0	9.52	40.6	12.00	38.4	12.06	11.3	7.7	51.3	12.0	37.4	11.4
Malawi	**12.3**	**3.0**	**36.4**	**4.4**	**51.3**	**4.63**	**15.1**	**3.1**	**42.7**	**4.5**	**42.2**	**4.4**

Whilst the general trend in the frequency of mathematics tests given by teachers had shifted to 2/3 per month in SACMEQ III from 1 + per week in SACMEQ II, there were variations amongst the divisions. Only teachers in South West division had increased the frequency of giving mathematics tests at 1+ week from 48.1 percent to 51.6 percent. The rest of the divisions had reduced the frequency. For example, Central East division had significantly reduced its frequency from 78.7 percent to 50.1 percent. This was accompanied with a corresponding significant increase in teachers giving mathematics tests 2/3 times per month from 12.4 percent in SACMEQ II to 41.9 percent in SACMEQ III. There were also variations on frequency of health tests amongst the divisions as shown in *Table 4.23.* Some divisions such as North and Central East gave more health tests at the rate of 1+ per week whilst South East and Shire Highlands gave more of 2/3 per month health tests.

Table 4.23 Percentages and sampling errors for frequency of health tests (SACMEQ III)

Division	Frequency of Health tests (SACMEQ III)					
	Less often		2/3 per month		1 + per week	
	%	SE	%	SE	%	SE
North	23.9	8.4	24.7	8.9	51.3	10.1
Central East	8.1	5.8	34.3	11.3	57.7	11.7
Central West	16.2	6.4	35.0	8.3	48.7	9.0
South East	30.9	11.4	51.0	12.4	18.1	8.6
South West	17.9	8.8	47.2	11.9	34.9	11.2
Shire Highlands	8.8	6.3	52.5	12.2	38.7	11.2
Malawi	**17.6**	**3.2**	**38.9**	**4.3**	**43.4**	**4.3**

(d) Specified section in pupils' report

Teachers were asked whether they included a specified section for reading and mathematics in pupils' reports. In *Table 4.24*, information on the percentages and sampling errors of the frequency of a specific section in pupils report for reading and mathematics have been presented.

Table 4.24. Percentages and sampling errors for the frequency of a specific section in pupil school report for reading (SACMEQ I, II & III)Division	SACMEQ I		SACMEQ II		SACMEQ III	
	Reading section		English/ Reading section		English/Reading section	
	%	SE	%	SE	%	SE
North	13.7	7.52	62.7	10.76	62.7	9.8
Central East	38.1	10.90	60.6	14.53	87.1	8.6
Central West	33.3	9.26	83.3	6.91	75.5	8.2
South East	23.5	10.67	92.7	7.32	87.9	11.3
South West	6.3	3.68	92.9	3.96	98.8	1.2
Shire Highlands	38.1	10.89	78.8	10.07	84.5	9.0
Malawi	**25.2**	**3.71**	**78.6**	**3.82**	**80.8**	**3.7**

Table 4.25. Percentages and sampling errors for the frequency of a specific section in pupil school report for mathematics and health (SACMEQ II & III)

Division	SACMEQ II		SACMEQ III			
	Mathematics section		Mathematics section		Health/Life Skill Section	
	%	SE	%	SE	%	SE
North	68.8	10.34	58.5	10.0	67.7	9.4
Central East	77.5	10.40	82.4	9.5	82.4	9.5
Central West	86.7	6.47	76.8	7.9	73.8	8.5
South East	96.9	3.08	81.1	9.0	87.9	11.3
South West	90.8	5.12	77.2	10.2	88.8	7.6
Shire Highlands	61.5	11.77	81.8	9.0	83.8	9.3
Malawi	**81.0**	**3.35**	**75.4**	**4.0**	**79.1**	**3.8**

It can be seen from Table 4.24 that the majority of the pupils (80.8 percent) had reading teachers who included a specific section in pupil's school report for reading. There has been an increase from SACMEQ I which had only 25.2 percent and SACMEQ II which had 78.6 percent. There has been a drop in mathematics from 81.0 percent in SACMEQ II of the pupils who had mathematics teachers who included a specific section in their school reports in to 75.4 percent in SACMEQ III. For health, in SACMEQ III, the percentage was 79.1 percent.

Policy suggestion 4.11: The results above may be indicative that reading teachers appreciate the need to include a section in pupil's school report for reading. However, the drop amongst mathematics teachers is a source of concern. The Ministry of Education should review the pupil evaluation procedures and practices in order to address the factors leading to the drop amongst mathematics teachers as evaluation reports form an important aspect of enhancing learning and parent-teacher collaboration.

(e) Meeting parents

Postlethwaite & Ross (1992) have shown that in many countries, the more the school head and teachers had contact with parents, the more effective the school was in promoting the reading achievement of pupils. Hence a question was asked about the frequency of teachers meeting parents. The percentages and sampling errors for the frequency of meetings of reading teachers with parents have been presented in *Table 4.26* for SACMEQ I, II and III. *Table 4.27* presents data on mathematics teacher meetings with parents for SACMEQ II and III.

Table 4.26. Percentages and sampling errors for the frequency of reading teachers meeting with parents (SACMEQ I, II and III)

Division	Percentages of frequency of reading teacher meetings with parents					
	SACMEQ I		SACMEQ II		SACMEQ III	
	Reading teacher		Reading teacher		Reading teacher	
	percent	SE	%	SE	%	SE
North	60.6	10.45	94.3	5.73	77.8	8.5
Central East	71.4	10.14	83.4	8.57	77.1	9.8
Central West	81.5	7.63	85.7	7.02	86.8	5.9
South East	64.7	12.02	96.6	3.44	96.4	3.7
South West	64.2	9.98	88.0	8.31	97.8	2.3
Shire Highlands	61.9	10.89	82.7	8.50	97.1	2.9
Malawi	**68.4**	**4.07**	**88.4**	**2.93**	**87.7**	**2.8**

Table 4.27. Percentages and sampling errors for the frequency of mathematics and health teachers meeting with parents (SACMEQ II and III)

Division	Percentages of frequency of teacher meetings with parents					
	SACMEQ II		SACMEQ III			
	Mathematics teacher		Mathematics teacher		Health teacher	
	%	SE	%	SE	%	SE
North	95.8	4.24	82.0	7.9	77.8	8.5
Central East	87.1	7.81	69.5	11.2	81.3	9.2
Central West	83.1	7.50	81.9	7.1	78.4	7.1
South East	91.3	6.24	79.8	9.7	89.6	7.5
South West	94.7	3.67	97.8	2.3	97.8	2.3
Shire Highlands	82.7	8.50	100.0	0.0	100.0	0.0
Malawi	**88.9**	**2.75**	**84.4**	**3.2**	**85.6**	**3.0**

It can be noted from the tables that in SACMEQ III, there were no major differences between the reading, mathematics and health teachers in the frequency with which they were meeting with parents (87.7 percent, 84.4 percent and 85.6 percent respectively). There was great improvement between SACMEQ I and II but a smaller percentage of pupils (87.7 percent for reading and 84.4 percent for mathematics) had teachers reporting meeting parents in SACMEQ III compared to SACMEQ II (88.4 percent for reading and 88.9 percent for mathematics). The frequency had declined in all divisions except in South West and Shire Highlands divisions.

(f) Teachers asking parents to sign homework

One other way of assessing how the schools and the homes of pupils work together towards improving the education of their pupils is to see if teachers ask parents to sign the homework they give to pupils. The teachers were therefore asked if they indeed asked parents to sign the home works. The percentages and sampling errors of reading and mathematics teachers asking parents to sign homework in SACMEQ I, II and III, (and health teachers in SACMEQ III) have been presented in *Table 4.28* and *Table 4.29.*

Table 4.28 **Percentages and sampling errors of reading teachers asking parents to sign homework (SACMEQ I, II & III)**

Division	SACMEQ I		SACMEQ II		SACMEQ III	
	Sign reading homework		Sign reading homework		Sign reading homework	
	%	SE	%	SE	%	SE
North	13.7	7.52	15.8	8.70	17.7	7.8
Central East	14.3	7.86	32.6	12.51	15.1	7.4
Central West	28.2	8.65	22.5	7.72	25.5	7.6
South East	17.6	9.59	15.1	8.02	18.4	8.7
South West	20.3	7.87	19.6	9.20	13.0	5.9
Shire Highlands	9.5	6.58	20.3	9.04	20.1	8.6
Malawi	**18.2**	**3.4**	**21.0**	**3.7**	**19.1**	**3.3**

Table 4.29 **Percentages and sampling errors of teachers asking parents to sign mathematics and health homework (SACMEQ II and III)**

Division	SACMEQ II		SACMEQ III			
	Sign mathematics homework		Sign mathematics homework		Sign health homework	
	%	SE	%	SE	%	SE
North	9.7	6.73	14.5	6.9	12.1	6.1
Central East	15.5	9.09	11.4	6.6	19.0	9.4
Central West	7.9	4.02	26.4	8.2	28.7	8.3
South East	30.9	11.14	23.5	9.7	21.7	9.7
South West	33.4	10.76	17.0	8.4	12.3	6.6
Shire Highlands	13.3	7.84	23.0	9.7	26.9	10.3
Malawi	**17.3**	**3.3**	**19.8**	**3.5**	**20.7**	**3.5**

It can be noted from *Table 4.28* and *Table 4.29* that not many pupils had teachers who asked parents to sign the homework in all the SACMEQ sudies. Only 19.1 percent, 19.8 percent

and 20.7 percent of the pupils had reading, mathematics and health teachers, respectively, who reported that they asked parents to sign the homework in SACMEQ III. Between SACMEQ I and SACMEQ II, the percentage of pupils with reading teachers who asked parents to sign the homework had not changed much. The percentage of reading teachers had actually slightly decreased between SACMEQ II (21.0 percent) and SACMEQ III (19.1 percent).

Policy suggestion 4.12: Teaching and learning ought to be an enterprise that should be a joint venture of the school, parents and the community. The low percentage and the decrease in number of Standard 6 pupils whose teachers reported to have asked parents to sign homework is a source of concern if quality education is to be assured. The Ministry of Education through the implementation of the National Strategy for Community Participation in School Management should take measures to ensure that parents are taken on board in the education enterprise.

In summary, it has been noted that compared to SACMEQ II and I, teachers in SACMEQ III were significantly teaching more periods. There were some staffing irregularities which need to be corrected especially when it comes to time spent preparing a lesson plan. There has been, in general, a decline in the percentage of pupils with teachers who were meeting with parents, and very few pupils had teachers who asked parents to sign the homework.

Policy Concern 6:

What professional support (in terms of education resource centres, inspections, advisory visits, and school head inputs) was given to Standard 6 teachers?

The next few sections of the report examine the kind of professional support that is given to teachers in terms of advice given by head teachers, use of resource centre, advisory services and support by the head teachers.

(a) Professional Support given to teachers by head teachers

One of the innovations that have taken place in Malawi's education system has been in the area of teacher education and management. In an attempt to meet the high demand for teachers created by the introduction of the FPE policy, the Ministry employed many

temporary teachers who were trained under the innovative MIITEP. Under MIITEP, head teachers were expected to play a more active role in supervising the teachers, as well as giving them advice as part of the school-based component of the innovative teacher training program. A question was included in SACMEQ to assess the frequency at which head teachers were giving advice to teachers. The percentages and sampling errors for the frequency of advice to teachers from school heads (SACMEQ I, II and III) have been presented in *Table 4.30* and Table *4.31*.

Table 4.30. Percentages and sampling errors for the frequency of advice to reading teachers from school heads (SACMEQ I, II and III)

Division	Percentage of reading teachers receiving advice 'sometimes' or 'often'					
	SACMEQ I		SACMEQ II		SACMEQ III	
	%	SE	%	SE	%	SE
North	90.9	6.30	95.5	4.52	85.4	7.1
Central East	85.7	7.86	94.3	5.72	92.8	7.0
Central West	100.0	0.00	96.6	3.43	82.6	7.4
South East	88.2	8.10	100.0	0.00	60.2	12.7
South West	56.3	10.41	100.0	0.00	86.3	7.5
Shire Highlands	100.0	0.00	97.5	2.47	83.2	9.3
Malawi	**87.3**	**2.7**	**97.2**	**1.46**	**82.4**	**3.5**

Table 4.31. Percentage of teachers receiving advice 'sometimes' or 'often'

Division	SACMEQ II		SACMEQIII			
	Mathematics teacher		Mathematics teacher		Health teacher	
	%	SE	%	SE	%	SE
North	95.3	4.77	79.5	8.0	76.2	8.8
Central East	100.0	0.00	82.5	9.7	92.8	7.0
Central West	92.4	5.27	74.7	8.2	76.7	8.2
South East	98.7	1.30	48.1	12.4	58.3	12.7
South West	100.0	0.00	90.4	6.4	95.8	2.7
Shire Highlands	97.6	2.46	77.9	10.2	78.2	10.3
Malawi	**96.7**	**1.63**	**75.9**	**3.8**	**79.5**	**3.7**

It can be seen from *Table 4.30* and *Table 4.31* that in SACMEQ III, 82.4 percent, 75.9 percent and 79.5 percent of the pupils had reading, mathematics and health teachers respectively who reported having received some advice from the school head. The general trend between SACMEQ II and SACMEQ III is that there is a decrease in the percentage of both reading and mathematics teachers that reported to have received support from head teachers. This decreasing trend is worrisome.

(b) Availability of education resource centers for teachers

In *Tables 4.32*, *Table 4.33*, and *Table 4.34*, information about the percentages and sampling errors for the availability of education resource centers for teachers has been presented for SACMEQ II and III.

Table 4.32. Percentages and sampling errors for the availability of education resource centres for reading teachers (SACMEQ II and III)

Division	SACMEQ II Reading teacher						SACMEQ III Reading teacher					
	None available		Have not visited		Have used		None available		Have not visited		Have used	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
North	7.7	5.50	20.0	8.79	72.2	9.76	2.1	2.2	18.2	7.8	79.6	8.0
Central East	2.8	2.85	23.2	11.39	74.0	11.61	3.9	3.9	13.7	9.1	77.8	9.1
Central West	0.0	0.00	28.9	8.83	71.1	8.83	18.3	7.2	11.0	5.2	70.8	8.2
South East	23.9	10.76	4.5	4.48	71.7	11.13	4.2	4.3	12.4	7.0	83.4	8.1
South West	12.4	8.47	22.7	9.68	64.9	11.40	5.7	5.7	30.8	10.6	63.5	11.1
Shire Highlands	7.3	7.30	12.6	7.56	80.1	9.78	5.5	5.5	8.8	6.4	85.7	8.0
Malawi	**8.0**	**2.5**	**19.9**	**3.7**	**72.1**	**4.2**	**7.8**	**2.4**	**15.3**	**3.1**	**76.8**	**3.7**

Table 4.33. Percentages and sampling errors for the availability of education resource centres for mathematics teachers (SACMEQ II and III)

Division	SACMEQ II						SACMEQ III					
	Mathematics teacher						Mathematics teacher					
	None available		Have not visited		Have used		None available		Have not visited		Have used	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
North	3.2	3.17	23.5	9.71	73.3	9.95	2.1	2.2	10.8	6.4	87.1	6.6
Central East	3.3	3.36	9.7	7.07	87.0	7.85	3.4	3.5	6.0	6.0	90.5	6.8
Central West	0.0	0.00	28.8	8.90	71.2	8.90	20.3	7.2	11.7	5.9	68.1	8.9
South East	23.9	10.76	14.3	8.17	61.8	11.79	10.6	7.4	13.0	7.4	76.4	9.9
South West	15.4	8.75	30.8	10.30	53.8	11.32	5.5	5.5	28.8	10.7	65.7	11.2
Shire Highlands	7.3	7.30	6.0	4.21	86.7	8.07	5.5	5.5	5.9	5.9	88.6	7.8
Malawi	**7.9**	**2.5**	**20.5**	**3.64**	**71.6**	**4.1**	**9.0**	**2.5**	**12.4**	**2.9**	**78.6**	**3.6**

Table 4.34. Percentages and sampling errors for the availability of education resource centres for health teachers (SACMEQ III)

Division	Health teacher					
	None available		Have not visited		Have used	
	%	SE	%	SE	%	SE
North	2.1	2.2	9.8	5.7	88.0	6.1
Central East	0.0	0.0	6.0	6.0	94.0	6.0
Central West	16.5	6.7	5.6	3.6	77.9	7.6
South East	4.2	4.3	17.2	8.3	78.6	9.1
South West	0.0	0.0	41.1	11.7	58.9	11.7
Shire Highlands	5.7	5.7	9.2	6.6	85.1	8.4
Malawi	**6.0**	**2.0**	**13.3**	**2.7**	**80.7**	**3.4**

It can be noted from the tables that less than 10 percent of the pupils had reading, mathematics and health teachers who reported that they did not have a resource centre in all

the three subject areas. It can be seen then that many of the pupils (76.8 percent, 76.8 percent and 80.7 percent) had reading, mathematics and health teachers who reported that they used the resource centre respectively in SACMEQ III. It is noteworthy that over the years, between SACMEQ II and SACMEQ III, the proportion of pupils whose teachers had not visited resource centres had decreased. The possible reason for the increase in use could be the Continuing Professional Teacher Development Program which the Ministry has put in place to provide in-service teacher training at zonal level to teachers.

(c) Purposes for using the resource centre

In *Table 4.35*, information about the percentages and sampling errors of reading teacher's purposes for using the resource centre (SACMEQ III) have been presented.

Table 4.35. Percentages and sampling errors of reading teacher's purposes for using the resource centre (SACMEQ III)

Division	Reading teacher									
	Don't use		Borrow material		Make material		Training		Speak with teachers/staff	
	%	SE	%	SE	%	SE	%	SE	%	SE
North	18.2	7.8	62.1	9.8	62.8	9.7	66.2	9.7	71.3	9.1
Central East	13.7	9.1	23.5	9.9	43.8	12.0	42.4	11.8	51.2	12.0
Central West	11.0	5.2	31.3	8.5	22.0	7.7	45.1	9.4	37.6	9.6
South East	12.4	7.0	54.5	12.7	34.2	11.7	59.1	12.1	66.7	10.9
South West	30.8	10.6	31.1	9.8	24.0	9.6	41.2	11.0	47.4	11.7
Shire Highlands	8.8	6.4	54.8	11.9	52.7	11.7	55.6	11.9	67.6	11.4
Malawi	**15.3**	**3.1**	**42.1**	**4.3**	**39.0**	**4.2**	**51.4**	**4.5**	**55.2**	**4.4**

It can be noted from Table 4.35 that the most frequently cited reason for using the resource center

was to speak with fellow teachers or staff of the centre (55.2 percent) with training the second most popular reason, at 51.4 percent, and then to borrow material (42.1 percent). Only 15.3 percent of the pupils had teachers who reported that they did not use the resource centre. This is a reduction from 21.7 percent in SACMEQ II, indicating that there has been an improvement in the use of resource centers by teachers. The South West division had, in general, the least percentage of pupils with teachers using the resource centres. In SACMEQ II, the South West division also emerged with the least percentage of pupils with reading teachers using the resource centers. There is a need to investigate the factors affecting South West division. A similar pattern was observed for mathematics and health teachers.

Policy suggestion 4.13: There is a need to investigate the reasons why South West division remains the division with the least proportion of pupils whose teachers used resource centers. In typical Malawian school environment characterized by inadequate numbers of academically and professionally qualified teachers with limited supply of teaching and learning materials and facilities, the role of the resource centers cannot be over-emphasized. The Ministry of Education through district education offices and school administrators should make sure that teachers are actively involved in the use of TDCs.

Conclusion

In summarizing this chapter, it can be noted that in 2007 the average Standard 6 pupil in Malawi was taught by a male teacher in their late 30s. In terms of the professional characteristics of the Standard 6 teachers, the average had approximately 12 years of teaching experience, however most of they had less than the two years of normal teacher training. Although there was a slight improvement in the academic qualifications since SACMEQ II, a large proportion of pupils had teachers (one-third) with low academic qualifications. In addition, the evidence showed that there has been some improvement in terms of in-service training since SACMEQ II in terms of relevance. There are still challenges in terms of coverage of providing in-service training to teachers.

The findings have also showed that in SACMEQ III Standard 6 pupils had teachers who had access to fewer resources in their classrooms than in SACMEQ II. In addition, the majority of the pupils had teachers who were unsatisfied with the conditions of their housing. The Ministry still has a lot of work to do to make sure that as many teachers as possible have all

the necessary resources so that the quality of teaching can improve. Compared to SACMEQ II, pupils in SACMEQ III had teachers who were teaching more periods per week. The evidence, however, points to some irregularities in staffing and time spent preparing for a lesson. There has been a significant drop in the number of hours that teachers spend on lesson preparation between SACMEQ II and SACMEQ II. The evidence also indicates that many teachers had challenges in involving parents in pupil evaluation as the majority of the teachers did not see the need in getting parents involved in checking the homework of their pupils. Regarding the role of the head teachers in supporting teacher development, the results have shown that there was a decrease in the support that head teachers provided to teachers when SACMEQ III data are compared with SACMEQ II data.

Chapter 5

Characteristics of School Heads and their Viewpoints on School Operations and School Problems

Introduction

School Heads form an important link between ministerial national policy and its implementation and actual practice in the schools. To do this, they need to have certain minimum amount of experience as teachers together with appropriate preparation or orientation in school management and policy issues. They should be able to relate policy to the school improvement plans they make and all other activities such as coordinating, directing, overseeing, advising, making decisions and reporting. They should be able to provide leadership in conforming to existing policies. As such, school heads need certain minimal qualities for them to carry out their roles effectively. They also provide first hand information on how schools are running and how best improvements or innovations can be implemented. In this regard, SACMEQ has always included questions about head teachers' characteristics, as well as their views on other forms of school management and organization. The major questions to be answered in this chapter are:

- What were the personal characteristics of school heads (for example, age and gender)?
- What were the professional characteristics of school heads (in terms of academic, professional, experience, and specialized training)?
- What were the school heads' views on general school infrastructure (for example, electrical and other equipment, water, and basic sanitation) and the condition of school buildings?
- What were the school heads' views on (a) daily activities (for example, teaching, school-community relations, and monitoring pupil progress), (b) organizational policies (for example school magazines, open days, and formal debates), (c) inspections, (d) community input, (e) problems with pupils and staff (for example, pupil lateness, teacher absenteeism, and lost days of school)?

General Policy Concern 13:

What were the personal characteristics of school heads (for example, age and gender)?

Two research questions guided the analysis of the above general policy concern. These were about the age and gender distribution of the school heads. What then were the characteristics of the primary school heads in Malawi in 2007 and how different were they to those in 2002 and 1998?

What was the age distribution of school heads?

The mean ages and gender of school heads in SACMEQ I, SACMEQ II and SACMEQ III have been presented in *Table 5.1* and *Table 5.2* below.

Table 5.1: Means, percentages, and sampling errors for school head age and gender (SACMEQ I and SACMEQ II)

Division	SACMEQ I				SACMEQ II			
	Age (years)		Gender (female)		Age (years)		Gender (female)	
	Mean	SE	%	SE	Mean	SE	%	SE
North	41.9	1.97	0.0	0.00	39.9	1.11	9.6	7.08
Central East	36.9	1.27	12.0	6.63	41.8	1.34	22.5	15.18
Central West	39.9	1.15	10.0	5.57	41.3	1.16	12.6	6.33
South East	39.6	1.91	4.8	4.76	40.8	1.75	5.7	5.75
South West	38.8	1.33	16.7	7.77	40.1	1.09	25.0	10.25
Shire Highlands	41.9	1.59	4.2	4.17	43.8	1.65	14.9	10.08
Malawi	**39.8**	**0.63**	**8.2**	**2.27**	**41.2**	**0.54**	**14.7**	**3.65**

Table 5.2: Means, percentages, and sampling errors for school head age and gender(SACMEQ III)

Division	SACMEQ III			
	Age (years)		Gender (female)	
	Mean	SE	%	SE
North	46.7	1.13	14.3	6.9
Central East	44.8	1.19	6.0	6.0
Central West	44.9	0.89	11.6	5.7
South East	45.4	1.30	14.3	8.1
South West	45.8	0.95	22.9	10.2
Shire Highlands	42.5	1.12	9.3	6.6
Malawi	**45.1**	**0.45**	**12.8**	**2.9**

The information in *Table 5.1* and *Table 5.2* has been reported in terms of the pupils. Thus the average pupil in Standard 6 had a head teacher who was 45.1 years old in SACMEQ III. This shows an increase from 39.8 years in SACMEQ I and 41.2 years in SACMEQ II. All the education divisions registered an increase in SACMEQ III as compared to SACMEQ I. The highest increase of 7.9 years was registered in the Central Eastern Division.

What was the gender distribution of school heads?

The policy on gender suggests that women should occupy at least 30 percent of management positions in government. It can be seen from the SACMEQ I, II and III results in *Table 5.1* and *Table 5.2* above that the situation was far from being achieved. Overall, only 12.8 percent of the pupils had female head teachers in SACMEQ III and this was a decrease from 14.7 in SACMEQ II. The tables also show wide variations in the distribution of female head teachers among the divisions in SACMEQ III. South West Education Division registered the highest percentage of pupils in schools with female head teachers (22.9 percent). However this was a decrease from 25.0 percent in SACMEQ II. Central Eastern Education Division registered a very significant decrease and the lowest percentage of 6.0 in SACMEQ III from 22.5 in SACMEQ II. Only South East and North Divisions made some improvements in SACMEQ III. These results indicate that all divisions still fell short of the expected 30 percent

minimum. These results indicate that efforts to engage more women in leadership positions have not been successful.

Policy Suggestion 5.1: The Ministry of Education should make a deliberate effort to involve women in at least 30 percent of headship and other leadership positions at the school level. The district education managers through the primary education advisors should take the lead in this.

The results in this section have showed that there was a slight increase in the average age of head teachers between 2002 and 2007 but that while the percentage of pupils in schools with female head teachers had improved in some divisions, overall, it had decreased and still fell short of the recommended 30 percent. There were also wide differences in the distribution of female heads among the divisions.

General Policy Concern 14:

What were the professional characteristics of school heads (in terms of academic and professional experience)?

The head teacher is often said to be the driving force of a school. Studies of school effectiveness (Dalin et al., 1994) have linked the leadership skills of the head teacher with quality learning and teaching. It can be argued that school heads with more academic education, more teacher training and more experience as head teachers should run their schools better than those without. In Malawi, most head teachers are appointed to their positions without any orientation and sometimes without appropriate experience. In order to answer the above policy concern properly, it has been broken down into the following specific research questions:

1) How many years of academic education had school heads completed?
2) How many years of teacher training had school heads completed?
3) How many years of teaching experience had school heads?
4) How many years of experience had school heads had as either a school head or an acting school head – in the current school and all together?
5) What percentages of the school staff had post-secondary academic education?
6) What average years of teacher training were received by the school staff?

How many years of academic education had school heads completed?

The mean numbers of years of academic education of school head teachers are given in *Table 5.3* and *Table 5.4* below for SACMEQ I, SACMEQ II and SACMEQ III.

Table 5.3: Years of academic education of school heads (SACMEQ I)

Division	School head academic education	
	Mean	SE
North	12.0	0.26
Central East	12.2	0.39
Central West	11.9	0.19
South East	12.0	0.22
South West	11.8	0.21
Shire Highlands	12.5	0.23
Malawi	**12.1**	**0.11**

Table 5.4: Level of academic education of school heads (SACMEQ II & SACMEQ III)

Division	Level of academic education (SACMEQ II)									
	Primary		Junior secondary		Senior secondary		A-level		Tertiary	
	%	SE	%	SE	%	SE	%	SE	%	SE
North	0.0	0.00	26.6	10.08	73.4	10.08	0.0	0.00	0.0	0.00
Central East	0.0	0.00	58.5	13.03	41.5	13.03	0.0	0.00	0.0	0.00
Central West	0.0	0.00	22.6	7.96	73.7	8.45	3.7	3.71	0.0	0.00
South East	0.0	0.00	61.2	11.69	38.8	11.69	0.0	0.00	0.0	0.00
South West	0.0	0.00	25.6	9.83	74.4	9.83	0.0	0.00	0.0	0.00
Shire Highlands	0.0	0.00	50.2	12.23	49.8	12.23	0.0	0.00	0.0	0.00
Malawi	**0.0**	**0.00**	**38.1**	**4.36**	**61.0**	**4.40**	**0.9**	**0.93**	**0.0**	**0.00**

Division	Level of academic education (SACMEQ III)									
	Primary		Junior secondary		Senior secondary		A-level		Tertiary	
	%	SE	%	SE	%	SE	%	SE	%	SE
North	0.0	0.0	20.5	8.0	76.0	0.0	3.5	3.5	0.0	0.0
Central East	0.0	0.0	28.8	11.3	71.2	0.0	0.0	0.0	0.0	0.0
Central West	0.0	0.0	25.7	8.2	74.3	0.0	0.0	0.0	0.0	0.0
South East	0.0	0.0	41.7	12.3	58.3	0.0	0.0	0.0	0.0	0.0
South West	0.0	0.0	16.0	10.7	84.0	0.0	0.0	0.0	0.0	0.0
Shire Highlands	0.0	0.0	32.3	11.4	67.7	0.0	0.0	0.0	0.0	0.0
Malawi	**0.0**	**0.0**	**26.8**	**4.1**	**72.5**	**0.0**	**0.7**	**0.7**	**0.0**	**0.0**

It can be noted from *Table 5.3* that in 1998, the average Standard 6 pupil had a head teacher who had 12.1 years of academic education. There were insignificant differences among the divisions in terms of mean years of head teachers' academic education.

The information in *Table 5.4* indicates that none of the pupils in either SACMEQ II or SACMEQ III had head teachers who only completed primary school. The majority (72.5 percent) of the Standard 6 pupils in SACMEQ III had head teachers who had completed

senior secondary education. This was an improvement from 61.0 percent in SACMEQ II. The South West Division registered the highest percentage of pupils (84.0 percent) who were in schools with heads who had completed senior secondary. *Table 5.4* also indicates that only 26.8 percent of the pupils had head teachers who had completed junior secondary education, a decrease from 38.1 percent in SACMEQ II. These results were indicative of the staffing problems in the primary schools and it means that there are no strict rules for one to be a head teacher of a school in Malawi. Indeed, problems of teacher shortage at all levels in Malawi meant that no teacher with tertiary education taught at primary school level.

How many years of teaching experience had school heads completed?

In *Table 5.5*, information has been presented on the mean number of years that head teachers had been teaching, and their number of years of teacher training in SACMEQ I, II and III.

Table 5.5: Means and sampling errors for the teaching experience and training of the school heads (SACMEQ I and SACMEQ II)

Division	SACMEQ I				SACMEQ II				SACMEQ III			
	Experience		Teacher Training (years)		Experience		Teacher Training (years)		Experience		Teacher Training (years)	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
North	17.3	1.37	1.9	0.06	14.7	1.28	1.8	0.11	20.92	1.02	2.10	0.61
Central East	12.7	1.39	1.7	0.11	16.1	1.89	2.0	0.16	18.57	1.01	1.96	0.17
Central West	15.2	1.38	2.2	0.09	14.4	1.19	1.7	0.15	21.24	0.97	1.91	0.11
South East	14.9	1.89	2.0	0.11	14.7	2.09	1.8	0.12	19.95	1.32	1.80	0.10
South West	14.6	1.59	1.9	0.06	16.0	1.19	2.1	0.14	20.01	0.97	1.76	0.10
Shire Highlands	18.4	1.66	1.9	0.10	18.3	1.74	1.9	0.10	18.07	1.23	2.18	0.11
Malawi	**15.4**	**0.63**	**1.9**	**0.04**	**15.5**	**0.62**	**1.9**	**0.06**	**20.02**	**0.45**	**1.96**	**0.05**

The average Standard 6 pupils had a head teacher who had 20.02 years of teaching experience in SACMEQ III. This was a significant increase from 15.5 years registered in SACMEQ II. In fact, the mean number of teaching years for head teachers increased in all the divisions in

SACMEQ III. Central West education division registered a remarkable increase from 14.4 years in SACMEQ II to 21.24 years in SACMEQ III. As mentioned above, in Malawi, there is no minimum number of years of experience for a teacher to become a head teacher. This may be because in Malawi there is a wide diversity of schools and teachers and setting a minimum number of years of teaching experience for head teachers may make it difficult to have head teachers in certain schools. Whatever the case, it seems desirable to set such a minimum benchmark for the purposes of consistency and setting a career path for aspiring teachers.

Policy Suggestion 5.2: The Ministry should set a minimum standard for academic education and indeed teaching years for teachers to be promoted to headship positions.

How many years of teacher training had school heads completed?

In Malawi, primary teacher training programs have, over the years, ranged between one year and three years in length. It can be noted from *Table 5.5* that the average Standard 6 pupil had a head teacher with 1.9 years of teacher training. This was the same for SACMEQ I, and II and there were no major variations among the divisions.

Policy Suggestion 5.3: The Ministry of Education should include school management issues in its teacher training curriculum to provide basic survival kits for newly appointed head teachers. Head teachers should also be given specialized training and this should be on continuous basis.

How many years of experience did school heads have as either a school head or an acting school head – in the current school and all together?

A question was asked concerning the number of years in which head teachers had acted as school heads at the current school and altogether. The results on the means and sampling errors of school heads' years of experience as school head have been presented in *Table 5.6* below.

Table 5.6: Means and sampling errors of school heads' years of experience as a school head

Division	SACMEQ I (1998)				SACMEQ II (2002)				SACMEQ III (2007)			
	This school		Altogether		This school		Altogether		This school		Altogether	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
North	3.8	0.59	6.8	1.11	2.9	0.50	5.6	0.96	-	-	8.77	0.8
Central East	3.1	0.43	4.5	0.84	3.1	0.50	7.2	1.52	-	-	8.43	1.3
Central West	4.4	0.60	7.3	0.95	3.2	0.47	6.3	1.06	-	-	8.77	0.8
South East	3.5	0.58	7.5	1.68	4.0	0.90	8.5	1.21	-	-	10.25	1.4
South West	2.7	0.46	6.0	1.20	2.9	0.55	6.6	1.14	-	-	8.56	0.9
Shire Highlands	4.2	0.80	7.7	1.62	4.3	0.51	9.5	1.60	-	-	6.87	0.7
Malawi	**3.7**	**0.24**	**6.6**	**0.49**	**3.3**	**0.24**	**7.1**	**0.50**	**-**	**-**	**8.67**	**0.4**

On average, Standard 6 pupils in Malawi in 2007 had a head teacher who had been head for a period of 8.67 years. This was an increase from 7.1 years registered in 2002 and 6.6 years of experience registered in 1998. The variations among the divisions were not quite significant.

What average years of teacher training were received by the school staff?

A question was also included in the head teacher's questionnaire about the teacher training of the school staff and whether they had attended postsecondary academic education. The information on the percentage, means and sampling errors for the qualifications of the school staff have been presented in Table 5.7.

Table 5.7: Percentages, means and sampling errors for the qualifications of the school staff)

Division	SACMEQ II				SACMEQ III			
	Post-secondary academic education		Teacher training (years)		Post-secondary academic education		Teacher training (years)	
	%	SE	Mean	SE	%	SE	Mean	SE
North	0.0	0.00	1.3	0.09	3.5	3.5	1.7	0.10
Central East	0.0	0.00	1.3	0.10	0.0	0.0	1.8	0.15
Central West	2.0	1.83	1.2	0.11	0.0	0.0	2.1	0.14
South East	5.0	3.46	1.5	0.09	0.0	0.0	1.6	0.10
South West	1.8	1.29	1.6	0.12	0.0	0.0	2.1	0.16
Shire Highlands	0.0	0.00	1.6	0.11	0.0	0.0	2.1	0.15
Malawi	**1.5**	**0.70**	**1.4**	**0.04**	**0.7**	**0.7**	**1.9**	**0.06**

It can be noted that the majority of the pupils were in schools whose heads had teaching staff who had no post-secondary academic education. Only 0.7 percent of the Standard 6 pupils in 2007 had school heads with teaching staff who had on average attended post secondary education. This indicated a decrease from 1.5 percent in 2002. While three divisions (Central West, South East and South West) had pupils in schools whose heads had staff who had post-secondary education in 2002, only the North Division registered such staff in 2007. These results may have indicated that most of the school staff in Malawi's primary schools were either the MITTEP (see Chapter 1) trained teachers or they were not trained at all.

It has been noted in this section that the majority of the Standard 6 pupils had head teachers who only had secondary level education. Only a very small percentage of pupils had school heads who went beyond secondary level in both SACMEQ II and SACMEQ III. The heads had in general had approximately 20 years of experience.

Policy Suggestion 5.3: The Ministry of Education should set a minimum number of years of academic education and teaching experience before teachers are appointed to be heads. Proper training and orientation is also necessary before teachers are entrusted with managing a school

How many school days were lost in the last school year due to non-school events?

In Malawi, it is common practice for pupils to lose some school days due to non-school events. These include late start of the term, organization of examinations, school festivals, national celebrations, natural disasters and funerals, among others. In *Table 5.8* below, information on the means and sampling errors for the number of official school days lost in SACMEQ I, SACMEQ II and SACMEQ III have been presented.

Table 5.8: Means and sampling errors for number of official school days lost (SACMEQ I and SACMEQ II)

Division	Average of official school days lost					
	SACMEQ I		SACMEQ II		SACMEQ III	
	Mean	SE	Mean	SE	Mean	SE
North	6.9	2.57	4.3	0.94	0.6	0.21
Central East	2.5	0.77	4.0	0.60	1.0	0.41
Central West	2.9	0.90	5.6	0.85	1.7	0.33
South East	3.1	1.09	6.4	1.73	2.1	0.63
South West	4.5	1.31	6.2	1.37	0.8	0.28
Shire Highlands	4.7	1.27	5.8	1.16	0.4	0.27
Malawi	**4.1**	**0.6**	**5.4**	**0.5**	**1.1**	**0.5**

Overall, the average pupil was in a school which lost 1.1 days in SACMEQ III while the mean number of days lost in SACMEQ II was 5.4 and it was 4.1 days in SACMEQ I. This was a great and commendable improvement in the number of days lost. All the education divisions registered improvements in the number of days lost when compared to SACMEQ II. The most remarkable decrease was registered in the South West division, down from 6.2 days

in 2002 to 0.8 days in 2007. The results indicated that there were less activities demanding class suspension in 2007 as compared to 2002 and 1998.

Policy Suggestion 5.4: The Ministry should set up a task force to develop strategies to overcome the number of official school days lost in an academic year.

What was the contribution of the school community (in terms of time and resources for maintaining the school and for providing supplementary funding)?

In some research studies (Dalin 1994) there has been evidence to show that the community's cooperation with schools is very important not only in the life of the community in general but also for learners. Indeed, the concept of community participation was also well emphasized in the policy and investment framework as well as the NESP and has been enhanced by the formulation of the strategy for community mobilization and sensitization. The data in *Table 5.10* provided a measure of interest of parents and community in the school of their locality.

Table 5.9: Parent/community contributions to the school (SACMEQ II & III)

Pupils in school with community contributing to the school				
Type of contribution	**SACMEQ II**		**SACMEQ III**	
	%	SE	%	SE
Building of school facilities	77.1	3.74	86.8	2.9
Maintenance of school facilities	79.1	3.65	85.3	3.3
Construction/maintenance and repair of furniture/equipment	38.5	4.56	43.8	4.4
The purchase of textbooks	8.8	2.74	8.9	2.4
The purchase of stationery	15.9	3.45	18.3	3.5
The purchase of other school supplies	29.1	4.16	29.4	4.1
Payment of examination fees	7.2	2.22	5.8	1.9
Payment of the salaries of additional teachers	0.9	0.62	19.1	3.6
Payment of an additional amount of the salary of teachers	0.5	0.47	0.0	0.0
Payment of the salaries of non-teaching staff	16.8	3.42	28.1	3.9
Payment of an additional amount of the salary of non-teaching staff	4.7	1.92	9.5	2.8
Extra-curricular activities	40.3	4.40	36.0	4.3
Assisting teachers in teaching without pay	30.0	4.19	33.4	4.3
Provision of school meals	2.9	1.5	13.1	3.1

It can be noted from *Table 5.9* that 86.8 percent of the pupils were in schools where parents made contributions to the building of school facilities. This was an improvement from 77.1 percent in SACMEQ II. The table also shows that 85.3 percent of the pupils were in schools where parents made major contributions towards the maintenance of school facilities. However there were no contributions made towards an additional amount to the salary of teachers in SACMEQ III and small contributions were made towards the payment of exam fees, purchase of text books and payment of an additional amount to the salary of non – teaching staff. These results confirmed findings from other studies (Chimombo and Kadzamira 2001) that found that the major contribution of communities was in the form of labor and in kind. The results also indicated that parents and communities made very little

monetary contributions to the schools although 33.4 percent of the pupils were in schools where parents assisted teachers in teaching without pay. The table also indicates that 36.0 percent of the pupils were in schools where parents and communities contributed towards extra-curricular activities of the schools; a slight decrease from 40.2 percent in 2002. The largest increase occurred in the community's payment of the salaries of additional teachers in 2007 (19.1 percent) from 0.9 percent in 2002. It is possible that communities were becoming more and more aware of the teacher shortages in schools and were therefore coming in to assist.

Policy suggestion 5.5: It would appear that as the Ministry of Education implements its community mobilization and sensitisation strategy, the main focus should be on the change of attitudes from a concentration on provision of labour to encouraging the parents and communities to become active participants in the life of the schools. The increase in payment of salaries for additional teachers could also be taken advantage of.

What were the main behavioral problems of pupils?

Schools are responsible not only for ensuring that learners learn but also that they are socialized. Results from SACMEQ I (1998) indicated that some schools had problems with learner absenteeism. It should be noted that the data have been presented in terms of the percentage of learners in schools where the heads said that the issue was NOT a problem and NEVER occurred. The inverse of NEVER is that it occurred sometimes or often. In *Table 5.10* below, information about pupil behavioural problems in terms of absenteeism has been presented.

Table 5.10: Pupil behavioural problems (SACMEQ I, II & III)

Frequency of pupil behavioral problem*	**Indicating ***'not a problem'/'never' occurs					
	SACMEQ I*		**SACMEQ II***		**SACMEQ III**	
	%	SE	%	SE	%	SE
Absenteeism	6.6	2.1	0.6	0.6	2.0	1.2

It can be noted from *Table 5.10* that between SACMEQ I and SACMEQ III, there was a significant decrease in the percentage of pupils in schools saying that absenteeism never occurred. The results indicated that 98 percent of the pupils were in schools where the head

teachers indicated that absenteeism occurred. This means that the incidence of absenteeism is very high in Malawi primary schools.

During SACMEQ II and SACMEQ III, 18 possible problems were identified for learner behaviour and ten for teacher behaviour. The results of the analysis have been presented in *Table 5.11*.

Table 5.11: Pupil behavioural problems (SACMEQ II & III)

Frequency of pupil behavioural problem	Indicating 'never' occurs			
	SACMEQ II		SACMEQ III	
	%	SE	%	SE
Arriving late at school	0.9	0.91 1	0.9	0.9
Skipping classes	19.9	3.42	20.8	3.7
Dropping out of school	4.4	1.83	4.3	1.8
Classroom disturbance	31.1	4.39	22.4	3.7
Cheating	21.2	3.65	24.8	3.9
Use of abusive language	23.3	3.74	19.3	3.6
Vandalism	58.9	4.54	49.8	4.5
Theft	23.3	3.93	21.4	3.8
Intimidation of pupils	33.9	4.42	29.3	4.1
Intimidation of teachers/staff	49.9	4.55	44.6	4.5
Physical injury to staff	88.1	3.03	85.4	3.2
Sexual harassment of pupils	64.4	4.49	57.5	4.4
Sexual harassment of teachers	92.6	2.44	87.8	2.9
Drug abuse	75.5	3.87	67.1	4.2
Alcohol abuse	68.3	4.20	71.5	4.1
Fights	5.7	2.29	6.2	2.5
Health problems	0.7	0.7	1.8	1.2

The results of the analysis gave an indication that there were, in general decreases, in pupil behavioural problems in 2007. However, there were increases in pupil behavioural problems related to health problems, fights and alcohol abuse. There is a need to investigate what health problems are in schools so that appropriate remedies can be put in place.

It can also be noted from *Table 5.11* that in 2007 there were relatively few problems with sexual harassment of teachers and physical injury to staff. This presents a similar situation to SACMEQ II. However the fact that 57.5 percent of the pupils were in school where head teachers said that there was never a problem with sexual harassment of pupils meant that 42.5 percent of the pupils were in schools in which the head teachers recorded that harassment sometimes or often occurred. This was not an improvement from SACMEQ II and it is a worrying situation. Other notable challenges in 2007 had to do with skipping classes, use of abusive language, theft and classroom disturbance. The results therefore show severe behavioural problems in Malawi schools. There is a need for a separate study to be conducted on these issues. At the same time, it would seem that the Ministry should take immediate action about health problems.

Policy suggestion 5.15: The Ministry should commission a study to determine the exact nature of problems experienced in schools and suggest steps that can be taken to eliminate these problems. Attention needs to be made in order to understand the health problems in schools.

What were the main behavioral problems of teachers?

The head teachers were also asked about behavioural problems associated with teachers in their schools. The results have been presented in *Table 5. 12* and *Table 5.13* below.

Table 5.12: Teacher behavioural problems (SACMEQ I)

Frequency of teacher behavioural problem	Indicating 'not a problem'	
	%	SE
Absenteeism	26.1	3.64
Sexual harassment of teachers by other teachers	66.8	3.90
Laziness	32.7	3.92

Although the question asked during SACMEQ I was different from that asked in SACMEQ II, it can be noted that in SACMEQ I, 26.1 percent of the pupils came from schools in which head teachers reported that teacher absenteeism never occurred while it was 25.9 percent of

the pupils in SACMEQ II. Although not significant, the results indicated that there was a slight increase in the incidence of teacher absenteeism.

Table 5.13: Teacher behavioural problems (SACMEQ II and III)

Frequency of teacher behavioural problem	Indicating 'never' occurs			
	SACMEQ II		SACMEQ III	
	%	SE	%	SE
Arriving late at school	4.9	1.92	0.7	0.5
Absenteeism	25.9	4.19	23.4	3.8
Skipping classes	70.0	4.16	65.1	4.4
Intimidation or bullying of pupils	66.9	4.43	62.9	4.4
Sexual harassment of teachers	93.2	2.31	86.5	3.0
Sexual harassment of pupils	83.6	3.28	83.0	3.4
Use of abusive language	62.4	4.61	60.2	4.4
Drug abuse	91.2	2.58	86.4	3.0
Alcohol abuse	69.4	4.35	68.7	4.1
Health problems	10.0	2.96	8.2	2.3

The results in *Table 5.13* indicate that teachers arriving late at school was a major problem in both SACMEQ II and SACMEQ III, with only 0.7 percent of the pupils being in schools where teachers' lateness was never a problem in SACMEQ III. The results could indicate that most teachers live far away from their working places. This was followed by health problems of teachers with only 8.2 percent of the pupils coming from schools in which the problem never occurred in 2007. Other challenging teacher related problems were absenteeism, use of abusive language, skipping classes and intimidation or bullying of pupils. The results of this analysis have indicated that there is need for a better understanding of the problems of teacher absenteeism, lateness and poor health.

Policy suggestion 5.16: The Ministry should carry out a study to examine the impact of absenteeism, lateness and health problems of teachers on the loss of contact hours and it should suggest steps to remedy this problem.

It can be noted from above that there were serious pupil behavioural problems in Malawi primary schools which need to be addressed urgently. The analysis has also showed that there were equally teacher related problems of absenteeism, lateness and poor health. All need to be looked into if the schools are to function properly.

Conclusion

The results in this chapter have showed that the average pupil in Standard 6 had a head teacher who was 45.1 years old in 2007. This was an increase from 39.8 in SACMEQ I and 41.2 in SACMEQ II. All the education divisions registered an increase in SACMEQ III. The results also indicate that the percentage of pupils in schools with female teachers decreased in SACMEQC III (12.8 percent) from 14.7 percent in SACMEQ II. This falls short of the recommended 30 percent. There were also marked variations in the distribution of female teachers among the divisions. It was also noted in SACMEQ III that the average Standard 6 pupil had a head teacher with 20 years of teaching experience. This was an improvement from a mean of 15 years in SACMEQ II. The results also indicate that a large percentage (72.5 percent) of Standard 6 pupils in SACMEQ III had head teachers who had completed senior secondary. This was again an improvement from SACMEQ II. The results indicate that in Malawi there are no strict rules for one to be a head teacher. The policy suggestion arising from this was that the Ministry should set minimum number of years of academic education as well as minimum and maximum teaching experience before teachers are appointed to become heads. Proper training and orientation is also necessary before teachers are entrusted with managing a school.

The analysis in this chapter has also showed that the schools were losing a number of school days. There were also some serious pupil behavioral problems in Malawi primary schools which need to be urgently addressed. The analysis has also showed that there were also teacher related problems of absenteeism, lateness and poor health.

Chapter 6

Levels of School Resources in Malawi Primary Schools

Introduction

The increasing numbers of pupils in schools that has resulted from the push for EFA has occurred at a pace considerably faster than the State's ability to mobilize the necessary funds to hire, train and support the required numbers of teachers, to produce or purchase textbooks and school supplies and to build and equip new institutions or maintain or develop existing ones. One of the goals of education is to ensure equity in access and participation, and equality in terms of human and material resource distribution both among divisions and schools. This is aimed at ensuring that all children of school going age have an equal opportunity for quality learning. The quality of teaching and learning that goes on in a classroom depends upon a complex array of factors ranging from teacher preparation to school environment. A teacher can only put skills acquired during training into practice if the required resources are available. In turn, pupils will be able to interact with the teacher if they have the necessary resources at their disposal and are provided with suitable learning conditions. Having achieved universal primary enrolment, one of the important goals for the ministry of education in Malawi is now to achieve equality in the provision of educational activities. The NESP identifies, among others, three key challenges to schooling: shortage of qualified primary school teachers, inadequate and inferior physical infrastructure, and inadequate teaching and learning materials, The NESP stipulates that the Ministry of Education will improve, expand and maximise the use of educational infrastructure through rapidly expanding programs to construct classrooms, school facilities and teachers' housing in difficult areas, complemented by grants to communities to provide shelters for classes which are temporarily without classrooms. This chapter assess the resourcing levels in the primary schools of Malawi. First, an attempt is made to assess the levels of essential classroom resources.

General policy concern 1:

What were the levels of Essential Classroom Resources (for example, teacher guides, textbooks and working places) in 2007 and what were the trends in these resources between 2000 and 2007?

The general policy concern was broken down into two specific research questions. The first specific research question was: What percentage of Standard 6 pupils were in schools with the following essential classroom resources in 2007 and what were the trends in these resources between 2000 and 2007?

- Teacher guide for reading; teacher guide for mathematics, dictionary, teacher table and chair. Writing board, school or class library, radio and water.
- Own reading textbook, own mathematics textbook, exercise books, pen or pencil and ruler and own sitting and writing places.

The percentage of pupils and sampling errors for the essential classroom resources for Malawi for SACMEQ II and II have been presented in *Table 6.1*.

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

	Division	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
2002	Central East	76.1	13.83	65.5	14.99	47.2	13.31	42.1	7.31	60.6	11.23	64.4	10.83	89.2	6.52	44.7	12.11	31.8	11.26	52.9	12.86	6.0	5.96	67.8	11.50
	Central West	87.6	6.21	80.0	7.62	34.7	8.85	45.7	5.27	50.0	8.76	59.0	8.29	98.0	1.98	56.2	9.05	33.0	8.69	27.4	9.43	2.2	2.25	74.1	7.96
	North	91.2	6.36	83.0	8.20	81.5	8.74	58.6	3.64	60.9	10.24	45.2	10.68	93.5	6.37	76.1	8.94	38.0	10.65	55.1	11.04	3.7	3.72	71.0	9.90
	South East	86.1	9.17	86.1	9.17	63.1	11.89	66.3	4.16	62.6	10.76	54.1	11.20	88.9	7.90	35.9	10.14	42.0	11.33	37.2	11.32	19.7	9.25	71.7	10.61
	Shire Highlands	100.0	0.00	67.0	11.24	71.5	11.35	57.5	5.45	80.3	8.55	82.5	8.12	97.1	2.92	74.7	10.88	50.4	12.10	33.2	11.57	14.5	8.09	76.8	10.72
	South West	94.4	3.93	82.7	9.31	76.4	9.52	68.6	5.44	35.5	9.91	37.9	10.14	97.6	2.41	33.1	10.05	61.0	11.07	60.9	11.41	23.3	9.68	74.9	9.95
	MALAWI	**89.0**	**3.25**	**78.3**	**4.04**	**60.0**	**4.35**	**55.5**	**2.18**	**57.0**	**4.11**	**56.5**	**4.12**	**94.5**	**1.99**	**54.0**	**4.29**	**41.5**	**4.43**	**43.2**	**4.58**	**10.4**	**2.59**	**72.8**	**4.04**
2007	Central East	73.5	10.91	71.7	10.69	57.9	11.78	70.3	6.44	30.1	9.61	22.2	8.72	84.0	9.13	46.6	11.97	14.9	8.24	18.9	10.02	8.8	6.31	60.5	11.74
	Central West	92.4	4.75	79.8	7.13	38.1	8.87	76.0	4.41	28.0	7.23	30.5	7.30	94.0	4.13	44.7	9.25	48.5	9.38	18.8	7.68	8.1	5.64	82.4	6.79
	North	81.1	7.62	71.1	8.85	66.7	9.44	71.8	3.71	16.1	6.02	22.7	7.52	83.0	8.09	60.9	9.35	34.0	9.61	12.7	6.99	16.3	7.15	84.2	7.07
	South East	77.4	10.07	67.7	11.41	49.6	12.72	71.0	6.04	29.5	12.18	30.1	12.14	78.7	9.20	68.9	10.68	35.2	11.55	20.2	10.60	24.1	10.86	75.1	10.02
	Shire Highlands	92.0	7.73	83.0	9.48	87.3	7.31	78.8	3.64	30.8	9.78	18.7	7.93	94.4	5.58	81.5	9.81	76.0	10.04	4.3	4.35	14.8	8.18	82.6	8.61
	South West	96.3	2.64	92.9	5.65	78.0	9.93	66.8	5.10	31.2	9.16	16.8	4.98	92.6	5.95	57.5	12.05	41.8	11.30	9.1	7.08	20.0	9.43	58.2	12.08
	MALAWI	**86.0**	**3.04**	**77.6**	**3.63**	**60.0**	**4.18**	**72.8**	**2.03**	**27.1**	**3.56**	**24.3**	**3.41**	**88.3**	**2.83**	**57.9**	**4.29**	**41.7**	**4.19**	**14.6**	**3.36**	**14.3**	**3.11**	**75.3**	**3.73**

It can be noted from *Table 6.1* that between SACMEQ II and III, there was a significant improvement in the provision of exercise books, pencils and rulers. This was also true all the divisions except for the South West division. In recent times, there has been a Direct Support to Schools (DSS) program so it is possible that schools are now buying these materials from these funds. There were also improvements in the percentage of pupils with sitting places, teachers with chairs, percentage of pupils in schools with a radio and water. Thus, in SACMEQ III, on average, 72.8 percent the pupils had an exercise book and pen/pencil and ruler (compared to 55.5 percent in SACMEQ II). In SACMEQQ III, there were also on average 57.9 percent of pupils with sitting and writing places compared to 54 percent in SACMEQ II, 41.7 percent of pupils with teachers who had a table and chair compared to 41.5 percent in SACMEQ II, 14.3 percent of pupils in schools with a radio compared to 10.4 percent in SACMEQ II and 75.3 percent of pupils were in schools with water compared to 72.8 percent in SACMEQ II. Although the results show an improvement the results still showed that 25 percent of the pupils were in schools without water. This continues to be a deficiency of serious concern for the Ministry of Education.

The results in *Table 6.1* show that there were decreases in the provision of resources in the areas of teachers' guides, textbooks, writing boards, and library. In SACMEQ III, 86.0 percent of the pupils had teachers with a reading teacher's guide (down from 89.0 percent in SACMEQ II), and 77.6 percent of the pupils had teachers with mathematics teacher's guide (down from 78.3 percent in SACMEQ II). The most significant decreases in provision of resources, as discussed in Chapter 3, occurred in the area of own textbooks where in SACMEQ III, only 27.1 percent of pupils had on average their own reading textbooks (down from 57 percent in SACMEQ II) and 24.3 percent of pupils had own Mathematics textbook (down from 56.5 percent in SACMEQ II). SACMEQ III was conducted at a time when the Ministry of Education had started implementing the PCAR program. It is possible that the shortage in textbooks provision in schools was triggered by the change in curriculum but if this is the reason for the shortage, it also reflects a problem in management. It was necessary that the provision of textbooks be made to pupils even if they were to switch to a new curriculum in the following years. Overall, the North division had the most significant decreases in the provision of resources between SACMEQ II and III.

The next piece of information to be presented in this section is on the desirable physical resources in terms of schools buildings and equipment and facilities. The general policy concern arising from this was: What were the levels of desirable physical resources (staff room, school hall, school fence) in 2007 and what were the trends in these resources between 2000 and 2007? The information on the percentages of pupils in schools with desirable physical resources has been presented in *Table 6.2* below.

Table 6.2: Percentages for Desirable Physical Resources for Malawi (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
Central East	35.9	11.86	27.9	10.88	27.1	10.67	0.0	0.00	46.5	12.94	18.7	8.56	96.6	3.46	38.6	13.63	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
Central West	48.8	9.75	33.7	9.21	26.9	8.90	0.0	0.00	48.2	9.73	8.0	5.04	93.1	4.81	31.3	8.93	14.9	7.11	0.0	0.00	0.0	0.00	0.0	0.00
North	36.7	10.72	41.8	10.88	35.9	10.74	4.7	4.72	70.6	10.15	27.1	9.84	100.0	0.00	8.4	5.99	4.7	4.72	0.0	0.00	0.0	0.00	0.0	0.00
South East	41.5	11.51	61.2	11.31	38.3	11.23	8.1	5.73	45.3	11.74	26.4	10.28	90.0	7.21	7.3	7.13	4.1	4.16	0.0	0.00	0.0	0.00	0.0	0.00
Shire Highlands	38.0	11.56	27.7	10.43	25.8	10.14	14.1	9.47	42.0	11.65	17.9	8.84	100.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
South West	45.5	11.49	42.0	11.45	30.8	10.57	10.4	7.13	51.8	11.79	13.1	7.46	86.2	7.85	16.1	8.68	16.2	8.74	0.0	0.00	0.0	0.00	0.0	0.00
MALAWI	**41.8**	**4.56**	**38.7**	**4.44**	**30.6**	**4.24**	**5.5**	**2.06**	**51.2**	**4.64**	**17.6**	**3.32**	**94.2**	**2.07**	**18.4**	**3.71**	**7.7**	**2.49**	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**

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
Central East	37.9	11.76	26.0	10.56	42.8	11.97	0.0	0.00	26.7	10.78	27.7	10.46	100.0	0.00	14.2	8.13	12.9	8.78	0.0	0.00	0.0	0.00	5.3	5.32
Central West	42.7	9.42	44.1	9.40	49.2	9.45	14.0	6.83	21.6	7.82	25.6	8.11	92.7	4.64	29.9	8.71	14.1	6.76	0.0	0.00	0.0	0.00	0.0	0.00
North	39.0	9.73	41.2	10.06	41.7	9.88	5.4	4.13	30.5	9.04	21.5	8.22	96.0	4.00	4.3	4.23	12.9	7.07	3.9	3.87	3.9	3.87	3.9	3.87
South East	58.8	12.71	73.1	10.59	26.5	10.90	13.1	8.81	59.0	11.88	13.0	7.80	89.2	7.45	18.9	9.50	13.2	8.88	0.0	0.00	0.0	0.00	0.0	0.00
Shire Highlands	64.3	11.54	44.9	12.05	25.2	10.25	0.0	0.00	53.0	12.02	32.1	11.33	80.3	9.24	18.2	9.77	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
South West	38.2	11.98	40.7	12.15	16.8	8.79	5.5	4.80	36.2	11.42	19.5	8.59	69.7	11.07	27.1	10.23	12.4	8.06	4.7	4.72	4.7	4.72	0.0	0.00
MALAWI	**45.6**	**4.50**	**44.2**	**4.45**	**36.3**	**4.32**	**7.1**	**2.37**	**35.1**	**4.17**	**23.6**	**3.76**	**89.2**	**2.59**	**19.3**	**3.53**	**11.5**	**3.03**	**1.4**	**0.97**	**1.4**	**0.97**	**1.5**	**1.09**

The information in *Table 6.2* shows that there were improvements in all the areas of building provision, except sports/play ground and class cupboards, between SACMEQ II and SACMEQ III. In SACMEQ III, 45.6 percent of the pupils were in schools whose head teachers rated the school building to be in good conditions. This was an improvement from 41.8 percent in SACMEQ II. In terms of school head office, the results show that although there was an improvement in the percentage of pupils whose head teachers had an office (from 38,7 percent in SACMEQ II to 44.2 percent in SACMEQ III), the fact remains that the majority of the pupils (55.8 percent) were in schools whose heads had no office. In the same vein, while there was an improvement in availability of staff rooms in schools (from 30.6 percent of pupils in schools with a staff room in SACMEQ II up to 36.3 percent in SACMEQ III), it is still disturbing that 63.7 percent of the pupils were in schools whose teachers had no staff room. There was also an improvement in the percentage of pupils in schools with a meeting hall from 5.5 percent in SACMEQ II to 7.1 percent in SACMEQ III. Overall, the provision of desirable school, buildings in Malawi primary schools falls short of the ideal.

In terms of equipment and facilities, it can be noted from *Table 6.2* that there were improvement in the provision of equipment and facilities in schools between SACMEQ II and SACMEQ III. In SACMEQ III, 23.6 percent of the pupils were in classes which had a bookshelf. This was an increase from 17.6 percent in SACMEQ II. Similarly, there were also increases in the percentage of pupils in schools with a fence (from 18.4 percent in SACMEQ II to 19.3 percent in SACMEQ III) and electricity (from 7.7 percent in SACMEQ II to 11.5 percent in SACMEQ III). It can also be noted that while there were no pupils who were in schools with televisions, photocopiers and computers in SACMEQ II, some 1.4 percent, 1.4 percent and 1.5 percent of the pupils were in schools with television, photocopier and computers respectively in SACMEQ III. Although these percentages are very low, there are positive signs that schools in Malawi are beginning to benefit from the advances in technology. There were some decreases in the provision of class cupboards (from 51.2 percent in SACMEQ II to 35.1 percent in SACMEQ III) and in the percentage of pupils in schools with a playground (from 94.2 percent in SACMEQ II to 89.2 percent in SACMEQ III). The decline in the percentage of pupils in schools with a sport/play ground should be of concern to the Ministry of Education because, research has showed that the presence of sports facilities in schools acts as an incentive for pupils to go and remain in schools.

What was the nature and provision of toilet facilities in schools?

Toilets, as part of the basic essential facilities in schools, are often a problem in many countries. The information regarding the conditions of toilets for SACMEQ I, II and III have been presented in *Table 6.3* below.

Table 6.3: Mean and sampling errors for the number of pupils per toilet (SACMEQ I, SACMEQ II and SACMEQ III)

Division	SACMEQ I		SCMEQ II		SACMEQ III	
	Mean	SE	Mean	SE	Mean	SE
North	86.1	31.70	63.8	10.83	65.65	11.72
Central East	109.3	15.38	122.1	14.97	106.95	14.22
Central West	127.9	28.45	132.4	20.01	138.81	32.89
South East	111.1	23.28	109.3	13.81	158.89	33.10
South West	153.9	21.66	138.9	26.24	168.34	22.75
Shire Highlands	118.4	35.69	94.5	10.07	136.18	19.18
Malawi	**117.8**	**11.06**	**111.6**	**7.41**	**126.34**	**10.82**

It can be seen from the above table that the provision of toilets was even more problematic in 2007 in Malawi. In general, there was an increase in the number of pupils per toilet in 2007 compared to 2002. *Table 6.3* shows that there were 126.34 pupils to a toilet in SACMEQ III while in SACMEQ II the ratio was 111.6 pupils to a toilet. This in general, indicates some deterioration in toilet provision between SACMEQ II and SACMEQ III and should be an issue of concern for the Ministry. The Central East education was unique in improving its pupil to toilet ratio between 2002 and 2007. Five of the education divisions registered an increase in the number of pupils to a toilet in SACMEQ III. This increase in the number of pupils per toilet shows a low provision of toilets in most Malawian schools. The low toilet provision in the schools could lead to high pupil absenteeism and dropout rates especially for girls. The school environment could also be prone to water borne diseases like cholera.

Policy Suggestion 6.1: The Ministry of Education Building Unit should set a minimum number of toilets per number of pupils and a mechanism for enforcing this should be devised and adhered to.

The last piece of information to be presented in this chapter is on the desirable human resources in schools. The general policy concern arising from this was: What were the levels of desirable human resources (for example female school head, teacher training, and acceptable class size) in 2007 and what were the trends in these resources between 2000 and 2007? The specific research question from this general policy concern was: What percentage of Standard 6 pupils were in schools with the following

desirable human resources in 2007? And what were the trends in these resources between 2000 and 2007?

The information on the percentage of pupils in schools with desirable human resources has been presented in *Table 6.4* below.

Table 6.4: Percentages for Desirable Human Resources for Malawi (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
Central East	22.5	13.75	41.5	12.48	100.0	0.00	××	××	41.1	12.69	48.9	13.23	30.4	11.14	××	××	38.6	12.80	61.5	13.24	51.7	13.08	92.8	5.25
Central West	12.6	6.28	77.4	7.88	91.4	8.08	××	××	30.5	9.06	22.2	7.71	39.3	9.40	××	××	36.1	9.17	27.0	8.38	19.3	6.69	90.7	4.87
North	9.6	6.97	73.4	9.98	100.0	0.00	××	××	22.9	10.06	45.4	11.12	58.0	11.04	××	××	41.6	10.99	40.4	10.85	45.0	10.93	83.9	8.78
South East	5.7	5.69	38.8	11.55	100.0	0.00	××	××	7.1	5.11	43.3	11.73	69.6	10.76	××	××	34.5	11.22	46.9	12.08	23.6	9.51	92.3	6.41
Shire Highlands	14.9	9.81	49.8	12.09	100.0	0.00	××	××	22.6	10.63	32.1	11.49	42.0	12.05	××	××	42.3	11.78	18.7	10.16	20.8	9.08	84.1	8.76
South West	25.0	10.14	74.4	9.76	100.0	0.00	××	××	57.0	11.29	20.4	9.00	69.6	10.80	××	××	33.3	11.49	47.6	11.82	17.3	7.06	83.7	8.77
MALAWI	**14.7**	**3.62**	**61.9**	**4.34**	**97.8**	**2.13**	××	××	**30.3**	**4.16**	**34.2**	**4.41**	**50.5**	**4.53**	××	××	**37.6**	**4.54**	**38.8**	**4.63**	**28.9**	**3.92**	**88.1**	**2.93**

Table 6.4 (contd): Percentages for Desirable Human Resources for Malawi (SACMEQ II and SACMEQ III)

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
Central East	6.0	5.98	71.2	11.25	53.3	11.99	33.1	10.68	27.6	10.56	42.9	11.78	75.2	9.58	44.5	11.79	33.4	11.18	53.1	11.87	24.8	8.78	70.8	10.88
Central West	11.6	5.67	74.3	8.21	55.6	9.41	67.5	8.98	39.8	9.15	62.8	8.61	84.1	6.46	68.1	8.87	37.9	8.60	29.5	8.56	18.8	6.75	88.2	5.72
North	14.3	6.94	79.5	8.01	50.0	10.10	41.6	9.90	20.0	8.19	33.9	9.58	77.4	8.16	48.6	10.10	31.4	9.43	38.8	9.56	26.4	8.22	93.4	5.07
South East	14.3	8.09	58.3	12.26	73.7	10.85	76.9	9.97	15.0	8.46	56.2	12.17	81.7	8.82	68.0	12.79	36.9	12.58	45.4	13.65	27.5	10.65	89.0	7.80
Shire Highlands	9.3	6.61	67.7	11.37	65.5	10.97	76.6	9.80	10.8	7.44	54.7	11.86	89.0	7.50	68.4	10.71	42.3	11.97	38.5	11.61	12.9	7.42	58.6	12.14
South West	22.9	10.15	84.0	10.67	56.0	12.51	92.7	7.15	31.6	10.79	69.8	10.28	71.6	11.19	62.4	12.41	25.3	10.59	10.4	5.77	14.5	8.00	80.3	10.35
MALAWI	**12.8**	**2.92**	**73.2**	**4.05**	**57.9**	**4.50**	**63.2**	**4.11**	**26.0**	**3.88**	**53.3**	**4.34**	**80.1**	**3.47**	**60.1**	**4.46**	**34.7**	**4.29**	**35.3**	**4.27**	**20.9**	**3.35**	**81.7**	**3.46**

The information in *Table 6.4* shows that in terms of human resources, there were three areas that had improved between 2000 and 2007. First as mentioned above, there was an increase in the percentage of pupils with head teachers who had attended senior secondary schooling (from 61% in 2000 to 73.2 percent in 2007). There were also increases in the percentage of pupils with reading teachers who had attended in-service training in the past three years (from 34.2 percent to 53.3 percent) as well as in the percentage of pupils with teachers who had attended 2 or more years of pre-service training (from 50.5 percent in 2000 to 80.1 percent in 2007).

However, there were decreases in the percentage of pupils in schools with female head teacher from 14.7 percent to 12.8 percent between 2000 and 2007. This decrease should be of some concern to the Ministry because it means that more and more girls are being denied the opportunity of having female head teachers as their role models. There were also decreases in the areas of the percentage of pupils in schools with head teachers who had attended a management course (from 97.8 percent in 2000 to 57.9 percent in 2007), the percentage of pupils with a female reading teacher (from 30.3 percent in 2000 to 26.0 percent in 2007) as discussed in Chapter 4, the percentage of pupils with reading teachers with acceptable subject knowledge (from 37.6 percent to 34.7 percent) and in the percentage of pupils with mathematics teachers with acceptable subject matter knowledge (from 38.8 percent to 35.3 percent). Other decreases occurred in the percentage of pupils in classes of acceptable size (from 28.9 percent to 20.9 percent) and the percentage of pupils with teachers who attended classes regularly (from 88.1 percent to 81.7 percent). The analysis showed that only 49.8 percent of the pupils were in classes that were meeting the Ministry's standard of one teacher per 60 pupils. This means that over half of the pupils in 2007 were in classes that were above the Ministry's benchmark of one teacher to 60 pupils. The significant decrease in the percentage of pupils in classes of acceptable size demonstrates the long standing problem of over-crowding in Malawi classrooms.

Policy suggestion 6.2: The Ministry should review and where necessary publish in one document benchmark standards for the educational environment that are deemed to be reasonable for the proper functioning of primary schools. The review of the Education Act needs to be urgently finalized.

Policy Suggestion 6.3: The Ministry of Education building unit should establish minimum construction standards which only allow safe, strong and child friendly school structures, and which do not need constant repair to avoid draining budgetary resources.

The evidence above has showed that while there have been some improvements in the provision of resources into Malawi primary schools, overall, resourcing levels leave a lot to be desired. Many pupils are attending schools that are ill-equipped to effectively teach them. Schools lack basic teaching and learning materials. The Ministry of Education needs to seriously think about what constitutes a school and indeed what constitutes education. It is possible that overcrowding and the poor learning environments contribute to the low efficiency of the system as illustrated by high repetition and dropouts rates. In general, schooling conditions in Malawi primary schools were very poor meaning that the system still needs massive resources to reach acceptable levels of resourcing in most schools. Even more disturbing was the indication that 24.7 percent of the pupils were in schools, which did not have safe drinking water.

Chapter 7

Reading and Mathematics Achievement Levels of Standard 6 Pupils and their Teachers

Introduction

In any system of education, probably the most important aspect is "whether or not the pupils are learning", or stated in a slightly more nuanced way "the extent to which the pupils have learned what they were meant to learn". In the earlier chapters of this report, an examination has been made of the home backgrounds of pupils, the classrooms in which they were learning, the teachers they had, and finally of the conditions of the schools they attended. But, in the end, the important question is "how well did the pupils learn"? The evidence from the above chapters has demonstrated that the overall provision of resources to schools in Malawi was very poor. What could be the impact of this low level provision of resources on the achievement levels of pupils? In this chapter, a proxy measure for learning has been examined - the pupils' and teachers' achievement in reading and mathematics measured towards the end of their time in Standard 6. For the pupils, this is in a way, the culmination of learning that has taken place up to the end of Standard 6. In this chapter, the results of the achievement levels by pupils and teachers and variations within the important sub-groups have been presented.

In order to properly structure the chapter, the following major questions have been posed and answered.

- What did the tests measure and how is this reported?
- What were the test scores in reading and mathematics and what were the differences in test scores in both reading and mathematics between gender, socio-economic level and school location subgroups?
- What percentages of pupils reached the minimum and desirable levels in reading and mathematics and what were the differences by gender, socioeconomic levels and school location?
- What percentages of pupil reached the different levels of skills in reading and mathematics and what were the differences by gender, socio-economic levels and school location?
- How did the Malawi pupils compare in achievement with pupils in other Southern and Eastern African countries?

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

2002	PUPILS				TEACHERS			
	Reading		Mathematics		Reading		Mathematics	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Central East	405.9	5.38	418.4	7.81	710.4	12.16	819.1	33.61
Central West	435.1	4.68	436.7	3.65	723.9	9.56	758.2	12.26
North	416.6	6.33	419.9	5.60	721.0	13.77	783.0	22.59
South East	438.4	5.81	434.1	4.87	705.5	19.45	768.4	21.38
Shire Highlands	429.5	4.97	436.1	4.60	716.9	20.10	745.1	20.83
South West	444.9	5.60	451.0	4.43	706.6	12.63	795.5	15.71
MALAWI	**428.9**	**2.37**	**432.9**	**2.24**	**715.4**	**5.79**	**776.0**	**8.66**

2007	PUPILS				TEACHERS			
	Reading		Mathematics		Reading		Mathematics	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Central East	430.0	7.01	449.4	8.64	725.8	13.21	808.1	21.60
Central West	435.5	4.66	448.9	5.35	715.2	10.49	735.7	21.27
North	439.7	8.61	448.4	9.66	717.4	13.42	765.5	19.26
South East	433.2	6.76	447.3	5.50	725.4	15.37	793.8	15.23
Shire Highlands	427.1	5.72	442.8	4.91	734.8	15.97	771.9	18.31
South West	431.5	3.83	442.8	4.71	708.1	17.88	722.7	13.74
MALAWI	**433.5**	**2.63**	**447.0**	**2.89**	**720.1**	**5.69**	**762.4**	**8.45**

The means of reading test scores for pupils increased from 428.9 in SACMEQ II to 433.5 in SACMEQ III but remained lower than 500, the mean for all SACMEQ II countries. In SACMEQ II the South West division had the highest mean score of 444.9 while Central East division had the lowest mean score of 405.9. In SACMEQ III the North Division had the highest mean reading score of 439.7 and Shire Highlands Division had the lowest mean reading score of 427.1.

In mathematics, the mean test score for pupils increased from 432.9 in 2000 to 447.0 in 2007 but remained below 500 as was the case in 2000. In 2000, South West division registered the highest mean

score of 451.0 while Central East division registered the lowest score of 418.4. Remarkably, in 2007 Central East division registered the highest mean score of 449.4 while the South West Division registered the lowest mean score of 442.8

For teachers the mean reading test score increased from 715.4 in 2000 to 720.1 in 2007. This score is understandably above the student mean of 500 from SACMEQ II. In SACMEQ II, teachers in Central West division had the highest mean reading score of 723.9 and South East division had the lowest score of 705.5. In SACMEQ III, teachers in Shire Highlands Division had the highest mean score of 734.8 while South West Division had the lowest mean score of 708.1.

In mathematics the mean score for teachers decreased from 776.0 in 2000 to 762.4 in 2007. Teachers in Central East division had the highest mean score of 808.1 while South West division had the lowest mean score of 722.7.

Policy suggestion number 7.1: The mean scores increased in SACMEQ III compared to scores in SACMEQ II but were still below the SACMEQ II average. The Ministry should ensure that all teachers are oriented and well versed with the PCAR. Increased support to teachers in the form of INSETs and a well thought out continuing professional development (CPD) will bring a higher quality of teaching in the classroom.

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	431.9	2.76	437.7	2.83
Girls	425.6	2.59	427.7	2.34
School location				
Rural	423.5	2.64	429.1	2.75
Urban	439.9	4.55	440.7	3.84
Socioeconomic level				
Low SES (Bottom 25%)	418.7	3.69	425.2	4.56
High SES (Top 25%)	449.6	3.85	449.1	3.21
MALAWI	**428.9**	**2.37**	**432.9**	**2.24**

	Reading		Mathematics	
2007	Mean	SE	Mean	SE
Pupil gender				
Boys	438.4	3.01	452.7	3.30
Girls	428.5	2.73	441.1	3.11
School location				
Rural	428.6	3.02	443.7	3.44
Urban	449.1	4.04	457.6	4.66
Socioeconomic level				
Low SES (Bottom 25%)	428.8	6.00	444.7	6.23
High SES (Top 25%)	449.3	3.52	454.4	3.39
MALAWI	**433.5**	**2.63**	**447.0**	**2.89**

Means for reading and mathematics test scores are disaggregated by pupil gender, school location and pupil socioeconomic status (SES) as shown in *Table 7.2*. In SACEMEQ II the mean reading score for girls was 425.6 and this increased slightly to 428.5 in SACMEQ III. The mean score for boys was 431.9 in SAMEQ II and it increased slightly to 438.4 in SACMEQIII. The mean reading scores for boys remained higher than the mean reading scores for girls in both cases.

In SACMEQ II the mean mathematics score for girls was 427.7 and increased to 441.1 in SACMEQ III. For boys the mean mathematics score in SACMEQ II was 437.7 and increased to 452.7 in SACMEQ III. The mean mathematics score for boys was higher than the mean score for girls in both cases.

Disaggregated by location, the mean reading score for pupils in rural school was 423.5 in SACMEQ II and this increased to 428.6 in SACMEQ III. The mean score for pupils in urban schools increased from 439.9 in SACMEQ II to 449.1 in SACMEQ III. In both cases the mean scores for pupils in urban schools was higher than the mean reading scores of pupils in rural schools.

Similarly the mean mathematics score for pupils in rural schools increased from 429.1 in SACMEQ II to 443.7 in SACMEQ III. The mean mathematics score for pupils in urban schools also increased from 440.7 in SACMEQ II to 457.6 in SACMEQ III. In both cases the mean mathematics scores of pupils in urban schools were higher than the mean scores of pupils in rural schools.

In terms of SES of pupils, the mean mathematics score for pupils in the bottom socioeconomic quartile increased from 425.2 in SACMEQ II to 444.7 in SACMEQ III. Similarly, the mean mathematics score for pupils in the high socioeconomic quintile increased from 449.1 in SACMEQ II to 454.4 in SACMEQ III. In both cases the mean mathematics scores for pupils coming from families with high SES were higher than those of pupils from families with low SES. However the gap was reduced between the two studies by over ten score points.

Policy suggestion number 7.2: Boys still performed better than girls in both reading and mathematics. The Ministry should improve the learning conditions in schools and in classrooms with special attention given to the needs of girls. The conditions should facilitate child centered teaching and continuous assessment as proposed by PCAR. The Ministry should also consider increasing the contact hours in classrooms between teachers and learners.

Policy suggestion number 7.3: Pupils in rural schools performed less well than pupils in urban schools. The Ministry should increase efforts to equitably distribute trained teachers, female teachers and teaching and learning materials commensurate with the population of learners to schools in all districts and Divisions.

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

		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Level 7		Level 8	
	Division	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
2002	Central East	20.9	4.05	45.0	3.65	26.4	3.52	5.2	2.42	2.1	1.03	0.4	0.40	0.0	0.00	0.0	0.00
	Central West	6.7	1.59	33.4	3.88	35.7	3.37	17.5	2.83	4.5	1.51	1.9	0.56	0.2	0.17	0.0	0.00
	North	19.1	3.32	35.0	3.57	29.7	3.24	12.0	2.66	3.3	1.11	0.5	0.52	0.3	0.33	0.0	0.00
	South East	6.7	2.24	29.1	3.66	33.2	2.67	25.2	4.43	5.1	1.12	0.8	0.58	0.0	0.00	0.0	0.00
	Shire Highlands	9.1	2.14	33.7	3.63	36.8	3.10	16.5	3.95	2.9	1.15	1.1	0.65	0.0	0.00	0.0	0.00
	South West	7.5	2.01	23.1	2.38	38.7	2.72	20.5	2.84	7.8	1.66	1.8	0.75	0.7	0.40	0.0	0.00
	MALAWI	**11.3**	**1.08**	**33.2**	**1.58**	**33.6**	**1.35**	**16.2**	**1.38**	**4.3**	**0.58**	**1.2**	**0.24**	**0.2**	**0.09**	**0.0**	**0.00**
2007	Central East	11.9	2.88	29.0	3.08	31.1	2.79	21.3	3.76	4.9	1.58	1.4	0.93	0.3	0.28	0.0	0.00
	Central West	8.5	1.38	25.8	2.97	36.8	2.30	22.5	2.52	5.1	1.70	0.6	0.35	0.6	0.31	0.0	0.00
	North	9.0	1.62	24.4	3.72	39.0	3.80	17.8	3.38	5.4	1.51	2.8	1.89	1.5	1.36	0.2	0.17
	South East	8.3	1.93	29.3	2.30	36.7	2.41	18.2	2.32	4.9	2.12	1.6	1.08	0.9	0.52	0.0	0.00
	Shire Highlands	14.5	2.82	26.2	2.53	35.1	2.87	19.0	2.21	3.1	1.10	2.1	1.12	0.0	0.00	0.0	0.00
	South West	6.9	1.38	28.6	3.23	40.7	2.13	18.6	1.96	4.7	1.29	0.3	0.26	0.3	0.26	0.0	0.00
	MALAWI	**9.7**	**0.82**	**26.9**	**1.31**	**36.7**	**1.18**	**19.9**	**1.19**	**4.8**	**0.68**	**1.4**	**0.45**	**0.6**	**0.28**	**0.0**	**0.03**

Table 7.3 shows the percentages of pupils reaching various levels of reading competence by division in SACMEQ II and SACMEQ III. In SACMEQ II the majority of pupils reached Levels 2, 3 and 4. Only 4.3 percent of the pupils reached Level 5, while 1.2 percent reached Level 6 and 0.2 percent reached Level 7. None of the divisions registered any pupils who reached Level 8. In SACMEQ III the majority of the pupils remained in Levels 2, 3 and 4 while 4.8 percent reached Level 5. 1.4 percent reached Level 6 and 0.6 percent reached Level 7. Only the North division registered pupils in Level 8 (0.2 percent) but this was insignificant at the national level.

Policy suggestion number 7.4: Pupils form low SES performed less well than pupils from the high SES. The Ministry should mobilize the support of other stakeholders such as donors, NGOs to alleviate traits of poverty which prevent poor pupils from learning as much as they should. The provision school meals, school uniforms, and educational materials and others initiatives increase the participation of pupils from low SES backgrounds in schools.

Table 7.4 Percentage of pupils reaching various mathematics competence levels by division (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
Central East	19.7	4.72	60.1	3.46	19.3	4.41	0.6	0.61	0.3	0.31	0.0	0.00	0.0	0.00	0.0	0.00
Central West	9.6	1.87	62.6	2.21	25.4	2.13	2.3	0.91	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
North	18.3	2.73	63.6	2.54	16.1	2.45	1.6	1.08	0.3	0.33	0.0	0.00	0.0	0.00	0.0	0.00
South East	12.0	1.50	64.0	3.81	21.5	3.16	2.4	1.28	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
Shire Highlands	9.7	2.59	64.9	3.40	23.7	3.21	1.7	0.83	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
South West	6.1	1.58	55.6	3.14	34.4	3.77	3.5	1.02	0.5	0.46	0.0	0.00	0.0	0.00	0.0	0.00
MALAWI	**12.4**	**1.16**	**61.9**	**1.22**	**23.5**	**1.32**	**2.1**	**0.41**	**0.2**	**0.10**	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**

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
Central East	8.8	1.49	48.2	5.47	33.0	3.79	8.1	2.84	1.7	0.74	0.3	0.32	0.0	0.00	0.0	0.00
Central West	9.2	1.67	48.2	2.75	33.5	2.17	8.2	1.87	0.8	0.42	0.1	0.09	0.0	0.00	0.0	0.00
North	10.5	1.70	51.0	4.12	27.1	3.34	6.2	2.02	3.5	2.90	1.6	0.98	0.2	0.24	0.0	0.00
South East	6.2	1.24	54.7	2.90	32.1	2.25	5.8	1.43	1.0	0.53	0.3	0.29	0.0	0.00	0.0	0.00
Shire Highlands	7.5	2.37	55.3	2.97	32.1	2.24	4.9	1.26	0.2	0.19	0.0	0.00	0.0	0.00	0.0	0.00
South West	8.0	1.91	53.8	3.08	33.1	3.54	4.9	1.07	0.3	0.26	0.0	0.00	0.0	0.00	0.0	0.00
MALAWI	**8.6**	**0.74**	**51.3**	**1.51**	**31.8**	**1.20**	**6.6**	**0.81**	**1.3**	**0.58**	**0.4**	**0.20**	**0.0**	**0.04**	**0.0**	**0.00**

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	11.4	1.27	31.1	1.83	33.0	1.47	17.3	1.72	5.2	0.78	1.6	0.38	0.4	0.17	0.0	0.00
Girls	11.3	1.25	35.4	1.97	34.2	1.80	15.0	1.73	3.4	0.68	0.7	0.30	0.1	0.06	0.0	0.00
School location																
Rural	12.0	1.35	35.5	1.88	34.7	1.62	14.3	1.77	2.8	0.56	0.5	0.21	0.1	0.09	0.0	0.00
Urban	10.0	1.84	28.4	2.78	31.3	2.32	20.0	2.00	7.5	1.31	2.4	0.58	0.4	0.22	0.0	0.00
Socioeconomic level																
Low SES (Bottom 25%)	14.9	2.28	37.3	2.96	31.9	2.31	13.4	2.61	2.0	0.69	0.3	0.31	0.3	0.23	0.0	0.00
High SES (Top 25%)	6.2	1.24	21.9	2.50	36.0	2.05	23.2	1.94	9.3	1.46	3.0	0.67	0.4	0.24	0.0	0.00
MALAWI	**11.3**	**1.08**	**33.2**	**1.58**	**33.6**	**1.35**	**16.2**	**1.38**	**4.3**	**0.58**	**1.2**	**0.24**	**0.2**	**0.09**	**0.0**	**0.00**
2007	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Pupil gender																
Boys	10.2	1.19	23.4	1.62	35.1	1.47	22.7	1.46	5.8	0.84	2.0	0.58	0.8	0.29	0.0	0.00
Girls	9.1	0.96	30.6	1.60	38.3	1.46	16.9	1.42	3.7	0.80	0.8	0.40	0.5	0.34	0.1	0.07
School location																
Rural	10.9	0.99	29.8	1.46	36.3	1.36	18.0	1.34	3.3	0.70	1.2	0.53	0.6	0.35	0.0	0.04
Urban	5.8	0.97	17.8	2.03	37.9	2.53	26.0	2.07	9.6	1.32	2.0	0.75	0.9	0.33	0.0	0.00
Socioeconomic level																
Low SES (Bottom 25%)	12.5	1.55	29.7	2.58	34.0	2.50	17.6	2.23	3.1	0.88	1.8	1.32	1.2	1.15	0.0	0.00
High SES (Top 25%)	6.3	1.29	21.0	1.88	34.7	2.16	23.9	1.74	10.8	1.75	2.2	0.69	1.1	0.46	0.0	0.00
MALAWI	**9.7**	**0.82**	**26.9**	**1.31**	**36.7**	**1.18**	**19.9**	**1.19**	**4.8**	**0.68**	**1.4**	**0.45**	**0.6**	**0.28**	**0.0**	**0.03**

Table 7.4 shows the percentages of pupils reaching various levels of competence in mathematics in the six divisions. In SACMEQ II the majority of pupils reached Levels 2 and 3. The national figure at Level 4 was 2.1 percent and 0.2 percent at Level 5. None of the divisions registered any pupils reaching Levels 6, 7 or 8 in SACMEQ II. In SACMEQ III the majority of pupils still remained at Levels 2 and 3 but registered increases in Levels 4 and 5 and also registered pupils reaching Level 6. The North division had 1.6 percent of pupils reaching Level 6 while Shire Highlands and South West divisions had 0.0 percent of pupils reaching Level 6. In SACMEQ III there were still insignificant percentages of pupils reaching Levels 7 and 8 in mathematics competence in some divisions.

Table 7.5 shows the percentages of pupils reaching various levels of reading competence disaggregated by gender, school location and by SES. In SACMEQ II 1.6 percent of boys reached Level 6 and 0.4 percent reached Level 7. For girls 0.7 percent reached Level 6 and 0.1 percent reached Level 7. The percentages increased in SACMEQ III. For boys 2.0 percent reached Level 6 and 0.8 percent reached Level 7. In the case of girls 0.8 percent reached Level 6 and 0.5 percent reached Level 7 and noteworthy is that 0.1 percent reached Level 8. In both SACMEQ II and SACMEQ III the percentages of boys reaching Levels 4, 5, 6 and 7 were always higher than percentages of girls except in the case of 0.1 percent of girls reaching Level 8 in SACMEQ III.

In terms of school location the percentages of pupils in urban schools reaching Levels 4, 5, 6 and 7 were higher than the percentages of pupils in rural schools both in SACMEQ II and SACMEQ III. In SACMEQ II 20.0 percent of pupils in urban schools were at Level 4, 7.5 percent were at level 5, 2.4 percent were at Level 6 and 0.4 percent were at Level 7 while 2.8 percent of pupils in rural schools were at Level 5, 0.5 percent were at Level 6 and 0.1 percent were at Level 7. In SACMEQ III for pupils in urban school, 9.6 percent were at Level 5, 2.0 percent were at Level 6 and 0.9 percent were at Level 7. In rural schools 18.0 percent were at Level 4, 3.3 percent were at Level 5, 1.2 percent were at Level 6 and 0.6 percent were at Level 7. Greater percentages of pupils in urban schools reached the upper levels of reading competence than pupils in rural schools.

In the case of SES, higher percentages of pupils in the high socioeconomic group than pupils in the low SES group had reached Levels 3 to 7 in SACMEQ II. Higher percentages of pupils in the high socioeconomic group than pupils in the low SES group reached Levels 3 to 7 in SACMEQ III except for Level 7 where 1.2 percent of pupils in the low SES group and 1.1 percent of pupils in the high SES

group reached the level. Higher percentages of pupils in the low SES group than in the high SES group reached Levels 1 and 2.

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	11.2	1.35	58.6	1.62	27.3	1.75	2.8	0.65	0.2	0.14	0.0	0.00	0.0	0.00	0.0	0.00
Girls	13.7	1.43	65.4	1.67	19.4	1.51	1.3	0.39	0.1	0.15	0.0	0.00	0.0	0.00	0.0	0.00
School location																
Rural	13.8	1.52	63.0	1.48	21.6	1.68	1.5	0.41	0.1	0.11	0.0	0.00	0.0	0.00	0.0	0.00
Urban	9.4	1.65	59.5	2.33	27.5	2.17	3.3	0.92	0.2	0.22	0.0	0.00	0.0	0.00	0.0	0.00
Socioeconomic level																
Low SES (Bottom 25%)	16.9	3.11	60.1	2.87	21.4	2.39	1.3	0.69	0.4	0.28	0.0	0.00	0.0	0.00	0.0	0.00
High SES (Top 25%)	5.6	1.05	59.6	2.45	30.8	2.08	3.9	1.02	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
MALAWI	**12.4**	**1.16**	**61.9**	**1.22**	**23.5**	**1.32**	**2.1**	**0.41**	**0.2**	**0.10**	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**

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	8.7	0.89	46.8	1.73	34.3	1.52	8.0	1.04	1.6	0.48	0.5	0.28	0.1	0.09	0.0	0.00
Girls	8.5	0.93	55.9	2.06	29.2	1.73	5.1	0.84	1.0	0.73	0.3	0.14	0.0	0.00	0.0	0.00
School location																
Rural	9.3	0.86	53.3	1.76	30.1	1.39	5.3	0.93	1.4	0.75	0.5	0.25	0.1	0.06	0.0	0.00
Urban	6.4	1.39	44.7	2.53	37.2	2.17	10.6	1.32	1.0	0.34	0.2	0.18	0.0	0.00	0.0	0.00
Socioeconomic level																
Low SES (Bottom 25%)	11.3	1.48	51.2	2.93	29.3	2.48	4.1	0.96	3.0	2.03	1.1	0.70	0.0	0.00	0.0	0.00
High SES (Top 25%)	6.1	1.06	49.2	2.69	34.2	2.49	8.8	1.32	1.7	0.54	0.0	0.00	0.0	0.00	0.0	0.00
MALAWI	**8.6**	**0.74**	**51.3**	**1.51**	**31.8**	**1.20**	**6.6**	**0.81**	**1.3**	**0.58**	**0.4**	**0.20**	**0.0**	**0.04**	**0.0**	**0.00**

Table 7.6 shows the percentages of pupils reaching various levels of competence in mathematics in SACMEQ II and III by gender, school location and SES. When disaggregated by gender 0.2 percent of boys and 0.1 percent of girls reached Level 5 which was the highest level reached in SACMEQ II. Greater percentages of boys than girls reached levels 3 and 4 while greater percentages of girls were located in the lower Levels 1 and 2. In SACMEQ III, 0.1 percent boys and 0.0 percent girls reached level 7 which was the highest level reached. From Level 3 to Level 7 the percentages of boys were slightly greater than the percentages of girls.

In the case of mathematics competence according to school location, the highest level reached in SACMEQ II was Level 5. Slightly higher percentages of pupils in urban schools than in rural schools reached levels 3, 4 and 5. As shown in *Table 7.6*, 27.5 percent of pupils in urban schools and 21.6 percent of pupils in rural schools reached Level 3, 3.3 percent of pupils in urban schools and 1.5 percent of pupils in rural schools reached Level 4 and 0.2 percent of urban pupils and 0.1 percent of rural pupils reached Level 5. In contrast, the highest level reached in SACMEQ III was Level 7 and percentages of rural pupils were higher than those of urban pupils in Levels 5, 6 and 7. As shown in the table, 1.4 percent of rural pupils and 1.0 percent of urban pupils reached Level 5, 0.5 percent of rural pupils and 0.2 percent of urban pupils reached Level 6 and 0.1 percent of rural pupils and 0.0 percent of urban pupils reached Level 7.

In terms of SES the highest levels reached by pupils were attained by pupils from families of low SES in both SACMEQ II and III. In SACMEQ II, 0.4 percent of pupils in low SES families and 0.0 percent of pupils in high SES families reached Level 5 which was the highest level reached. In SACMEQ III, 3.0 percent of pupils from low SES families and 1.7 percent of pupils in high SES families reached Level 5 and 1.1 percent of pupils in low SES families and 0 percent of pupils in high SES families reached Level 6 which was the highest level attained in this group. However higher percentages of pupils in the high SES group reached Levels 3 and 4 than pupils in the low SES group.

Table 7.7 Percentage of teachers reaching various reading competence levels by division (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
Central East	0.0	0.00	0.0	0.00	0.0	0.00	2.8	2.88	0.0	0.00	3.5	3.57	34.1	13.92	59.7	13.72
Central West	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	4.0	3.99	41.7	9.83	54.2	9.83
North	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	5.9	5.83	30.8	10.43	63.3	10.91
South East	0.0	0.00	0.0	0.00	0.0	0.00	7.3	7.13	0.0	0.00	0.0	0.00	24.5	9.99	68.2	11.14
Shire Highlands	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	2.4	2.43	0.0	0.00	50.1	11.75	47.6	11.78
South West	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	4.0	4.05	5.0	5.04	32.1	10.75	58.9	11.41
MALAWI	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**	**1.4**	**1.12**	**0.9**	**0.67**	**3.3**	**1.71**	**35.9**	**4.56**	**58.4**	**4.66**

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
Central East	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	24.9	10.20	75.1	10.20
Central West	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	6.8	5.04	35.1	8.23	58.2	8.63
North	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	10.2	6.26	19.7	7.73	70.2	9.04
South East	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	4.4	4.43	34.6	11.81	61.1	12.22
Shire Highlands	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	31.6	11.23	68.4	11.23
South West	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	10.4	7.27	34.1	10.92	55.5	11.55
MALAWI	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**	**5.7**	**2.12**	**29.9**	**3.99**	**64.4**	**4.19**

Table 7.7 shows the percentages of teachers reaching various levels of reading competence in SACMEQ II and III according to educational division. The highest level attained was Level 8 in both cases. In SACMEQ II 2.8 percent of teachers in the Central East division and 7.3 percent of teachers in the South East division reached Level 4 which was the lowest level registered. Nationally 58.4 percent of pupils had teachers who reached Level 8. The same South East division had the highest percentage of 68.2 percent of teachers reaching Level 8 while Shire Highlands had the lowest percentage of 47.6 percent reaching Level 8.

In SACMEQ III 64.4 percent of teachers nationally reached Level 8 which was an increase compared to SACMEQ II. In addition, the lowest level of attainment was 6 in SACMEQ III compared to Level 4 in SACMEQ II. Central Eastern division had the highest percentage of 75.1 of teachers who reached Level 8 while South West division had the lowest percentage of 55.5 of teachers reaching Level 8.

Table 7.8 Percentage of teachers reaching various mathematics competence levels by division (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
Central East	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	8.5	6.70	9.0	6.83	34.7	12.98	47.8	15.06
Central West	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	9.6	5.66	7.4	4.79	68.0	9.12	15.1	6.89
North	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	18.2	9.48	0.0	0.00	48.2	11.06	33.6	10.55
South East	0.0	0.00	0.0	0.00	0.0	0.00	6.9	6.78	0.0	0.00	17.9	8.72	46.6	12.02	28.6	11.34
Shire Highlands	0.0	0.00	0.0	0.00	0.0	0.00	6.3	4.69	0.0	0.00	22.6	10.67	52.4	12.71	18.7	10.16
South West	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	12.6	7.19	44.8	11.69	42.7	11.81
MALAWI	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**	**1.8**	**1.15**	**6.9**	**2.49**	**10.5**	**2.66**	**51.3**	**4.77**	**29.4**	**4.46**

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
Central East	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	4.2	4.21	11.9	7.16	30.8	10.65	53.1	11.87
Central West	0.0	0.00	0.0	0.00	0.0	0.00	8.2	4.97	23.7	7.83	10.6	5.52	32.3	8.49	25.2	8.22
North	0.0	0.00	0.0	0.00	0.0	0.00	2.6	2.62	12.7	7.01	13.1	6.63	46.7	9.87	25.0	8.62
South East	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	12.2	7.14	48.5	13.44	39.3	13.86
Shire Highlands	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	27.8	10.95	49.0	12.00	23.2	10.09
South West	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	20.6	9.48	28.9	11.01	47.9	12.18	2.6	1.80
MALAWI	**0.0**	**0.00**	**0.0**	**0.00**	**0.0**	**0.00**	**2.7**	**1.41**	**12.2**	**2.86**	**16.3**	**3.22**	**41.2**	**4.39**	**27.7**	**4.04**

Table 7.8 shows the percentages of teachers reaching various levels of competence in mathematics in SACMEQ II and III in the six educational divisions. In SACMEQ II teachers reached competence levels from Level 4 to Level 8. Overall, 29.4 percent of the teachers reached Level 8. South East and Shire Highlands divisions had 6.9 percent and 6.3 percent of teachers respectively who only reached Level 4. Central East had the highest percentage of 47.8 of teachers who reached Level 8 and Central West had the lowest percentage of 15.1 of teachers who reached Level 8.

In SACMEQ III teachers reached competence levels 4 to 8. Overall 27.7 percent of teachers reached Level 8 which was a decrease compared to SACMEQ II. Again Central East had the highest percentage of 53.1 of teachers who reached Level 8 while South West had 2.6 percent of teachers who reached Level 8 and was the lowest division at this level.

Table 7.9 Percentage of pupils and teachers with acceptable (at least competence Level 4) reading skills by division (SACMEQ II and SACMEQ III)

	PUPILS				TEACHERS			
	2000		2007		2000		2007	
	%	SE	%	SE	%	SE	%	SE
Central East	7.7	3.33	27.9	5.30	100.0	0.00	100.0	0.00
Central West	24.2	3.41	28.8	3.96	100.0	0.00	100.0	0.00
North	16.2	3.93	27.6	5.53	100.0	0.00	100.0	0.00
South East	31.0	5.42	25.6	4.50	100.0	0.00	100.0	0.00
Shire Highlands	20.4	4.60	24.2	3.55	100.0	0.00	100.0	0.00
South West	30.7	4.39	23.8	2.60	100.0	0.00	100.0	0.00
MALAWI	**21.9**	**1.78**	**26.7**	**1.87**	**100.0**	**0.00**	**100.0**	**0.00**

The percentage of pupils reaching acceptable (at least competence Level 4) reading skills increased slightly from 21.9 percent in 2000 to 26.7 percent in 2007. This still represents a small minority of pupils reaching acceptable levels of reading. This means that 73.3 percent of the pupils in Malawi did not acquire acceptable reading skills even by Standard 6.

The percentages of pupils with acceptable reading skills in 2000 were spread from 7.7 percent in the Central East division to 31.0 percent in the South East division. In 2007 the percentages of pupils

increased in the divisions which had registered low percentages in 2000 and decreased in the divisions which had registered higher percentages in 2000. The range of percentages of pupils with acceptable reading skills in 2007 was from 23.8 percent in South West division to 28.8 percent in Central West division.

In the case of teachers, 100 percent had acceptable reading skills in all the divisions during both SACMEQ II and SACMEQ III.

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

	2002		2007	
	%	SE	%	SE
Pupil gender				
Boys	24.5	2.14	31.3	2.15
Girls	19.1	2.08	22.0	2.01
School location				
Rural	17.8	2.08	23.1	2.08
Urban	30.3	3.11	38.5	3.08
Socioeconomic level				
Low SES (Bottom 25%)	16.0	3.06	23.8	3.39
High SES (Top 25%)	35.9	2.87	38.0	2.46
MALAWI	**21.9**	**1.78**	**26.7**	**1.87**

Disaggregated by gender, the percentage of boys with acceptable reading skills increased from 24.5 percent in 2000 to 31.3 percent in 2007. The percentage of girls also increased from 19.1 percent in 2000 to 22.0 percent in 2007. Significantly greater percentages of boys than girls acquired acceptable reading skills and this gap increased between SACMEQ II and SACMEQ III.

In terms of school location, the percentages of pupils, in both rural areas and in urban areas, reaching at least Level 4 in reading increased in 2007 compared to 2000. In rural areas the increase was from 17.8 percent to 23.1 percent and in urban areas the increase was from 30.3 percent to 38.5 percent. These

figures indicate that greater percentages of pupils in urban areas had acceptable reading skills than pupils in rural areas.

Grouping pupils by SES, the percentages of pupils in the lowest and high SES who acquired acceptable reading skills increased in 2007 compared to 2000. The percentage of pupils in the low SES increased from 16.0 percent to 23.8 percent while the percentage of pupils in the highest socioeconomic quintile increased from 35.9 percent to 38.0 percent. These figures show that greater percentages of pupils with high SES had acquired acceptable reading skills than those with low SES but that the gap had reduced over time.

CONCLUSION:

There was a marked improvement in the mean test scores of pupils in both reading and mathematics but these remained below the SACMEQ II means. Pupils' reading competence remained concentrated in the lower levels with very small minorities reaching the middle levels and insignificant percentages reaching the highest levels. It is apparent that reading was still a major problem in schools. Mathematics remained a problem to pupils with a tiny minority reaching the middle competence levels and none reaching the upper levels. The performance of girls trailed that of boys as was the case in SACMEQ II. Little progress was noted from the effort to reduce the gender gap in performance. This suggests that more still needs to be done to address girls' achievement in school. Pupils in rural schools continued to perform less well than pupils in urban schools but there was evidence that given the right mix of resources and motivation pupils in rural schools can do as well as, or even better than, pupils in urban schools. This was also the case with pupils from low SES backgrounds. The overall mean scores of pupils from low SES pupils remained lower than that of pupils with high SES but there was a greater percentage of low SES pupils in the higher levels of competence than high SES pupils. There is an opportunity for the system to improve the participation and performance of marginalized pupils and research to find out which marginalized children reach high competence levels would shed light on what conditions bring about positive responses.

Chapter 8

HIV and AIDS Knowledge Levels and Attitudes of Pupils and Teachers

Introduction

The youth in Malawi, like in many parts of the developing world, are grappling with many challenges including drug and substance abuse, environmental degradation, rapid urbanization and globalization, lack of opportunities, and poverty. These and the HIV/AIDS pandemic have adverse effects on the young people's growth and development. AIDS is a major social and public health problem that has generated a major humanitarian crisis especially in the Southern African region. The HIV and AIDS epidemic has reduced life expectancy, weakened people's livelihood systems and increased poverty and vulnerability for all people, especially children. While the HIV prevalence is less than 1.0 percent in most parts of the world, Sub-Saharan Africa has the highest HIV prevalence of 6.1 percent.

However, it is also estimated that globally the number of HIV infections per annum have slightly declined from 3 million in 2001 to 2.7 million in 2007 (UNAIDS, 2008). Young people aged 15–24 years are one-fifth of the population of Sub-Saharan Africa, and their state of health has significant implications for the future of individual countries and for the region as a whole. The epidemic among young people in Sub Saharan Africa is heavily biased towards young women. In Malawi, for example, for the first time in 2004 the DHS had a module on HIV testing. HIV prevalence among persons aged 15-49 years was estimated at 11.8 percent. Prevalence was higher among women at 13.3 percent compared to men at 10.2 percent (National Statistical Office, 2005). The 2005 sentinel surveillance survey also showed that females aged 15-24 years accounted for 24 percent of all new infections while males only accounted for 9 percent (National Statistical Office, 2005).

In the 2004 DHS, it was also found that overall 22.4 percent of the persons aged 15-49 had comprehensive knowledge about HIV and AIDS and that the higher the educational level and wealth the higher the comprehensive knowledge. Comprehensive knowledge about HIV and AIDS was higher among males (38.6 percent) than females (22.4 percent). One would therefore expect that HIV prevalence would be lower among females with higher educational qualifications and those from wealthier families than those with low educational qualifications and from poorer families. The contradictions, as evidenced in the DHS data, point to the fact that there are many more issues that are not understood as far as the vulnerability of young females to HIV infection is concerned. While HIV prevalence is very low among females aged 15-17 at 1.3 percent, HIV prevalence actually increases 5

times in the 18-19 age group. The determinants that are contributing to such a scenario among females are not clearly understood.

Since the first case of AIDS was reported in 1985, Malawi has implemented many projects and activities (including life skills in schools) in response to the pandemic. Thus, the scourge of HIV/AIDS and the desire to contain the pandemic, particularly among the youth using innovative AIDS pedagogy motivated the push for introducing life skills education (LSE) in schools. In the current PCAR program, life skills have been integrated in almost all subjects taught at the primary school level. Life skills are the abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life. They can be part of the formal school curriculum covering all Standards or indeed can include out of school institutions. The aim is to achieve a healthy psychosocial development of the child. Research indicates that most countries have found LSE to be an effective way of dealing with the myriad of problems besetting the youth such as STDs and HIV/AIDS, juvenile delinquency, drug and substance abuse, gender intolerance, violence and many more. It was therefore befitting of the SACMEQ III to include the assessment of the HIV and AIDS knowledge levels of the pupils and their teachers. The assessment was guided by three main research questions as follows:

- What are the pupils and teachers knowledge levels on HIV and AIDS by division, gender, SES and school location?
- What attitudes about HIV and AIDS did pupils and teachers hold?
- What were the risk perceptions about HIV and AIDS of pupils and teachers?

What are the pupils and teachers Knowledge levels on HIV and AIDS by division, gender, SES and school location?

In SACMEQ III, both pupils and teachers were given an 86 item test geared at assessing their HIV and AIDS knowledge levels. The mean performance on the HIV/AIDS Knowledge Test (HAKT) of pupils and teachers and percentages of pupils and teachers reaching the minimum and desirable levels of knowledge about HIV and AIDS have been presented in *Table 8.1*.

Table 8. 1: Mean performance on the HAKT of pupils and teachers and percentages of pupils and teachers reaching the minimum and desirable levels of knowledge about HIV and AIDS

	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
Central East	498.1	14.80	34.3	6.93	7.0	3.04	723.4	33.03	100.0	0.00	62.8	12.22
Central West	538.1	10.69	54.7	5.10	10.4	2.60	707.0	23.47	95.9	4.12	63.4	8.99
North	451.0	12.03	17.8	4.97	2.8	1.32	726.7	19.31	100.0	0.00	74.4	8.69
South East	594.6	6.98	79.6	3.01	24.1	3.13	721.0	18.80	100.0	0.00	83.3	8.21
Shire Highlands	537.8	13.64	59.3	6.46	9.5	2.58	723.5	16.19	100.0	0.00	88.3	8.37
South West	455.1	9.82	15.8	3.84	0.7	0.53	681.1	17.22	100.0	0.00	65.7	10.72
MALAWI	**511.5**	**5.19**	**43.2**	**2.36**	**8.8**	**1.04**	**713.7**	**9.48**	**98.9**	**1.07**	**71.6**	**4.02**

It can be noted from *Table 8.1* that Malawian pupils achieved above 511.5. The division with highest score was South East division at 594.6 and the lowest was the North division at 451.0. It can also be noted that, although Malawian pupils performed above the 511.5, less than half (43.2 percent) reached the minimum levels of mastery and only 8.8 percent reached the desirable level of mastery. Thus, many pupils were not performing as expected by life skills curriculum designers in Malawi. There were variations between divisions in reaching minimum & desirable levels (i.e. only 15.8 percent in South West compared to 79.6 in South East reached the minimum levels). Overall, this shows worrying results with vast majority (91.2 percent) of pupils failing to reach the desirable level of knowledge.

It can be noted that teachers' performance was very good. Teachers in general demonstrated high levels of mastery of HIV/AIDS knowledge and there were also very little variations among the divisions in the performance of the teachers. The majority (89.9 percent) of the teachers reached the minimum level of mastery of HIV and AIDS knowledge while 71.6 percent reached the desirable level.

The HIV and AIDS knowledge levels of the pupils was also assessed by gender. The results of the analysis has been presented in *Table 8.2* below.

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
Central East	513.1	18.97	480.6	14.49	39.3	8.38	28.4	6.55	8.4	4.26	5.3	2.18
Central West	548.0	11.44	527.8	11.49	59.3	5.44	49.9	5.74	11.1	2.90	9.8	3.03
North	456.0	12.99	445.7	12.05	18.9	5.27	16.7	4.92	3.6	1.67	1.9	1.11
South East	607.6	7.67	580.2	10.52	83.5	2.85	75.2	4.34	30.4	3.76	17.3	4.29
Shire Highlands	553.4	13.37	523.1	15.30	67.5	6.32	51.7	7.52	12.0	3.18	7.2	2.50
South West	465.4	9.73	445.8	11.89	18.6	4.73	13.3	3.61	1.3	0.92	0.3	0.26
MALAWI	**523.1**	**5.77**	**499.5**	**5.61**	**47.5**	**2.62**	**38.6**	**2.52**	**10.7**	**1.26**	**6.8**	**1.11**

It can be noted from *Table 8.2* that overall, boys had higher mean scores than girls and this was true for all the divisions. However boys in the North and South West divisions were below the 511.5 while in three Divisions, girls were below the 511.5 mean. It can also be noted that pupils from the South East division outperformed all the other pupils from the other divisions. In fact even the mean score of girls from the South East division was higher than the mean scores of boys from the other divisions. This is a division which has benefited from a number of HIV related projects and it is possible that these are having a positive effect on the pupils' knowledge of HIV and AIDS. It can also be noted that more boys than girls reached both the minimum and desirable levels. Again by far, more pupils from the South East division reached the minimum and desirable levels. Pupils from the South West division consistently performed lower than pupils from the other divisions.

The knowledge levels of the pupils were also assessed by their socio-economic status. The mean performance of the pupils by their socio-economic status have been presented in Table 8.3 below.

Table 8.3 Mean performance on the HAKT of pupils by SES

	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
Central East	476.6	19.99	515.9	20.39	28.0	8.10	37.7	8.35	4.6	4.06	10.8	4.87
Central West	542.5	11.20	513.8	19.10	59.1	6.51	40.4	9.19	11.3	3.34	7.2	3.65
North	451.6	30.40	485.6	15.41	18.8	13.38	30.5	9.61	3.9	2.98	0.9	0.93
South East	597.0	15.61	610.9	7.58	81.5	5.87	91.1	3.52	22.3	7.86	19.8	4.64
Shire Highlands	547.8	26.96	548.0	15.72	61.6	12.20	66.1	9.94	13.8	9.24	4.9	3.00
South West	431.1	13.67	474.1	11.18	8.8	5.02	21.2	5.40	0.0	0.00	1.3	0.98
MALAWI	**512.0**	**8.59**	**515.7**	**7.25**	**44.9**	**3.89**	**42.8**	**3.80**	**9.4**	**2.03**	**6.7**	**1.36**

It can be noted from the table that in general, high SES pupils scored higher than those from the low SES. However in Central West low SES pupils scored more than the high SES. It can also be noted that in one division, South West there were no pupils who reached the desirable level from the low SES and only 4 percent from the North division reached the desirable level from the low SES. Further, only 0.9 percent of the high SES pupils in North reached the desired level. The information in the table also shows that more pupils from low SES (9.4 percent) compared to 6.7 percent from the high socio-economic status reached the desirable level. There were more pupils from the low socio-economic status than from the high socio-economic status in Central West, South East and Shire Highlands division who reached the desirable levels of mastery.

The analysis on the knowledge levels of the pupils was also extended to the location of the schools. The mean performance on the HIV and AIDS knowledge of the pupils by location as well as the percentages and sampling errors of pupils reaching the minimum and desirable levels of mastery have been presented in *Table 8.4* below.

Table 8.4 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
Central East	499.5	17.26	491.2	31.33	35.9	8.09	26.9	13.16	7.3	3.64	5.6	4.50
Central West	553.1	11.87	496.9	17.73	62.5	5.47	33.4	8.76	12.8	3.32	4.0	2.75
North	437.5	13.65	488.2	22.45	12.9	5.61	31.4	10.33	2.9	1.63	2.3	2.53
South East	593.3	8.47	600.7	2.56	77.5	3.32	89.6	4.81	25.6	3.58	17.1	5.58
Shire Highlands	536.7	14.78	548.2	62.13	58.4	6.76	68.5	40.64	10.2	2.82	2.8	3.21
South West	441.2	12.65	474.5	13.38	12.6	4.52	20.3	6.96	0.0	0.00	1.8	1.35
MALAWI	**514.6**	**6.61**	**501.4**	**9.94**	**45.3**	**2.92**	**36.2**	**5.19**	**10.1**	**1.34**	**4.4**	**1.28**

The information in *Table 8.4* shows that overall; pupils from the rural areas outperformed their urban counterparts despite there being only two divisions where rural pupils' mean score was higher than that of urban pupils. Rural pupils also performed better in reaching the minimum and desirable levels. While it would have been expected that urban pupils would have more knowledge of HIV and AIDS, it is not known why the reverse is true on a national level. In South West, no pupils from the rural areas reached the desirable levels. In fact rural pupils from South West consistently performed lower than their urban counterparts. There is a need to focus interventions in the South West division.

This section presents the results of the analysis on the knowledge levels of teachers by their sex. The mean performance on the HIV and AIDS knowledge of teachers by gender have been presented in *Table 8.5*.

Table 8.5 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
Central East	744.8	43.41	667.0	30.65	100.0	0.00	100.0	0.00	67.5	14.35	50.5	27.28
Central West	727.9	35.34	675.2	24.38	100.0	0.00	89.7	10.64	64.4	11.92	61.9	14.91
North	730.0	22.58	713.7	44.17	100.0	0.00	100.0	0.00	79.7	9.48	53.3	24.81
South East	730.0	18.84	669.8	90.56	100.0	0.00	100.0	0.00	85.9	8.13	68.2	41.06
Shire Highlands	723.8	18.26	720.7	21.52	100.0	0.00	100.0	0.00	86.9	9.38	100.0	0.00
South West	669.2	15.97	706.7	47.35	100.0	0.00	100.0	0.00	65.5	14.70	65.9	16.87
MALAWI	**723.1**	**11.55**	**686.9**	**14.81**	**100.0**	**0.00**	**95.9**	**4.17**	**75.0**	**4.60**	**62.1**	**8.43**

It can be noted from *Table 8.5* that overall, male teachers scored higher than female teachers. Further, pupils from all the divisions had male teachers who reached the minimum levels of mastery on HIV and IDS knowledge. There was no division that had pupils with all male teachers reaching the desired level. The Shire Highlands division had pupils with all female teachers who had reached the desirable level of mastery of HIV and AIDS knowledge.

In summarizing the results on the HIV and AIDS knowledge levels of pupils and teachers, it was noted that Malawian pupils achieved above the SACMEQ III mean on HIV and AIDS knowledge test. There were, however, variations among divisions in achievement levels and boys consistently outperformed girls. Less than half of the pupils reached the minimum level of mastery while very few reached the desirable level. Overall, pupils from high socio-economic status performed higher than those from low socio-economic status but there were more pupils from the low socio-economic status who reached the desirable level of mastery. By contrast, pupils from the rural area had a higher mean than their urban counterparts. The performance of teachers was much better. Overall, male teachers had a higher mean than their female counterparts.

What Attitudes about HIV and AIDS do pupils and teachers hold?

The HIV and AIDS knowledge test included an assessment of the stigma and discrimination among the pupils and teacher. The percentages of pupils, teachers and school heads expressing fear of casual contact with a pupil infected with HIV *(stigma)* have been presented in *Table 8.6* below.

It can be noted from the *Table 8.6* that overall, 83.9 percent of the pupils had positive attitudes towards fellow pupils who were infected. The results also show that 99.1 percent of the pupils had teachers and all the pupils had Head teachers who had a positive attitude. However, there were some 18.2 percent of pupils in the North Division who expressed negative attitudes towards pupils who were infected.

The percentages of pupils refusing contact with a person living with HIV or AIDS (Discrimination) have been presented in *Table 8.7* below.

Table 8.6: Percentages of pupils, teachers and school heads expressing fear of casual contact with a pupil infected with HIV *(stigma)*

	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
Central East	15.7	5.77	1.2	0.51	83.1	5.94	0.0	0.00	0.0	0.00	100.0	0.00	0.0	0.0	0.0	0.0	100.0	0.00
Central West	13.3	2.80	5.8	1.76	80.9	3.54	0.0	0.00	0.0	0.00	100.0	0.00	0.0	0.0	0.0	0.0	100.0	0.00
North	18.2	3.87	5.1	1.34	76.7	4.44	1.7	1.74	0.0	0.00	98.3	1.74	0.0	0.0	0.0	0.0	100.0	0.00
South East	7.9	2.08	6.4	2.01	85.7	3.23	0.0	0.00	4.2	4.25	95.8	4.25	0.0	0.0	0.0	0.0	100.0	0.00
Shire Highlands	5.7	2.02	1.3	0.66	93.0	2.17	0.0	0.00	0.0	0.00	100.0	0.00	0.0	0.0	0.0	0.0	100.0	0.00
South West	7.5	2.06	2.5	1.08	90.0	2.68	0.0	0.00	0.0	0.00	100.0	0.00	0.0	0.0	0.0	0.0	100.0	0.00
MALAWI	**12.1**	**1.43**	**4.0**	**0.62**	**83.9**	**1.66**	**0.3**	**0.33**	**0.5**	**0.54**	**99.1**	**0.64**	**0.0**	**0.0**	**0.0**	**0.0**	**100.0**	**0.00**

Table 8.7 Pupil willing to care for a relative ill with AIDS, pupil behaviour with a friend infected with HIV

	Avoid/ shun him or her		Not sure		Positive attitude		No		Not sure		Yes	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Central East	8.9	2.37	11.3	4.42	79.8	5.05	2.8	0.88	1.7	1.01	95.5	1.12
Central West	8.4	2.05	10.3	1.66	81.3	3.08	6.9	1.73	3.8	1.49	89.2	2.71
North	14.4	2.88	11.8	2.34	73.8	4.04	7.3	1.34	2.5	0.68	90.2	1.80
South East	3.8	1.31	8.8	1.97	87.4	2.58	3.9	1.18	8.1	2.34	88.0	2.80
Shire Highlands	2.3	0.86	5.8	2.43	91.9	2.51	2.1	0.74	2.0	0.94	95.9	1.34
South West	8.0	1.85	8.0	2.35	83.9	3.17	6.1	2.21	4.5	1.91	89.3	3.61
MALAWI	**8.2**	**0.91**	**9.6**	**1.04**	**82.2**	**1.48**	**5.2**	**0.64**	**3.7**	**0.60**	**91.1**	**1.01**

It can be noted from the information in *Table 8.7* that in all the divisions, there was positive attitude in terms of discrimination although the North division may require special attention because 14.4 percent of the pupils said that they would avoid contact with a person living with HIV or AIDS. The Shire Highlands had the highest percentage of pupils with positive attitudes. Overall, more pupils were willing to take care of a relative (91.1 percent) than display a positive attitude towards a friend (82.2 percent).

In summary, it can be noted that the attitude was in general positive especially for the teachers and head teachers. However, the North division requires some attention aimed at changing the attitudes of pupils.

What are the Risk Perceptions about HIV and AIDS of pupils and teachers?

The analysis of the HIV and AIDS knowledge was extended to the assessment of the self-reported risk by the teachers and head teachers. The percentages and sampling errors of risk assessment of being infected with HIV by teachers and school heads have been presented in *Table 8.8* below.

Table 8.8: Self risk assessment of being infected with HIV by teachers and school heads

	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
Central East	25.0	10.39	3.3	3.32	71.7	10.66	7.1	5.09	17.5	9.74	75.4	10.45
Central West	38.2	9.08	7.2	5.06	54.6	9.37	47.0	9.46	6.7	5.08	46.3	9.47
North	25.7	9.32	16.7	7.20	57.6	10.11	34.2	9.70	17.5	7.63	48.3	10.16
South East	20.0	9.74	5.2	5.26	74.7	10.64	7.4	5.32	10.8	7.48	81.8	8.93
Shire Highlands	39.2	11.49	17.0	9.23	43.8	12.22	17.9	8.12	3.6	3.65	78.5	8.76
South West	25.0	9.73	14.4	7.08	60.5	10.82	25.4	10.11	0.0	0.00	74.6	10.11
MALAWI	**29.9**	**4.08**	**10.5**	**2.60**	**59.7**	**4.33**	**26.7**	**3.74**	**9.6**	**2.67**	**63.8**	**4.17**

It can be noted form *Table 8.8* that only 30 percent of the pupils had teachers who felt that they were at no/low risk while 60 percent of pupils had teachers who felt that they were at high risk. The Shire Highlands division had the highest percentage of pupils with teachers who thought that they were not at

risk while the South East had the highest percentage of pupils with teachers who thought that they were at very high risk. Thus, attention should be given to the South East division which had the highest percentage of pupils with teachers who said they were at high risk.

The information on risk assessment by the head teachers show that with the exception of the Central West and North divisions, all the other divisions had very high percentages of pupils with head teachers who thought that they were at high/very high risk. The South East division had the highest percentage of pupils with head teachers who felt that they were at high risk of being infected.

It can be concluded that a high percentage of pupils had teachers and head teachers whose self assessment was somehow depressing because it is expected that knowledge normally drives attitude but here highly informed people like teachers are saying "I am going to get it anyway". What these results imply is that education or knowledge alone is not enough for changing attitudes. There is need for interventions that should focus on attitude transformation.

Conclusion

The results on the HIV and AIDS knowledge levels of pupils and teachers, have indicated that Malawian pupils achieved above the SACMEQ III mean on HIV and AIDS knowledge test. There were however variations among divisions in achievement levels. Less than half of the pupils reached the minimum level of mastery while very few reached the desirable level. Boys outperformed girls. Overall, pupils from high socio-economic status performed higher than those from low socio-economic status but there were more pupils from the low socio-economic status who reached the desirable level of mastery. By contrast, pupils from the rural areas had a higher mean than their urban counterparts. Overall, male teachers had a higher mean than their female counterparts. The performance of teachers was much better in the knowledge tests, with male teachers having higher mean scores and reaching minimum and desirable levels in greater percentages than female teachers.

The results also demonstrate that attitudes in general were positive especially for the teachers and head teachers. However, the North division requires some attention aimed at changing the attitudes of pupils. It is noted that the results were somehow depressing because a high percentage of pupils had teachers

and head teachers whose self assessment was very negative. There is need for interventions that should focus on attitude transformation.

Chapter 9

Agenda for Action

Introduction

This chapter presents the research-based policy suggestions that have been made in the preceding chapters as an agenda for action. All the research-based findings have been summarised in the form of policy suggestions and are grouped according to the following five categories: Reading and Mathematics achievement levels of learners, quality of the learning environment, gender equality and promotion, pre-school exposure and achievement and learner and teacher knowledge on HIV and AIDS. The agenda for action is presented in tabular form (table 9.1) containing a summary of the policy suggestions for each category of the policy suggestion. Suggestions have been made on the unit/department within the Ministry of Education, Science and Technology that is expected to take the lead in addressing the policy concern. Brief descriptions of the underlying problems that have led to the suggested agenda for action in each of the five categories are provided below.

Reading and Mathematics achievement levels of learners

Reading

The study has revealed that the reading skills of the majority of Standard 6 pupils in Malawi in 2007 were concentrated at level 2 (emergent reading) and level 3 (basic reading) accounting for 63.6 percent. Nearly 20 percent of the pupils were able to read for meaning (level 4). However, less than seven percent of the pupils reached Interpretive, Inferential and Analytical reading skills. None had demonstrated critical reading skills (Levels 5, 6, and 7). The trend between 2000 and 2007 shows that there were increases in the percentages of pupils who were performing at Levels 3 to 7. These increases were accompanied by a decline in the percentages of learners who were performing at lower levels of competence (Levels 1 and 2) implying some improvement in skills acquisition. However, the improvement was very small.

There were variations in pupil achievement levels among the education divisions with two of them (Northern and Central West) showing improvement by more than 10 points. Three divisions (Central East, South East and Shire Highlands) showed negligible changes. One division (South West) declined by more than 10 points.

Mathematics

For mathematics, most of the pupils reached the emergent and basic numeracy skill levels (84.1%). None of the pupils reached concrete problem solving and abstract problem solving competences (levels

7 and 8). The trend between 2000 and 2007 shows that the percentage of pupils who were performing at Level 3 (Basic Numeracy), increased by 9.3 percent (+9.3%), and the percentage of learners performing at Level 4 increased by 4.5 percent (+4.5%). Correspondingly, the percentages of learners performing at Levels 1 and 2 decreased by 14 percent (-14%).

Overall, the national level average performance of Standard 6 pupils in mathematics increased on by more than 10 points between 2000 and 2007. The performance improved by more than 10 points in four education divisions (Central East, Central West, Northern and South East) while in two divisions the change was minimal, i.e. less than 10 points (Shire Highlands and South West).

Quality of the learning environment

This study showed that around one in every three Standard 6 pupils in Malawi in 2007 did not have all the three basic learning materials needed for effective participation in classroom activities. Most of the pupils without the basic learning materials were in rural schools, but substantial numbers were also in urban schools. Furthermore, over three-quarters (76%) of the pupils did not have sole use of mathematics textbooks. This study also revealed that the mean pupil teacher ratio (88) exceeded Malawi's benchmark of 60 pupils per teacher. The mean pupil-teacher ratio was particularly bad for rural schools (97). Moreover, this study showed that the average number of Standard 6 pupils per class (66) exceeded the national benchmark of 60. However, in three divisions (Central East, Northern and South East), the average numbers of Standard 6 pupils per class were within the national benchmark of 60. In urban schools, the mean number of Standard 6 pupils per class exceeded the benchmark by 32 pupils.

1n 2000, the average number of standard 6 pupils per class among primary schools in Malawi was 57. This number was within the country's set benchmark of 60. However, in 2007, the number had risen to 66 pupils per class, and an illustration of the pressure exerted on the system by increased access. Nevertheless, the number for rural schools (58) was within the set national benchmark, and much better than the number for urban schools (92). The overall number for SACMEQ (46) was much lower (hence, better) than the number for Malawi.

As observed by Chimombo (2005), the core problem with primary education in Malawi is linked with the lack of education supplies. Levels of supply of textbooks, copy books, teachers, classrooms, desks, in-service training courses and inspectorate and supervisory services, among others by far have been

insufficient to meet the minimum requirements necessary for the promotion of education of good quality under the Free Primary Education program.

Gender equality and promotion

The results indicated that at national level, there was an overall improvement in the proportion of Standard 6 girls to boys between 2002 and 2007, reaching slightly above the gender-balance level of 50 percent. However, the Central East and South East education divisions persisted in having fewer girls than boys. The learning achievements, in general, saw some improvement, except for the South West education division. In all the education divisions, boys were systematically better in both subjects by over 10 score points. At the division level, the improvement was remarkable in Central East and North divisions. However, in South West division there was deterioration in the achievement for both boys and girls. In reading South West recorded a 7 score-point drop for boys and a 13 score- point drop for girls between 2000 and 2007. Similar performance was observed in mathematics. The proportion of female staff stagnated over time at around 25 percent. The overall proportion of Standard 6 pupils with female head teachers remained about the same between 2002 and 2007, at an extremely low percentage of 12 and 13 percent respectively. Overall, not many pupils went to schools with a fence (only 16 percent in 2000 and 19 percent in 2007). Toilet provision was not sufficient for the continuously increasing number of pupils, both for boys and girls. Pupil-toilet ratio was 131:1 for boys and 124:1 for girls in 2007 compared with 113:1 for boys and 114:1 for girls in 2000. These figures were far removed from the Ministry's benchmark of a pupil/toilet ratio of 10:1 for girls and 12:1 for boys (MOEST, 2001)

Preschool attendance and age amongst Standard 6 pupils

Pre-school attendance in Malawi is still very low compared to the rest of SACMEQ countries. The study revealed that only 28 percent of Standard 6 pupils attended preschool in Malawi against the SACMEQ average of 60 percent. Most of these came from high socio-economic groups (48%) and urban areas (46%). Amongst Standard 6 pupils who attended preschool, more girls (31%) had attended preschool than boys (24%). South West Education division had the highest number of Standard 6 pupils who had attended preschool (35%), while Shire Highlands Education division had the least proportion (19%).

The official entry age into Malawi's primary schools is 6 years, i.e. 72 months. If all pupils had entered school at the official entry age and there had been no standard repetition, the expected mean age in Standard 6 would have been 132 months, i.e. 11 years. The mean age for all Standard 6 pupils in

Malawi was 169.5 months (i.e. about 14 years) in 2007. This mean demonstrates that Malawian pupils were on average 37.5 months (i.e. 3.1 years) older for their standard. The trend, however, shows that the mean age has been decreasing over the years. The mean age in 2000 was 174.0 whilst in 1995 it was 181.1 months.

Learner and teacher knowledge on HIV and AIDS

All children need to have the basic knowledge about HIV and AIDS that is required to protect and promote their health. However, it is clear from the SACMEQ III Project research that in 2007 the majority (57%) of Standard 6 pupils lacked the minimal knowledge (defined as mastery of at least half of the official school curriculum) about HIV and AIDS that is required for protecting and promoting health**.** The percentage of pupils reaching the minimal knowledge level in Malawi (43%) and all other SACMEQ countries (36%) was far below the expected level of 100%. This was alarming because Standard 6 pupils in Malawi (average age 14.1 years) are entering a stage of mental and physical development where they may become sexually active, and/or may choose to become involved in high-risk behaviours. The average minimal Knowledge in HIV and AIDS scores for Malawi's education divisions show substantial variations in Standard 6 pupil knowledge about HIV and AIDS. The percentage of pupils in South East Division (80%) that reached SACMEQ's minimal knowledge benchmark was more than four times higher than South West (16%) and Northern (18%) divisions.

Learner-Teacher "Knowledge Gap"

There was a large HIV and AIDS "knowledge gap" between Standard 6 pupils and their teachers.
The percentages of teachers that reached SACMEQ's minimal knowledge benchmark of mastering at least one half of the official school curriculum were around 100% for all education divisions and for all SACMEQ countries. There is need to investigate further the substantial "knowledge gap" between pupils and their teachers and as to why well-informed teachers were not able to transmit this knowledge to their pupils.

Differences in Knowledge among Divisions

There were large differences in Standard 6 pupil knowledge levels about HIV and AIDS among education divisions in Malawi. The Ministry of Education, Science, and Technology should: (a)

investigate the reasons for these differences, and (b) find out why knowledge levels were so low in South West and Northern Divisions.

Demographic Differences in Knowledge

There were significant differences in knowledge about HIV and AIDS between groups of Malawi Standard 6 pupils defined by Gender. The Ministry of Education, Science, and Technology should mount a research study to find out why girls appear to have significantly lower levels of knowledge about HIV and AIDS than boys.

The Policy suggestions

The policy suggestions are summarised in Table 6.1 below. In this table, each policy suggestion is grouped to one of the five categories listed above and are linked to a responsible unit for action, the time frame and the estimated cost level. With regard to time frames, 'short' implies that the policy recommendation can be implemented within 6 months to a year; 'medium' means it can be implemented within one to two years; and 'long' means it can be implemented in three to five years. Regarding the cost level, 'low' costs are those that can be accommodated within the existing budget; 'moderate' costs are those that require low-scale additional funding requests from Ministry of Finance and development partners; and 'high' costs require long term additional funding requests for major capital expenditure on physical infrastructure or human resources.

Table 6.1: Summary of Policy suggestions

	Policy Suggestion	Responsible Unit/Department	Time	Cost Level
1	**Reading and Mathematics achievement levels of learners**			
1.1	The trend in reading scores between 2000 and 2007 was not as positive as the trend in mathematics scores. Therefore, it is recommended that the Ministry investigates into this matter in order to come up with a way forward. At the same time, the section responsible for English in primary schools in the Department of Inspection and Advisory Services should take the lead in conducting a review exercise on English teaching. Overall, Malawi needs to intensify efforts to improve	Department of Inspectorate and Advisory Services (Inspector of English)	short	Moderate

	Policy Suggestion	Responsible Unit/Department	Time	Cost Level
	pupils' mean scores to reach higher levels of competence.			
1.2	There were a number of important education programmes and initiatives that were implemented in the period 2000- 2007. Any one of these, or all of them taken together, may have formed the springboard that supported improvements in the scores that were observed at division level. The Ministry of Education should implement an evaluation programme in order to assess the supplementary inputs needed to continue improving the learning environment. In this way it will be possible to draw lessons from the most successful and effective initiatives.	Department of Education Planning (Research and Policy unit)	Short	Moderate
1.3	Information sharing and advocacy: Improving the quality of education requires involvement of all stakeholders at central as well as at school levels. In order to promote active participation in the promotion of quality education, the SACMEQ results should be disseminated widely. The Planning Department in the Ministry of Education and the development partners should provide adequate resources to support the implementation of an advocacy and campaign strategy.	Department of Education Planning	Short	low
2	**Quality of the learning environment**			
.1	The Supplies Department in the Ministry of Education should take the lead in collaboration with the Department for Basic Education, the Department of Inspection and Advisory Services and the Department of Human Resources Development in supplying and redeploying resources. This action should be followed by a thorough monitoring of the use of educational resources, their distribution and utilisation at the school level to ensure an adequate and balanced supply.	Supplies Department	Medium	medium

	Policy Suggestion	Responsible Unit/Department	Time	Cost Level
2.2	The Department of Basic Education should move fast in decentralizing the procurement and distribution of textbooks to the districts and schools through, among others, speedy and effective implementation of the Primary School Improvement programme. The procurement and distribution of teaching and learning materials should ideally be done at the school level. This entails developing the necessary management capacities at school and district education levels.	Department of Basic Education	Medium	Medium
2.3	Concerning the need to improve pupil-teacher ratios and class sizes in Malawian primary schools, the Ministry of Education, through the departments of Basic Education and Human Resources should reinforce the government's on-going efforts to deploy more teachers to rural schools by, among others, developing a teacher deployment strategy and work plan with clearly set implementation targets.	Department of Basic Education	Medium	Medium
2.4	The capacity of the teacher training institutions in Malawi is too small to meet the required numbers of qualified teachers in the short term. The ministry, through the Education Sector Implementation Plan, is implementing measures, such as, the introduction of parallel and distance modes of teacher training, the provision of hardship allowances to teachers working in remote areas, and re-allocating primary- school trained teachers from the Community Day Secondary Schools (CDSS) to primary schools. In addition to these measures, it is suggested that the ministry should seek ways of enhancing the programme of engaging more qualified, volunteer teachers through partnerships with development partners such as: the Peace Corps, the Voluntary Service Overseas (VSO), the Japan	Department of Human Resources Department	Medium	Low

	Policy Suggestion	Responsible Unit/Department	Time	Cost Level
	International Cooperation Agency (JICA), and others.			
2.5	MOEST should implement the double-shift system of school classes, so as to overcome the problem of high pupil-classroom ratios, which grew worse between 2000 and 2007, especially in urban schools. In this regard, to move from rhetoric to action/reality, the Department of Basic Education, in partnership with the Human Resource Department, the District Education Offices, and the schools, should conduct an assessment and thereafter develop an action plan for schools that would effectively implement the double-shift system. Lessons could be drawn from those schools currently implementing the double shift system.	Department of Basic Education	Medium	Medium
3.	**Gender equality and promotion,**			
3.1	The Gender Coordinating Unit of the MOEST together with its developmental partners should review all the past gender-related interventions in order to identify: (i) the proportion of the project budget that was used for the improvement of quality; and (ii) the type of quality-related indicators used in order to monitor the progress in gender equality.	Gender Coordinating Unit	Short	Moderate
3.2	The Department of Teacher Education and Development should take the lead in the development and implementation of a gender sensitive teacher training and deployment policy to ensure increased proportions of female teachers and head teachers.	Department of Teacher Education and Development	Short	Low
3.3	The Planning Department in collaboration with the Department of Basic Education, the Buildings Department, the District Education Offices and School Management Committees should develop and implement an action plan that should aim at translating into reality the targets set out in the Education Sector	Planning Department and District Education Managers	Long	high

	Policy Suggestion	Responsible Unit/Department	Time	Cost Level
	Implementation Plan (ESIP), for example, the construction of more toilets within the shortest possible time. The plans should include the involvement of the Local Development Fund (LDF) and other stakeholders, especially community-based organizations and NGOs that support basic education programmes.			
4.0	**Pre-school exposure and achievement**			
4.1	Government should intensify efforts in provision of preschool education through Early Childhood Development programmes. The Department of Basic Education in the Ministry of Education, Science and Technology should work closely with the Department of Early Childhood Development in the Ministry of Gender, Child and Community Development in establishing more preschool programmes especially in the divisions that are lagging behind.	Department of Basic Education	Long	High
4.2	The Department of Basic Education should intensify and enforce the school age entry to ensure that children are enrolled in school at the right entry age of six. Such efforts should be emphasized in the rural areas. This calls for involvement of several departments, institutions and partners. It also calls for the application of technical skills such as school mapping, community mobilization and advocacy. Interventions include provision of schools within walking distances where they are not available and implementation of programmes that motivate and attract parents to send pupils at the right age such as school feeding programmes, among others.	Department of Basic Education	Short	Moderate
5.1	**Learner and teacher knowledge on HIV and AIDS.**			
5.1	The Ministry of Education, Science, and Technology should monitor and evaluate HIV and AIDS prevention education programmes in order to ensure that they are working effectively.	Department of School Health, Nutrition and HIV and AIDS.	Short	Low
5.2	There were large differences in Standard 6 pupil	Department of	Short	Moderate

	Policy Suggestion	Responsible Unit/Department	Time	Cost Level
	knowledge levels about HIV and AIDS among education divisions in Malawi. The Ministry of Education, Science, and Technology should: (a) investigate the reasons why these differences occurred among education divisions, and (b) find out why knowledge levels were so low in South West and Northern Divisions.	School Health, Nutrition and HIV and AIDS.		
5.3	There was a large HIV and AIDS "knowledge gap" between Malawi's Standard 6 pupils and their teachers. The Ministry of Education, Science, and Technology should investigate why well-informed teachers were not able to transmit this important knowledge to most of their pupils.	Department of School Health, Nutrition and HIV and AIDS.	Short	Moderate
5.4	There were significant differences in knowledge about HIV and AIDS between groups of Malawi Standard 6 pupils defined by Gender. The Ministry of Education, Science, and Technology should mount a research study to find out why girls appear to have significantly lower levels of knowledge about HIV and AIDS than boys.	Department of School Health, Nutrition and HIV and AIDS.	Short	Moderate

Conclusion

The task of improving the quality of education for a whole system of education must be seen as a long-term challenge. There are very few examples in the world where "quick fix" responses have resulted in system-wide positive improvements in the quality of education delivered across a nation. For this reason, Malawi has done its very best to take a long-term view of education development by developing the National Education Strategy Plan (NESP) 2008-2017 and the Education Sector Implementation Plan (ESIP), and by moving towards Sector Wide Approach (SWAp) in the education system – which has required many dedicated people to work systematically and patiently.

The results reported in this report suggest that Malawi and its development partners should concentrate their efforts towards the improvement of quality in the education sector in order to observe an increase in pupils' school performance. This means that Malawi needs to invest heavily in quality improvement so that Standard 6 pupils can reach higher levels of competence in both reading and mathematics.

Pupil repetition and absenteeism are also serious policy concerns requiring urgent attention if Malawi is to make improvements in its quest for quality education for all. Pupil repetition and absenteeism require a multiplicity of interventions as the factors are multiple as well. These factors are school related, pupil related, classroom practice related, home related, and as well as those related to the physical surroundings and distance from home to school.

Preschool attendance in Malawi is still very low compared to the rest of SACMEQ countries. As suggested in the policy brief, Government through its relevant departments mentioned here should accelerate and intensify efforts to make sure that the set target of reaching 65 percent equitable access to ECD services by 2013 and 80 percent in 2017 as set out in the ESIP and NESP respectively is realized.

To attain the gender-related objectives within EFA, it is necessary to go beyond gender parity. The SACMEQ III results indicate that Malawi still has a lot to do to attain gender equality in learning achievement as well as in teaching and leadership positions. Girls were consistently disadvantaged compared to boys in most of the indicators analyzed. The progress noted between SACMEQ II and SACMEQ III in some of the indicators, offers an opportunity from which to learn. Interventions that have brought about such positive developments need to be increased. More efforts and new interventions need to be implemented to address the challenges, especially regarding construction of toilets, promotion of girls' achievement, and the allocation of female teaching staff and head teachers.

This study highlighted the quality of primary school inputs in Malawi using four indicators, namely: (a) basic learning materials, (b) mathematics textbooks, (c) pupil-teacher ratios, and (d) class size. Against the country's own set benchmarks, Malawi scored poorly in all four indicators, most especially in the provision of mathematics text books and teachers. In general, there has been an increase in the provision of basic learning materials except in mathematics textbooks between SACMEQ II and SACMEQ III, but the levels are still far below the set benchmarks. Disparities exist between urban and rural schools with rural schools being more disadvantaged than urban schools. Although some progress was noted in the overall provision of basic learning materials in Malawi between 2000 and 2007, more effort is needed, because Malawi still fell below the SACMEQ mean in 2007. Malawi should also intensify efforts to improve the pupil-teacher ratios and the distribution of resources between urban and rural schools.

On HIV and AIDS, it is clear from the SACMEQ III Project research results that majority of Standard 6 pupils in Malawi during 2007 did not have minimal level of knowledge of HIV and AIDS necessary to equip them prevent contracting HIV and AIDS. This was indeed alarming because Standard 6 pupils in Malawi (average age 14.1 years) are entering a stage of mental and physical development where they may become sexually active, and/or may choose to become involved in high-risk behaviours. The Ministry of Education, Science, and Technology should therefore take immediate action to facilitate the development and implementation of more effective HIV and AIDS prevention education programmes.

Overall, an appeal is made to the Ministry of Education, Science and Technology to ensure that departments mentioned in this report undertake the tasks suggested to them seriously. The findings require that the relevant departments of the Ministry of Education should work diligently and intensify the implementation of the policy guidelines on resource allocation, as outlined in the National Education Sector Plan 2008-2017 (MOEST, 2008).

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