Government of Malawi

SACMEQ IV

**The Southern and Eastern Africa Consortium for Monitoring Educational Quality**

# MALAWI

## REPORT

2017

## Assessing the Learning Achievement of Standard 6 pupils

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# SACMEQ IV Study

# Malawi – Country Report

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# Foreword by the Minister of Education, Science and Technology

The Government of Malawi is committed to ensuring provision of quality basic education to all children. This is why a number of reforms are being implemented and a number of policy and strategy documents have been developed. Such reforms include devolution and decentralisation of delivery of education services which incorporates processes of planning, budgeting and financing, and monitoring and evaluation (M&E); redeployment of teachers; and increase in instructional time, just to mention a few. The enactment of the revised Education Act 2013, the development of the Education Policy and the publication of Education Standards are some of the milestone interventions that the Ministry of Education, Science and Technology (MoEST) has recently accomplished and put in place as part of Government's Reform Agenda. Work on such reforms has been informed by research findings such as studies carried out by the Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ).

Malawi has participated in all four SACMEQ studies since SACMEQ I, conducted in 1998. The data and results from these studies have provided valuable scientific information and analyses which have proved vital in the Reform Agenda. The inclusion in SACMEQ IV report of some data from the three past SACMEQ studies has provided an opportunity to appreciate the progress that Malawi is making. In many instances the SACMEQ IV report has revealed and/or confirmed the aspects and areas where Malawi has made positive progress. The report has also confirmed some of the impediments that continue to hamper our efforts in providing quality basic education to all. I urge all stakeholders in education to read this report in order to be well informed when making policy suggestions and recommendations and when implementing various programmes and activities.

This report comes at an opportune time when our National Education Strategic Plan 2008 - 2017 (NESP) is coming to a conclusion in 2017. It is also coming at a time when the world community had adopted the Sustainable Development Goals (SDGs) in 2015. This gives us an opportunity to reflect on the progress and impact that the policy

strategies and programmes that were adopted and implemented over the NESP period have had on our education sector.

It is therefore my appeal to all stakeholders that as we proceed to implement the new Education 2030 Agenda and SDG # 4, let us commit ourselves to addressing the areas where the data are showing that we are lagging behind and at the same time let us capitalize on where we are making progress. I urge all, planners, researchers, academicians and students, to use the SACMEQ data to provide sound and informed policy advice and programme intervention for the further development of our education sector.

**Honourable Dr. Emmanuel Fabiano, M.P.**
**MINSTER OF EDUCATION, SCIENCE AND TECHNOLOGY**

# Statement by the Secretary for Education, Science and Technology

The mission of Malawian education as stated in the National Education Strategy (NESP) is to provide quality and relevant education to the Malawian nation. Such education is intended to enable people acquire relevant knowledge, skills, expertise and competencies to perform effectively as citizens, workforce and as leaders of Malawi, thereby contributing to the reduction of poverty amongst the people of Malawi.

It is undisputable fact that early acquisition of the foundational skills of Reading and numeracy is a critical goal that requires focused attention in our schools and sustained support from parents if the mission of Malawian education is to be attained. This is why the Ministry of Education, Science and Technology with support from its partners introduced several programmes to support early acquisition of literacy and numeracy skills.

The Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ) is a consortium comprising fifteen Ministries of Education (Botswana, Kenya, Lesotho, Mauritius, Malawi, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania (Mainland), Tanzania (Zanzibar), Uganda, Zambia, and Zimbabwe). Angola participated in the SACMEQ IV project as an observer with a view to becoming a full member. The main aim of SACMEQ is to undertake integrated research and training activities that will expand opportunities for educational planners to gain the technical skills required to monitor, evaluate, and compare the general conditions of schooling and the quality of basic education; and generate information that can be used by decision makers to plan the quality of education.

The SACMEQ IV study was carried out in 2013. The study, which was the fourth in the series, was undertaken with new innovations that would enable participating countries to track changes over time, to make valid comparisons with similar education systems, and to provide data and trend analyses that would guide the implementation of the Education 2030 Agenda and Sustainable Development Goal # 4 on Education.

The results of SACMEQ IV are revealing and as indicated earlier will assist the Ministry in taking policy actions on various quality related issues. One good thing about this SACMEQ IV study report is that it has not only comprehensively diagnosed our education system on matters of achievement, but it has also provided solutions for the identified challenges. It is my sincere hope that all stakeholders in the education sector will continue to put efforts to improve the quality of education which is one of Government's priorities in primary education.

**Charles P. Msosa**

**SECRETARY FOR EDUCATION, SCIENCE AND TECHNOLOGY**

# Acknowledgement

This SACMEQ IV report is a result of collective effort by a team of dedicated individuals, departments and institutions under the leadership of the Honourable Minister of Education, Science and Technology (MOEST), Dr. Emmanuel Fabiano, M.P. and the SACMEQ Council of Ministers. Acknowledgements go to the following for providing guidance on completion of the report: the Secretary for Education, Science and Technology, Charles P. Msosa, the Chief Director for Basic and Primary Education, Thokozire Banda, the Director of Basic Education, Joseph Chimombo (PhD), the Director of Inspection and Advisory Services, Raphael Agabu and other Directors of various departments in the Ministry that contributed in one way or another as well as making available their members of staff. The research team was led by National Research Coordinators (NRCs) comprising Martin Masanche, National Research Coordinator, Jennings Kayira, 1st Deputy National Research Coordinator, and first, Gerald Chiunda, and later Elizabeth Meke (PhD), 2nd Deputy National Research Coordinator. The NRC team was provided training and technical support by the SACMEQ Coordinating Centre in Botswana. The data collection, data entry, data cleaning and report writing benefitted from the commitment and support from a number of individuals from various education institutions including the MOEST headquarters, Education Divisions, District Education Offices (DEOs), Malawi Institute of Education, Malawi National Examinations Board, Malawi National Commission for UNESCO (MNCU), and University of Malawi (Chancellor College). The SACMEQ III team of NRCs, i.e. Grace Milner, Thokozire Banda and David Mulera provided invaluable contributions, guidance and advice throughout the research.

# ABBREVIATIONS/ACRONYMS

| | |
|---|---|
| CDSS | Community Day Secondary Schools |
| CERT | Centre for Educational Research and Training |
| CPD | Continuing professional development |
| DIAS | Department of Inspectorate and Advisory Services |
| DME | Data Management Expert |
| DSS | Direct Support to Schools |
| EFA | Education for All |
| EMIS | Education Management Information System |
| ESIP | Education Sector Implementation Plan |
| FPE | Free Primary Education |
| HAKT | HIV and AIDS knowledge test |
| IPTE | Initial Primary Teacher Education |
| LGFC | Local Government Financing Committees |
| LSE | Life skills education |
| LUANAR | Lilongwe University of Agriculture and Natural Resources |
| MANEB | Malawi National Examination Board |
| MASTEP | Malawi Special Teacher Education Program |
| MGDS | Malawi Growth and Development Strategy |
| MIE | Malawi Institute of Education |
| MIITEP | Malawi Integrated In-service Teacher Education Program |
| MOEST | Ministry of Education, Science and Technology |
| MTEF | Medium term expenditure framework |
| MZUNI | Mzuzu University |
| NESP | National Education Sector Plan |
| NRC | National Research Coordinator |
| NRT | National Research Teams |
| OBE | Outcome-based education |
| ORT | Other Recurrent Transactions |
| PCAR | Primary Curriculum Assessment Reform |
| PEA | Primary Education Advisor |

| | |
|---|---|
| PIF | Policy Investment Framework |
| PPS | Probability-Proportional-to-Size |
| PSIP | Primary School Improvement Program |
| PSLCE | Primary School Leaving Certificate Examinations |
| PTA | Parents Teachers Associations |
| SACMEQ | Southern and Eastern Africa Consortium for Monitoring Educational Quality |
| SES | Socio-economic status |
| SMC | School Management Committees |
| TDC | Teacher Development Centres |
| TTC | Teacher Training Colleges |
| UN | United Nations |
| UNIMA | University of Malawi |
| VCR | Video cassette recorder |

# Executive Summary

The fourth Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ IV) report presents the results of the study on conditions of schooling and the quality of education offered at primary level in Malawi. The SACMEQ IV study project began in 2012. The main data collection for the project was conducted in 2013 and covered a total of around **57, 885** standard 6 pupils, **6, 667** standard 6 teachers, and **2, 507** School Heads.

The main purpose of the study was to gather information that could be used by ministries of education in the 15 participating member countries[1] to track trends in a) the general conditions of schooling, b) the Reading and Mathematics achievement levels of Grade 6 learners and their teachers, and c) the knowledge that learners and their teachers have about HIV and AIDS.

An important principle applied in the SACMEQ projects was that the methodology and instruments that were used in the SACMEQ IV project in 2007 were the same as in SACMEQ II and III. This ensured comparability of the conditions of schooling and achievement results of Standard 6 learners from 2002 to 2013.

The data analyses of SACMEQ IV Malawi report were guided by general policy concerns emanating from various ministerial and experts meetings such as meetings of the Council of SACMEQ Ministers of Education, Joint Education Sector Reviews, and from international and local policy frameworks and reports, such as the United Nations Sustainable Development Goal 4 on Education and the Education 2030 Agenda. The policy concerns covered issues such as pupils' personal characteristics and home background characteristics; school context factors; classroom materials; extra lessons; characteristics of Standard 6 teachers; availability of classroom furniture and classroom equipment; professional support given to Standard 6 teachers; personal characteristics

[1] SACMEQ is a consortium of 15 ministries of education in eastern and southern Africa (Botswana, Kenya, Lesotho, Mauritius, Malawi, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania (Mainland), Tanzania (Zanzibar), Uganda, Zambia, and Zimbabwe). Angola participated in the SACMEQ IV project as an observer with a view to becoming a full member.

of school heads; characteristics of the school's human resources; general school infrastructure; levels of essential classroom resources; percentages of pupils who reached the minimum and desirable levels in Reading and Mathematics disaggregated by gender, socioeconomic levels and school location; Pupils and teachers knowledge levels, attitudes and risk perceptions about HIV and AIDS.

The report concludes in Chapter 9 with a proposed Agenda for Action. This chapter presents research-based policy suggestions. 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 out-of-school exposure; and Knowledge on HIV and AIDS. 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 each policy concern.

Following is a summary of the findings:

### *Trend in Pupil Achievement Levels*

SACMEQ IV data results indicate that the means of Reading scores for pupils have been improving overtime with mean scores of 428.9 in SACMEQ II (2000), 433.5 in SACMEQ III (2007) and 492.3 in SACMEQ IV (2013). Similarly, the means of Mathematics scores for pupils have been improving overtime with 432.9, 447.0 and 519.2 in SACMEQ II, III and IV respectively.

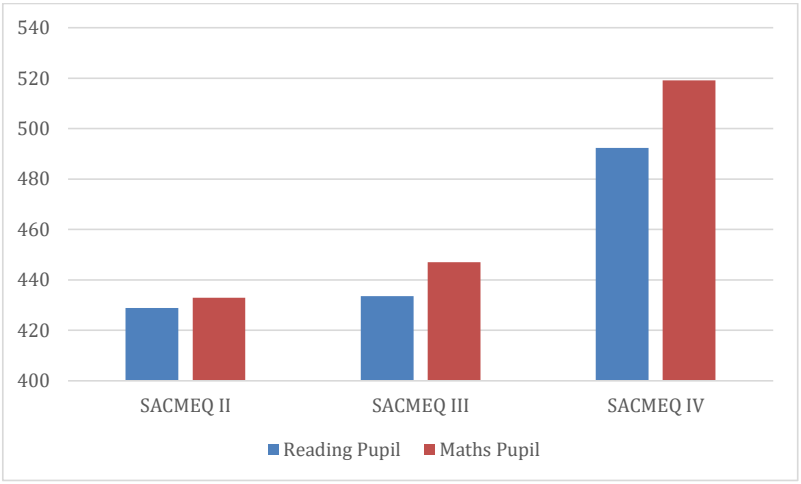


**Figure 1.1: Pupils' Reading and Mathematics Mean Scores in SACMEQ II, III & IV**

Source: Table 7.1 in Chapter 7

### *Pupils Achievement by Gender*

Male learners (boys) had a relatively higher mean score for Reading (495) than their female (girls) counterparts (489.6). In Mathematics, boys had a mean score of 527.2 while girls had a mean score of 511.1.

### *Pupils Achievement by Location*

In SACMEQ IV, the mean Reading score for pupils in urban schools (512.9) was higher than the mean Reading score of pupils in rural schools (486.4). In both cases, the mean Reading scores for pupils in SACMEQ IV had increased compared to SACMEQ III in which the mean Reading score for urban was 449.1 and for rural was 428.6.

Similarly, in Mathematics the mean score for pupils in urban schools (529.4) was higher than in rural schools (516.6). In both cases the mean Mathematics score of pupils in SACMEQ IV was higher than the mean score of pupils in SACMEQ III where for urban it was 449.1 and for rural it was 428.6.

### *Pupils' Achievement by Socio-economic Status*

Pupils in the high socio-economic quintile (top 25%) had higher mean Reading score (501.8) than pupils from low socio-economic quintile (bottom 25%) (488.8). The mean Reading score for pupils in the high socio-economic quintile increased to 501.8 in

SACMEQ IV from 449.3 in SACMEQ III. The mean Reading score for pupils in the bottom socioeconomic quintile increased from 428.8 in SACMEQ III to 488.8 in SACMEQ IV. The gap between pupils from the high socio-economic quintile and the low quintile reduced between the two studies by over ten percentage points.

### *Pupils Level of Competence in Reading*

The study has revealed that the Reading skills of the majority of Standard 6 pupils in Malawi in 2013 were concentrated at level 4 (i.e. Reading for meaning) and level 5 (interpretive Reading) accounting for 72.8 percent of the pupils. The trend between 2007 and 2013 shows that there were increases in the percentages of pupils who were performing at Levels 4 to Level 7. There was a 28 percent increase at Level 4 and a 20 percent increase at Level 5.

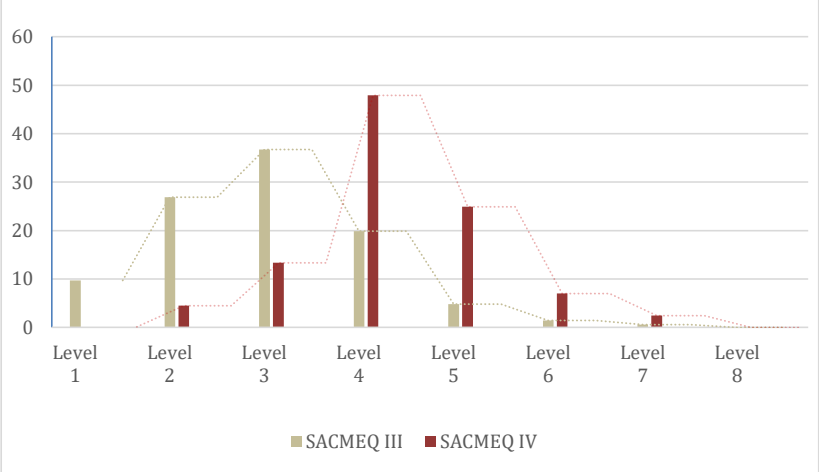


**Figure 1.2 Distribution of Pupils According to Competence Levels in SACMEQ III & IV**

Source: Table 7.6 in Chapter 7

Analysis by subgroups revealed that the proportions of pupils reaching at least competence Level 4 did not differ much in terms of gender (81.5% boys and 80.0% girls). There were however more boys than girls reaching higher levels such as Level 5, 6, and 7. Pupils in rural schools continued to perform less well than pupils in urban schools.

### *Pupils Level of Competence in Mathematics*

Mathematics remained a problem to pupils with a small proportion, 39.9 percent, reaching at least the desirable minimum level (Level 4) - *Beginning Numeracy - defined as where a learner is able to translate verbal or graphic information into simple arithmetic problems*. Majority of pupils were concentrated at Level 3 (46.2%) - *Basic Numeracy,* and Level 4 (33.2%). A very small proportion of pupils (5.6%) reached competent numeracy level (Level 5) *defined as the level at which a learner is able to translate verbal, graphic, or tabular information into an arithmetic form in order to solve a given problem.* None of the pupils reached abstract problem solving competency (Level 8). The trend between 2007and 2013 shows that the percentage of pupils who were performing at Level 3 (*Basic Numeracy*), increased by 14.1 percent, and the percentage of learners performing at Level 4 increased by 26.9 percent.

### *Teachers Achievement*

The overall mean Reading test scores of teachers remained almost the same between SACMEQ III (720.1) and SACMEQ IV (721.0). Male teachers had a higher mean Reading score (729.8) than female teachers (712.2). The overall mean scores for teachers in Mathematics had decreased over the period from 776.0 in SACMEQ II, to 762.4 in SACMEQ III and to 728.1 in SACMEQ IV. This is a worrisome trend. In terms of gender, male teachers had a higher mean Mathematics score (731.4) than female teachers (724.7). Paradoxically, the mean scores in Reading and Mathematics for learners have been improving over the years since SACMEQ II (2000) whereas those of the teachers have either remained the same (in Reading) or have been decreasing (in Mathematics).

### *Age*

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 in 2013 was 160.6 months (i.e. about 13 years). This mean demonstrates that Malawian pupils were on average 28.6 months (i.e. 2.4 years) older for their standard. The trend, however, shows that the

mean age has been decreasing over the years. The mean age in 2007 was 169.5 months (14.12 years), in 2000 was 174.0 months (14.5 years) whilst in 1995 it was 181.1 (15.1) months.

### *Books in Pupils' homes*

The mean of the number of books in the homes of Standard 6 pupils has been decreasing since SACMEQ I. In SACMEQ I it was 11.5, in SACMEQ II it was 10.1. In SACMEQ III it decreased to 7.25. In SACMEQ IV it further decreased to 4.64.

Grade Repetition

About thirty percent (27.6 percent) of the Standard 6 pupils in SACMEQ IV were repeaters. This figure is much bigger compared to SACMEQ III (15.6 percent) and SACMEQ II (12.5 percent) data.

### *Absenteeism*

The mean number of days that pupils were absent in the previous month prior to SACMEQ IV data collection was 1.5 days. This represents a progressive decrease (i.e. an improvement) from SACMEQ I (3.7 days), SACMEQ II (2.0 days) to SACMEQ III (1.66 days).

### *Homework given*

There was a reduction (implying improvement) in the proportion of Standard 6 pupils who had indicated that they were not receiving homework at all between SACMEQ III and IV. 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 and to 2.9 percent in SACMEQ IV. Of those who received homework in SACMEQ IV, 5.8 percent reported that their teachers never corrected it. This is an increase compared to 3.1 percent in SACMEQ III.

### *Pupils' Access to Learning Materials*

Only 12.2 percent of the Standard 6 pupils had own Reading textbooks and 10.0 percent had own Mathematics textbook.

### *Access to Sitting and Writing Place, and Use of Library and Radio Services*

In SACMEQ IV, there was an increase in sitting and writing places with 65.9 percent of pupils having somewhere to sit and write on as compared to SACMEQ III (57.9%). There was also a significant increase in library and radio services use in SACMEQ IV.

### *Extra Tuition*

The proportion of pupils reporting taking extra tuition outside school hours was 32.07 percent. Of those that were taking extra lessons, 56.5 percent were paying money for the lessons.

### *In-service Training for Teachers*

SACMEQ IV data indicate that there was a drastic decrease in the number of in-service courses Standard 6 teachers attended compared to SACMEQ III. In SACMEQ IV Standard 6 teachers had attended on average 5.1 courses and Mathematics teachers had attended 5.2 courses of in-service compared to 17.1 and 12.9 respectively in SACMEQ III.

Regarding the relevance of the courses, only 17.4 percent of the Reading teachers and 15.1 percent of the Mathematics teachers found their in-service course to be effective. This was a sharp decline from SACMEQ III where 75.7% of Reading and 81.5 percent of the Mathematics teachers found their courses effective.

### *Time on Task of Teachers*

Reading teachers spent 33.7 periods per week teaching while Mathematics teachers and Health teachers spent 33.3 periods and 33.4 periods respectively. There wasn't too much difference with SACMEQ III data results of 34.2, 35.2 and 34.5 periods per week for Reading, Mathematics and Health teachers respectively.

### *Gender Distribution of School Heads*

Overall, 20.0 percent of the pupils had female headteachers in SACMEQ IV. This was a notable increase from 12.8 in SACMEQ III, but still below the 50 percent target set in the Malawi National Gender policy (2008).

### *Number of school days lost*

Overall, the average pupil was in a school which lost 1.51 official days in SACMEQ IV. The mean number of official school days lost in SACMEQ III & II was 1.1 and 5.4 respectively.

### *Condition of School Infrastructure*

In SACMEQ IV, only 8.6 percent of the school buildings used by standard 6 pupils were reported as being in good condition. About fourteen percent (14.2 percent) of the schools needed complete rebuilding and 36.5 percent of the classrooms needed major repairs.

### *Toilet facilities*

There was an increase (implying getting worse) in the number of pupils per toilet in 2013 compared to 2007. There were 126.34 pupils to a toilet in SACMEQ IV while in SACMEQ III the ratio was 111.6 pupils to a toilet.

### *School Human Resources*

The proportion of pupils with female school heads improved from 12.8 percent in SACMEQ III (2007) to 20.0 percent in SACMEQ IV (2013). School head teachers who attended management courses increased from 57.9 percent in 2007 to 89.9 percent in 2013. There was also an increase in the proportion of head teachers who attended HIV&AIDS training, 92.7 percent in 2013 as compared to 63.2 percent in 2007.

### *Pupils and teachers Knowledge levels on HIV and AIDS*

In 2013 a vast majority 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**.** Only 11.8% of boys and 6% of girls reached the minimum level.

### *Attitudes about HIV and AIDS*

The results show that generally pupils (88.4%), teachers (98%) and (100%) headteachers had positive attitudes towards pupils and teachers who were infected.

# 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. SACMEQ IV added an assessment of the socio-economic environment of pupils to these existing areas. Malawi has participated in all four SACMEQ studies. The bulk of this report is concerned with the results of SACMEQ I, II, III, and IV, and comparisons between the major results of the four studies. This allows a comparison not only of the achievement outcomes in 1998, 2002, 2007 and 2013 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 2013 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 kilometres – 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. During the 2008 national census, the country's total population was slightly above 13 million with a population density of 139 people per square kilometre. The population is currently estimated at 16 million. For administrative purposes, Malawi is divided into three regions (North, Centre, and South) that 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 fulfilment 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. SACMEQ IV was conducted when the FPE was fully implemented across all primary schools in Malawi.

## 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 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. Nevertheless, the Ministry of Education Science and Technology through its Department of Inspectorate and Advisory Services (DIAS) of late has been conducting campaigns in private secondary schools to ensure the schools recruit qualified teachers.

Enrolment in secondary education has been steadily increasing from 243,838 in 2009 to 346,604 in 2014. Despite this 42% increase in enrolment over the five-year period, secondary school net enrolment is estimated at 15 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. The transition rate for girls from primary into secondary education decreased from 44 percent in 2009 to 37 percent in 2014.

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 30,000 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, and the absorption rate of qualifying students into university is less than 25%. There are public and private universities but enrolment in private universities is increasing at an alarming rate. There are also other tertiary institutions that provide access to university education through distance education. Number of public universities increased from two to four since 2008. These are University of Malawi (UNIMA), Malawi University of Science and Technology (MUST), Lilongwe University of Agriculture and Natural Resources (LUANAR) 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 northern 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. MUST and LUANAR were established in the last five years as part of the Government's planned efforts to increase access by constructing five new universities by 2020. MZUNI and LUANAR have increased access dramatically through open and distance learning education. 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 has one teacher development centre and is manned by a Primary Education Advisor (PEA) responsible for a maximum number of up to 15[2] schools. These are expected to play both supervisory and advisory roles in the schools aimed at school improvement. At each District Education Manager's office, there is also a minimum of seven school inspectors responsible for inspection of primary schools.

On the bottom tier are the schools. According to the 2014 education statistics, there were 5389 public primary schools, 1008 public secondary schools, and 305 private secondary schools, 6 Teacher Training Colleges (TTCs), 7 public and private technical colleges in the country.

There are also two autonomous institutions that 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, established to undertake

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

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 Labour, 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 Second Education Sector Implementation Plan (ESIP II). The government made it 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.

Primary education has consistently received the largest share of the education budget. However, according to Education Statistics (EMIS) Report for 2011, budget priority for primary education decreased from 56 percent of the total education recurrent budget allocation in 2011 to 50 percent in 2014. On the other hand, budget allocation to higher education increased to 5 percent in 2014 from below 1% in 2011. The share allocated to secondary education and teacher training decreased by 2 percent and 3 percent

respectively. Sub-vented organizations like MANEB and MIE received a larger budget allocation in 2014 compared to 2011.

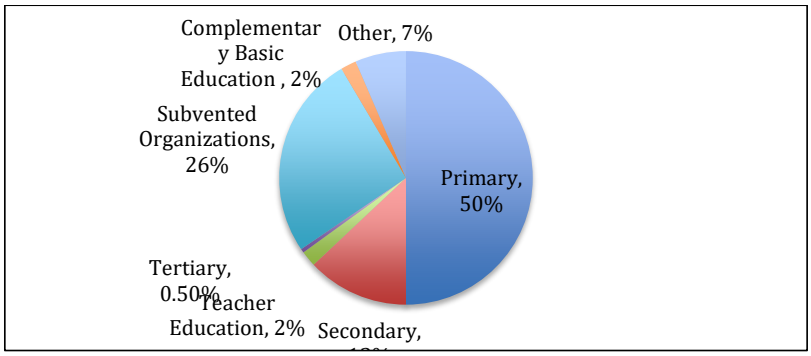


**Figure 1.1: Distribution of recurrent budget allocation by level of schooling**

Source: Education Statistics (EMIS) Report 2014

The unit cost of education varies according to the subsector. At the primary level, it is MK10, 519; while at the secondary school level, it is MK49, 542. Primary education per pupil thus costs about 20% of secondary education per pupil. The per-pupil cost for teacher training colleges is MK292, 902. This is approximately 28 times the primary pupil unit cost. The figure is even higher for university students. This is because the enrolment rates in university education are very low and as such universities cannot reap economies of scale. It is important to note that, on average, about 75 percent of the primary education allocation is spent on teachers' salaries.

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 local government authorities. The Ministry of Education has devolved primary education and pre-school to the local government authorities. 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 involved the transfer of financial resources (grants) to public primary schools through respective district education offices and councils. Public primary schools received between USD 500 and USD 1,000 from the government under the DSS program. The grants were 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) were given the responsibility to manage the grants, undertake the procurement of the school materials and monitor their use in the schools. SMCs were responsible for submitting school improvement plans to the district planning structure at the district council 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 was gradually phased out and replaced by the PSIP. The PSIP is based on expenditure per learner. It has more components of grants, which the first program did not have. This includes: grants to orphans, and grants to pay voluntary teachers where there is a teacher shortage and teachers who work on double shift. The delivery of services in schools has improved 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 was 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 and over 60 percent of donor support goes to construction in primary education. However, with the advent of poor financial management in 2013 and a subsequent loss in public sector confidence, donors withdrew direct support to budget. Classroom construction was thus done on an ad-hoc basis by donors and community members. Decisions on the construction of new schools and classrooms are usually 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 was 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 Malawi Institute of Education (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:

- Designing, developing and evaluating the national curriculum for schools and colleges;
- Evaluating textbooks, teachers' guides and other instructional materials produced by publishers;
- Reviewing school and college curricula;
- Establishing and implementing programmes for continuing professional development of teachers and other educational personnel;
- Conducting educational research

- Arranging for the publication and production of teaching /learning materials.

In the 34 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 district inspectors of schools 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 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 neighbouring 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 revealed by recent national assessments in early grade literacy.

## 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 an 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 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 that 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 centres, 12 assignments (one assignment per subject) and 4 projects. According to MIITEP News, '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 that they often had to leave their classes to attend to bureaucratic issues, the most common being delayed or unpaid salaries (Chimombo, 1999). 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.

## 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 favour 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 required a challenging program of reforms at all levels. This challenge required 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, would 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 was difficult to see how the objectives set forth in the PIF could be achieved within this philosophy. The level of funding for the PIF policies would 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 this decade (2008-2018). The goals and objectives relate to expanded equitable access to education, improved quality and relevant education and improved governance and management of 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 (MGDS), which is an overarching policy of the Malawi Government and is the pillar for all socio-economic and industrial growth for Malawi.

The Education Sector Implementation Plan (ESIP I - 2008 – 2013) was introduced to translate the broad development objectives of NESP into implementation plans organised as sub-sector programmes, with detailed objectives, targets, activities and budgets. ESIP II (2014 – 2018) will be operationalized soon. It constitutes a realistic blueprint to improve the quality of education in Malawi, which can be fully implemented using the scarce financial and human resources available.

### *Harmonization of the academic calendar*

Between 1992 and 1996, Malawi experienced a severe 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 favour 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. Subsequently, this is now implemented in all academic institutions.

## 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 analysed 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 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 assisted the Ministry in coming up with better strategies on the mitigation of HIV and AIDS in the primary education sub sector. The Ministry saw the participation in SACMEQ IV as being of particular importance as it would provide evidence of improvements or regressions in performance over time within Malawi, as well as provide an indication of where Malawi stands in relation to other countries in the region.

## 1.10 Structure of the report

The rest of this report is devoted to supplying information from the SACMEQ IV 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 in 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. Results on HIV and AIDS knowledge, which provides the analyses of both teachers and pupils, is presented 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 the context of school participation in Malawi. Together with chapters three, four and five, this chapter 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

# The Conduct of the study

## 2.1 Introduction

Over the years since its first project in 1995, SACMEQ has developed research instruments and collected useful information using advanced research methods. An important principle in the studies is to ensure that SACMEQ is able to generate valid measures of levels and changes in achievement: (a) across countries at single time points, and (b) across time points for individual countries. To achieve this goal, SACMEQ follows virtually the same methodologies across studies and uses the same instruments which must be kept confidential to remain valid. The methodology and instruments that were used in the SACMEQ IV project in 2013 were, therefore, the same as in SACMEQ II, and III. 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. SACMEQ IV research project also includes HIV and AIDS knowledge test (HAKT) for Grade 6 pupils and their teachers.

SACMEQ IV project represents 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 fourteen school systems: Botswana, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania (Zanzibar),Uganda, Zambia, and Zimbabwe. The purpose of the project was to gather information on a) the general conditions of schooling, b) the Reading and Mathematics achievement levels of Grade 6 learners and their teachers, and c) the knowledge that learners and their teachers have about HIV and AIDS. The main data collection for the project covered a total of around **57, 885** pupils, **6, 667** teachers, and **2, 507** School Heads.

In this chapter specific aspects of the methodology followed in SACMEQ IV project are outlined and these include a description of the sample used, data collection, cleaning and analysis.

## 2.2 The Study Population

### *(a) Desired Target Population*

The desired target population definition for SACMEQ IV Project was exactly the same (except for the year) as was employed for the SACMEQ II and III Projects. 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 SACMEQ IV Project is as follows:
"All learners at Grade 6 level in 2013(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 learners in the desired target population may be excluded from the defined target population. Like in SACMEQ II and III, special schools which provide education to learners with severe educational needs were excluded from SACMEQ IV sample. "Small" mainstream schools which had less than 15 learners enrolled in Grade 6 in 2013 were also allocated to the excluded population to reduce data collection costs – without the risk of leading to major distortions in the study population.

### *(c) Defined Target Population*

The "defined target population" was constructed by removing the "excluded target population" from the "desired target population". In Table 2.1 the numbers of schools and learners in the desired, defined and excluded populations have been presented.

**Table 2.1: Desired, Defined, and Excluded Populations**

| Desired | | Defined | | Excluded | | Pupils % |
|---|---|---|---|---|---|---|
| Schools | Pupils | Schools | Pupils | Schools | Pupils | |
| 5,561 | 380,539 | 4,513 | 378,396 | 1,048 | 15,720 | 4.13% |

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

## 2.3 Data Collection

In this report "Data Collection" includes preparations before the fieldwork, the actual fieldwork 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 2011 SACMEQ Assembly of Ministers took a decision to conduct SACMEQ IV project in 2013, 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 2012 and 2013 the SACMEQ Coordinating Centre hosted at least three working sessions for the NRTs in Nairobi (Kenya), Pretoria (South Africa) and Lusaka (Zambia) 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, Mathematics and Health Knowledge test items. SACMEQ IV test items were piloted, first, in a few primary schools in South Africa, and then in individual member countries. The pilot study was intended to ensure that the language in SACMEQ IV tests was accessible to learners, that there were no cultural biases in the items and learners comprehended how to write their responses.

In some countries the tests were subsequently translated into respective language(s) of instruction (Kiswahili and Portuguese). Care was taken to ensure that the English and other languages used for the tests were equivalent to avoid unfair advantage in any of the language(s).

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

### *(b) Communication to schools*

Officials in the respective Ministries of Education informed the sampled schools through the Regional offices during mid-2013. The National Research Teams were responsible for distributing the data collection schedules, intensifying and monitoring communication to schools and among data collectors.

### *(c) Printing and distribution of data collection instruments*

Data collection instruments included a) School Head Booklets, b) School Information Booklets, c) Teacher Booklets, d) Pupil Booklets e) Pupil Name Forms and f) School Forms. Each participating country received print-ready copies from the Coordinating Centre and was 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/extra pages, 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 "leakage" of information about the content of the learner and teacher Reading, Mathematics and Health Knowledge tests.

The printed materials were distributed to leaders of research teams that were assigned to collect data in each school. The Team Leaders were responsible for checking the

accuracy of the instruments in terms of correctness of numbers and languages before carrying the instruments to the schools. The first level of checking was done during data collection training sessions. The data collectors were charged with further and final checks a day before the data collection.

### *(d) Training of data collectors*

On the first day of training the NRT presented a "simulated" data collection exercise in which they acted as a data collector and the trainees took the roles of learners, teachers, and School Heads. The second day involved an intensive study of the Manual for Data Collectors. This document sets out, 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 to the time when the data collector had completed the data collection and was preparing all materials for return. 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 meeting so that all data collectors understood the procedures to be completed within schools.

## 2.4 Main Data Collection

"Main Data Collection" in this report refers to the actual field work. Three data collectors were assigned three sampled schools to carry out the data collection exercise. Special effort was made to ensure that data collection was conducted according to explicit and fully-scripted steps so that the same verbal instructions were used (for learners, teachers, and School Heads) by the data collectors in all sample schools, in all countries, and 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 IV data collection occurred for most SACMEQ Ministries of Education in the period September to December 2013.

Two days of data collection were required for each sampled school. On the first day the data collectors had to sample learners from all the Grade 6 classes in the sampled schools, using a list of provided random numbers. The sampled learners were then given the Pupil Questionnaire, the HAKT and the Reading test. On the second day they were given the Mathematics test. Part of the Pupil Questionnaire required learners to get confirmation of the accuracy of the information from their parents; therefore the questionnaires were taken home by the pupils and returned the following day.

In addition to completing a questionnaire, one teacher who taught the majority of the sampled learners for each of Reading, Mathematics and Life Skills\Health 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 Regional Coordinator for safekeeping, "hand editing" and dispatching to the National Research Coordinator (NRC) at the Ministry of Education as soon as all data collection was completed.

## 2.5 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. In the second stage of sampling, learners were sampled from all the Grade 6 classes in each of the sampled schools using Simple Random Sampling. Computer-generated random numbers were used to facilitate the sampling of pupils. Twenty five (25) learners (minimum cluster size) were sampled where the total number of all enrolled Grade 6 learners at the time of data collection was greater than 25. Where the

number of Grade 6 learners was 25 or less than 25 in a school, all the Grade 6 learners were included in the sample.

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

.

**Table 2.2: Planned and Achieved Samples for SACMEQ IV in Malawi**

| Schools | | Learners | |
|---|---|---|---|
| Planned | Achieved | Planned | Achieved |
| 136 | 136 | 3,400 | 2,314 |

## 2.6 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 SACMEQ IV project have been presented in Table 2.3.

Figures in the first two columns under the heading "Response Rate (%)" in Table 2.3 are the response rates for schools and learners, 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 (learners) 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 SACMEQ IV**

| Response Rate (%) | Design Effect | Effective Sample Size |
|---|---|---|

| Schools | Pupils | Reading | Maths | HAKT | Reading | Maths | HAKT |
|---|---|---|---|---|---|---|---|
| 100% | 68% | 6.99 | 3.63 | 6.03 | 180 | 347 | 209 |

**Comment [AMM(1]:** These are the values you requested for. Please format the document so that this table is not split.

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 learners should not be less than 90%.

**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. 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. Generally, the "Effective Sample Size" will be smaller than the given actual multi-stage sample.

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

## 2.7 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.

Data preparation started soon after data collection was completed. The NRCs organized safe return of all materials to the Ministry of Education where data collection instruments could be checked, entered into computers, and then "cleaned" to remove errors prior to data analyses. Data-checking involved "hand editing" of data collection instruments by a team of trained staff. They were required to check that: (i) all questionnaires, tests, and forms had arrived back from the sampled schools, (ii) the identification numbers on all instruments were complete and accurate, and (iii) certain logical linkages between questions made sense (for example, the two questions to School Heads concerning "Do you have a school library?" and "How many books do you have in your school library?").

The next step was the entry of data into computers using the Data Management Expert (DME) software. A team of 5-10 staff members normally undertake this exercise.

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.

To clean the data, using the Data Management Expert (DME) 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 learners 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.

## 2.8 Merging and Weighting

When data cleaning was complete, the NRT merged the data from all the sources and submitted to SACMEQ Coordinating Centre for further processing. At the Coordinating Centre, a further merging process required the construction of a single data file in which learners were the units of analysis and the rest of the data from the other respondents were linked to the learner 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 learner, (b) the questionnaire and test data for his/her Mathematics, Reading, and Health teacher, (c) the questionnaire data for his/her School Head, and (d) school and learner forms.

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 learner tests) for groups of learners 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 SACMEQ IV Project. The first sampling weight (RF2) was the inverse of the probability of selecting a learner into the sample. These "raising factors" were equal to the number of learners in the defined target population that were "represented by a single learner" 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 (2004).

## 2.9 Analysing the data

The data analyses for SACMEQ IV 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 variables related to learners' homes, and the number of possessions in learners' homes. Second, the Coordinating Centre used SPSS tools to populate Dummy Tables with appropriate estimates and corresponding sampling errors.

## 2.10 Writing the SACMEQ IV National Reports

The NRT commenced the process of drafting their national reports during 2015. A working meeting held in Mbabane Swaziland during February 2015 was organized to support the NRT in this work. This working meeting permitted the NRT to work together and exchange ideas concerning the policy implications of the research results.

## 2.11 Conclusion

The aim of this Chapter was to describe the research procedures that were applied for the execution of SACMEQ IV project. The Chapter was prepared to give an overview of how the study was conducted in individual countries and Malawi in particular. The sample design procedures and the construction of the Reading, Mathematics and HAKT tests for learners and their teachers were to a large extent modeled on the SACMEQ II and III projects.

Following the trend started in SACMEQ II project, the fourth SACMEQ project moved away from traditional approaches of calculating test scores (based on numbers of correct responses to test items) to the use of Modern Item Response Theory to generate descriptions of "levels of increasing learner competence". This approach to describing learner Reading, Mathematics and HAKT achievements offered a mechanism for describing the performance of learners 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

## 3.1 Introduction

This chapter presents data and information on some of the characteristics of Standard 6 pupils and their homes. This is done for three reasons. Firstly, the characteristics represent a 'context' for the analyses done in later chapters of this report. Secondly, since the characteristics of Standard 6 pupils and their homes may change over time, the data can be used to compare the levels and distributions of the data at different time periods. The third reason is that home background is an important variable in all analyses of educational data on achievement. 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, there is a lot of research literature that supports this. Schools that enrol children of low socio-economic status, but record high scores are remarkable. From the home context variables, an indicator on socio-economic status was constructed and it is important for the reader to know exactly which variables were included in this indicator.

## 3.2 General Policy Concerns

The data analyses of SACMEQ IV Malawi report were guided by general policy concerns emanating from various ministerial and experts meetings such as meetings of the Council of SACMEQ Ministers of Education, Joint Education Sector Reviews, and from international and local policy frameworks and reports, such as the United Nations Sustainable Development Goal 4 on Education and the Education 2030 Agenda.

The broad educational policy question posed which is reflected in the title of this chapter was divided into four major general policy concerns. Each of the four general policy concerns was further divided into several specific research questions addressing the policy concerns.

General Policy Concern 3.1:
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 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, and roof)?
- What were the material home conditions of the Standard 6 pupils?

## 3.3 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 on page.36.

It can be observed from Table 3.1 that the average age for all Standard 6 pupils in Malawi in SACMEQ IV was 160.6 months. If all pupils had entered school at the official entry age of 6 years, and there had been no Standard-repetition, the expected mean age would have been 152 months. The figure of 160.6 demonstrates that there are still serious problems of overage pupils in Malawi primary schools. However, the mean age

of 160.6 in SACMEQ IV showed a progressive decrease in pupils mean age compared to169.5 in SACMEQ III, 174.0 in SACMEQ II and 181.1 in SACMEQ I. The results show that there is remarkable improvement in terms of the age of children in Standard 6. This might be an indication that the policies and programmes that are aimed at addressing overage children are bearing fruits. To a larger extent this may also be an indication of the fact that the overage children enrolled due to the 1994 Free Primary Education policy during SACMEQ I (1998), SACMEQ II (2000) and SACMEQ III (2011) were out of the system by the time data for SACMEQ IV was collected.

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, nationally, enrolment was in favour of boys. However, more and more girls were reaching Standard 6 compared to the previous years. The percentage of 49.06 in SACMEQ IV is a steady improvement compared to SACMEQ III, II and I which had percentages of 49.2, 47.8 and 46.5 respectively. However, whilst the rest of the Education Divisions had either shown improvement or maintained the same level of proportion of enrolment of girls over the four SACMEQ data collection points, two divisions, i.e. South West and Shire Highlands, showed unstable variations that require close examination. Between SACMEQ II and SACMEQ III the proportion of female learners in South West Education division had improved from 45.8 to 52.4, but dropped to 49.08 in SACMEQ IV. Similarly, in Shire Highlands education division between SACMEQ II and SACMEQ III, the proportion of girls had improved from 45.9 to 51.4, but dropped to 49.3 in SACMEQ IV.

**Table 3.1: Mean age in months, percentages, and sampling errors for pupil personal and home-related characteristics of girls in Standard 6**

| | Division | Age (months) | | Sex (female) | | Books at home (number) | | Possessions at home (index) | | Parent education | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mean | SE | % | SE | Mean | SE | Mean | SE | Mean | SE |
| SACMEQ I | North | 176 | 2.16 | 47.30 | 3.0 | 7.2 | 1.32 | 3.8 | 0.18 | 2.8 | 0.12 |
| | Central East | 186.2 | 1.67 | 46.60 | 3.13 | 13.1 | 2.81 | 4.3 | 0.18 | 2.5 | 0.09 |
| | Central West | 184.2 | 2.15 | 48.20 | 2.28 | 13.4 | 2.78 | 4.3 | 0.28 | 2.8 | 0.15 |
| | South East | 182 | 2.48 | 46.80 | 3.59 | 8.7 | 2.06 | 4.9 | 0.34 | 2.9 | 0.18 |
| | South West | 174.4 | 3.1 | 45.50 | 3.69 | 17.7 | 2.4 | 5.1 | 0.33 | 3.4 | 0.2 |
| | Shire Highlands | 183.5 | 1.96 | 41.80 | 2.92 | 8.2 | 1.83 | 4.1 | 0.16 | 2.4 | 0.08 |
| | **Malawi** | **181.1** | **1.01** | **46.50** | **1.27** | **11.5** | **0.97** | **4.4** | **0.12** | **2.8** | **0.06** |
| SACMEQ II | North | 171.8 | 3.47 | 47.30 | 2.59 | 6.9 | 1.23 | 3.6 | 0.37 | 3.2 | 0.18 |
| | Central East | 179.9 | 2.76 | 46.00 | 3.73 | 9.1 | 2.61 | 3.3 | 0.23 | 2.7 | 0.16 |
| | Central West | 174.2 | 2.61 | 47.10 | 2.7 | 9.7 | 2.9 | 4.0 | 0.38 | 2.9 | 0.14 |
| | South East | 174.3 | 3.05 | 51.80 | 4.12 | 9.1 | 1.85 | 4.9 | 0.35 | 3.0 | 0.22 |
| | South West | 170.6 | 2.69 | 45.80 | 4.13 | 18.9 | 3.6 | 4.6 | 0.37 | 3.3 | 0.17 |
| | Shire Highlands | 174 | 1.88 | 49.50 | 2.5 | 6.9 | 1.09 | 3.7 | 0.3 | 2.6 | 0.15 |
| | **Malawi** | **174** | **1.19** | **47.80** | **1.34** | **10.1** | **1.07** | **4.0** | **0.15** | **3.0** | **0.07** |
| SACMEQ III | North | 166.7 | 2.13 | 49.30 | 1.9 | 8.15 | 2.17 | 3.98 | 0.25 | 3.03 | 0.12 |
| | Central East | 168.6 | 2.67 | 46.30 | 3.5 | 6.72 | 1.21 | 3.94 | 0.31 | 2.91 | 0.14 |
| | Central West | 173.2 | 1.59 | 48.80 | 1.9 | 5.91 | 0.96 | 3.69 | 0.19 | 2.71 | 0.1 |
| | South East | 169.5 | 2.39 | 47.60 | 3.3 | 10.03 | 5.09 | 3.95 | 0.28 | 2.9 | 0.16 |
| | South West | 165.8 | 1.72 | 52.40 | 3.4 | 8.2 | 0.98 | 4.55 | 0.34 | 3.11 | 0.16 |
| | Shire Highlands | 170.7 | 1.64 | 51.40 | 2.3 | 5.56 | 0.99 | 3.77 | 0.16 | 2.73 | 0.11 |
| | **Malawi** | **169.5** | **0.8** | **49.20** | **1.1** | **7.25** | **0.9** | **3.9** | **0.1** | **2.88** | **0.1** |
| SACMEQ IV | North | 153.1 | 1.9 | 48.94 | 2.7 | 4.99 | 1.05 | 6.23 | 0.14 | 3.63 | 0.06 |
| | Central East | 157.2 | 2.8 | 49.32 | 3.2 | 4.81 | 1.14 | 4.97 | 0.14 | 2.79 | 0.06 |
| | Central West | 160.8 | 1.9 | 48.74 | 1.6 | 4.33 | 1.00 | 5.19 | 0.10 | 3.01 | 0.05 |
| | South East | 159.8 | 2.1 | 49.16 | 2.3 | 3.71 | 0.65 | 4.75 | 0.12 | 2.97 | 0.06 |
| | South West | 152.7 | 2.5 | 49.08 | 3.4 | 7.51 | 1.37 | 5.43 | 0.13 | 3.24 | 0.07 |
| | Shire Highlands | 161.3 | 1.8 | 49.29 | 1.9 | 1.89 | 0.36 | 4.32 | 0.13 | 2.91 | 0.06 |
| | **Malawi** | **160.6** | **1.1** | **49.06** | **1.1** | **4.64** | **0.42** | **5.18** | **0.05** | **3.09** | **0.02** |

**Policy Suggestion 3.1:** The Ministry of Education should undertake studies to establish the reasons why girls' participation in education divisions of South West and Shire Highlands had been unstable over the four SACMEQ data collection points. Of particular interest are the factors that led to the sharp increases in girls' proportions between SACMEQ II and III data collection points and the subsequent drop between SACMEQ III and IV.

**Policy Suggestion 3.2:**The Ministry of Education should continue intensifying and enforcing the school age entry policy to ensure that children are enrolled in school at the right entry age of six (6) years and such efforts should be emphasized in rural areas.

**Policy Suggestion 3.3:** The Ministry of Education and its cooperating partners should continue efforts to promote and expand interventions that promote girls participation in all primary schools to ensure that more girls are enrolled, remain in schools and participate actively. Programmes that promote reduction of pupil – teacher ratios; that promote individualized support to learners; and those that reduce repetition and absenteeism should be supported and scaled up.

## 3.4 Books at Home

***How many books were there in pupils' homes?***

It can be seen from Table 3.1that the mean of the number of books in the homes of Standard 6 pupils has been decreasing since SACMEQ I. In SACMEQ I it was 11.5, in SACMEQ II it was 10.1. In SACMEQ III it decreased to 7.25. In SACMEQ IV it further decreased to 4.64. This is quite a worrisome development. Shire Highlands education division has remained, by far, the education division with the lowest mean number of books in the homes of Standard 6 pupils in all four SACMEQ studies. What is more disturbing is the decreasing size of the mean number of books in the homes of the learners in all education divisions and particularly in Shire Highlands whose mean has moved from 8.2 in SACMEQ I, to 6.9 in SACMEQ II, 5.56 in SACMEQ III and 1.89 in

SACMEQ IV. Generally, the average number of books in 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 and numerate.

## 3.5 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 the 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 up for each pupil. The lowest score possible was zero and the highest 14. It can be noted from Table 3.1 that the number of possessions in the homes in SACMEQ IV was generally low with a national mean of 5.18. The Northern Education Division and the South West Education Divisions had pupils with higher means of possessions in their homes.

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 have low resources and poor environments that do not adequately support pupils in their school work.

## 3.6 Parental Education

***What was the level of the parents' education?***

Separate questions were asked about the mothers' and fathers' educational levels. Responses ranged from '1' No. school/no adult education; '2' Some adult education; '3' Some primary education; '4' Completed primary education; '5' Some education after primary; '6' some secondary education, etc. 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. From Table 3.1in SACMEQ IV, the mean of 3.09 means that majority of parents of Standard 6 children had received some primary education. Comparison at Division level shows that children from the North

Education division had slightly better educated parents (3.63), more than the national mean, followed by those from the South West Education division (3.24). Pupils from the Central East Education division reported having lesser-educated parents in SACMEQ IV (2.79). The national mean of parent education improved slightly from 2.8 in SACMEQ III to 3.09 in SACMEQ IV.

## 3.7 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 and Table 3.3 the information on the types of lighting that the pupils had in their homes is presented.

In SACMEQ IV a larger percentage of the Standard 6 pupils (37.5 percent) indicated electricity as their main source of lighting followed by candle (27.6 percent) and paraffin/oil (22.5 percent). This is a big contrast with data for SACMEQ III and II where majority of Standard 6 pupils had indicated paraffin/oil as their main source of lighting (67.8 percent and 82.3 percent respectively). In SACMEQ III and II, the number of Standard 6 pupils who used electricity as a source of lighting was very small (Only 11.6 percent and 14.3 percent respectively). The big proportion of Standard 6 pupils using electricity may be attributed to the increase in use of cheap solar lanterns that have recently flooded the markets in Malawi. This point, however, needs to be verified with empirical evidence on the ground. The Northern and South West divisions had the highest number of pupils' homes using electricity (51.8 percent and 51.2 percent) in SACMEQ IV compared to the other divisions.

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

| | Division | Source of Lighting | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | No light | | Candle/Oil Lamp | | | Gas lamp | | Electric lighting |
| | | % | SE | % | SE | | % | SE | % | SE |
| SACMEQ II | 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** |

| | Division | No light | | Candle | | Paraffin/ Oil Lamp | | Gas Lamp | | Electric Lighting | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ III | 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** |

**Table 3.3: SACMEQ IV Distribution of source of lighting at Pupils' Home**

| | Division | Source of Lighting | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire | | Candle | | Paraffin / Oil | | Gas Lamp | | Electricity | | None | |
| | | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ IV | Central Eastern | 9.2 | 2.8 | 28.7 | 5.1 | 11.6 | 1.8 | 8.5 | 1.8 | 37.4 | 5.4 | 4.6 | 2.7 |
| | Central Western | 5.3 | 1.5 | 35.8 | 3.5 | 20.2 | 4.4 | 3.4 | 0.9 | 32.1 | 4.5 | 3.2 | 1.3 |
| | Northern | 5.2 | 1.6 | 23.1 | 3.2 | 14.2 | 3.7 | 3.8 | 1.1 | 51.8 | 6.2 | 1.9 | 0.8 |
| | Shire Highlands | 2.8 | 1.7 | 20.8 | 4.5 | 47.6 | 5.4 | 5.2 | 1.8 | 22.0 | 4.5 | 1.6 | 0.7 |
| | South Eastern | 4.6 | 1.7 | 27.7 | 4.3 | 31.2 | 4.0 | 4.9 | 1.2 | 30.0 | 5.8 | 1.5 | 0.6 |
| | South Western | 5.5 | 3.9 | 22.9 | 3.6 | 14.0 | 3.1 | 5.2 | 2.1 | 51.3 | 6.4 | 1.1 | 0.6 |
| | **Malawi** | **5.3** | **1.0** | **27.6** | **1.7** | **22.5** | **1.7** | **4.8** | **0.6** | **37.5** | **2.3** | **2.3** | **0.5** |

**Policy Suggestion 3.4**:

On books in the homes: Government and its cooperating partners need to promote the availability and use of supplementary Reading materials in the homes of pupils. Studies should be conducted to establish how the availability of books in a pupil's home correlates with pupil's achievement scores in numeracy and Reading in Malawian context in order to guide on policy.

On level of Parental education: Government and its cooperating partners should implement programmes that encourage adults to enrol for lifelong learning/adult education programmes to improve their academic levels which would in turn be beneficial for the children as such parents will be able to provide educational support to their children.

The SACMEQ team of National Research Coordinators came up with an indicator of social economic status (SES) comprising 32 indicators reflecting home possessions including parental education. A score of 1 would mean the poorest and a score of 32

would mean the highest. Table 3.4 presents mean scores of socio-economic status by education division. The national SES mean was only 5.30 in SACMEQ IV. This implies that majority of Standard 6 pupils came from poor households. Poverty is endemic in Malawi. The Northern and South West Education Divisions had pupils with slightly better SES than the national mean. Pupils from Shire Highlands Education Division had the least SES mean score.

**Table 3.4: Pupil Socio-economic status (SES) SACMEQ IV**

| Division | Socio-economic status | |
|---|---|---|
| | Mean | SE |
| Central Eastern | 5.02 | 0.20 |
| Central Western | 4.96 | 0.11 |
| Northern | 6.48 | 0.14 |
| Shire Highlands | 4.87 | 0.14 |
| South Eastern | 4.92 | 0.13 |
| South Western | 5.52 | 0.16 |
| Malawi | 5.30 | 0.06 |

## Summary

In summary, the problem of over aged children still exists in Malawi primary schools. However, compared to the previous SACMEQ studies (I, II, and III) Standard 6 pupils in SACMEQ IV were slightly younger than they were in 1998, 2002 and 2007. The proportion of girls in Standard 6 has increased from 1998 to 2013. The same trend appears in some education divisions although South West and Shire Highlands Education Divisions require some special attention. The number of books in the Standard 6 pupils' homes has decreased over the years since SACMEQ I. This is a worrisome trend as it implies that most Standard 6 pupils are not exposed to supplementary literature in their homes. There has been a slight increase in the mean of home possessions of the average Standard 6 pupil between SACMEQ III (3.9) and SACMEQ IV (5.18). The increase in the mean of Standard 6 pupils who have access to lighting from electricity is very impressive. This is likely because of portable

solar/battery operated lanterns. Perhaps the next SACMEQ study will have to disaggregate this indicator to determine the type of electricity.

**General Policy Concern 3.2:**
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 school?
- What was the distance pupils travelled from their homes to school?
- What percentage of pupils spoke the language of the test at home?
- Where do pupils stay during school week?
- Who do pupils stay with during school week?
- How many pupils were repeating Standard 6?
- How many days were pupils absent the previous month?
- How frequently were pupils given homework in Reading and Mathematics and corrected?

## 3.8 School location

***What was the location of the school?***

In Table 3.5, the percentages of schools in urban and rural areas have been presented. Majority of schools (77.6 percent) are located in rural areas. The Shire Highlands education division had the highest proportion of rural schools (93.8 percent). Central West Education division had the lowest proportion of rural schools (66.3 percent).

**Table 3.5: School location**

| Division | School location | |
|---|---|---|
| | Rural (%) | Urban (%) |
| Central Eastern | 85.3 | 14.7 |
| Central Western | 66.3 | 33.7 |
| Northern | 76.9 | 23.1 |
| Shire Highlands | 93.8 | 6.2 |
| South Eastern | 87.3 | 12.7 |
| South Western | 68.6 | 31.4 |
| **Malawi** | **77.6** | **22.4** |

## 3.9 Distance from Home to School

The distance children travel form home to school has a bearing on entry age, late coming, absenteeism and drop out. Table 3.6 presents data on the distance away from school to the homes of the Standard 6 pupils. About one third (30.40 percent) of the Standard 6 pupils lived in homes that were within 0.5 kilometres. About ten percent (10 percent) of the pupils lived more than 4 kilometres away from their schools with South Eastern and Shire Highlands education divisions having comparatively larger proportions.

**Table 3.6: Distance Travelled by Standard 6 pupils from Home to School**

| Division | Distance Away from School | | | | | | |
|---|---|---|---|---|---|---|---|
| | 0 - 0.5 km (%) | 0.5 - 1 km (%) | 1 - 2 km (%) | 2 - 3 km (%) | 3 - 4 km (%) | 4 - 5 km (%) | > 5 km (%) |
| Central Eastern | 35.00 | 24.90 | 19.60 | 10.60 | 3.40 | 2.40 | 4.00 |
| Central Western | 34.10 | 18.50 | 23.80 | 9.50 | 5.00 | 3.20 | 5.90 |
| Northern | 26.70 | 29.30 | 21.60 | 9.10 | 4.80 | 3.80 | 4.60 |
| Shire Highlands | 26.70 | 16.40 | 25.20 | 12.90 | 5.00 | 6.50 | 7.30 |
| South Eastern | 24.30 | 18.40 | 20.70 | 15.70 | 6.60 | 5.60 | 8.90 |
| South Western | 33.80 | 18.00 | 26.70 | 9.00 | 4.80 | 4.50 | 3.20 |
| **Total** | **30.40** | **21.10** | **22.90** | **10.90** | **4.90** | **4.20** | **5.60** |

## 3.10 Speaking English at Home

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

Pupils' performance in a Reading and numeracy test is, to a large extent, determined by pupils' competency in the language of the test. Competency in a language is also determined by its use outside the school. The SACMEQ study collected data to assess the extent to which pupils spoke the language of instruction used in the schools (which is English) when they were outside the school.

The information in Table 3.7 shows that on average, 35.6 percent of the pupils never spoke the language of instruction in their homes. Only 4.0 percent spoke all the time and 5.4 percent spoke most of the time. South West and Central East had larger proportions of pupils who never spoke English in their homes, 51.8 percent and 45.5 percent respectively.

**Table 3.7: Percentages, mean, and sampling errors for the pupil language (English) use at Home in SACMEQ IV**

| Division | Never | | Sometimes | | Most of the Time | | All the Time | |
|---|---|---|---|---|---|---|---|---|
| | % | SE | % | SE | % | SE | % | SE |
| Central Eastern | 45.5 | 9.2 | 48.1 | 8.6 | 3.5 | 1.3 | 2.9 | 1.5 |
| Central Western | 31.5 | 5.6 | 60.5 | 5.5 | 5.4 | 1.3 | 2.6 | 1.1 |
| Northern | 30.3 | 6.7 | 58.8 | 5.7 | 5.8 | 2.3 | 5.1 | 1.1 |
| Shire Highlands | 26.5 | 6.9 | 57.8 | 6.5 | 8.3 | 2.3 | 7.5 | 2.3 |
| South Eastern | 29.5 | 5.5 | 63.9 | 5.4 | 3.6 | 1.2 | 2.9 | 1.0 |
| South Western | 51.8 | 10.5 | 37.6 | 8.1 | 6.1 | 2.0 | 4.5 | 2.0 |
| **Total** | **35.6** | **3.2** | **55.0** | **2.9** | **5.4** | **0.7** | **4.0** | **0.6** |

## 3.11 Pupil's Place of Stay

Pupils' place of stay has a bearing on pupil's school related behaviour such as use of language of instruction, writing homework and studying. Majority of pupils (93.8 percent) reported to be staying with their families. Two percent of the pupils were staying in a boarding school or hostel and 1.2 percent were staying in an Orphanage or Children's home (Table 3.8).

**Table 3.8: Distribution of Pupils' place of stay during school week**

| Division | Home with Family | | Home with Other People who are not Family | | Hostel / Boarding School | | Orphanage or Children's Home | | Other | |
|---|---|---|---|---|---|---|---|---|---|---|
| Central Eastern | 95.4 | 1.6 | 2.0 | 0.9 | 1.8 | 1.1 | 0.7 | 0.4 | 0.0 | 0.0 |
| Central | 92.7 | 2.5 | 2.6 | 1.3 | 2.8 | 1.0 | 1.8 | 1.8 | 0.1 | 0.1 |
| Western | | | | | | | | | | |
| Northern | 90.5 | 2.3 | 3.9 | 1.1 | 2.7 | 0.3 | 0.7 | 0.5 | 2.1 | 0.9 |
| Shire Highlands | 93.1 | 2.4 | 2.5 | 1.3 | 2.9 | 1.1 | 1.0 | 0.7 | 0.5 | 0.6 |
| South Eastern | 93.4 | 1.9 | 3.2 | 1.1 | 1.3 | 0.0 | 2.2 | 1.3 | 0.0 | 0.0 |
| South Western | 98.1 | 0.9 | 0.8 | 0.6 | 0.7 | 0.5 | 0.2 | 0.2 | 0.3 | 0.3 |
| **Malawi** | **93.8** | **0.9** | **2.5** | **0.5** | **2.0** | **0.4** | **1.2** | **0.5** | **0.5** | **0.2** |

## 3.12 Persons Pupils Stay with

In addition to the place where pupils stay data were collected on the people that pupils stay with in places where they stay. Such information would help explain some of the pupils; level of achievement. Majority of the pupils (82.79 percent) were staying with their biological parents, followed by siblings (35 percent). About a quarter of Standard 6 pupils (25.94 percent) were living with grandparents. Over ten percent of the pupils (11.94 percent) were staying alone or by themselves. Similar patterns were observed at division level. South East and Shire Highlands education divisions had the largest proportions of pupils who were living by themselves, 21.35 percent and 19.11 percent, respectively. The same divisions had the highest proportion of pupils staying with grandparents, South East (37.55 percent) and Shire Highlands (37.38 percent). See Table 3.9.

**Table 3.9: Persons Pupils Stay with During School Week**

| Division | Biological Parents | | Guardian | | Grand parents | | Sib-lings | | Other Relatives | | Another Family | | Other Children | | My friend | | Myself | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| Central Eastern | 82.70 | 3.11 | 23.12 | 4.75 | 17.62 | 4.10 | 31.53 | 6.69 | 22.70 | 5.36 | 16.10 | 4.67 | 20.00 | 4.91 | 29.22 | 8.05 | 7.16 | 2.86 |
| Central Western | 82.42 | 2.36 | 16.04 | 2.53 | 22.78 | 3.54 | 34.46 | 4.53 | 17.70 | 3.19 | 15.00 | 3.79 | 13.26 | 2.99 | 23.89 | 4.92 | 8.65 | 1.95 |
| Northern | 81.10 | 2.32 | 26.37 | 3.44 | 27.71 | 4.81 | 36.43 | 5.95 | 23.52 | 4.15 | 17.20 | 3.10 | 17.71 | 3.42 | 24.29 | 4.84 | 12.63 | 2.73 |
| Shire Highlands | 83.29 | 2.26 | 29.11 | 8.34 | 37.38 | 6.80 | 56.50 | 7.56 | 28.25 | 4.86 | 19.92 | 4.39 | 18.15 | 3.49 | 31.72 | 6.80 | 19.11 | 5.88 |
| South Eastern | 78.32 | 3.76 | 28.23 | 4.00 | 37.55 | 5.34 | 39.61 | 6.26 | 27.93 | 5.12 | 25.74 | 4.94 | 21.60 | 4.39 | 36.63 | 5.90 | 21.35 | 4.92 |
| South Western | 89.33 | 3.04 | 14.40 | 3.80 | 15.93 | 4.45 | 17.48 | 5.34 | 11.76 | 3.67 | 9.96 | 4.27 | 7.09 | 2.71 | 10.28 | 3.78 | 5.54 | 2.25 |
| **Malawi** | **82.79** | **1.22** | **21.91** | **1.74** | **25.94** | **1.98** | **35.08** | **2.45** | **21.29** | **1.79** | **17.09** | **1.77** | **15.86** | **1.54** | **25.63** | **2.39** | **11.94** | **1.40** |

## 3.13 Grade Repetition

***How many pupils were repeating Standard 6?***

Information about the incidence of repetition is presented in Table 3.10. About thirty percent (27.6 percent) of the Standard 6 pupils in SACMEQ IV were repeaters. The Northern Education division had a larger proportion of Standard 6 repeaters (35.0 percent). Central East had comparatively smaller proportion of repeaters (23.5 percent). These figures should be a source of concern as they are much bigger compared to SACMEQ III (15.6 percent) and SACMEQ II (12.5 percent) data.

**Table 3.10: Pupils' Repetition Rate in Standard 6**

| Division | Estimated Repetition Rate | |
|---|---|---|
| | (%) | SE |
| Central Eastern | 23.5 | 4.3 |
| Central Western | 27.2 | 2.9 |
| Northern | 35.0 | 5.2 |
| Shire Highlands | 26.0 | 4.2 |
| South Eastern | 29.3 | 4.5 |
| South Western | 24.1 | 6.4 |
| **Malawi** | **27.6** | **1.9** |

**Policy suggestion 3.4:** MoEST should seriously find ways of reducing repetition in schools as the problem seems to have become worse in SACMEQ IV as compared to SACMEQ III. A policy should be introduced to address the issue of repetition and its related factors.

**Policy suggestion 3.5:** Majority of pupils (90.6% combined) 'never' or 'sometimes' use the language of the test and instruction (English) at home. MOEST should explore ways of promoting the use of and practising of the language of instruction after school hours to improve competency of the pupils in the language

## 3.14 Absenteeism

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

The mean number of days that pupils were absent in the previous month prior to SACMEQ IV data collection was 1.5 days at national level. This represents a progressive decrease from SACMEQ I (3.7 days), SACMEQ II (2.0 days) to SACMEQ III (1.66 days). This trend shows that there is an improvement in daily attendance of school. Central West education division had recorded more days pupils were absent than the rest (Table 3.11).

**Table 3.11: Number of Days Standard 6 Pupils were absent from School in the previous month**

| Division | Number of day absent | |
|---|---|---|
| | Mean (days) | SE |
| Central Eastern | 1.4 | 0.2 |
| Central Western | 2.1 | 0.4 |
| Northern | 1.4 | 0.2 |
| Shire Highlands | 1.4 | 0.3 |
| South Eastern | 1.3 | 0.2 |
| South Western | 1.4 | 0.2 |
| **Total** | **1.5** | **0.1** |

## 3.15 Homework Given and Corrected

***Did the teachers give and 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/marked. This information is presented in Table 3.12 for SACMEQ II, III and IV to show the trend over the years. This piece of information was not collected in SACMEQ I.

**Table 3.12: Percentages and sampling errors for the frequency of homework being corrected by teacher (SACMEQ II, III and IV)**

| Division | | No homework given | | Never corrected | | Sometimes corrected | | Mostly/always corrected | |
|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE |
| SACMEQ II | North | 35.8 | 10.56 | 0 | 0 | 20.8 | 8.5 | 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 | 8.32 |
| | Shire Highlands | 35.2 | 11.86 | 1.1 | 1.06 | 22.7 | 9.09 | 41 | 11.67 |
| | **Malawi** | **31.4** | **4.47** | **2.5** | **38** | **24.4** | **3.54** | **41.7** | **4.22** |
| SACMEQ III | North | 12.7 | 6.4 | 1 | 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 | 3.4 | 38.4 | 7.1 | 52.3 | 7.1 |
| | South East | 2.2 | 2 | 5 | 3.7 | 28.1 | 10.2 | 64.7 | 11 |
| | South West | 2.9 | 1.8 | 2.6 | 1.3 | 26.4 | 9.4 | 68.1 | 10 |
| | 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** | **29.1** | **3.5** | **62.7** | **3.7** |
| SACMEQ IV | North | 0.5 | 0.4 | 6.9 | 2.2 | 30.3 | 4.9 | 28.1 | 6.6 |
| | Central East | 0.2 | 0.2 | 4.5 | 1.1 | 36.8 | 6.8 | 30.5 | 7.2 |
| | Central West | 7.4 | 4.5 | 4.2 | 1.3 | 35.5 | 5.7 | 26 | 4.6 |
| | South East | 0.4 | 0.4 | 10.6 | 2 | 31.3 | 5.1 | 17.3 | 3.3 |
| | South West | 3.5 | 3.3 | 4.7 | 2.2 | 31,7 | 6 | 20.7 | 6.7 |
| | Shire Highlands | 0.9 | 0.5 | 4.1 | 1.4 | 25.9 | 5.8 | 29.9 | 6.4 |
| | **Malawi** | **2.9** | **1.3** | **5.8** | **0.7** | **32.4** | **2.4** | **25.1** | **2.3** |

The information in Table 3.12 shows that there was an improvement in the proportion of Standard 6 pupils not receiving homework at all between SACMEQ III and IV. 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 and to 2.9 percent in SACMEQ IV. Of those who received homework in SACMEQ IV, 5.8 percent reported that their teachers never corrected it. This is an increase from SACMEQ III data of 3.1 percent. This trend is worrisome because it shows that the situation is getting worse compared to SACMEQ III. This is more apparent when SACMEQ III and SACMEQ IV data results on the number of pupils who indicated that their homework is 'mostly/always corrected'. A bigger proportion of pupils in SACMEQ III, 62.7 percent said that their homework was mostly/always corrected. However, in SACMEQ IV, only 25.1 percent of the pupils indicated that their homework was mostly/always corrected. There is need to investigate why more pupils are not having their homework marked. South East education division had the least number of pupils whose home work was always/mostly corrected.

**Policy suggestion 3.6**: The small proportion of Standard 6 pupils who get their homework corrected is a worrisome development. There is need to investigate why teachers are not marking/correcting pupils homework.

**General Policy Concern 3.3:**
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.?

## 3.16Pupils' Access to Learning Materials

***What percentage of pupils had access to Learning Materials?***

Pupils' performance is also affected by pupils' access to leaning materials such as textbooks, notebooks, writing materials such as pens and siting and writing places. Table 3.13 presents data on the proportion of Standard 6 pupils who had access to the stated learning materials. Whilst 71.5 percent of the pupils indicated that they had exercise books, pens and rulers, 85,7 percent of the pupils had notebooks which were not marked. Very small proportions of pupils had own Reading and Math textbook, 12.2 percent and 10.0 percent respectively. The SACMEQ IV data (65.9 percent) indicate an improved number of pupils having a sitting and writing place from SACMEQ III (61.9 percent), SACMEQ II (56.4 percent). The data for Shire Highlands needs further investigation as it seems to suggest that all Standard 6 pupils had access to sitting and writing place. Central West education division had the least number of pupils indicating that they had access to a sitting and writing place

**Table 3.13: Pupils' Access to Learning Materials**

| Division | Sitting and Writing Place | | Exercise Book, Pen, Ruler | | Own Reading Textbook | | Own Math Textbook | | Notebooks not Marked | |
|---|---|---|---|---|---|---|---|---|---|---|
| | % | SE | % | SE | % | SE | % | SE | % | SE |
| Central Eastern | 73.7 | 10.6 | 64.8 | 4.8 | 9.7 | 5.3 | 10.4 | 6.5 | 86.4 | 6.8 |
| Central Western | 48.2 | 9.1 | 80.1 | 4.5 | 11.9 | 3.9 | 9.4 | 3.8 | 91.6 | 2.5 |
| Northern | 59.2 | 10.8 | 75.8 | 3.9 | 19.0 | 5.9 | 12.9 | 4.5 | 81.1 | 6.6 |
| Shire Highlands | 99.8 | 0.2 | 77.4 | 5.3 | 21.3 | 6.5 | 15.2 | 4.4 | 92.1 | 2.4 |
| South Eastern | 71.5 | 10.6 | 68.4 | 5.7 | 8.9 | 2.1 | 10.8 | 1.9 | 83.6 | 5.4 |
| South Western | 63.7 | 13.8 | 58.4 | 6.9 | 5.3 | 2.1 | 3.4 | 1.7 | 77.6 | 6.9 |
| **Malawi** | **65.9** | **4.3** | **71.5** | **2.3** | **12.2** | **1.8** | **10.0** | **1.6** | **85.7** | **2.1** |

**Policy suggestion 3.7** The textbook situation for learners is a big concern. Only 12.2 percent of the Standard 6 pupils had own Reading textbooks and 10.0 percent had Math textbook. The Ministry of Education should come up with clear policy guidelines on textbook provision and use.

**General Policy Concern 3.4:**

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?

## 3.17Extra Tuition

***What percentage of pupils received extra tuition?***

In Table 3.14 the percentages and sampling errors for the extra tuition taken by pupils outside school hours (SACMEQ I, II, III and IV) have been presented.

Information from Table 3.14, shows that between SACMEQ I (1998) and SACMEQ II (2002) studies, 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 decreased dramatically to 14.3 percent.

**Table 3.14: Percentages and sampling errors for the extra tuition taken by pupils outside school hours (SACMEQ I, II, III and IV)**

| Division | SACMEQ I | | SACMEQ II | | SACMEQ III | | SACMEQ IV | |
|---|---|---|---|---|---|---|---|---|
| | % | SE | % | SE | % | SE | % | SE |
| Central East | 24.7 | 4.34 | 77.5 | 13.65 | 21.3 | 6.4 | 24.19 | 7.52 |
| Central West | 19.2 | 3.9 | 84.1 | 6.59 | 12.5 | 3.3 | 31.14 | 6.08 |
| North | 17.6 | 5.05 | 70.4 | 9.67 | 13.7 | 5.7 | 32.11 | 6.48 |
| Shire Highlands | 29.9 | 8.52 | 91.3 | 5.84 | 4.3 | 2.1 | 33.54 | 10.14 |
| South East | 18.2 | 3.53 | 77.4 | 9.14 | 15.7 | 5.6 | 39.45 | 7.24 |
| South West | 26.4 | 4.55 | 77.2 | 6.0 | 19.4 | 5.1 | 31.24 | 5.92 |
| **Malawi** | **22** | **1.95** | **79.7** | **3.47** | **14.3** | **1.9** | **32.07** | **2.9** |

In SACMEQ IV, the proportion went up to 32.07 percent. SACMEQ IV report ascribes that the possible explanation for the sharp decrease between SACMEQ II and SACMEQ III was due to the Ministry's policy declaring paid extra tuition illegal around the time SACMEQ III data was collected. The increase in extra tuition between SACMEQ III and SACMEQ IV could be due to the laxity in the implementation and adherence to the policy. This may also be an indication of the overall loss of confidence by parents in the standards of education being offered by the public education system, making parents to seek extra support for their children.

To understand better the motivation and implications of the demand for extra tuition, it is important to see if these extra lessons are paid for or not. Table 3.15 presents proportions, in percentages and sampling errors for the payment of extra tuition taken by pupils outside school hours in SACMEQ II, III and IV.

About sixty percent (56.5 percent) of the pupils who were taking extra lessons in SACMEQ IV were paying money for the extra lessons. About thirty percent (34.0 percent) of them were taking lessons without paying any money. A small proportion of the pupils (5.4 percent) indicated that they were paying for the extra lessons in some form of kind other than money. The SACMEQ IV data are quite different from the SACMEQ III results which showed a very small proportion of pupils who were paying for their extra tuition (4.5 percent) implying that the incidence of paying for extra tuition is on the increase.

**Table 3.15: Percentages and sampling errors for the method of payment for 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 | 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 | - | |
| | North | 3.5 | 1.56 | 9.4 | 3.86 | 87.2 | 4.04 | - | |
| | Shire Highlands | 3.8 | 2.12 | 4.4 | 3.03 | 91.8 | 3.77 | - | |
| | 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 | - | |
| | **Malawi** | **8.9** | **1.41** | **9.6** | **1.73** | **81.4** | **2.34** | **-** | |
| SACMEQ III | 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 |
| | North | 4.3 | 2.2 | 8.7 | 3.8 | - | - | 86.3 | 5.3 |
| | Shire Highlands | 1.2 | 0.7 | 2.5 | 1.5 | - | - | 95.7 | 2.1 |
| | 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 |
| | **Malawi** | **4.5** | **0.8** | **9.2** | **1.6** | **-** | **-** | **85.7** | **1.9** |

| | Division | There is Money payment | | There is no payment | | Other kind | | Money and other kind | |
|---|---|---|---|---|---|---|---|---|---|
| SACMEQ IV | Central Eastern | 20.6 | 8.5 | 70.7 | 11.7 | 4.5 | 2.9 | 4.23 | 2.744 |
| | Central Western | 27.5 | 6.9 | 64.0 | 7.7 | 4.6 | 1.9 | 3.88 | 1.314 |
| | Northern | 32.5 | 7.4 | 51.8 | 8.1 | 9.8 | 2.6 | 5.88 | 2.289 |
| | Shire Highlands | 26.3 | 4.0 | 64.9 | 7.3 | 5.4 | 3.2 | 3.39 | 2.511 |
| | South Eastern | 34.2 | 6.6 | 57.5 | 6.9 | 3.5 | 1.8 | 4.76 | 2.943 |
| | South Western | 59.5 | 11.3 | 32.4 | 11.7 | 5.9 | 2.4 | 2.11 | 1.084 |
| | **Rural** | 0.2 | | 0.7 | | 0.0 | | 3.6% | |
| | **Urban** | 0.6 | | 0.2 | | 0.1 | | 5.5% | |
| | **Malawi** | **34.0** | **3.4** | **56.5** | **3.8** | **5.4** | **1.0** | **4.04** | **.882** |

Comparison of SACMEQ IV data at division level shows that South West education division had the largest proportion of pupils taking and paying for extra tuition (59.5 percent). Central East education division had the largest proportion of pupils who took extra lessons without paying anything (70.7 percent). Central East education division and other divisions such as Central West (64.0 percent) and Shire Highlands (64.9 percent) which had larger proportions of pupils taking extra lessons without paying anything are remarkable cases worth noting and

acknowledging. This could be one of the indicators of teacher dedication to duty which may go unnoticed by policy makers. Such teachers need to be encouraged and recognised in order to promote such work spirit amongst teachers.

## 3.18 Conclusion

In summarizing this chapter, it has been noted that though there were still overaged children in Standard 6 during SACMEQ IV, the mean pupils' age had improved over the period since SACMEQ I. The proportion of girls in Standard 6 had increased in the three studies, although there were variations 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 was a significant decrease in the number of possessions in the home of an average Standard 6 pupil. Generally, Standard 6 pupils came from homes that were of low quality. It is however, worthy noting that a larger percentage of Standard 6 pupils in SACMEQ IV (37.5%) indicated electricity (probably attributable to solar lighting) as their main source of lighting compared to SACMEQ III (11.6 percent).

There was a commendable improvement in the way teachers gave homework to pupils between SACMEQ III and SACMEQ IV. The number of pupils reported not receiving homework at all went down from 31.4 percent in SACMEQ II to 5.1 in SACMEQ III and to 2.9 percent in SACMEQ IV. There were, however, large variations in the way teachers gave and marked (corrected) homework. More pupils who received homework in SACMEQ IV (5.8%) reported that their teachers never corrected their homework compared to 3.1% of the pupils who received homework in SACMEQ III.

The majority of the pupils stayed with their family during the school week. The small proportions of pupils having their own Reading and Math textbooks is a worrisome situation. 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

## 4.1 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 preparing for lessons, teaching 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 centres, inspections, advisory visits, and school head inputs) was given to Standard 6 teachers?

7. What factors had the greatest impact upon teacher job satisfaction?

Policy Concern 4.1
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.

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.

## 4.2 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 II, III and IV.

**Table 4.1: Means, Percentages and Sampling Errors for Age and Gender of Reading Teachers**

| Division | SACMEQ II | | | | SACMEQ III | | | | SACMEQ IV | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean Age (years) | SE | Gender (F) % | SE | Mean Age (years) | SE | Gender (F) % | SE | Mean Age (years) | SE | Gender (F) % | SE |
| Central Eastern | 29.7 | 1.0 | 41.1 | 13.3 | 36.0 | 1.6 | 20.0 | 8.2 | 32.9 | 1.7 | 19.7 | 10.7 |
| Central Western | 34.5 | 1.7 | 33.0 | 9.2 | 35.4 | 1.6 | 27.6 | 10.0 | 33.3 | 1.6 | 21.7 | 7.7 |
| Northern | 33.9 | 2.0 | 22.9 | 10.2 | 34.0 | 1.0 | 39.8 | 9.1 | 35.0 | 2.5 | 31.5 | 12.3 |
| Shire Highlands | 34.4 | 2.0 | 22.6 | 10.8 | 39.8 | 2.1 | 15.0 | 8.5 | 33.2 | 1.4 | 11.0 | 6.9 |
| South Eastern | 29.9 | 1.0 | 7.1 | 5.1 | 40.0 | 2.4 | 31.6 | 10.8 | 32.9 | 3.2 | 37.4 | 13.6 |
| South Western | 30.6 | 1.2 | 57.0 | 11.4 | 34.8 | 1.1 | 10.8 | 7.4 | 36.0 | 2.5 | 52.6 | 14.9 |
| **Total** | **32.4** | **0.7** | **30.3** | **4.2** | **36.3** | **0.7** | **26.0** | **3.9** | **33.8** | **0.9** | **28.4** | **4.6** |

In 2002 (SACMEQ II) the average age of a Reading teachers was 32.4 years and in 2007 (SACMEQ III), the average age of Standard 6 Reading teachers was 36.30 years. In SACMEQ IV the average age of Reading teachers was 33.8 years. Across the divisions, the average age of Reading teachers in 2013 (SACMEQ IV) ranged from 32.9 years (in the Central East and South East division) to 36.0 years (in the South West division).

**Table 4.2: Means, percentages, and sampling errors for age and gender of Mathematics teachers (SACMEQ II, III &IV)**

| Division | SACMEQ II | | | | SACMEQ III | | | | SACMEQ IV | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean Age | | Gender (F) | | Mean Age | | Gender (F) | | Mean Age | | Gender (F) | |
| | Years | SE | % | SE | Years | SE | % | SE | Years | SE | % | SE |
| Central Eastern | 32.1 | 1.2 | 30.8 | 12.5 | 35.2 | 1.7 | 16.5 | 8.2 | 34.8 | 2.4 | 18.2 | 10.1 |
| Central Western | 32.3 | 1.3 | 29.4 | 9.1 | 36.9 | 1.5 | 36.2 | 9.0 | 33.6 | 1.6 | 33.6 | 9.7 |
| Northern | 35.0 | 1.6 | 15.4 | 8.7 | 36.0 | 1.5 | 11.6 | 6.4 | 39.0 | 2.6 | 11.0 | 7.7 |
| Shire Highlands | 34.9 | 1.9 | 25.3 | 11.0 | 34.7 | 1.1 | 13.7 | 7.6 | 28.9 | 1.9 | 37.6 | 14.0 |
| South Eastern | 31.0 | 1.3 | 12.8 | 7.6 | 42.5 | 1.7 | 19.9 | 9.4 | 34.6 | 2.3 | 13.3 | 10.1 |
| South Western | 33.1 | 1.4 | 55.5 | 10.6 | 36.3 | 2.0 | 45.4 | 12.2 | 35.7 | 2.6 | 49.5 | 15.3 |
| **Malawi** | **33.1** | **0.6** | **28.1** | **4.1** | **37.07** | **0.7** | **24.7** | **3.7** | **34.3** | **0.9** | **26.9** | **4.5** |

The average age of Standard 6 Mathematics teachers in 2002 was 33.1 years, in 2007 the average age was 37.07 years while in 2013 the average age was 34.3 years. The average age of Mathematics teachers in 2013(SACMEQ IV) ranged from 28.9 years in the Shire Highlands division to 39.0 years in the Northern division.

**Policy Suggestion 4.1**: The average ages of both Reading and Mathematics teachers in Standard 6 have shown a steady increase between 2002 and 2007 and decreasing between 2007 and 2013. This is an indication that the majority of the youthful teachers that were recruited in the 2000s 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.

## 4.3 Sex of teachers

### *Reading Teachers*

In terms of gender, it can be seen from Table 4.1 that in SACMEQ II 30.3 percent of the pupils in Standard 6 had female Reading teachers compared to 26.0 percent in SACMEQ III and 28.4

percent in SACMEQ IV, reflecting a moderate decline of less than 3 percentage points over the years. South West division had the highest number of Standard 6 pupils reporting to have Reading female teachers (52.6 percent). Shire Highlands had the least percentage of pupils reporting having female Reading teachers (11.0 percent). There was, however, a notable decrease in the allocation of female Reading teachers to the divisions that were lowest in SACMEQ II and III. In SACMEQ IV, South West division was the only division whose Standard 6 pupils were well supplied with female Reading teachers (52.6 percent).

### *Mathematics*

In SACMEQ II, 28.1 percent of the Standard 6 pupils had female Mathematics teachers, and in SACMEQ III, 24.7 percent of Standard 6 pupils had female Mathematics teachers indicating a decline of 3.4 percent. In SACMEQ IV the proportion of female Mathematics teachers was 26.9 percent indicating a slight increase over SACMEQ III. By division, there were some slight increases in the percentage of pupils with female Mathematics teachers between SACMEQ III and IV in Central East and South West divisions. Central West, Northern and South East recorded moderate decreases of less than 10 percentage points in the proportion of Standard 6 pupils with female Mathematics teachers. On overall the Shire Highlands division recorded a substantial increase of over 20 percent. The Northern division had the least percentage of pupils with female Mathematics teachers (11.0 percent) in SACMEQ IV whilst South West had the highest percentage (49.5 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.

**General Policy Concern 4.2**:
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 4.3.

**Table 4.3: Means and Standard error for experience of teachers (SACMEQ III and IV)**

| Division | SACMEQ III | | | | | | SACMEQ IV | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Reading Teacher Experience (years) | | Mathematics Teacher Experience (years) | | Health Teacher Experience (years) | | Reading Teacher Experience (years) | | Mathematics Teacher Experience (years) | | Health Teacher Experience (years) | |
| | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE |
| Central East | 9.4 | 1.4 | 9.5 | 1.2 | 9.6 | 1.6 | 5.9 | 1.6 | 7.7 | 1.9 | 5.9 | 1.7 |
| Central West | 10.1 | 0.8 | 12.6 | 1.5 | 11.5 | 1.2 | 8.0 | 1.5 | 8.5 | 1.5 | 7.1 | 1.4 |
| Northern | 10.6 | 1.4 | 11.2 | 1.3 | 11.6 | 1.7 | 9.6 | 2.1 | 11.9 | 2.5 | 13.4 | 2.2 |
| South East | 14.2 | 1.9 | 17.1 | 1.6 | 14.2 | 1.9 | 7.8 | 2.3 | 9.7 | 2.1 | 9.6 | 2.1 |
| South West | 14.7 | 2.0 | 12.8 | 1.8 | 13.6 | 1.7 | 10.9 | 2.0 | 12.0 | 1.9 | 13.2 | 1.7 |
| Shire Highlands | 11.6 | 0.8 | 10.8 | 0.8 | 10.7 | 0.7 | 7.3 | 1.5 | 4.9 | 1.5 | 4.6 | 1.1 |
| **Malawi** | **11.4** | **0.5** | **12.2** | **0.0.6** | **11.8** | **0.6** | **8.2** | **0.8** | **9.0** | **0.8** | **8.9** | **0.7** |

## 4.4 Years of teaching experience

It can be seen from Table 4.3 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 an average of 11.8 years of teaching experience. 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 decrease in teaching experience between SACMEQ III and IV with average Reading teacher experience decreasing from 11.4 in 2007 to 8.2 in 2013 and Mathematics teacher decreasing from 12.2 in 2007 to 9.0 in 2013. There was a slight decrease in teaching experience between SACMEQ III and IV for health teachers with an average teacher experience decreasing from 11.8 in 2007 to 8.9 years in 2013.

## 4.5 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 4.4.

**Table 4.4: Academic education of Reading teachers (SACMEQ III and IV)**

| Division | SACMEQ III | | | SACMEQ IV | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Primary | Junior Secondary | Senior Secondary | A-level or further study | Primary | Junior Secondary | Senior Secondary | A-level or further study | Tertiary |
| | % | % | % | % | % | % | % | % | % |
| Central East | 0.0 | 33.0 | 62.9 | 4.2 | 8.8 | 0.0 | 82.2 | 8.9 | 0.0 |
| Central West | 4.6 | 22.7 | 70.6 | 2.1 | 0.0 | 8.7 | 82.0 | 9.3 | 0.0 |
| Northern | 0.0 | 31.0 | 69.0 | 0.0 | 0.0 | 4.5 | 85.5 | 10.0 | 0.0 |
| South East | 18.7 | 41.2 | 40.2 | 0.0 | 1.6 | 6.5 | 75.4 | 16.5 | 0.0 |
| South West | 0.0 | 45.4 | 54.6 | 0.0 | 0.0 | 23.6 | 71.2 | 5.2 | 0.0 |
| Shire Highlands | 0.0 | 33.5 | 66.9 | 0.0 | 0.0 | 0.0 | 93.1 | 6.9 | 0.0 |
| **Malawi** | **3.6** | **32.7** | **62.5** | **1.2** | **1.4** | **7.2** | **81.5** | **9.8** | **0.0** |

It can be seen from Table 4.4 that in SACMEQ III 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 IV data this shows an improvement as 81.5 percent of the pupils were then taught by Reading teachers with senior secondary and 7.2 percent with Junior secondary qualifications. In 2013 the Shire Highlands division had the highest percentage of pupils being taught by teachers with senior secondary education. Whilst in SACMEQ III only 1.2 percent of pupils had a Reading teacher with an A-level education, in SACMEQ IV some schools recorded having teachers with A-level academic qualifications in South East (16.5 percent) and Northern division (10.0 percent). The data shows that while South West division registered a reduced percentage of pupils with Reading teachers with Primary level of education from 18.7 percent to 0.0 percent, Central East has actually increased the number from 0.0 percent to 8.8 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 with Primary level education to teach in 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 calibre of graduates.

In Table 4.5 similar information on the academic qualifications of Mathematics teachers has been presented and is compared with SACMEQ III data while Table 4.6 presents similar information for health teachers.

**Table 4.5: Academic education of Mathematics teachers (SACMEQ III and IV)**

| Division | SACMEQ III | | | | SACMEQ IV | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Primary | Junior Secondary | Senior Secondary | A-level or further study | Primary | Junior Secondary | Senior Secondary | A-level or further study | Tertiary |
| | % | % | % | % | % | % | % | % | % |
| Northern | 0.0 | 22.8 | 77.2 | 0.0 | 0.0 | 16.0 | 77.8 | 6.2 | 0.0 |
| Central East | 0.0 | 27.4 | 68.4 | 4.2 | 2.5 | 0.0 | 79.0 | 18.5 | 0.0 |
| Central West | 3.5 | 28.9 | 65.3 | 2.3 | 0.0 | 8.5 | 85.8 | 5.7 | 0.0 |
| South East | 11.9 | 43.3 | 44.7 | 0.0 | 6.5 | 16.7 | 70.3 | 6.6 | 0.0 |
| South West | 0.0 | 50.2 | 49.8 | 0.0 | 0.0 | 15.8 | 84.2 | 0.0 | 0.0 |
| Shire Highlands | 0.0 | 30.6 | 69.4 | 0.0 | 4.3 | 0.0 | 89.3 | 6.4 | 0.0 |
| Malawi | 2.4 | 32.5 | 63.8 | 1.2 | 2.2 | 9.6 | 81.1 | 7.1 | 0.0 |

It can be seen from Table 4.5 that in SACMEQ IV, 81.1 percent of the Standard 6 pupils were being taught by Mathematics teachers who had completed senior secondary education while 9.6 percent had junior secondary education as their highest academic qualification. This shows a significant increase drop from SACMEQ III data which showed that 63.8 percent of the pupils were taught by Mathematics teachers with senior secondary education and 32.5 percent of them were being taught by teachers with junior secondary education. Unlike in SACMEQ III where the Northern division had the largest percentage of pupils being taught by Mathematics teachers with senior secondary education (77.2 percent), the Shire Highlands division emerged the highest with 89.3 percent of the pupils being taught by teachers with senior secondary education in SACMEQ IV. The Northern division had 77.8 percent of the pupils being taught by Mathematics teachers with senior secondary education in SACMEQ IV. The Central East had the largest number of pupils (18.5 percent) in SACMEQ IV who were being taught by teachers with A-level education.

**Table 4.6: Academic education of health teachers (SACMEQ III and IV)**

| Division | SACMEQ III | | | SACMEQ IV | | | | |
|---|---|---|---|---|---|---|---|---|
| | Primary | Junior Secondary | Senior Secondary | Primary | Junior Secondary | Senior Secondary | A-level or further study | Tertiary |
| | % | % | % | % | % | % | % | % |
| Central East | 0.0 | 37.8 | 62.2 | 9.3 | 0.0 | 81.2 | 9.5 | 0.0 |
| Central West | 4.7 | 25.1 | 70.2 | 0.0 | 9.0 | 80.6 | 10.4 | 0.0 |
| Northern | 0 | 25.4 | 74.6 | 0.0 | 32.1 | 67.9 | 0.0 | 0.0 |
| South East | 11.9 | 49.7 | 38.4 | 9.4 | 8.7 | 76.6 | 5.3 | 0.0 |
| South West | 0.0 | 33.0 | 67.0 | 0.0 | 17.5 | 82.5 | 0.0 | 0.0 |
| Shire Highlands | 0.0 | 24.7 | 75.3 | 0.0 | 0.0 | 93.1 | 6.9 | 0.0 |
| **Malawi** | **2.8** | **31.3** | **65.9** | **2.9** | **11.7** | **79.6** | **5.8** | **0.0** |

From Table 4.6 above, 65.9 percent of pupils were being taught by health teachers with senior secondary education in 2007. Shire Highlands and Northern division had the highest number of pupils with health teachers with senior secondary education in SACMEQ III (75.3 and 74.6 percent respectively). The percentage of pupils with health teachers with senior secondary education increased to 79.6 percent in SACMEQ IV. The Shire Highlands had the highest number of pupils with health teachers with senior secondary education in 2013 (SACMEQ IV) at about 93.1 percent while the Northern division reported the lowest percentage points at 67.9 percent. The Central West and Central East divisions also recorded some health teachers with A Level at 10.4 and 9.5 percent respectively.

Overall there is need for the Ministry of Education to devise policies which will encourage primary school teachers with Junior Secondary Education qualifications to upgrade to Senior Secondary Education if the quality of teaching and learning has to improve in the primary schools.

**Policy suggestion 4.5.** It can be noted from the evidence above that most teachers with junior secondary education qualifications have not been upgrading themselves to senior secondary education and A-levels. Therefore the Ministry of Education 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 IV) has been presented in Table 4.7. This has been compared to SACMEQ III in Table 4.8.

From Table 4.7 it can be noted that the Standard 6 pupil had Reading teachers who had attended 5.1 courses and Mathematics teachers who had attended 5.2 courses of in-service in SACMEQ IV. This shows a drastic decrease from the SACMEQ III (see Table 4.8) which were 17.1 and 12.9 respectively. Variations among divisions still exist. The Northern division which had the lowest mean scores in SACMEQ III in Reading (3.4), Mathematics (3.9) and 3.9 in health, had made very little improvements in SACMEQ IV with mean scores of 4.2 in Reading, and 5.6 both in Mathematics and health.

**Table 4.7: Period of In-service training (in days) for Grade 6 Teachers by Division and Subject in the last three years (SACMEQ IV)**

| Division | READING | | MATHEMATICS | | HEALTH | |
|---|---|---|---|---|---|---|
| | Days | SE | Days | SE | Days | SE |
| Central Eastern | 4.2 | 1.7 | 6.3 | 3.0 | 4.1 | 1.6 |
| Central Western | 5.4 | 1.3 | 7.1 | 2.1 | 7.3 | 2.1 |
| Northern | 4.1 | 2.3 | 5.6 | 2.5 | 5.6 | 2.2 |
| Shire Highlands | 6.0 | 2.4 | 4.9 | 2.0 | 5.2 | 2.2 |
| South Eastern | 4.9 | 1.4 | 2.7 | 0.8 | 2.8 | 1.1 |
| South Western | 5.8 | 1.8 | 3.2 | 1.2 | 5.8 | 1.4 |
| **Malawi** | **5.1** | **0.7** | **5.2** | **0.9** | **5.3** | **0.8** |

**Table 4.8: Period of In-service training (in days) for Grade 6 Teachers by Division and Subject in the last three years (SACMEQ III)**

| Division | READING | | MATHEMATICS | | HEALTH | |
|---|---|---|---|---|---|---|
| | Days | SE | Days | SE | Days | SE |
| Central East | 6.6 | 2.9 | 7.9 | 2.9 | 7.3 | 3.0 |
| Central West | 49.4 | 30.8 | 33.5 | 23.0 | 28.2 | 22.5 |
| Northern | 3.4 | 1.9 | 3.7 | 1.8 | 3.9 | 1.9 |
| South East | 8.4 | 2.8 | 7.1 | 2.5 | 9.7 | 2.7 |
| South West | 3.9 | 0.6 | 2.8 | 0.7 | 4.4 | 0.8 |
| Shire Highlands | 7.0 | 2.4 | 7.0 | 2.4 | 7.2 | 2.5 |
| **Malawi** | **17.1** | **8.0** | **12.9** | **6.1** | **12.1** | **5.9** |

**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 Centres (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 4.10. This is compared to SACMEQ III in Table 4.9.

It can be noted from Table 4.10 that 62.6 percent of the pupils in SACMEQ IV had Reading teachers who found their in-service courses at least reasonably effective (i.e. cumulative score of "Reasonably Effective" + "Effective" + "Very Effective") while 57.4 percent of the pupils had Mathematics teachers who found their in-service to be at least reasonably effective while 58.9 percent of the pupils had health teachers who found their in-service to be at least reasonably effective. Compared with SACMEQ III data, this shows a sharp decline in terms of teachers satisfaction derived from the courses. In SACMEQ III, 75.7 percent of the pupils had Reading teachers who found their in-service courses effective, 81.5 percent of the pupils had Mathematics teachers who found their in-service courses effective and 79.7 percent of the pupils had health teachers who found their in-service to be effective (see Table 4.9). This is a worrisome 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.

**Table 4.9: Effectiveness of the in-service courses (SACMEQ III)**

| Division | Reading in-service courses | | Mathematics in service courses | | Health in- service courses | |
|---|---|---|---|---|---|---|
| | % | SE | % | SE | % | SE |
| 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 |
| Northern | 88.1 | 8.1 | 87.4 | 8.9 | 89.6 | 7.1 |
| 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 4.10: In-service training effectiveness (SACMEQ IV)**

| Division | Teacher | Did not Attend | Not effective | Reasonably effective | Effective | Very effective |
|---|---|---|---|---|---|---|
| Central Eastern | Reading | 47.2 | 0.0 | 23.2 | 18.3 | 11.3 |
| | Mathematics | 44.1 | 0.0 | 21.5 | 23.2 | 11.2 |
| | Health | 43.0 | 0.0 | 37.6 | 19.4 | 0.0 |
| Central Western | Reading | 35.4 | 1.8 | 23.9 | 26.9 | 12.0 |
| | Mathematics | 39.0 | 0.0 | 21.1 | 31.2 | 8.7 |
| | Health | 31.8 | 0.0 | 23.9 | 38.7 | 5.5 |
| Northern | Reading | 44.1 | 0.0 | 15.8 | 17.7 | 22.4 |
| | Mathematics | 21.3 | 0.0 | 13.5 | 22.8 | 42.5 |
| | Health | 34.6 | 0.0 | 17.4 | 12.2 | 35.8 |
| Shire Highlands | Reading | 15.9 | 0.0 | 25.4 | 42.0 | 16.8 |
| | Mathematics | 31.2 | 11.2 | 14.1 | 28.6 | 14.8 |
| | Health | 34.3 | 11.5 | 14.5 | 28.1 | 11.6 |
| South Eastern | Reading | 38.2 | 0.0 | 27.7 | 10.3 | 23.8 |
| | Mathematics | 51.6 | 5.0 | 17.4 | 20.7 | 5.3 |
| | Health | 57.2 | 2.3 | 20.2 | 12.1 | 8.3 |
| South Western | Reading | 40.4 | 0.0 | 16.4 | 22.6 | 20.6 |
| | Mathematics | 47.4 | 0.4 | 14.1 | 14.2 | 23.9 |
| | Health | 29.6 | 5.3 | 14.2 | 32.1 | 18.8 |
| **Malawi** | **Reading** | **36.9** | **0.5** | **22.5** | **22.7** | **17.4** |
| | **Mathematics** | **39.9** | **2.6** | **17.7** | **24.6** | **15.1** |
| | **Health** | **38.4** | **2.7** | **21.1** | **24.8** | **13.0** |

In summary, the evidence in this section has shown that in terms of the professional characteristics of the teachers, Standard 6 pupils had a good proportion of Reading, Mathematics and health teachers who had senior secondary school education. Again evidence reveal that there has been a sharp decline in the provision of in-service training, and therefore this calls for need to enhance in-service training in all the divisions across the country.

***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.

## 4.6 Periods and time spent on teaching per week

In Table 4.11 information about the means and sampling errors for the periods and time spent on teaching per week in SACMEQ IV and SACMEQ III has been presented.

**Table 4.11: Means and sampling errors for the periods and time spent on teaching per week**

| | Division | READING | | MATHEMATICS | | HEALTH | |
|---|---|---|---|---|---|---|---|
| | | Mean | SE | Mean | SE | Mean | SE |
| SACMEQ IV | Central Eastern | 34.8 | 4.1 | 33.6 | 3.6 | 34.3 | 4.0 |
| | Central Western | 37.5 | 2.6 | 38.1 | 2.6 | 38.0 | 2.6 |
| | Northern | 32.4 | 4.1 | 31.4 | 4.7 | 31.5 | 4.3 |
| | Shire Highlands | 29.1 | 3.1 | 29.4 | 2.6 | 28.1 | 2.8 |
| | South Eastern | 32.6 | 4.0 | 27.9 | 4.1 | 29.9 | 4.0 |
| | South Western | 32.0 | 5.5 | 37.4 | 4.5 | 35.8 | 4.8 |
| | **Malawi** | **33.7** | **1.5** | **33.3** | **1.5** | **33.4** | **1.5** |
| SACMEQ III | Central Eastern | 32.4 | 3.0 | 35.3 | 2.6 | 35.5 | 2.7 |
| | Central Western | 30.8 | 2.4 | 33.3 | 2.5 | 32.2 | 2.5 |
| | Northern | 37.3 | 2.4 | 36.4 | 2.4 | 35.9 | 2.6 |
| | Shire Highlands | 42.4 | 1.9 | 43.9 | 1.3 | 42.3 | 1.8 |
| | South Eastern | 35.6 | 2.5 | 36.3 | 2.5 | 36.4 | 2.4 |
| | South Western | 28.9 | 3.5 | 26.9 | 3.6 | 26.9 | 3.6 |
| | **Malawi** | **34.2** | **1.1** | **35.2** | **1.1** | **34.5** | **1.2** |

In terms of time spent on teaching, it can be noted from Table 4.11 that Reading teachers spent 33.7 periods per week teaching while Mathematics teachers and health teachers spent 33.3 periods and 33.4 periods respectively. This reflects a slight decline from 34.2, 35.2 and 34.5 periods per week for Reading, Mathematics and health teachers respectively from SACMEQ III. The South West division which consistently had pupils with teachers who spent lesser periods per week teaching in SACMEQ III had made some improvements. In SACMEQ IV, the Shire Highlands 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 South West division. However, there is need to check staff management in Shire Highland division as evidence seems to point that the division had teachers who spent the least periods per week and the least number of hours per week teaching. The district managers should closely examine the staffing levels of their districts and explore possibilities of reallocating teachers. There will again be need for accurate and timely data.

## 4.7 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 in SACMEQ IV and SACMEQ III has been presented in Table 4.12.

It can be noted from Table 4.12 that in SACMEQ IV on average Standard 6 pupils had Reading teachers who were spending about 5.6 hours for the preparation of lessons. This was a significant drop of more than ten percentage points from 13.66 hours in SACMEQ III. The Shire Highlands division had pupils with teachers with the lowest mean hours spent in lesson preparation in all three subject areas. The South Western division remained the division with pupils whose teachers were spending the highest number of hours preparing for a lesson in all subjects in SACMEQ IV.

In summary, it has been noted that compared to SACMEQ III, teachers in SACMEQ IV were generally teaching less 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 III and IV is a cause for concern.

**Table 4.12: Total Hours Marking & Lesson Plan Preparations**

| | Division | READING | | MATHEMATICS | | HEALTH | |
|---|---|---|---|---|---|---|---|
| | | Mean | SE | Mean | SE | Mean | SE |
| SACMEQ IV | Central East | 5.6 | 0.8 | 5.8 | 0.8 | 5.8 | 0.8 |
| | Central West | 5.8 | 0.7 | 5.3 | 0.7 | 5.5 | 0.7 |
| | Northern | 5.6 | 0.7 | 4.8 | 0.8 | 5.0 | 0.6 |
| | Shire Highlands | 4.6 | 0.8 | 5.1 | 0.5 | 4.7 | 0.6 |
| | South East | 4.7 | 0.5 | 4.4 | 0.3 | 4.2 | 0.4 |
| | South West | 7.8 | 1.9 | 7.5 | 2.0 | 6.7 | 2.0 |
| | **Malawi** | **5.6** | **0.4** | **5.3** | **0.3** | **5.3** | **0.4** |
| SACMEQ III | 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 |
| | Northern | 15.12 | 1.42 | 15.58 | 1.38 | 15.14 | 1.47 |
| | Shire Highlands | 14.51 | 1.79 | 14.81 | 1.82 | 14.27 | 1.84 |
| | 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 |
| | **Malawi** | **13.66** | **0.70** | **14.00** | **0.73** | **14.27** | **0.70** |

**Policy Suggestion 4.10:** It appears that the Ministry of Education does not have clear guidelines or a monitoring framework on lesson preparation and delivery. Teachers were generally teaching less periods per week. It is suggested that the Ministry through the Department of Inspectorate and Advisory Services should develop, implement and monitor the implementation of a lesson preparation and teaching framework to ensure that teachers prepare adequately and spend all hours meant for teaching on actual teaching in classes.

General Policy Concern 4.3:

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?

## 4.8 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 Mathematics and health teachers asking parents to sign homework have been presented in Table 4.13.

It can be noted from Table 4.13 that between SACMEQ III and SACMEQ IV, the percentage of pupils with Reading, Mathematics and health teachers who asked parents to sign the homework had greatly increased. Data show that 42.0 percent, 39.8 percent and 41.8 percent of the pupils had Reading, Mathematics and health teachers, respectively, who reported that they asked parents to sign the homework in SACMEQ IV as opposed to 19.1 percent, 19.8 percent and 20.7 percent as recorded in SACMEQ III.

**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 generally low percentage (about 41%) 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 take an active role in monitoring the learning of their children.

**Table 4.13: Percentages and sampling errors of teachers asking parents to sign homework**

| | Division | READING | | MATHEMATICS | | HEALTH | |
|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE |
| SACMEQ IV | Central Eastern | 42.8 | 13.8 | 39.9 | 13.5 | 51.8 | 14.6 |
| | Central Western | 50.6 | 9.9 | 38.3 | 10.7 | 39.1 | 10.1 |
| | Northern | 61.8 | 11.7 | 61.3 | 12.9 | 54.3 | 12.1 |
| | Shire Highlands | 42.5 | 13.9 | 48.2 | 13.7 | 49.4 | 13.5 |
| | South Eastern | 20.6 | 11.6 | 26.7 | 11.8 | 28.7 | 11.6 |
| | South Western | 26.0 | 12.1 | 21.5 | 11.7 | 34.0 | 13.4 |
| | **Malawi** | **42.0** | **5.0** | **39.0** | **5.1** | **41.8** | **5.0** |
| SACMEQ III | Central Eastern | 15.1 | 7.4 | 11.4 | 6.6 | 19 | 9.4 |
| | Central Western | 25.5 | 7.6 | 26.4 | 8.2 | 28.7 | 8.3 |
| | Northern | 17.7 | 7.8 | 14.5 | 6.9 | 12.1 | 6.1 |
| | Shire Highlands | 18.4 | 8.7 | 23.5 | 9.7 | 21.7 | 9.7 |
| | South Eastern | 20.1 | 8.6 | 17 | 8.4 | 12.3 | 6.6 |
| | South Western | 13 | 5.9 | 23 | 9.7 | 26.9 | 10.3 |
| | **Malawi** | **19.1** | **3.3** | **19.8** | **3.5** | **20.7** | **3.5** |

In summary, it has been noted that compared to SACMEQ III, teachers in SACMEQ IV were teaching less 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, an increase in the percentage of pupils with teachers who asked parents to sign the homework.

General Policy Concern 4.6:
What professional support (in terms of visiting education resource centres) 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 use of resource centres, advisory services and support to the teachers.

## 4.9 Purposes for using the resource centre

In Table 4.14, Table 4.14, and Table 4.16, information about the percentages and sampling errors for the reasons of visiting education resource centres for teachers has been presented for SACMEQ IV.

**Table 4.14: Percentages and sampling errors for reasons for visiting the resource centre (Reading), SACMEQ IV**

| Division | Reading Teachers | | | | | |
|---|---|---|---|---|---|---|
| | Looking for materials | Borrowing materials | Making materials | Attend training courses | Exchange Ideas | Seek Advice |
| Central Eastern | 75.8 | 74.5 | 73.1 | 81.7 | 85.2 | 67.8 |
| Central Western | 73.4 | 66.6 | 64.8 | 59.5 | 73.2 | 73.0 |
| Northern | 100.0 | 94.6 | 73.1 | 100.0 | 95.3 | 87.0 |
| Shire Highlands | 100.0 | 100.0 | 96.2 | 96.2 | 96.2 | 100.0 |
| South Eastern | 67.7 | 71.8 | 64.8 | 66.4 | 70.0 | 47.0 |
| South Western | 73.2 | 71.2 | 54.2 | 73.2 | 74.0 | 88.0 |
| **Malawi** | **80.0** | **77.4** | **69.8** | **76.7** | **80.9** | **74.7** |

**Table 4.15: Percentages and sampling errors for reasons for visiting the resource centre (Mathematics), SACMEQ IV**

| Division | Mathematics Teachers | | | | | |
|---|---|---|---|---|---|---|
| | Looking for materials | Borrowing materials | Making materials | Attend training courses | Exchange Ideas | Seek Advice |
| Central Eastern | 89.7 | 88.5 | 76.3 | 68.7 | 79.4 | 81.7 |
| Central Western | 75.1 | 59.4 | 57.2 | 48.7 | 69.5 | 68.8 |
| Northern | 93.3 | 100.0 | 70.0 | 93.3 | 100.0 | 88.7 |
| Shire Highlands | 100.0 | 100.0 | 96.2 | 96.2 | 96.2 | 100.0 |
| South Eastern | 76.4 | 92.1 | 87.6 | 77.1 | 75.5 | 78.0 |
| South Western | 64.1 | 100.0 | 100.0 | 64.1 | 83.5 | 75.3 |
| **Malawi** | **83.3** | **85.6** | **76.3** | **72.1** | **82.7** | **80.6** |

**Table 4.16: Percentages and sampling errors for reasons for visiting the resource centre (Health)**

| Division | Health Teachers | | | | | |
|---|---|---|---|---|---|---|
| | Looking for materials | Borrowing materials | Making materials | Attend training courses | Exchange Ideas | Seek Advice |
| Central Eastern | 89.2 | 72.7 | 79.3 | 73.0 | 91.7 | 80.7 |
| Central Western | 80.7 | 65.3 | 65.5 | 60.4 | 71.8 | 71.1 |
| Northern | 96.9 | 100.0 | 69.1 | 83.0 | 91.0 | 81.3 |
| Shire Highlands | 100.0 | 100.0 | 87.1 | 95.9 | 95.9 | 100.0 |
| South Eastern | 77.3 | 93.8 | 83.6 | 75.9 | 79.7 | 79.0 |
| South Western | 88.6 | 100.0 | 100.0 | 78.4 | 90.3 | 80.2 |
| **Malawi** | **87.8** | **85.5** | **78.5** | **75.2** | **84.9** | **80.1** |

The most frequently cited reasons for using the resource centre varied by subject. While Reading teachers cited exchanging of ideas and looking for materials as the main reasons for visiting a resource centre (80.9 and 80.0 percent respectively), Mathematics teachers reported borrowing materials (85.6 percent) and looking for materials (83.3 percent) as the main reasons for visiting a resource centre. As for health teachers looking for materials (87.8 percent) and borrowing materials (85.5 percent) were the main reasons mentioned. The percentage of pupils with teachers visiting a resource centre by reason and subject varies by region. The Central West division had, in general, the least percentage of pupils with Reading teachers using the resource centres. A similar pattern was observed for Mathematics and health teachers. The Central West division also emerged with the least percentage of pupils with Mathematics and health teachers using the resource centres for a particular reason.

**Policy suggestion 4.13:** There is need to investigate the reasons why Central West division remains the division with the least proportion of Standard 6 teachers who used resource centres. In a typical Malawian school environment characterized by having a good proportion of teachers who are academically not well qualified, with limited supply of teaching and learning materials and facilities, the role of the resource centres 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.

# Chapter 5

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

### 5.1 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 headteachers' 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 daily activities, including, problems of pupils and staff (for example, pupil late coming for school, teacher absenteeism, and school days lost)?
- What were the school heads' views on general school infrastructure (for example, condition of school buildings, headteachers' office, fence, and electricity)?
- What were the characteristics of the school's human resources (in terms of academic qualifications, professional and other types of training)?

**General Policy Concern 5.1**:
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 were the characteristics of the primary school heads in Malawi during SACMEQ IV (2013) and how different were they to those in SACMEQ III (2007), SACMEQ II (2002) and SACMEQ I (1998)?

## 5.2 What was the age distribution of school heads?

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

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

| Division | SACMEQ I | | | | SACMEQ II | | | | SACMEQ III | | | | SACMEQ IV | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Age (years) | | Gender (female) | | Age (years) | | Gender (female) | | Age (years) | | Gender (female) | | Age (years) | | Gender (female) | |
| | Mean | SE | % | SE | Mean | SE | % | SE | Mean | SE | % | SE | Mean | SE | % | SE |
| Central East | 36.9 | 1.3 | 12 | 6.6 | 41.8 | 1.3 | 22.5 | 15.2 | 44.8 | 1.2 | 6.0 | 6.0 | 46.5 | 1.3 | 5.34 | 8.5 |
| Central West | 39.9 | 1.2 | 10 | 5.6 | 41.3 | 1.2 | 12.6 | 6.3 | 44.9 | 0.9 | 11.6 | 5.7 | 45.5 | 1.4 | 24.6 | 5.9 |
| North | 41.9 | 2.0 | 0.0 | 0.0 | 39.9 | 1.1 | 9.6 | 7.1 | 46.7 | 1.1 | 14.3 | 6.9 | 49.8 | 1.5 | 5.9 | 5.4 |
| Shire Highlands | 41.9 | 1.6 | 4.2 | 4.1 | 43.8 | 1.6 | 14.9 | 10.1 | 42.5 | 1.1 | 9.3 | 6.6 | 46.2 | 1.5 | 6.5 | 11.6 |
| South East | 39.6 | 1.9 | 4.8 | 4.8 | 40.8 | 1.7 | 5.7 | 5.7 | 45.4 | 1.3 | 14.3 | 8.1 | 47.3 | 1.2 | 33.2 | 6.6 |
| South West | 38.8 | 1.3 | 16.7 | 7.8 | 40.1 | 1.1 | 25 | 10.2 | 45.8 | 0.9 | 22.9 | 10.2 | 48.5 | 1.7 | 33.6 | 12.2 |
| **Malawi** | **39.8** | **0.6** | **8.2** | **2.3** | **41.2** | **0.5** | **14.7** | **3.6** | **45.1** | **0.4** | **12.8** | **2.9** | **47.1** | **0.6** | **20.0** | **3.9** |

The information in Table 5.1 has been reported in terms of the pupils. Thus the average pupil in Standard 6 had a headteacher who was 47.13 years old in SACMEQ IV. This shows an increase from: 39.8 years in SACMEQ I; 41.2 years in SACMEQ II; and 45.1 in SACMEQ III. All

education divisions registered an increase in SACMEQ IV as compared to SACMEQ I. The highest increase of 9.74 years was registered in the South West Education Division.

## 5.3 What was the gender distribution of school heads?

The Beijing Platform for Action adopted by the United Nations (UN) Fourth World Conference on Women held in Beijing, China in 1995, recommended a target of 30 percent of women in leadership positions. The Malawi National Gender policy (2008) lobbies for the appointment of 50 percent of women to decision-making positions. It can be seen from Table 5.1 that in as far as school headship is concerned the situation was far from being achieved. Overall, 20.0 percent of the pupils had female headteachers in SACMEQ IV. This was, notably, an increase from 12.8 in SACMEQ III. The tables also show wide variations in the distribution of female headteachers among the divisions in SACMEQ IV. South West Education Division registered the highest percentage of pupils in schools with female headteachers (33.59 percent) and this was an increase from 22.9 percent in SACMEQ III. Central Eastern Education Division registered the lowest percentage of 5.34 in SACMEQ IV. However, Northern Education division registered the most significant decrease in SACMEQ IV, to 5.93 percent from 49.83 percent in SACMEQ III. South East, South West and Central West Divisions made some significant improvements in SACMEQ IV. These results indicate that four divisions still fell short of the expected 30 percent minimum. These results further indicate that efforts to engage more women in leadership positions have not been successful in the four divisions, but have yielded results in two divisions that have surpassed the 30 percent minimum target.

**Policy Suggestion 5.1**: The Ministry of Education should continue to make deliberate efforts to involve women in at least 30 percent of headship and other leadership positions at school level. The District Education Managers through the Primary Education Advisors should continue to take the lead in this.

**General Policy Concern 5.2:**
What were the professional characteristics of school heads (in terms of academic and professional experience)?

The headteacher is often said to be the driving force of a school. Studies of school effectiveness (Dalin et al., 1994; Scheerens, 2000; Yu, 2007) have linked the leadership skills of the headteacher with quality learning and teaching. It can be argued that school heads with more academic education, more teacher training and more experience as headteachers should run their schools better than those without. In order to answer the general policy concern on professional characteristics of school heads 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) What percentages of the school staff had post-secondary academic education?
5) What average years of teacher training were received by the school staff?

## 5.4 How many years of academic education had school heads completed?

The mean numbers of years of academic education of school headteachers are given in Table 5.2 below for SACMEQ II, SACMEQ III and SACMEQ IV. The information in Table 5.2 indicates that in SACMEQ IV, some pupils (1.2 percent) had headteachers who only completed primary school but none of the pupils in either SACMEQ II or SACMEQ III had headteachers who only completed primary school. The majority (87.9 percent) of the Standard 6 pupils in SACMEQ IV had headteachers who had completed senior secondary education. This was an improvement from 72.5 percent in SACMEQ III. The Central West Division registered the highest percentage of pupils (94.1 percent) who were in schools with heads who had completed senior secondary school education. Table 5.2 also indicates that only 7.4 percent of the pupils had headteachers who had completed junior secondary education, a decrease from 26.8 percent in SACMEQ III.

**Table 5.2: Level of academic education of school heads**

| | Division | Level of academic education | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Primary | | Junior secondary | | Senior secondary | | A-level | | Tertiary | |
| | | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ II | 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 |
| | North | 0.0 | 0.00 | 26.6 | 10.08 | 73.4 | 10.08 | 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 |
| | 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 |
| | Malawi | 0.0 | 0.00 | 38.1 | 4.36 | 61.0 | 4.40 | 0.9 | 0.93 | 0.0 | 0.00 |
| SACMEQ III | 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 |
| | North | 0.0 | 0.0 | 20.5 | 8.0 | 76.0 | 0.0 | 3.5 | 3.5 | 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 |
| | 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 |
| | Malawi | 0.0 | 0.0 | 26.8 | 4.1 | 72.5 | 0.0 | 0.7 | 0.7 | 0.0 | 0.0 |
| SACMEQ IV | Central East | 0.0 | | 0.0 | | 91.4 | | 0.0 | | 8.6 | |
| | Central West | 0.0 | | 3.5 | | 94.1 | | 2.4 | | 0.0 | |
| | Northern | 3.9 | | 9.2 | | 87.0 | | 0.0 | | 0.0 | |
| | Shire Highlands | 0.0 | | 8.7 | | 91.3 | | 0.0 | | 0.0 | |
| | South Eastern | 3.9 | | 16.1 | | 80.0 | | 0.0 | | 0.0 | |
| | South Western | 0.0 | | 7.9 | | 81.1 | | 11.0 | | 0.0 | |
| | Malawi | 1.2 | | 7.4 | | 87.9 | | 2.3 | | 1.2 | |

Although the number of headteachers with primary and Junior Secondary education had decreased, the presence of these headteachers was indicative of the staffing problems in the primary schools and it means that there are no strict rules for one to be a headteacher of a school. Much as there are problems of teacher shortage at all levels in Malawi, the trend shows some

slight improvements considering that in SACMEQ IV, 1.2 percent of the Standard 6 pupils had a teacher with tertiary education teaching at primary school level compared to the previous SACMEQ studies which recorded no teacher with tertiary education.

## 5.5 How many years of teaching experience had school heads completed?

In Table 5.3 information has been presented on the mean number of years that headteachers had been teaching, and their number of years of teacher training in SACMEQ I, II, III and IV.

**Table 5.3: 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 | | | | SACMEQ IV | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Experience | | Teacher Training (years) | | Experience | | Teacher Training (years) | | Experience | | Teacher Training (years) | | Experience | |
| | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE |
| Central East | 12.7 | 1.4 | 1.7 | 0.1 | 16.1 | 1.9 | 2.0 | 0.2 | 18.6 | 1.0 | 2.0 | 0.2 | 20.3 | 1.2 |
| Central West | 15.2 | 1.4 | 2.2 | 0.1 | 14.4 | 1.2 | 1.7 | 0.1 | 21.2 | 1.0 | 1.9 | 0.1 | 20.0 | 1.5 |
| North | 17.3 | 1.4 | 1.9 | 0.1 | 14.7 | 1.3 | 1.8 | 0.1 | 20.9 | 1.0 | 2.1 | 0.6 | 24.3 | 1.5 |
| Shire Highlands | 18.4 | 1.7 | 1.9 | 0.1 | 18.3 | 1.7 | 1.9 | 0.1 | 18.1 | 1.2 | 2.2 | 0.1 | 21.6 | 1.6 |
| South East | 14.9 | 1.9 | 2.0 | 0.1 | 14.7 | 2.1 | 1.8 | 0.1 | 19.9 | 1.3 | 1.8 | 0.1 | 22.9 | 1.4 |
| South West | 14.6 | 1.6 | 1.9 | 0.1 | 16.0 | 1.2 | 2.1 | 0.1 | 20.0 | 1.0 | 1.8 | 0.1 | 23.2 | 1.5 |
| **Malawi** | **15.4** | **0.6** | **1.9** | **0.0** | **15.5** | **0.6** | **1.9** | **0.1** | **20.0** | **0.4** | **2..0** | **0.0** | **21.8** | **0.6** |

The average Standard 6 pupils had a headteacher who had 21.83 years of teaching experience in SACMEQ IV. This was an increase from 20.02 years registered in SACMEQ III. In fact, the mean number of teaching years for headteachers increased in all but Central Western division in SACMEQ IV. Shire Highlands education division registered a remarkable increase from 18.07 years in SACMEQ III to 21.6 years in SACMEQ IV. As mentioned above, in Malawi, there is no minimum number of years of experience for a teacher to become a headteacher. This may be because there is a

wide diversity of schools and teachers and setting a minimum number of years of teaching experience for headteachers may make it difficult to have headteachers 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 experience for teachers to be promoted to headship positions.

General Policy Concern 5.3:
What were the school heads' views on daily activities, including, problems of pupils and staff (for example, pupil late coming for school, teacher absenteeism, and school days lost)?

Pupil's learning achievement is a sum total of the daily activities the pupils and the teacher encounter every day in a school. There are behaviours and activities by both pupils and teachers that affect the learning process either positively or negatively. In order to answer the above mentioned general policy concern, the following questions were addressed:

1) How many school days were lost in the last school year due to non-school events?
2) What were the main behavioural problems of pupils?
3) What were the main behavioural problems of teachers?

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

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 5.4, information on the means and sampling errors for the number of official school days lost in SACMEQ I, II, III and IV have been presented.

**Table 5.4: Means and sampling errors for number of official school days lost (SACMEQ I, II, III and IV)**

| Division | Average of official school days lost | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | SACMEQ I | | SACMEQ II | | SACMEQ III | | SACMEQ IV | |
| | Mean | SE | Mean | SE | Mean | SE | Mean | SE |
| Central East | 2.5 | 0.77 | 4.0 | 0.6 | 1.0 | 0.41 | 0.83 | 0.08 |
| Central West | 2.9 | 0.9 | 5.6 | 0.85 | 1.7 | 0.33 | 2.46 | 0.12 |
| North | 6.9 | 2.57 | 4.3 | 0.94 | 0.6 | 0.21 | 0.74 | 0.06 |
| Shire Highlands | 4.7 | 1.27 | 5.8 | 1.16 | 0.4 | 0.27 | 1.17 | 0.09 |
| South East | 3.1 | 1.09 | 6.4 | 1.73 | 2.1 | 0.63 | 1.72 | 0.19 |
| South West | 4.5 | 1.31 | 6.2 | 1.37 | 0.8 | 0.28 | 1.28 | 0.11 |
| **Malawi** | **4.1** | **0.6** | **5.4** | **0.5** | **1.1** | **0.5** | **1.51** | **0.05** |

Overall, the average pupil was in a school which lost 1.51 days in SACMEQ IV while the mean number of days lost in SACMEQ III & II was 1.1 and 5.4 respectively. Though the mean number of days lost slightly increased from 1.1 in SACMEQ I to 1.51 in SACMEQ II the values reflect positive efforts that were made to limit the number of days lost.

**Policy Suggestion 5.3:** The Ministry should continue with positive efforts to limit the number of official days lost and should intensify efforts to ensure more focus on time-on-task.

## 5.7 What were the main behavioural problems of pupils?

Schools are responsible not only for ensuring that learners learn but also that they are socialized. Several problems were identified associated with learner behaviour and teacher behaviour in all four SACMEQ studies. The results of the analysis have been presented in Table 5.5.

It should be noted that the data have been presented in terms of the percentage of learners in schools where the headteachers said that the issue was NOT a problem and NEVER occurred. The inverse of NEVER is that it occurred sometimes or often. For example, on information about pupil behavioural

problems in terms of 'Arriving late at school', it can be noted that in SACMEQ IV, the proportion of pupils whose school heads indicated that the problem of pupils arriving late at school 'never occurred' was 0.6 percent. This is interpreted to mean that 99.4 percent (the inverse of 0.6 percent) of the pupils were in schools where the headteachers indicated that pupils arriving late at school was a problem. Overall, this implies that the incidence of pupils arriving late at school is very high in Malawian primary schools.

The decreases in all the values for SAQMEC IV as compared to SACMEQ III in Table 5.5 give an indication that there were, in general, increases (inversely) in pupil behavioural problems in SACMEQ IV compared to the previous SACMEQ studies. Significant increases were noted in pupil behavioural problems related to drug and alcohol abuse, - even though proportionately they were not reported as severe and common cases as the other behavioural problems. This is a worrisome development that calls for more investigation. This could probably be linked to availability of alcohol that was sold in plastic sachets without any restrictions before Government instituted a ban.

The fact that 49.9 percent of the pupils were in schools where headteachers said that there was never a problem with sexual harassment of pupils, this meant that 50.1 percent of the pupils were in schools in which the headteachers recorded that harassment sometimes or often occurred. This was not an improvement from SACMEQ III and it is a worrying situation. Other notable challenges in SACMEQ IV had to do with intimidation or bullying of pupils, cheating and theft. There is a need for a separate study to be conducted on these issues. At the same time, it would be imperative for the Ministry to take immediate action on some of the pupil related problems such as health problems, sexual harassment, fights, and drop out.

**Table 5.5: Pupil behavioural problems (SACMEQ II, III & IV)**

| Frequency of pupil behavioural problem | Indicating 'never' occurs | | | |
|---|---|---|---|---|
| | SACMEQ II | SACMEQ III | SACMEQ IV | Change in SACMEQ IV over SACMEQ III |
| | % | % | % | |
| Arriving late at school | 0.9 | 0.9 | 0.6 | -0.3 |
| Skipping classes | 19.9 | 20.8 | 14.3 | -6.5 |
| Dropping out of school | 4.4 | 4.3 | 2.3 | -2.0 |
| Classroom disturbance | 31.1 | 22.4 | 14.7 | -7.7 |
| Cheating | 21.2 | 24.8 | 17.0 | -7.8 |
| Use of abusive language | 23.3 | 19.3 | 10.6 | -8.7 |
| Vandalism | 58.9 | 49.8 | 37.9 | -11.9 |
| Theft | 23.3 | 21.4 | 13.5 | -7.9 |
| Intimidation of pupils | 33.9 | 29.3 | 25.2 | -4.1 |
| Intimidation of teachers/staff | 49.9 | 44.6 | 33.8 | -10.8 |
| Physical injury to staff | 88.1 | 85.4 | 73.9 | -11.5 |
| Sexual harassment of pupils | 64.4 | 57.5 | 49.9 | -7.6 |
| Sexual harassment of teachers | 92.6 | 87.8 | 80.3 | -7.5 |
| Drug abuse | 75.5 | 67.1 | 49.3 | -17.8 |
| Alcohol abuse | 68.3 | 71.5 | 47.0 | -24.5 |
| Fights | 5.7 | 6.2 | 2.1 | -4.1 |
| Health problems | 0.7 | 1.8 | 1.5 | -0.3 |

Table 5.6 presents the data at division level. Late arrival, absenteeism and drop out are problems that occur at very serious levels in all the education divisions. The same applies to pupils' health, fights, thefts, use of abusive language and vandalism.

**Table 5.6: Pupils Behavioural Problems by Education Division in SACMEQ IV**

| Division | Headteachers indicating "NEVER" occurs | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Late arrival | Absenteeism | Skipping Class | School Dropout | Classroom Disturbance | Cheating | Use of abusive language | Vandalism | Theft | Intimidation or bullying | Intimidation or verbal abuse of teachers | Physical Injury to Staff | Sexual Harassment of Pupils | Sexual Harassment of Teachers | Drug Abuse | Alcohol Abuse or Possession | Fighting | Pupil Health |
| Central Eastern | 0 | 0 | 14.1 | 0 | 13.4 | 18.5 | 9.0 | 46.6 | 14.4 | 30.1 | 22.9 | 66.6 | 30.1 | 66.6 | 41.3 | 38.6 | 5.4 | 5.4 |
| Central Western | 0 | 0 | 16.8 | 0 | 14.2 | 14.8 | 16.9 | 33.6 | 10.9 | 26.7 | 42.2 | 81.2 | 47.2 | 85.4 | 46.6 | 49.9 | 1.8 | 2.7 |
| Northern | 0 | 0 | 19.8 | 16.5 | 28.9 | 18.8 | 4.3 | 34.3 | 4.3 | 4.8 | 26.8 | 65.3 | 44.2 | 71.1 | 39.7 | 38.4 | 0 | 0 |
| Shire Highlands | 0 | 0 | 14.9 | 0 | 7.8 | 23.0 | 7.1 | 37.2 | 14.3 | 22.1 | 21.4 | 64.0 | 60.3 | 76.0 | 41.6 | 45.7 | 6.5 | 0 |
| South Eastern | 3.5 | 0 | 4.1 | 0 | 0 | 4.3 | 7.8 | 49.9 | 16.3 | 28.8 | 34.6 | 73.9 | 55.5 | 85.0 | 76.7 | 60.8 | 0 | 0 |
| South Western | 0 | 0 | 16.4 | 0 | 26.9 | 27.3 | 12.7 | 26.0 | 21.5 | 35.1 | 45.0 | 83.7 | 62.8 | 90.7 | 44.7 | 42.4 | 0 | 0 |
| **Malawi** | **0.6** | **0** | **14.3** | **2.3** | **14.7** | **17.0** | **10.6** | **37.9** | **13.5** | **25.2** | **33.8** | **73.9** | **49.9** | **80.3** | **49.3** | **47.0** | **2.1** | **1.5** |

## 5.8 What were the main behavioural problems of teachers?

The headteachers were also asked about behavioural problems associated with teachers in their schools. The results have been presented in Table 5.7.

**Table 5.7: Teacher behavioural problems (SACMEQ II, III and IV)**

| | Indicating 'never' occurs | | |
|---|---|---|---|
| **Frequency of teacher behavioural problem** | **SACMEQ II** | **SACMEQ III** | **SACMEQ IV** |
| | **%** | **%** | **%** |
| Arriving late at school | 4.9 | 0.7 | 5.6 |
| Absenteeism | 25.9 | 23.4 | 21.2 |
| Skipping classes | 70 | 65.1 | 62.5 |
| Intimidation or bullying of pupils | 66.9 | 62.9 | 70.2 |
| Sexual harassment of teachers | 93.2 | 86.5 | 85.9 |
| Sexual harassment of pupils | 83.6 | 83 | 79.2 |
| Use of abusive language | 62.4 | 60.2 | 60.9 |
| Drug abuse | 91.2 | 86.4 | 78.6 |
| Alcohol abuse | 69.4 | 68.7 | 69.8 |
| Health problems | 10 | 8.2 | 8.7 |

The results in Table 5.7 indicate that teachers arriving late at school was a major problem in all three SACMEQ studies with only 5.6 percent of the school heads who had indicated teachers' late coming to school as not being a problem in their schools. It should be noted that there was some slight improvement in SACMEQ IV (5.6 percent) as compared to SACMEQ III (0.7 percent). The results could indicate that there is an improvement in the number of teachers living nearer to their working places or that there was an improvement in teachers' attitude towards time. The second major problem reported by school heads associated with teachers

was to do with teacher health problems. Only 8.7 of the school heads reported that the problem never occurred in their schools in SACMEQ IV. Other teacher related problems worth noting 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 nature and causes of these problems.

Table 5.8 presents the teacher behavioural problems in SACMEQ IV at division level. The data shows that although the nature and pattern of the teacher problems are similar across the divisions, the North Education division had comparatively a larger proportion of school heads who had indicated that teacher late arrival never occurred. In terms of teacher absenteeism, South East Education and Shire Highlands divisions had larger proportions of headteachers who had indicated that this was a problem, i.e. 94.5 percent and 93.5 percent respectively.

**Table 5.8: Teacher behavioural problems (SACMEQ IV)**

| Division | TEACHERS BEHAVOURIAL PROBLEMS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Late arrivals | Absenteeism | Skipping Class | Intimidation of Pupils | Sexual harassment of teachers | Sexual harassment of pupils | Use of abusive language | Drug abuse Alcohol abuse or Possession | | Health problems | Conflict between parents and teachers |
| Central Eastern | 0.0 | 30.5 | 57.5 | 50.6 | 74.8 | 65.3 | 47.3 | 78.4 | 52.0 | 17.1 | 46.7 |
| Central Western | 3.5 | 18.1 | 52.0 | 76.6 | 86.8 | 76.5 | 60.9 | 76.5 | 67.9 | 6.4 | 39.8 |
| Northern | 26.9 | 29.3 | 68.9 | 75.0 | 78.4 | 78.4 | 62.4 | 75.0 | 67.0 | 8.8 | 52.7 |
| Shire Highlands | 0.0 | 6.5 | 70.5 | 54.8 | 73.6 | 71.5 | 68.1 | 68.1 | 64.4 | 5.9 | 45.3 |
| South Eastern | 0.0 | 5.8 | 54.1 | 76.3 | 100.0 | 91.0 | 53.7 | 91.9 | 81.8 | 9.9 | 26.2 |
| South Western | 6.8 | 41.3 | 82.8 | 78.8 | 95.3 | 90.7 | 74.4 | 78.9 | 82.4 | 6.0 | 42.4 |
| **Malawi** | **5.6** | **21.2** | **62.5** | **70.2** | **85.9** | **79.2** | **60.9** | **78.6** | **69.8** | **8.7** | **41.2** |

**Policy suggestion 5.4:** The Ministry should commission studies to determine the exact nature of problems experienced in schools and suggest steps that can be taken to eliminate these problems, particularly problems associated with late arrival, absenteeism, drop out, pupils' health, fights, thefts, use of abusive language and vandalism.

It can be noted from above that there were serious pupil and teacher behavioural problems in Malawi primary schools which need to be looked into if the schools are to function properly.

General Policy Concern 5.4:
What were the school heads' views on general school infrastructure (for example, condition of school buildings, headteachers' office, fence, and electricity)?

Learning is also a product of school environment. A conducive school environment inspires both the teachers and learners. Physical structures such as classrooms, staff room, head teachers office and library help to make teaching, headship and learning be organised and directional. Learning that takes place in a well-lit, well ventilated and well organised classroom with furniture and resource materials contributes positively to the learning. A physical structure such as a fence does not only guarantee security to the school property and safety to pupils and staff, but it also helps the school heads and teachers to manage the pupils and other staff with much ease. Accidents involving pupils are minimised. Pupils' behavioural problems such as late coming, absenteeism, running away from classes, vandalism, and drug and alcohol abuse are managed with ease.

SACMEQ IV report includes an analysis of the general conditions of the school infrastructure and physical resources. This was intended to give an overview of the availability of the resources that promote and support conducive learning and working environment for pupils and teachers. To answer the general policy concern on the condition of school infrastructure, the following questions were addressed:

1) What was the general condition of the school buildings?
2) What physical resources were available at the school?

3) What was the condition of the school physical resources (including the state of the school buildings, availability of staff room, school head office, school fence and electricity)?

Table 5.9 presents the data on general school conditions disaggregated at division level. Of the school structures that were assessed in SACMEQ IV, only 8.6 percent were reported as being in good condition. About fourteen percent (14.2 percent) of the schools needed complete rebuilding and 36.5 percent of the classrooms needed major repairs. The Central Eastern and Northern Education divisions reported no school at all with all classrooms in good condition. Overall, these data present a very bleak picture in terms of the learning environment in primary schools in as far as school buildings are concerned. This calls for the need to invest more in school infrastructure to improve the general conditions of the schools.

**Table 5.9: General School Condition**

| Division | School condition | | | | |
|---|---|---|---|---|---|
| | Needs Complete Rebuilding | Some classrooms need major repairs | Most or all classrooms need minor repairs | Some classrooms need minor repairs | All classrooms are in good condition |
| Central Eastern | 10.8 | 54.5 | 17.1 | 17.6 | 0.0 |
| Central Western | 18.7 | 32.3 | 14.6 | 21.2 | 13.1 |
| Northern | 28.9 | 27.4 | 4.8 | 38.8 | 0.0 |
| Shire Highlands | 0.0 | 34.9 | 24.0 | 23.7 | 17.4 |
| South Eastern | 15.7 | 45.4 | 8.9 | 17.6 | 12.3 |
| South Western | 6.4 | 26.4 | 38.4 | 24.3 | 4.5 |
| **Malawi** | **14.2** | **36.5** | **17.4** | **23.3** | **8.6** |

Table 5.10 shows that only 31.8 percent of the schools' physical resources comprised of buildings in good conditions. Less than half (45.4 percent) of the schools had staff rooms. Also less than half (46.8 percent) of the schools had school head's office and about twenty percent had school fence (20.8 percent) and 24.5 percent had electricity. Similar patterns were observed at division level.

**Table 5.10: School Physical Resources**

| Division | Type of School Physical Resource | | | | |
|---|---|---|---|---|---|
| | Good Building Conditions | Staff Room | School Head Office | School Fence | Electricity |
| Central Eastern | 17.6 | 50.0 | 42.5 | 7.4 | 14.7 |
| Central Western | 34.4 | 50.1 | 35.8 | 32.1 | 28.6 |
| Northern | 38.8 | 36.2 | 41.7 | 19.9 | 31.4 |
| Shire Highlands | 41.1 | 38.3 | 53.4 | 5.9 | 23.9 |
| South Eastern | 30.0 | 40.3 | 52.4 | 23.4 | 13.2 |
| South Western | 28.8 | 53.3 | 62.8 | 23.4 | 24.5 |
| **Malawi** | **31.8** | **45.4** | **46.8** | **20.8** | **23.1** |

General Policy Concern 5.5:
What were the characteristics of the school's human resources (in terms of academic qualifications, professional and other types of training)?

The quality of the human resource of the school can also affect the learning achievement of pupils. Both, academic and professional training of the school heads, teachers and other staff affects the way they discharge their various responsibilities. SACMEQ IV report analyses the school human resources in order to assess their capacity and potential to support pupil's learning. In order to respond to the above general policy concern the following questions were addressed:

1) How many years of teacher training did the headteachers and teachers complete?
2) What was the highest academic qualification acquired by the headteachers and teachers?
3) What other courses did the headteachers and teachers complete?

Almost all staff (98.2 percent) had teacher training of not less than one year (Table 5.11). About ninety percent of all headteachers had attended management course (89.9 percent) and HIV and AIDS Course (92.7%). These figures indicate that there were great efforts to develop the human capital in the Ministry of Education to support programme delivery.

**Table 5.11: School Human Resources**

| Division | Training/Qualification/Course | | | |
|---|---|---|---|---|
| | 1 year or more of teacher training | Academic Qualification | Management Course | HIV and AIDS Course |
| Central Eastern | 96.4 | 100.0 | 89.6 | 69.6 |
| Central Western | 100.0 | 96.5 | 84.1 | 96.5 |
| Northern | 90.9 | 87.0 | 96.6 | 96.1 |
| Shire Highlands | 100.0 | 91.3 | 91.3 | 100.0 |
| South Eastern | 100.0 | 80.0 | 93.8 | 96.1 |
| South Western | 100.0 | 92.1 | 88.2 | 94.4 |
| **Malawi** | **98.2** | **91.4** | **89.9** | **92.7** |

## 5.9 Conclusion

The results in this chapter have showed that in SACMEQ IV the average pupil in Standard 6 had a headteacher who was 47.13 years old. This was an increase from 39.8 in SACMEQ I, 41.2 in SACMEQ II and 45.1 in SACMEQ IV. All the education divisions registered an increase in the average age of the headteachers. This is an indication that the headship at school level is getting older and there is need for the Ministry to begin developing capacity development and succession plans in the next decade. The results also indicate that the percentage of pupils in schools with female headteachers increased to 20.0 percent in SACMEQ IV from 12.8 percent in SACMEQ III. Although the increase falls short of the 30 percent target recommended in the Beijing Platform for Action adopted by the United Nations (UN) Fourth World Conference on Women held in Beijing, China in 1995, it is commendable. There were marked variations in the distribution of female teachers among the divisions with South West and South East reaching 33.59 and 33.25 respectively thus surpassing the recommended 30 percent target. It was also noted in SACMEQ IV that the average Standard 6 pupil had a headteacher with 21.83 years of teaching experience. This indicates that the school heads in SACMEQ IV had vast experience which if actively engaged and utilized in finding effective solutions to the school challenges can

help in promoting learning achievement amongst learners. The results also indicate that a large percentage (87.9 percent) of Standard 6 pupils in SACMEQ IV had headteachers who had completed senior secondary. This was, again, an improvement from SACMEQ III. However, the existence in the system of some headteachers with primary level of education as their highest qualification indicates that there are no strict rules for one to be a headteacher. The policy suggestion arising from this is that the Ministry should set criteria for appointment of headteachers which should include, among others minimum academic qualification as well as minimum and maximum number of years of teaching experience. Proper training and orientation is also necessary before teachers are entrusted with managing a school. In this regard, the Ministry should develop a training plan to encourage teachers and headteachers to upgrade their academic qualifications. This will not only motivate the teachers, but will also be beneficial to the learners.

The analysis in this chapter has also revealed that there were some serious pupil and teacher related behavioural problems which needed to be urgently addressed. These included absenteeism, late coming to school, thefts, vandalism, use of abusive language and poor health, among others.

# Chapter 6

# Levels of School Resources in Malawi Primary Schools

## 6.1 Introduction

The increasing numbers of pupils in schools that has resulted from the push for Education for All (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 other school supplies and to build and equip new institutions or maintain 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 education. 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 assesses 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 6.1:
What were the levels of Essential Classroom Resources (for example, teachers' guides, textbooks and working places) in 2013 and what were the trends in these resources between 2002, 2007 and 2013?

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 2013 and what were the trends in these resources between 2002, 2007 and 2013?

- Teacher guide for English, teacher guide for Mathematics, dictionary, teacher table and chair, writing board, school or class library, radio, water and computer.
- Own English 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, III and IV have been presented in

**Table 6.1: Essential Classroom Resources for Standard 6 Pupils in SACMEQ II, III and IV**

| | Division | Teacher Guide Reading English | | Teacher Guide (Maths) | | Dictionary | | Exercise Book & Pen/ Pencil and Ruler | | Own Reading Textbooks | | Own Math Textbooks | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ II (2002) | Central East | 76.1 | 13.8 | 65.5 | 15.0 | 47.2 | 13.3 | 42.1 | 7.3 | 60.6 | 11.2 | 64.4 | 10.8 |
| | Central West | 87.6 | 6.2 | 80.0 | 7.6 | 34.7 | 8.9 | 45.7 | 5.3 | 50.0 | 8.8 | 59.0 | 8.3 |
| | North | 91.2 | 6.4 | 83.0 | 8.2 | 81.5 | 8.7 | 58.6 | 3.6 | 60.9 | 10.2 | 45.2 | 10.7 |
| | South East | 86.1 | 9.2 | 86.1 | 9.2 | 63.1 | 11.9 | 66.3 | 4.2 | 62.6 | 10.8 | 54.1 | 11.2 |
| | Shire Highlands | 100.0 | - | 67.0 | 11.2 | 71.5 | 11.4 | 57.5 | 5.5 | 80.3 | 8.6 | 82.5 | 8.1 |
| | South West | 94.4 | 3.9 | 82.7 | 9.3 | 76.4 | 9.5 | 68.6 | 5.4 | 35.5 | 9.9 | 37.9 | 10.1 |
| | **MALAWI** | **89.0** | **3.3** | **78.3** | **4.0** | **60.0** | **4.4** | **55.5** | **2.2** | **57.0** | **4.1** | **56.5** | **4.1** |
| SACMEQ III 2007 | Central East | 73.5 | 10.9 | 71.7 | 10.7 | 57.9 | 11.8 | 70.3 | 6.4 | 30.1 | 9.6 | 22.2 | 8.7 |
| | Central West | 92.4 | 4.8 | 79.8 | 7.1 | 38.1 | 8.9 | 76.0 | 4.4 | 28.0 | 7.2 | 30.5 | 7.3 |
| | North | 81.1 | 7.6 | 71.1 | 8.9 | 66.7 | 9.4 | 71.8 | 3.7 | 16.1 | 6.0 | 22.7 | 7.5 |
| | South East | 77.4 | 10.1 | 67.7 | 11.4 | 49.6 | 12.7 | 71.0 | 6.0 | 29.5 | 12.2 | 30.1 | 12.1 |
| | Shire Highlands | 92.0 | 7.7 | 83.0 | 9.5 | 87.3 | 7.3 | 78.8 | 3.6 | 30.8 | 9.8 | 18.7 | 7.9 |
| | South West | 96.3 | 2.6 | 92.9 | 5.7 | 78.0 | 9.9 | 66.8 | 5.1 | 31.2 | 9.2 | 16.8 | 5.0 |
| | **MALAWI** | **86.0** | **3.0** | **77.6** | **3.6** | **60.0** | **4.2** | **72.8** | **2.0** | **27.1** | **3.6** | **24.3** | **3.4** |
| SACMEQ IV 2013 | Central East | 21.3 | 11.8 | 94.2 | 5.8 | 60.9 | 13.6 | 64.8 | 4.8 | 9.7 | 5.3 | 10.4 | 6.5 |
| | Central West | 8.9 | 6.1 | 93.1 | 4.7 | 49.7 | 10.3 | 80.1 | 4.6 | 11.9 | 3.9 | 9.4 | 3.8 |
| | Northern | 3.3 | 3.3 | 88.0 | 11.3 | 73.4 | 10.9 | 75.8 | 3.9 | 19.0 | 5.9 | 12.9 | 4.6 |
| | South East | - | - | 95.0 | 5.0 | 60.2 | 12.8 | 68.4 | 5.7 | 8.9 | 2.1 | 10.8 | 1.9 |
| | Shire Highlands | 2.3 | 2.4 | 100.0 | - | 82.2 | 12.2 | 77.4 | 5.3 | 21.3 | 6.5 | 15.2 | 4.4 |
| | South West | 7.1 | 7.1 | 94.2 | 6.0 | 49.9 | 13.7 | 58.4 | 6.9 | 5.3 | 2.1 | 3.4 | 1.7 |
| | **Malawi** | **7.1** | **2.6** | **94.0** | **2.6** | **61.1** | **5.0** | **71.5** | **2.3** | **12.2** | **1.8** | **10.0** | **1.6** |

**Table 6.2: Percentages for Essential Classroom Resources**

| | Division | Teacher Guide Reading English | | Teacher Guide (Maths) | | Dictionary | | Exercise Book & Pen/ Pencil and Ruler | | Own Reading Textbooks | | Own Math Textbooks | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ II (2002) | Central East | 76.1 | 13.8 | 65.5 | 15.0 | 47.2 | 13.3 | 42.1 | 7.3 | 60.6 | 11.2 | 64.4 | 10.8 |
| | Central West | 87.6 | 6.2 | 80.0 | 7.6 | 34.7 | 8.9 | 45.7 | 5.3 | 50.0 | 8.8 | 59.0 | 8.3 |
| | North | 91.2 | 6.4 | 83.0 | 8.2 | 81.5 | 8.7 | 58.6 | 3.6 | 60.9 | 10.2 | 45.2 | 10.7 |
| | South East | 86.1 | 9.2 | 86.1 | 9.2 | 63.1 | 11.9 | 66.3 | 4.2 | 62.6 | 10.8 | 54.1 | 11.2 |
| | Shire Highlands | 100.0 | 0.0 | 67.0 | 11.2 | 71.5 | 11.4 | 57.5 | 5.5 | 80.3 | 8.6 | 82.5 | 8.1 |
| | South West | 94.4 | 3.9 | 82.7 | 9.3 | 76.4 | 9.5 | 68.6 | 5.4 | 35.5 | 9.9 | 37.9 | 10.1 |
| | **MALAWI** | **89.0** | **3.3** | **78.3** | **4.0** | **60.0** | **4.4** | **55.5** | **2.2** | **57.0** | **4.1** | **56.5** | **4.1** |
| SACMEQ III 2007 | Central East | 73.5 | 10.9 | 71.7 | 10.7 | 57.9 | 11.8 | 70.3 | 6.4 | 30.1 | 9.6 | 22.2 | 8.7 |
| | Central West | 92.4 | 4.8 | 79.8 | 7.1 | 38.1 | 8.9 | 76.0 | 4.4 | 28.0 | 7.2 | 30.5 | 7.3 |
| | North | 81.1 | 7.6 | 71.1 | 8.9 | 66.7 | 9.4 | 71.8 | 3.7 | 16.1 | 6.0 | 22.7 | 7.5 |
| | South East | 77.4 | 10.1 | 67.7 | 11.4 | 49.6 | 12.7 | 71.0 | 6.0 | 29.5 | 12.2 | 30.1 | 12.1 |
| | Shire Highlands | 92.0 | 7.7 | 83.0 | 9.5 | 87.3 | 7.3 | 78.8 | 3.6 | 30.8 | 9.8 | 18.7 | 7.9 |
| | South West | 96.3 | 2.6 | 92.9 | 5.7 | 78.0 | 9.9 | 66.8 | 5.1 | 31.2 | 9.2 | 16.8 | 5.0 |
| | **MALAWI** | **86.0** | **3.0** | **77.6** | **3.6** | **60.0** | **4.2** | **72.8** | **2.0** | **27.1** | **3.6** | **24.3** | **3.4** |
| SACMEQ IV 2013 | Central East | 21.3 | 11.8 | 94.2 | 5.8 | 60.9 | 13.6 | 64.8 | 4.8 | 9.7 | 5.3 | 10.4 | 6.5 |
| | Central West | 8.9 | 6.1 | 93.1 | 4.7 | 49.7 | 10.3 | 80.1 | 4.6 | 11.9 | 3.9 | 9.4 | 3.8 |
| | Northern | 3.3 | 3.3 | 88.0 | 11.3 | 73.4 | 10.9 | 75.8 | 3.9 | 19.0 | 5.9 | 12.9 | 4.6 |
| | South East | 0.0 | 0.0 | 95.0 | 5.0 | 60.2 | 12.8 | 68.4 | 5.7 | 8.9 | 2.1 | 10.8 | 1.9 |
| | Shire Highlands | 2.3 | 2.4 | 100.0 | 0.0 | 82.2 | 12.2 | 77.4 | 5.3 | 21.3 | 6.5 | 15.2 | 4.4 |
| | South West | 7.1 | 7.1 | 94.2 | 6.0 | 49.9 | 13.7 | 58.4 | 6.9 | 5.3 | 2.1 | 3.4 | 1.7 |
| | **MALAWI** | **7.1** | **2.6** | **94.0** | **2.6** | **61.1** | **5.0** | **71.5** | **2.3** | **12.2** | **1.8** | **10.0** | **1.6** |

**Table 6.3: Percentages for Equipment and Facilities**

| | Division | Writing Board | | Pupil Sitting & Writing Place | | Teacher Table & Chair | | Library (Class/School) | | Radio | | Water | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ II (2002) | Central East | 89.2 | 6.52 | 44.7 | 12.11 | 31.8 | 11.26 | 52.9 | 12.86 | 6 | 5.96 | 67.8 | 11.5 |
| | Central West | 98 | 1.98 | 56.2 | 9.05 | 33 | 8.69 | 27.4 | 9.43 | 2.2 | 2.25 | 74.1 | 7.96 |
| | North | 93.5 | 6.37 | 76.1 | 8.94 | 38 | 10.65 | 55.1 | 11.04 | 3.7 | 3.72 | 71 | 9.9 |
| | South East | 88.9 | 7.9 | 35.9 | 10.14 | 42 | 11.33 | 37.2 | 11.32 | 19.7 | 9.25 | 71.7 | 10.61 |
| | Shire Highlands | 97.1 | 2.92 | 74.7 | 10.88 | 50.4 | 12.1 | 33.2 | 11.57 | 14.5 | 8.09 | 76.8 | 10.72 |
| | South West | 97.6 | 2.41 | 33.1 | 10.05 | 61 | 11.07 | 60.9 | 11.41 | 23.3 | 9.68 | 74.9 | 9.95 |
| | **MALAWI** | **94.5** | **1.99** | **54** | **4.29** | **41.5** | **4.43** | **43.2** | **4.58** | **10.4** | **2.59** | **72.8** | **4.04** |
| SACMEQ III 2007 | Central East | 84 | 9.13 | 46.6 | 11.97 | 14.9 | 8.24 | 18.9 | 10.02 | 8.8 | 6.31 | 60.5 | 11.74 |
| | Central West | 94 | 4.13 | 44.7 | 9.25 | 48.5 | 9.38 | 18.8 | 7.68 | 8.1 | 5.64 | 82.4 | 6.79 |
| | North | 83 | 8.09 | 60.9 | 9.35 | 34 | 9.61 | 12.7 | 6.99 | 16.3 | 7.15 | 84.2 | 7.07 |
| | South East | 78.7 | 9.2 | 68.9 | 10.68 | 35.2 | 11.55 | 20.2 | 10.6 | 24.1 | 10.86 | 75.1 | 10.02 |
| | Shire Highlands | 94.4 | 5.58 | 81.5 | 9.81 | 76 | 10.04 | 4.3 | 4.35 | 14.8 | 8.18 | 82.6 | 8.61 |
| | South West | 92.6 | 5.95 | 57.5 | 12.05 | 41.8 | 11.3 | 9.1 | 7.08 | 20 | 9.43 | 58.2 | 12.08 |
| | **MALAWI** | **88.3** | **2.83** | **57.9** | **4.29** | **41.7** | **4.19** | **14.6** | **3.36** | **14.3** | **3.11** | **75.3** | **3.73** |
| SACMEQ IV 2013 | Central East | 100.0 | 0.00 | 73.7 | 10.55 | 44.8 | 14.99 | 29.1 | 13.71 | 82.1 | 9.80 | 76.4 | 10.92 |
| | Central West | 100.0 | 0.00 | 48.2 | 9.09 | 48.2 | 11.13 | 18.2 | 8.65 | 89.3 | 6.08 | 77.7 | 8.36 |
| | Northern | 97.0 | 3.04 | 59.2 | 10.77 | 42.1 | 12.82 | 27.5 | 13.09 | 87.2 | 8.76 | 88.2 | 8.35 |
| | South East | 100.0 | 0.00 | 71.5 | 10.58 | 68.4 | 13.52 | 46.0 | 13.48 | 76.3 | 11.78 | 69.3 | 10.54 |
| | Shire Highlands | 100.0 | 0.00 | 99.8 | 0.25 | 64.2 | 15.22 | 23.2 | 13.36 | 92.8 | 7.21 | 55.1 | 14.46 |
| | South West | 94.1 | 6.02 | 63.7 | 13.76 | 65.9 | 14.12 | 55.7 | 15.08 | 95.2 | 4.81 | 58.7 | 12.06 |
| | **MALAWI** | 98.8 | 0.87 | 65.9 | 4.35 | 54.9 | 5.48 | 31.7 | 5.08 | 87.0 | 3.49 | 71.7 | 4.36 |

**Table 6.4: Essential Classroom Resources in SACMEQ II, III & IV**

| | Division | Teacher Guide Reading English | | Teacher Guide (Maths) | | Dictionary | | Exercise Book & Pen/ Pencil and Ruler | | Own Reading Textbooks | | Own Math Textbooks | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ II (2002) | Central East | 76.1 | 13.8 | 65.5 | 15.0 | 47.2 | 13.3 | 42.1 | 7.3 | 60.6 | 11.2 | 64.4 | 10.8 |
| | Central West | 87.6 | 6.2 | 80.0 | 7.6 | 34.7 | 8.9 | 45.7 | 5.3 | 50.0 | 8.8 | 59.0 | 8.3 |
| | North | 91.2 | 6.4 | 83.0 | 8.2 | 81.5 | 8.7 | 58.6 | 3.6 | 60.9 | 10.2 | 45.2 | 10.7 |
| | South East | 86.1 | 9.2 | 86.1 | 9.2 | 63.1 | 11.9 | 66.3 | 4.2 | 62.6 | 10.8 | 54.1 | 11.2 |
| | Shire Highlands | 100.0 | - | 67.0 | 11.2 | 71.5 | 11.4 | 57.5 | 5.5 | 80.3 | 8.6 | 82.5 | 8.1 |
| | South West | 94.4 | 3.9 | 82.7 | 9.3 | 76.4 | 9.5 | 68.6 | 5.4 | 35.5 | 9.9 | 37.9 | 10.1 |
| | **MALAWI** | **89.0** | **3.3** | **78.3** | **4.0** | **60.0** | **4.4** | **55.5** | **2.2** | **57.0** | **4.1** | **56.5** | **4.1** |
| SACMEQ III 2007 | Central East | 73.5 | 10.9 | 71.7 | 10.7 | 57.9 | 11.8 | 70.3 | 6.4 | 30.1 | 9.6 | 22.2 | 8.7 |
| | Central West | 92.4 | 4.8 | 79.8 | 7.1 | 38.1 | 8.9 | 76.0 | 4.4 | 28.0 | 7.2 | 30.5 | 7.3 |
| | North | 81.1 | 7.6 | 71.1 | 8.9 | 66.7 | 9.4 | 71.8 | 3.7 | 16.1 | 6.0 | 22.7 | 7.5 |
| | South East | 77.4 | 10.1 | 67.7 | 11.4 | 49.6 | 12.7 | 71.0 | 6.0 | 29.5 | 12.2 | 30.1 | 12.1 |
| | Shire Highlands | 92.0 | 7.7 | 83.0 | 9.5 | 87.3 | 7.3 | 78.8 | 3.6 | 30.8 | 9.8 | 18.7 | 7.9 |
| | South West | 96.3 | 2.6 | 92.9 | 5.7 | 78.0 | 9.9 | 66.8 | 5.1 | 31.2 | 9.2 | 16.8 | 5.0 |
| | **MALAWI** | **86.0** | **3.0** | **77.6** | **3.6** | **60.0** | **4.2** | **72.8** | **2.0** | **27.1** | **3.6** | **24.3** | **3.4** |
| SACMEQ IV 2013 | Central East | 21.3 | 11.8 | 94.2 | 5.8 | 60.9 | 13.6 | 64.8 | 4.8 | 9.7 | 5.3 | 10.4 | 6.5 |
| | Central West | 8.9 | 6.1 | 93.1 | 4.7 | 49.7 | 10.3 | 80.1 | 4.6 | 11.9 | 3.9 | 9.4 | 3.8 |
| | Northern | 3.3 | 3.3 | 88.0 | 11.3 | 73.4 | 10.9 | 75.8 | 3.9 | 19.0 | 5.9 | 12.9 | 4.6 |
| | South East | - | - | 95.0 | 5.0 | 60.2 | 12.8 | 68.4 | 5.7 | 8.9 | 2.1 | 10.8 | 1.9 |
| | Shire Highlands | 2.3 | 2.4 | 100.0 | - | 82.2 | 12.2 | 77.4 | 5.3 | 21.3 | 6.5 | 15.2 | 4.4 |
| | South West | 7.1 | 7.1 | 94.2 | 6.0 | 49.9 | 13.7 | 58.4 | 6.9 | 5.3 | 2.1 | 3.4 | 1.7 |
| | **MALAWI** | **7.1** | **2.6** | **94.0** | **2.6** | **61.1** | **5.0** | **71.5** | **2.3** | **12.2** | **1.8** | **10.0** | **1.6** |

## 6.2 Provision of Essential Classroom Resources

It can be noted from Table 6.4 that between SACMEQ III and IV, there was a significant improvement in the provision of Mathematics teachers' guide. This was true for all the divisions with Shire highlands becoming the most improved on from 67.7% to 100%. This improvement came about because then the Primary Curriculum Assessment Reform (PCAR) had just been rolled out to Standard 6 and the teachers' guides were distributed in most schools. There was a sharp drop in the provision of teachers' guide for English from 86% in SACMEQ III to 7.1% in SACMEQ IV. This was so because there was a delay in the supply of English teachers' guides in primary schools after the rolling out of PCAR. However, teachers' guides for English were later supplied to the remaining schools after the survey.

Other improvements were also noted in the provision of dictionary, writing board, chair and table. During this time, there was a Direct Support to Schools (DSS) program. Therefore, it was possible that schools were buying the materials using these funds. In SACMEQ IV, there was also an increase in sitting and writing places with 65.9% of pupils having somewhere to sit and write on as compared to SACMEQ III with 57.9%. There was also a significant increase in library and radio services as noted from the table. An increase in radio can be due to the *Tikwere* program which provided radios to all schools.

However, it was noted that some resources decreased significantly. As indicated earlier, teacher guides for English decreased from 86% to 7.1% and South East Education Division with o%. This was due to the fact that most schools had not received these guides when PCAR had rolled to standard 6. A decrease was also noted in the provision of pen or pencil which dropped from 72.8% in SACMEQ III to 71.5% in SACMEQ IV. There was a sharp decrease in own English and Mathematics textbooks when compared to SACMEQ III. Pupils with own English textbooks dropped from 27.1% to 12.2% while pupils with own Mathematics textbooks dropped 24.3% to 10%. Provision of water also decreased in SACMEQ IV with an average of 71.5% from 75.3% in SACMEQ III.

**There has been an upward trend from SACMEQ II, III and IV (see**

Table 6.3) in the following resources: pupil sitting and writing places, teacher table and chair, dictionary as well as radios. The improvement of provision of radios can be attributed to the *Tikwere* program in which each and every school was given a radio. A downward trend was observed in the following resources: English teachers' guide, own English and Mathematics textbooks. A sharp decrease is observed in English teachers' guide between SACMEQ III (86%) and SACMEQ IV (7.1%). The trend for some resources keeps fluctuating. These include Mathematics teacher guide which increased between SACMEQ III (77.6%) and SACMEQ IV (94.0%)

## 6.3 Comparison between Urban and Rural Schools

It can also be noted from Table 6.5 that urban schools have an edge over rural schools in availability of the essential resources. For example, 71.1% of teachers in urban

**Table 6.5: Distribution of Essential Classroom Resources by Location**

| Name of Resource | | Location | | |
|---|---|---|---|---|
| | | Rural | Urban | Malawi |
| Reading Teacher - Teacher's Guide English | % | 6.9 | 7.8 | 7.1 |
| | SE | 2.91 | 5.63 | 2.61 |
| Mathematics Teacher - Teacher's Guide Mathematics | % | 96.6 | 84.2 | 94.0 |
| | SE | 1.97 | 9.00 | 2.56 |
| Reading Teacher - English Dictionary | % | 58.7 | 71.1 | 61.1 |
| | SE | 5.58 | 11.03 | 5.03 |
| Exercise Book, Pen or Pencil, Ruler | % | 70.0 | 76.5 | 71.5 |
| | SE | 2.86 | 3.14 | 2.33 |
| Own Reading Textbook | % | 11.9 | 13.4 | 12.2 |
| | SE | 2.06 | 3.46 | 1.79 |
| Own Math Textbook | % | 8.6 | 14.6 | 10.0 |
| | SE | 1.66 | 4.06 | 1.63 |
| Reading Teacher - Writing Board | % | 100.0 | 94.3 | 98.8 |
| | SE | 0.00 | 4.11 | 0.87 |
| Pupil Sitting And Writing Place | % | 66.0 | 65.6 | 65.9 |
| | SE | 4.92 | 9.17 | 4.35 |
| Teacher Table And Chair | % | 55.6 | 52.1 | 54.9 |
| | SE | 6.06 | 12.22 | 5.48 |
| Library (Class, School or Both) | % | 29.3 | 40.1 | 31.7 |
| | SE | 5.56 | 12.00 | 5.08 |
| School-Radio | % | 86.0 | 90.4 | 87.0 |
| | SE | 4.06 | 6.80 | 3.49 |
| School-Water | % | 65.2 | 92.7 | 71.7 |
| | SE | 5.26 | 5.18 | 4.36 |

| | | | | |
|---|---|---|---|---|
| School-Computer | % | 3.0 | 28.9 | 9.1 |
| | SE | 1.74 | 9.08 | 2.70 |

schools have access to English dictionary as compared to 58.7% in rural schools. This is the case in most resources except in Mathematics guide where there is 96.6% in rural schools as compared to 84.4% for urban schools.

**Policy suggestion 6.1** There is a tendency to provide more essential classroom resources in urban primary schools than in rural primary schools. There is need for the Ministry of Education to ensure there is equitable distribution of essential classroom resources between rural and urban primary schools.

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 2013 and what were the trends in these resources between 2002, 2007 and 2013? The information on the percentages of pupils in schools with desirable physical resources has been presented in Table 6.7.

**Table 6.6: Percentages of pupils in schools with desirable physical resources**

| | Division | Good School Building Condition | | School Head Office | | School- Staff Room | | Meeting Hall | |
|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE |
| SACMEQ II | Central East | 35.9 | 11.9 | 27.9 | 10.9 | 27.1 | 10.7 | 0.0 | 0.0 |
| | Central West | 48.8 | 9.8 | 33.7 | 9.2 | 26.9 | 8.9 | 0.0 | 0.0 |
| | North | 36.7 | 10.7 | 41.8 | 10.9 | 35.9 | 10.7 | 4.7 | 4.7 |
| | South East | 41.5 | 11.5 | 61.2 | 11.3 | 38.3 | 11.2 | 8.1 | 5.7 |
| | Shire Highlands | 38.0 | 11.6 | 27.7 | 10.4 | 25.8 | 10.1 | 14.1 | 9.5 |
| | South West | 45.5 | 11.5 | 42.0 | 11.5 | 30.8 | 10.6 | 10.4 | 7.1 |
| | **MALAWI** | **41.8** | **4.6** | **38.7** | **4.4** | **30.6** | **4.2** | **5.5** | **2.1** |
| SACMEQ III | Central East | 37.9 | 11.8 | 26.0 | 10.6 | 42.8 | 12.0 | 0.0 | 0.0 |
| | Central West | 42.7 | 9.4 | 44.1 | 9.4 | 49.2 | 9.5 | 14.0 | 6.8 |
| | North | 39.0 | 9.7 | 41.2 | 10.1 | 41.7 | 9.9 | 5.4 | 4.1 |
| | South East | 58.8 | 12.7 | 73.1 | 10.6 | 26.5 | 10.9 | 13.1 | 8.8 |
| | Shire Highlands | 64.3 | 11.5 | 44.9 | 12.1 | 25.2 | 10.3 | 0.0 | 0.0 |
| | South West | 38.2 | 12.0 | 40.7 | 12.2 | 16.8 | 8.8 | 5.5 | 4.8 |
| | **MALAWI** | **45.6** | **4.5** | **44.2** | **4.5** | **36.3** | **4.3** | **7.1** | **2.4** |
| SACMEQ IV | Central East | 34.7 | 12.0 | 42.5 | 12.2 | 50.0 | 12.4 | 6.4 | 6.4 |
| | Central West | 49.0 | 9.8 | 35.8 | 9.3 | 50.1 | 9.8 | 1.8 | 1.9 |
| | Northern | 43.6 | 12.6 | 41.7 | 12.7 | 36.2 | 11.9 | 0.0 | 0.0 |
| | South East | 38.9 | 11.3 | 52.4 | 12.0 | 40.3 | 11.9 | 5.1 | 5.1 |
| | Shire Highlands | 65.1 | 13.6 | 53.4 | 14.5 | 38.3 | 14.1 | 5.9 | 6.0 |
| | South West | 67.3 | 11.6 | 62.8 | 11.5 | 53.3 | 12.1 | 16.8 | 9.4 |
| | **Malawi** | **49.3** | **4.8** | **46.8** | **4.8** | **45.4** | **4.9** | **5.6** | **2.1** |

**Table 6.7: Percentages for Desirable Equipment and Facilities**

| | Division | Class Cupboard | | Class Bookshelf | | Sports/Play Ground | | School Fence | | Electricity | | Television | | Photocopier | | Computer | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ II (2002) | Central East | 46.5 | 12.94 | 18.7 | 8.56 | 96.6 | 3.46 | 38.6 | 13.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Central West | 48.2 | 9.73 | 8.0 | 5.04 | 93.1 | 4.81 | 31.3 | 8.93 | 14.9 | 7.11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | North | 70.6 | 10.15 | 27.1 | 9.84 | 100 | 0.0 | 8.4 | 5.99 | 4.7 | 4.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | South East | 45.3 | 11.74 | 26.4 | 10.3 | 90 | 7.21 | 7.3 | 7.13 | 4.1 | 4.16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Shire Highlands | 42 | 11.65 | 17.9 | 8.84 | 100 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | South West | 51.8 | 11.79 | 13.1 | 7.46 | 86.2 | 7.85 | 16.1 | 8.68 | 16.2 | 8.74 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | **MALAWI** | **51.2** | **4.64** | **17.6** | **3.32** | **94.2** | **2.07** | **18.4** | **3.71** | **7.7** | **2.49** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| SACMEQ III (2007) | Central East | 26.7 | 10.78 | 27.7 | 10.5 | 100 | 0.0 | 14.2 | 8.13 | 12.9 | 8.78 | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 | 5.32 |
| | Central West | 21.6 | 7.82 | 25.6 | 8.11 | 92.7 | 4.64 | 29.9 | 8.71 | 14.1 | 6.76 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | North | 30.5 | 9.04 | 21.5 | 8.22 | 96.0 | 4 | 4.3 | 4.23 | 12.9 | 7.07 | 3.9 | 3.87 | 3.9 | 3.87 | 3.9 | 3.87 |
| | South East | 59 | 11.88 | 13.0 | 7.8 | 89.2 | 7.45 | 18.9 | 9.5 | 13.2 | 8.88 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Shire Highlands | 53 | 12.02 | 32.1 | 11.3 | 80.3 | 9.24 | 18.2 | 9.77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | South West | 36.2 | 11.42 | 19.5 | 8.59 | 69.7 | 11.1 | 27.1 | 10.2 | 12.4 | 8.06 | 4.7 | 4.72 | 4.7 | 4.72 | 0.0 | 0.0 |
| | **MALAWI** | **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** |
| SACMEQ IV (2013) | Central East | 15.6 | 10.62 | 19.3 | 11.28 | 76.0 | 10.74 | 7.4 | 7.29 | 14.7 | 9.74 | 8.3 | 8.02 | 8.3 | 8.02 | 8.3 | 8.02 |
| | Central West | 46.0 | 10.45 | 9.6 | 6.11 | 86.1 | 7.64 | 32.1 | 8.91 | 28.6 | 8.60 | 0.0 | 0.00 | 0.0 | 0.00 | 10.7 | 5.96 |
| | Northern | 27.8 | 11.23 | 28.3 | 12.85 | 86.5 | 9.09 | 19.9 | 11.25 | 31.4 | 12.29 | 0.0 | 0.00 | 10.6 | 10.03 | 0.0 | 0.00 |
| | South East | 50.0 | 13.78 | 19.2 | 9.97 | 92.2 | 5.53 | 23.4 | 10.75 | 13.2 | 7.53 | 0.0 | 0.00 | 0.0 | 0.00 | 7.6 | 5.41 |
| | Shire Highlands | 61.1 | 16.24 | 13.1 | 9.69 | 84.8 | 10.36 | 5.9 | 6.03 | 23.9 | 11.50 | 0.0 | 0.00 | 0.0 | 0.00 | 7.1 | 7.09 |
| | South West | 45.5 | 15.31 | 21.7 | 11.33 | 85.1 | 8.29 | 23.4 | 9.96 | 24.5 | 10.03 | 0.0 | 0.00 | 4.5 | 4.57 | 18.8 | 8.92 |
| | **Malawi** | **42.2** | **5.33** | **17.5** | **4.04** | **85.5** | **3.51** | **20.8** | **3.93** | **23.1** | **4.03** | **1.2** | **1.16** | **3.3** | **1.96** | **9.1** | **2.70** |

## 6.4 School Physical Resources

The information in Table 6.7 shows that there were improvements in the areas of building provision, school head office, staffroom, class cupboards, school fence, electricity, photocopier and computer between SACMEQ III and SACMEQ IV. In SACMEQ IV, 49.3% of the pupils were in schools whose head teachers rated the school building to be in good conditions. This was an improvement from 45.6% in SACMEQ III. 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 44.2% in SACMEQ III to 46.8% in SACMEQ III), the fact remains that the majority of the pupils (53.2%) were in schools whose heads had no office. Similarly, while there was an improvement in availability of staffrooms in schools (36.3 of pupils in schools with a staff room in SACMEQ III up to 45.4% in SACMEQ IV), it is still a challenge that 54.6% of the pupils were in schools whose teachers had no staff room. It is a challenge because teachers have nowhere to keep their materials safely. There was also an improvement in the percentage of pupils in schools with a class cupboards from 35.1% in SACMEQ III to 42.2% in SACMEQ IV. Overall, there has been an upward trend in buildings from SACMEQ II, III to IV. There are improvements in most areas except in the meeting hall where there was a decrease between SACMEQ III (7.1%) and SACMEQ IV (5.6%)

In terms of equipment and facilities, it can be noted from Table 6.7 that there were some improvements in the provision of equipment and facilities in schools between SACMEQ III and SACMEQ IV. In SACMEQ IV, 23.1 percent of the pupils were in schools which had electricity as compared to 11.5% in SACMEQ III and 7.7% in SACMEQ II. This is a good development that more schools are being connected to electricity. However, the percentage is on the lower side as compared to those schools that are not connected to electricity. Other improvements were noted in the areas of photocopier, school fence and computer. The trend in the provision of computers is upward, that is, from 0% in SACMEQ II, 1.5% in SACMEQ III and 9.1% in SACMEQ IV. Similarly, there were also increases in the percentage of pupils in schools with a fence (from 18.4% in SACMEQ II to 19.3% in SACMEQ III and 20.8% in SACMEQ IV). It can also be noted that while there were no pupils who were in schools with photocopiers in SACMEQ II, some 1.4 percent of the pupils were in schools with photocopier in SACMEQ III; the percentage was more than doubled in SACMEQ IV with 3.3% of pupils in

schools with photocopiers. 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 bookshelf (from 23.6% in SACMEQ III to 17.5% in SACMEQ IV). The trend in the percentage of pupils in schools with a playground has been downward from SACMEQ II to SACMEQ IV (from 94.2 percent in SACMEQ II to 89.2 percent in SACMEQ III and 85.5% in SACMEQ IV). The decline in the percentage of pupils in schools with a sport/playground should be of concern to the Ministry of Education because, research has shown that the presence of sports facilities in schools acts as an incentive for pupils to go and remain in schools. In addition, this means pupils are denied the opportunities of developing other talents and skills.

Like in the essential resources, desirable resources in SACMEQ IV are below the national percentage for rural schools. For example, 46.7% of pupils in rural schools are in schools whose buildings are in good condition which is below the national percentage of 49.3% as compared to 57.5% for urban schools. Similarly, school head office, staffroom, school fence, electricity, photocopier and computer were dominated by urban schools with some resources such as television and photocopier being non-existent in rural schools. This can also be linked to the fact that there is no electricity in most rural schools. The most dominant resources for rural schools are sports/play grounds with 88.3% as compared to 76.5% for urban schools.

**Policy Suggestion 6.2** The majority of the pupils are in schools whose headteachers and teachers have no offices and staffrooms respectively. There is need for the Ministry of Education to device a deliberate policy to construct headteachers' offices and staffrooms in primary schools where there are none in order to motivate the teachers.

If primary education in Malawi has to move with global advances in technology, there is need for the Ministry of Education to keep on increasing the number of primary schools with computer studies.

**Table 6.8: Availability of Desirable School Resources by Location**

| Name of Desirable Resource | | Location | | |
|---|---|---|---|---|
| | | Rural | Urban | Malawi |
| Good School Buildings Condition | % | 46.7 | 57.5 | 49.3 |
| | SE | 5.43 | 10.32 | 4.79 |
| School Head Office | % | 40.0 | 68.7 | 46.8 |
| | SE | 5.29 | 9.58 | 4.83 |
| School-Staff Room | % | 43.2 | 52.5 | 45.4 |
| | SE | 5.47 | 10.44 | 4.87 |
| School-Hall | % | 4.6 | 8.8 | 5.6 |
| | SE | 2.31 | 5.12 | 2.14 |
| Reading Teacher - Cupboard | % | 44.8 | 31.1 | 42.2 |
| | SE | 5.97 | 10.54 | 5.33 |
| Reading Teacher - Bookshelf | % | 17.3 | 18.3 | 17.5 |
| | SE | 4.42 | 9.67 | 4.04 |
| School-Fence | % | 16.5 | 34.6 | 20.8 |
| | SE | 4.08 | 9.77 | 3.93 |
| School-TV | % | 0.0 | 4.9 | 1.2 |
| | SE | 0.00 | 4.76 | 1.16 |
| School-Photocopier | % | 0.0 | 13.9 | 3.3 |
| | SE | 0.00 | 7.68 | 1.96 |
| School-Sports Ground | % | 88.3 | 76.5 | 85.5 |
| | SE | 3.55 | 8.91 | 3.51 |
| School-Telephone | % | 2.2 | 27.7 | 8.2 |
| | SE | 1.27 | 8.84 | 2.56 |
| School-Electricity | % | 11.2 | 61.2 | 23.1 |
| | SE | 3.30 | 10.25 | 4.03 |
| School-Computer | % | 3.0 | 28.9 | 9.1 |
| | SE | 1.74 | 9.08 | 2.70 |
| School-Fax Machine | % | 0.0 | 0.0 | 0.0 |
| | SE | 0.00 | 0.00 | 0.00 |

### *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 availability of toilets for SACMEQ I, II and III have been presented in Table 6.9.

**Table 6.9: Mean and sampling errors for the number of pupils per toilet**

| Division | SACMEQ I (2002) | | SCMEQ II (2007) | | SACMEQ III (2013) | |
|---|---|---|---|---|---|---|
| | Mean | SE | Mean | SE | Mean | SE |
| 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 |
| North | 86.1 | 31.70 | 63.8 | 10.83 | 65.65 | 11.72 |
| Shire Highlands | 118.4 | 35.69 | 94.5 | 10.07 | 136.18 | 19.18 |
| 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 |
| **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 2013 in Malawi. In general, there was an increase in the number of pupils per toilet in 2013 compared to 2007 and 2002. Table 6.9 shows that there were 126.34 pupils to a toilet in SACMEQ IV while in SACMEQ III the ratio was 111.6 pupils to a toilet. This in general, indicates some deterioration in toilet provision between SACMEQ III and SACMEQ IV and should be an issue of concern for the Ministry. The Central East education division was unique in improving its pupil to toilet ratio between 2007 and 2013. Five of the education divisions registered an increase in the number of pupils to a toilet in SACMEQ IV. 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 6.3:** The Ministry of Education, Education Implementation Management Unit and the Department of Inspectorate and Advisory Services, should set a minimum number of toilets per number of pupils and a mechanism for enforcing this should be devised and adhered to.

## 6.5 School Human Resources

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 2013 and what were the trends in these resources between 2002, 2007 and 2013?* 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 2013?* And *what were the trends in these resources between 2002, 2007 and 2013?*

The information on the percentage of pupils in schools with desirable human resources has been presented in Table 6.10, Table 6.11 and Table 6.12.

**Table 6.10: Percentages for Desirable Human Resources for Malawi, (School Heads)**

| | Division | Female School Heads | | Sch. Head Educ. Senior Sec. or more | | Sch. Head. Mngt. Course | | Sch. Head HIV/AIDS Course | |
|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE |
| SAMEQ II (2002) | Central East | 22.5 | 13.75 | 41.5 | 12.48 | 100 | 0 | ×× | ×× |
| | Central West | 12.6 | 6.28 | 77.4 | 7.88 | 91.4 | 8.08 | ×× | ×× |
| | North | 9.6 | 6.97 | 73.4 | 9.98 | 100 | 0 | ×× | ×× |
| | South East | 5.7 | 5.69 | 38.8 | 11.55 | 100 | 0 | ×× | ×× |
| | Shire Highlands | 14.9 | 9.81 | 49.8 | 12.09 | 100 | 0 | ×× | ×× |
| | South West | 25 | 10.14 | 74.4 | 9.76 | 100 | 0 | ×× | ×× |
| | **MALAWI** | **14.7** | **3.62** | **61.9** | **4.34** | **97.8** | **2.13** | **××** | **××** |
| SACMEQ III 2007 | Central East | 6 | 5.98 | 71.2 | 11.25 | 53.3 | 11.99 | 33.1 | 10.68 |
| | Central West | 11.6 | 5.67 | 74.3 | 8.21 | 55.6 | 9.41 | 67.5 | 8.98 |
| | North | 14.3 | 6.94 | 79.5 | 8.01 | 50 | 10.1 | 41.6 | 9.9 |
| | South East | 14.3 | 8.09 | 58.3 | 12.26 | 73.7 | 10.85 | 76.9 | 9.97 |
| | Shire Highlands | 9.3 | 6.61 | 67.7 | 11.37 | 65.5 | 10.97 | 76.6 | 9.8 |
| | South West | 22.9 | 10.15 | 84 | 10.67 | 56 | 12.51 | 92.7 | 7.15 |
| | **MALAWI** | **12.8** | **2.92** | **73.2** | **4.05** | **57.9** | **4.5** | **63.2** | **4.11** |
| SACMEQ IV 2013 | Central East | 5.3 | 5.36 | 100.0 | 0.00 | 89.6 | 7.19 | 69.6 | 11.19 |
| | Central West | 24.6 | 8.49 | 96.5 | 3.45 | 84.1 | 7.62 | 96.5 | 3.46 |
| | Northern | 5.9 | 5.92 | 87.0 | 7.46 | 96.6 | 3.48 | 96.1 | 3.96 |
| | Shire Highlands | 6.5 | 6.57 | 91.3 | 8.56 | 91.3 | 8.56 | 100.0 | 0.00 |
| | South East | 33.3 | 12.20 | 80.0 | 9.44 | 93.8 | 4.60 | 96.1 | 3.97 |
| | South West | 33.6 | 11.56 | 92.1 | 7.72 | 88.2 | 8.13 | 94.4 | 5.61 |
| | **MALAWI** | **20.0** | **3.95** | **91.4** | **2.69** | **89.9** | **2.98** | **92.7** | **2.20** |

**Table 6.11: Percentages for Desirable Human Resources (Teachers)**

| | Division | Female Reading Teachers | | In-service Training. (Last 3yrs – Reading Teacher) | | Pre-service Training (>2yrs – Reading Teacher) | | Special Training HIV/AIDS Course | | Teacher Subject Knowledge (Reading) | | Teacher Subject Knowledge (Mathematics) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ II (2002) | Central East | 41.1 | 12.69 | 48.9 | 13.23 | 30.4 | 11.14 | ×× | ×× | 38.6 | 12.8 | 61.5 | 13.24 |
| | Central West | 30.5 | 9.06 | 22.2 | 7.71 | 39.3 | 9.4 | ×× | ×× | 36.1 | 9.17 | 27.0 | 8.38 |
| | North | 22.9 | 10.06 | 45.4 | 11.12 | 58.0 | 11.04 | ×× | ×× | 41.6 | 10.99 | 40.4 | 10.85 |
| | South East | 7.1 | 5.11 | 43.3 | 11.73 | 69.6 | 10.76 | ×× | ×× | 34.5 | 11.22 | 46.9 | 12.08 |
| | Shire Highlands | 22.6 | 10.63 | 32.1 | 11.49 | 42.0 | 12.05 | ×× | ×× | 42.3 | 11.78 | 18.7 | 10.16 |
| | South West | 57.0 | 11.29 | 20.4 | 9.0 | 69.6 | 10.8 | ×× | ×× | 33.3 | 11.49 | 47.6 | 11.82 |
| | MALAWI | 30.3 | 4.16 | 34.2 | 4.41 | 50.5 | 4.53 | ×× | ×× | 37.6 | 4.54 | 38.8 | 4.63 |
| SACMEQ III (2007) | Central East | 27.6 | 10.56 | 42.9 | 11.78 | 75.2 | 9.58 | 44.5 | 11.79 | 33.4 | 11.18 | 53.1 | 11.87 |
| | Central West | 39.8 | 9.15 | 62.8 | 8.61 | 84.1 | 6.46 | 68.1 | 8.87 | 37.9 | 8.6 | 29.5 | 8.56 |
| | North | 20.0 | 8.19 | 33.9 | 9.58 | 77.4 | 8.16 | 48.6 | 10.1 | 31.4 | 9.43 | 38.8 | 9.56 |
| | South East | 15.0 | 8.46 | 56.2 | 12.17 | 81.7 | 8.82 | 68.0 | 12.79 | 36.9 | 12.58 | 45.4 | 13.65 |
| | Shire Highlands | 10.8 | 7.44 | 54.7 | 11.86 | 89.0 | 7.5 | 68.4 | 10.71 | 42.3 | 11.97 | 38.5 | 11.61 |
| | South West | 31.6 | 10.79 | 69.8 | 10.28 | 71.6 | 11.19 | 62.4 | 12.41 | 25.3 | 10.59 | 10.4 | 5.77 |
| | MALAWI | 26 | 3.88 | 53.3 | 4.34 | 80.1 | 3.47 | 60.1 | 4.46 | 34.7 | 4.29 | 35.3 | 4.27 |
| SACMEQ IV (2013) | Central East | 19.7 | 10.71 | 47.7 | 13.98 | 100.0 | 0.00 | 50.5 | 12.36 | 0.0 | 0.00 | 21.5 | 11.79 |
| | Central West | 21.7 | 7.67 | 64.4 | 10.07 | 91.7 | 5.05 | 42.2 | 9.46 | 0.0 | 0.00 | 21.5 | 9.41 |
| | Northern | 31.5 | 12.31 | 54.0 | 12.29 | 77.6 | 11.05 | 14.4 | 8.04 | 0.0 | 0.00 | 32.7 | 12.25 |
| | Shire Highlands | 11.0 | 6.86 | 78.8 | 11.89 | 97.8 | 2.25 | 60.9 | 14.16 | 0.0 | 0.00 | 34.7 | 14.53 |
| | South East | 37.4 | 13.62 | 61.8 | 13.14 | 89.0 | 7.69 | 45.3 | 12.02 | 0.0 | 0.00 | 15.7 | 9.04 |
| | South West | 52.6 | 14.88 | 60.9 | 14.52 | 74.2 | 12.18 | 35.1 | 11.69 | 0.0 | 0.00 | 6.1 | 6.26 |
| | MALAWI | 28.4 | 4.60 | 61.6 | 5.11 | 88.5 | 3.12 | 40.6 | 4.62 | 0.0 | 0.00 | 22.1 | 4.47 |

**Table 6.12: Percentages of Desirable Learning/teaching Environmental Facilities**

| | Division | Acceptable Class Size (≤ 40) | | Teacher Class Attendance | |
|---|---|---|---|---|---|
| | | % | SE | % | SE |
| SACMEQ II | Central East | 51.7 | 13.08 | 92.8 | 5.25 |
| | Central West | 19.3 | 6.69 | 90.7 | 4.87 |
| | North | 45 | 10.93 | 83.9 | 8.78 |
| | South East | 23.6 | 9.51 | 92.3 | 6.41 |
| | Shire Highlands | 20.8 | 9.08 | 84.1 | 8.76 |
| | South West | 17.3 | 7.06 | 83.7 | 8.77 |
| | **MALAWI** | **28.9** | **3.92** | **88.1** | **2.93** |
| SACMEQ III | Central East | 24.8 | 8.78 | 70.8 | 10.88 |
| | Central West | 18.8 | 6.75 | 88.2 | 5.72 |
| | North | 26.4 | 8.22 | 93.4 | 5.07 |
| | South East | 27.5 | 10.65 | 89 | 7.8 |
| | Shire Highlands | 12.9 | 7.42 | 58.6 | 12.14 |
| | South West | 14.5 | 8 | 80.3 | 10.35 |
| | **MALAWI** | **20.9** | **3.35** | **81.7** | **3.46** |
| SACMEQ IV | Central East | 31.2 | 12.86 | 74.8 | 10.38 |
| | Central West | 4.2 | 4.21 | 72.2 | 8.46 |
| | Northern | 18.3 | 8.84 | 83.9 | 8.91 |
| | Shire Highlands | 0.0 | 0.00 | 69.0 | 13.46 |
| | South East | 10.9 | 7.65 | 95.8 | 4.23 |
| | South West | 0.0 | 0.00 | 91.4 | 6.07 |
| | **MALAWI** | **10.0** | **2.79** | **80.9** | **3.62** |

In terms of human resources, there were seven areas that had improved between SACMEQ III and SACMEQ IV. Pupils with female school heads improved from 12.8% to 20.0% at national level. Although the percentage improved significantly at national level, there was decrease in female head teachers in Central East, North and Shire Highlands Education Divisions. Another increase was in the percentage of pupils with head teachers who had attended senior secondary schooling (73.4% in 2007 to 91.4% in 2013). School head teachers who attended management course increased from 57.9% in 2007 to 89.9% in 2013. There was an increase in head teachers who also attended HIV&AIDS training with 92.7% in 2013 as compared to 63.2% 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 (53.3% in 2007 to 61.6%) as well as in the percentage of pupils with teachers who had attended 2 or more years of pre-service training (from 80.1 percent in 2007 to 88.5% in 2013) (Table 6.11).

The general trend showed that some areas in desirable human resource that decreased from 2002 to 2007, picked up and improved in 2013. However, teacher subject knowledge is a big concern. For instance, teacher subject knowledge in English decreased from 34.7% in SACMEQ III to 0.0% in SACMEQ IV (Table 6.11). This was the case in all the six education divisions. This reflects badly because if teachers have challenges in English then it will be difficult for learners to do well in English and other subjects. It must be noted that English is an official language in Malawian and at this level all subjects are taught in English except Chichewa. Teacher subject knowledge in Mathematics also decreased significantly from 35.3% in SACMEQ III to 22.1% in SACMEQ IV (Table 6.11). This decrease was also observed in all the education divisions. Another decrease was in the acceptable class size from 20.9% in 2007 to 10.0% in 2013 (Table 6.12). The significant decrease in the percentage of pupils in classes of acceptable size to10.0% demonstrates the long standing problem of over-crowding in Malawi classrooms. The percentage of pupils with teachers who attended classes regularly dropped slightly from 81.7 percent in SACMEQ III to 80.9 percent in SACMEQ IV.

**Table 6.13 Distribution of Human Resources by Location**

| Human Resource Indicator | | Location | | |
|---|---|---|---|---|
| | | Rural | Urban | Malawi |
| Female School Head | % | 14.2 | 38.5 | 20.0 |
| | SE | 4.06 | 10.04 | 3.95 |
| School Head Qualification - Senior Secondary or more | % | 89.6 | 97.1 | 91.4 |
| | SE | 3.42 | 2.91 | 2.69 |
| School Head Management Course | % | 86.9 | 100.0 | 89.9 |
| | SE | 3.77 | 0.00 | 2.98 |
| Female Reading Teacher | % | 16.7 | 76.5 | 28.4 |
| | SE | 4.23 | 10.73 | 4.60 |
| Reading Teacher Attended In-service Course | % | 58.2 | 77.0 | 61.6 |
| | SE | 5.78 | 9.09 | 5.11 |
| Reading Teacher - Preservice Training 2yrs or more | % | 91.8 | 74.9 | 88.5 |
| | SE | 2.93 | 9.93 | 3.12 |
| Teacher Reading Mastery | % | 0.0 | 0.0 | 0.0 |
| | SE | 0.00 | 0.00 | 0.00 |
| Teacher Math Mastery | % | 25.4 | 6.9 | 22.1 |
| | SE | 5.13 | 6.62 | 4.47 |
| Reading Class Size < 41 | % | 11.6 | 3.5 | 10.0 |
| | SE | 3.38 | 3.49 | 2.79 |
| School Has Teacher With Special Training on HIV&AIDS | % | 40.6 | 40.9 | 40.6 |
| | SE | 5.23 | 9.80 | 4.62 |
| SH Has Special Training on HIV&AIDS | % | 91.6 | 96.4 | 92.7 |
| | SE | 2.64 | 3.57 | 2.20 |
| Teacher Class Attendance | % | 81.5 | 78.8 | 80.9 |

| | | | |
|---|---|---|---|
| SE | 4.13 | 7.96 | 3.62 |

The analysis for SACMEQ IV also showed that only 14.2 percent of the pupils in rural areas were in schools that were being headed by females as compared to 38.5% for urban schools. It also shows that 16.7% of pupils in rural schools had female teachers as compared to 76.5% for urban schools. This means girls in rural schools do not have opportunities of getting private assistance from female teachers.

**Policy suggestion 6.4**: Acceptable class size has been decreasing in primary schools from 2007 to 2013. This has resulted in overcrowding and poor learning environment.

There is need for the Ministry of Education to continue mobilizing resources in order to construct more classroom blocks and, train and recruit more qualified primary school teachers to reduce class sizes.

## 6.6 Conclusion

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.

# Chapter 7

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

## 7.1 Introduction

In any system of education, 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 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 inadequate. 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?

## 7.2 Trend in Achievement Levels in Reading and Mathematics

The means of Reading scores for pupils have been improving overtime with 428.9, 433.5 and 492.3 in SACMEQ II, III and IV respectively (see Table 7.1, Table 7.2, Figure 7.1 and Figure 7.2). Similarly, the means of Mathematics scores for pupils have been improving overtime with 432.9, 447.0 and 457.7 in SACMEQ II, III and IV (Table 7.1, Table 7.2, Figure 7.1 and Figure 7.3). There was a remarkable increase on the overall mean scores for Reading and Mathematics in SACMEQ IV as compared to SACMEQ III.

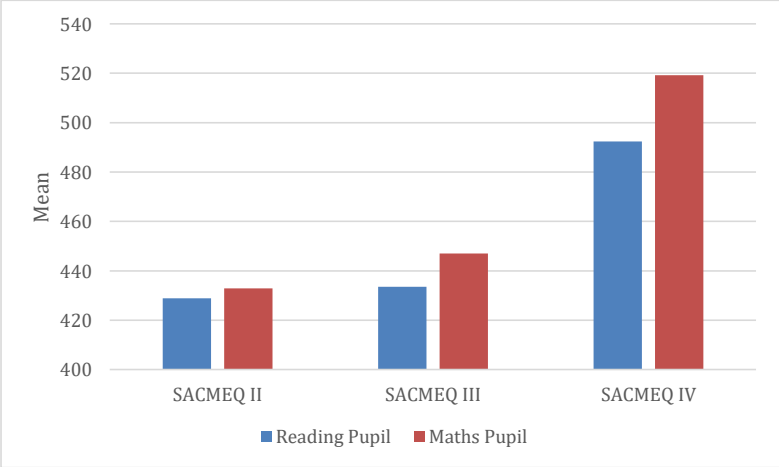


**Figure 7.1 Pupil Reading and Mathematics Mean Scores in SACMEQ II, III and IV**

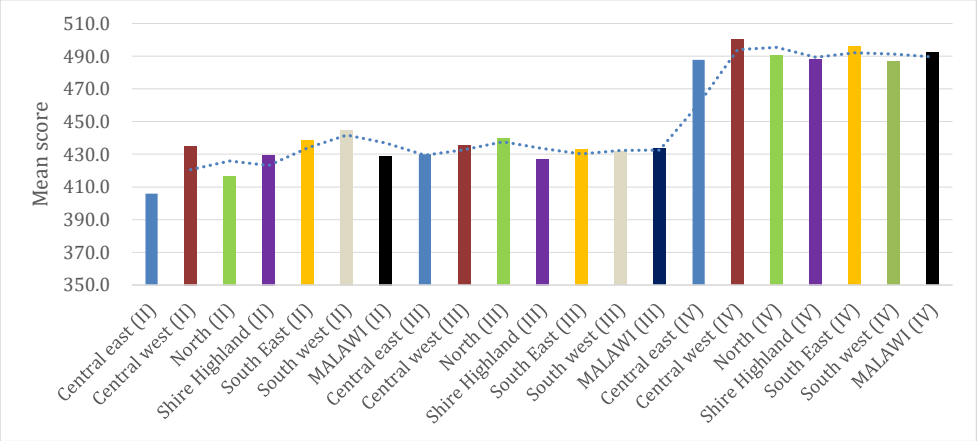


**Figure 7.2: Pupils' Reading Mean Score in SACMEQ II, III & IV by Education Division**

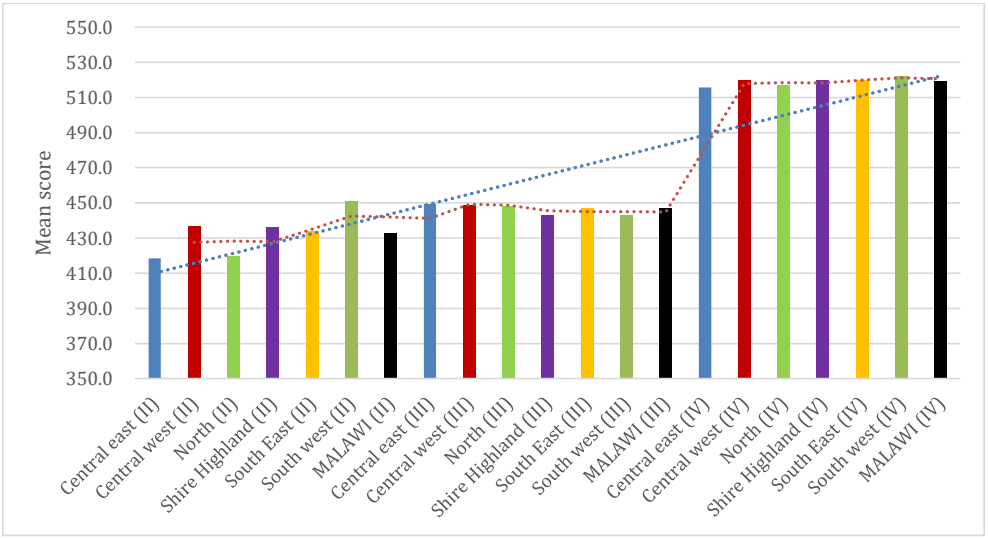


**Figure 7.3: Pupils' Mathematics Mean Score in SACMEQ II, III & IV**

**Table 7.1: Means for Reading and Mathematics test scores of pupils and teachers (SACMEQ II &III)**

| | Division | PUPILS | | | | TEACHERS | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Reading | | Mathematics | | Reading | | Mathematics | |
| | | Mean | SE | Mean | SE | Mean | SE | Mean | SE |
| SACMEQ II (2002) | Central east | 405.9 | 5.38 | 418.4 | 7.81 | 710 | 12.16 | 819 | 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 Highland | 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** | | **432.9** | **2.24** | **715.4** | **5.79** | **776.0** | **8.66** |
| SACMEQ III (2007) | 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 Highland | 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** | | **720.1** | | **762.4** | **21.27** |

**Table 7.2: Means for Reading and Mathematics test scores of pupils (SACMEQ IV)**

| Division | Reading | | | | | | Mathematics | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Boys | | Girls | | Both | | Boys | | Girls | | Both | |
| | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE |
| Central East | 456.8 | 7.7 | 449.1 | 5.9 | 453.0 | 6.21 | 488.6 | 5.4 | 463.7 | 7.4 | 476.4 | 4.8 |
| Central West | 473.8 | 10.7 | 460.7 | 5.0 | 467.5 | 7.06 | 493.2 | 6.1 | 468.5 | 4.5 | 481.6 | 4.8 |
| North | 444.0 | 13.7 | 464.0 | 22.2 | 453.4 | 17.47 | 479.2 | 9.8 | 470.9 | 14.6 | 474.7 | 11.7 |
| South East | 468.9 | 13.1 | 453.9 | 5.3 | 460.9 | 7.76 | 496.3 | 12.1 | 467.7 | 6.9 | 480.5 | 8.7 |
| Shire Highlands | 457.6 | 5.5 | 448.3 | 7.3 | 453.2 | 5.12 | 486.8 | 6.5 | 470.6 | 4.3 | 479.5 | 4.2 |
| South West | 460.4 | 10.2 | 443.8 | 11.1 | 452.3 | 9.77 | 488.7 | 8.2 | 470.4 | 6.5 | 480.2 | 6.3 |
| **MALAWI** | **461.5** | **4.5** | **453.9** | **4.4** | **457.7** | **3.94** | **488.9** | **3.2** | **468.8** | **3.1** | **479.2** | **2.8** |

## 7.3 Level of Pupils Achievement by Gender

When the mean scores of pupils in Reading test are disaggregated by gender, SACMEQ IV data (Figure 7.2) shows that male learners (boys) had a relatively higher mean score (461.5) than their female (girls) counterparts (453.9). Central West Education division had the highest mean score for boys (473.8) and Northern Education division had the highest mean score for girls (464.0). On the other hand, the Northern Education division had the lowest mean score in Reading for boys (444.0) while South West Education division recorded the lowest mean score for girls (443.8) (Table 7.2).

In Mathematics, boys had a mean score of 488.9 while girls had a mean score of 468.8 (Table 7.2). South East Education division registered the highest mean score for boys (496.3) and Shire Highlands division registered the highest mean score for girls (470.6). The Northern Education division also registered the lowest mean score for boys (479.2) while the Central East Education Division registered the lowest mean score for girls (463.7).

## 7.4 Level of Teachers' Achievement

For teachers, the overall Reading mean test scores have slightly been improving from 715.4 in SACMEQ II to 720.1 in SACMEQ III and slightly declined to 694.1 in SACMEQ IV. In SACMEQ IV, male teachers had a higher mean Reading score (696.0) than female teachers (689.1). Teachers in North Education division had the highest mean Reading score (725.0) while South Western division had the lowest mean Reading score (662.4).

In Mathematics the overall mean scores for teachers have been decreasing overtime with 776.0, 762.4 and 750.2 for SACMEQ I, II and IV respectively (Figure 7.4). This is a worrisome trend. Overall in SACMEQ IV, male teachers had a higher mean Mathematics score (753.7) than female teachers (731.5). Teachers in North division had the highest overall mean Mathematics score of 787.0 while Central Western Education division had the lowest mean score of 717.6.

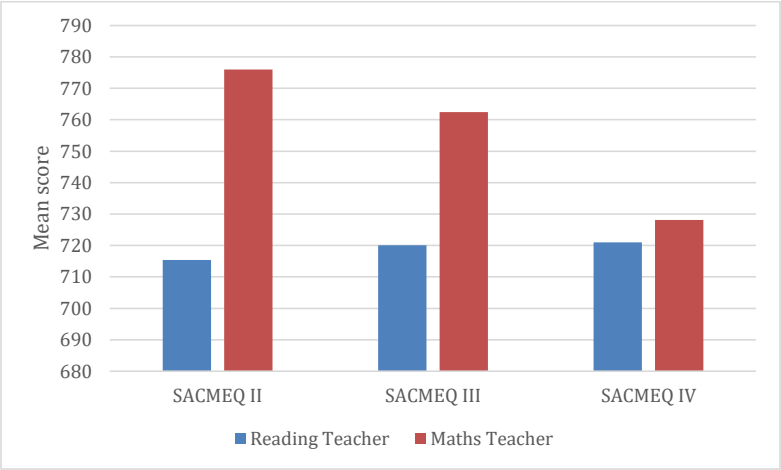


**Figure 7.4: Reading and Mathematics Teacher Mean Scores in SACMEQ IV**

Source: Table 7.1 and Table 7.2

**Table 7.3: Reading and Mathematics Teacher Mean Scores in SACMEQ IV**

| Division | Reading | | | | | | Mathematics | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Males | | Females | | Both | | Males | | Females | | Both | |
| | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE |
| Central East | 682.9 | 20.7 | 719.1 | 36.4 | 683.4 | 17.7 | 786.8 | 26.5 | 760.1 | 13.7 | 781.7 | 23.1 |
| Central West | 672.2 | 22.4 | 678.5 | 16.5 | 676.6 | 18.7 | 713.1 | 29.5 | 744.9 | 23.3 | 717.6 | 25.8 |
| North | 724.0 | 12.3 | 716.1 | 14.8 | 725.0 | 11.7 | 787.4 | 25.5 | 744.9 | 33.9 | 787.0 | 24.0 |
| South East | 698.7 | 16.7 | 707.0 | 19.7 | 698.5 | 15.4 | 784.0 | 18.1 | 771.6 | 31.6 | 784.9 | 16.9 |
| Shire Highlands | 710.8 | 13.0 | 706.7 | 15.3 | 714.2 | 12.0 | 734.9 | 19.4 | 657.5 | 21.6 | 722.4 | 20.9 |
| South West | 687.6 | 25.1 | 629.6 | 31.3 | 662.4 | 22.3 | 749.6 | 18.5 | 738.0 | 20.4 | 742.4 | 16.2 |
| **MALAWI** | **696.0** | **8.0** | **689.1** | **8.5** | **694.1** | **7.1** | **753.7** | **10.7** | **731.5** | **11.5** | **750.2** | **9.8** |

In terms of gender, male teachers from North Education division had the highest mean Mathematics score (787.4) while male teachers from Central West division had the lowest mean Mathematics score (713.1). Female teachers from South East Education division had the highest

mean Mathematics score (771.6) and female teachers from Shire Highlands Education division had the lowest mean Mathematics score (657.5).

**Policy suggestion 7.1**: The mean scores for Reading and Mathematics for learners have been improving whereas those of the teachers for Mathematics have been decreasing. The Ministry of Education needs to increase support to teachers in the form of having a well thought out continuing professional development (CPD) in order to equip the teachers with appropriate knowledge and skills to improve the teaching of Reading and Mathematics.

**Table 7.4: Means for the Reading and Mathematics test scores of pupils by subgroups (SACMEQ III and SACMEQ V)**

| | Sub-groups | Reading | | Mathematics | |
|---|---|---|---|---|---|
| | | Mean | SE | Mean | SE |
| SACMEQ III (2007) | Pupil gender | | | | |
| | Boys | 438.4 | 3.0 | 452.7 | 3.3 |
| | Girls | 428.5 | 2.7 | 441.1 | 3.1 |
| | School location | | | | |
| | Rural | 428.6 | 3.0 | 443.7 | 3.4 |
| | Urban | 449.1 | 4.0 | 457.6 | 4.7 |
| | Socioeconomic level | | | | |
| | Low SES (Bottom 25%) | 428.8 | 6.0 | 444.7 | 6.2 |
| | High SES (Top 25%) | 449.3 | 3.5 | 454.4 | 3.4 |
| | **MALAWI** | **433.5** | **2.6** | **447.0** | **2.9** |
| SACMEQ IV (2013) | Pupil gender | | | | |
| | Boys | 461.5 | 4.5 | 488.9 | 3.2 |
| | Girls | 453.9 | 4.4 | 468.8 | 3.1 |
| | School location | | | | |
| | Rural | 450.1 | 3.5 | 475.9 | 2.7 |
| | Urban | 484.0 | 10.6 | 490.4 | 7.4 |
| | Socioeconomic level | | | | |
| | Low SES (Bottom 25%) | 452.8 | 3.3 | 476.1 | 3.1 |
| | High SES (Top 25%) | 470.3 | 6.8 | 486.7 | 4.5 |
| | **MALAWI** | 457.7 | 3.9 | **479.2** | **2.8** |

## 7.5 Level of Pupils Achievement by Location

Disaggregated by location, the mean Reading score for pupils in rural school was 428.6 in SACMEQ III and this increased to 450.1 in SACMEQ IV. The mean score for pupils in urban schools increased from 449.1 in SACMEQ III to 484.0 in SACMEQ IV. In both cases the mean Reading score for pupils in urban schools was higher than the mean Reading score of pupils in rural schools.

Similarly, the mean Mathematics score for pupils in rural schools increased from 443.7 in SACMEQ III to 475.9 in SACMEQ IV. The mean Mathematics score for pupils in urban schools also increased from 457.6 in SACMEQ III to 490.4 in SACMEQ IV. In both cases the mean Mathematics scores of pupils in urban schools were higher than the mean scores of pupils in rural schools.

## 7.6 Level of Pupils Achievement by Socio-economic status

In terms of social economic status (SES) of pupils, the mean Mathematics score for pupils in the bottom socioeconomic quartile increased from 444.7 in SACMEQ III to 476.1 in SACMEQ IV. Similarly, the mean Mathematics score for pupils in the high socioeconomic quintile increased from 454.4 in SACMEQ III to 486.7 in SACMEQ IV. 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 percentage points. Similarly, the mean Reading score for pupils in the bottom socioeconomic quartile increased from 428.8 in SACMEQ III to 452.8 in SACMEQ IV. The mean Reading score for pupils in the high socio-economic quintile increased from 449.3 in SACMEQ III to 470.3 in SACMEQ IV.

**Policy suggestion 7.2:** Boys still performed better than girls in both Reading and Mathematics. The Ministry should improve the learning conditions in schools and in particular classrooms with special attention given to the needs of girls. The conditions should facilitate child-centred teaching and continuous assessment as proposed by PCAR

**Policy suggestion 7.3:** Pupils in urban schools performed better than pupils in rural schools. The Ministry should continue to increase efforts to equitably distribute trained teachers (including female teachers) and teaching and learning materials to both rural and urban schools in all the districts

## 7.7 Pupils Level of Competence

SACMEQ developed a further way of analysing the pupil achievement levels by calculating the percentages of pupils who had reached each level of competence on a hierarchical scale of competence levels.

The Reading and Mathematics test items were first arranged in order of difficulty, and then examined item-by-item to describe the specific skills required in order to provide correct responses. Items were then placed in groups so that the items in each group had similar difficulty values and share a common them with respect to the underpinning competencies required to provide correct responses. This "skills audit" for the Reading and Mathematics tests resulted in the identification of eight hierarchical level of competence for teach test (Level 1 being the lowest, and Level 8 being the highest).

The results of the skills audit have been presented in Table 7.5 and Table 7.6. A description or summary name was linked with each of the levels – in order to summarize the competencies associated with each group of test items. The first three competence levels in Reading and Mathematics employed the same prefixes (Pre, Emergent, and Basic) in order to reflect the mechanical nature of the most elementary competencies. From the fourth level upwards, the prefixes of the summary names were different for Reading and Mathematics, and were designed to reflect deeper levels of understanding of subject specific competencies.

The eight competence levels provided a more concrete analysis of what pupils could actually do. They also suggested instructional strategies relevant to learners who were learning at each level of competence.

**Table 7.5: Description of Reading Skill Levels**

| Level | Description | Skill/Competence |
|---|---|---|
| 1 | Pre-Reading | Matches word and pictures involving concrete concepts and everyday objects |
| 2 | Emergent Reading | Matches words and pictures involving prepositions and abstract concepts |
| 3 | Basic Reading | Interprets meaning (by matching words and phrases, completing sentences). |
| 4 | Reading for Meaning | Reads to link and interpret information located in various parts of the text. |
| 5 | Interpretive Reading | Interprets information from various parts of the text in association with external information. |
| 6 | Inferential Reading | Reads to combine information from various parts of the text so as to infer the writer's purpose. |
| 7 | Analytical Reading | Locates information in longer texts (narrative, document or expository) in order to combine information from various parts of the text so as to infer the writer's personal beliefs (value systems, prejudices and biases). |
| 8 | Critical Reading | Reads from various parts of the text so as to infer and evaluate what the writer has assumed about both the topic and the characteristics of the reader |

**Table 7.6: Description of Mathematics Skill Levels**

| Level | Description | Skill/Competency |
|---|---|---|
| 1 | Pre-Numeracy | Applies single step addition and subtraction. |
| 2 | Emergent Numeracy | Applies a two-step addition and subtraction involving carrying. |
| 3 | Basic Numeracy | Translates verbal information into arithmetic operations. |
| 4 | Beginning Numeracy | Translates verbal or graphic information into simple arithmetic problems |
| 5 | Competent Numeracy | Translates verbal, graphic, or tabular information into an arithmetic form in order to solve a given problem |
| 6 | Mathematically Skilled | Solves multiple-operation problems (using the correct order) involving fractions, ratios, and decimals. |
| 7 | Concrete Problem Solving | Extracts and converts information from tables, charts and other symbolic presentations in order to identify, and then solve multi-step problems |
| 8 | Abstract Problem Solving | Identifies the nature of an unstated mathematical problem embedded within verbal or graphic information and then translates this into symbolic, algebraic or equation form in order to solve a problem. |

Table 7.7 and Figure 7.5 show the percentages of pupils reaching various levels of Reading competence by division in SACMEQ III and SACMEQ IV. In SACMEQ III the majority of pupils reached Levels 2, 3 and 4. Only 4.8 percent of the pupils reached Level 5, while 1.4 percent reached Level 6 and 0.6 percent reached Level 7. None of the divisions registered any pupils who reached Level 8. In SACMEQ IV, the majority of the pupils remained in Levels 3, 4 and 5 while 7.0 percent reached Level 6 and 1.4 percent reached Level 7. Only the South Western division registered pupils in Level 8 (0.2 percent) but this was insignificant at the national level.

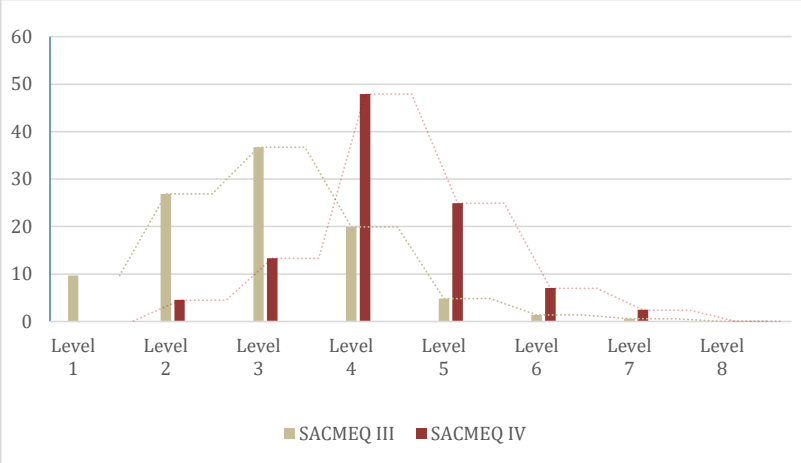


**Figure 7.5 Distribution of Pupils Competence Levels in Reading in SACMEQ III & IV**

## 7.1 Pupils Level of Competence in Mathematics

Table 7.8 shows the percentages of pupils reaching various levels of competence in Mathematics in the six divisions. In SACMEQ IV the majority of pupils performed at Levels 2, 3 and 4 in Mathematics. Levels 5 and 6 registered some increase in the number of pupils reaching those Levels. There were however still very negligible percentages of pupils reaching Levels 7 and 8 in Mathematics in all the education divisions. In SACMEQ III the majority of pupils operated at Levels 2 and 3.

Table 7.9 shows the percentages of pupils reaching various levels of Reading competence disaggregated by gender, school location and by SES. In SACMEQ III 2.0 percent of boys reached Level 6 and 0.8 percent reached Level 7. For girls 0.6 percent reached Level 6 and 0.5 percent

reached Level 7. The percentages slightly increased for boys in SACMEQ III while at the same time a slight decrease is noticed for girls. In the case of girls, it is worth noting that 0.1 percent reached Level 8 in SACMEQ III. In SACMEQ IV the percentages of both boys and girls reaching Levels 4, 5, and 6 were higher than in SACMEQ III.

**Table 7.7: Percentage of pupils reaching various Reading competence levels by division (SACMEQ III and SACMEQ IV)**

| | Division | Level 1 | | Level 2 | | Level 3 | | Level 4 | | Level 5 | | Level 6 | | Level 7 | | Level 8 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ III | Central East | 11.9 | 2.9 | 29.0 | 3.1 | 31.1 | 2.8 | 21.3 | 3.8 | 4.9 | 1.6 | 1.4 | 0.9 | 0.3 | 0.3 | 0.0 | 0.0 |
| | Central West | 8.5 | 1.4 | 25.8 | 3.0 | 36.8 | 2.3 | 22.5 | 2.5 | 5.1 | 1.7 | 0.6 | 0.4 | 0.6 | 0.3 | 0.0 | 0.0 |
| | North | 9.0 | 1.6 | 24.4 | 3.7 | 39.0 | 3.8 | 17.8 | 3.4 | 5.4 | 1.5 | 2.8 | 1.9 | 1.5 | 1.4 | 0.2 | 0.2 |
| | South East | 8.3 | 1.9 | 29.3 | 2.3 | 36.7 | 2.4 | 18.2 | 2.3 | 4.9 | 2.1 | 1.6 | 1.1 | 0.9 | 0.5 | 0.0 | 0.0 |
| | Shire Highlands | 14.5 | 2.8 | 26.2 | 2.5 | 35.1 | 2.9 | 19.0 | 2.2 | 3.1 | 1.1 | 2.1 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| | South West | 6.9 | 1.4 | 28.6 | 3.2 | 40.7 | 2.1 | 18.6 | 2.0 | 4.7 | 1.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 |
| | MALAWI | 9.7 | 0.8 | 26.9 | 1.3 | 36.7 | 1.2 | 19.9 | 1.2 | 4.8 | 0.7 | 1.4 | 0.5 | 0.6 | 0.3 | 0.0 | 0.0 |
| SACMEQ IV | Central Eastern | 7.4 | 1.8 | 19.6 | 2.6 | 26.0 | 2.7 | 33.4 | 3.1 | 10.5 | 2.9 | 2.3 | 1.0 | 0.7 | 0.5 | 0.0 | 0.0 |
| | Central Western | 3.3 | 0.9 | 15.1 | 2.2 | 30.8 | 3.0 | 30.9 | 2.9 | 13.3 | 2.1 | 4.0 | 1.2 | 2.6 | 1.7 | 0.0 | 0.0 |
| | Northern | 10.0 | 2.6 | 24.4 | 3.4 | 28.1 | 4.0 | 22.6 | 4.0 | 5.6 | 2.2 | 4.0 | 2.6 | 4.1 | 3.7 | 1.2 | 1.1 |
| | Shire Highlands | 2.0 | 0.8 | 20.8 | 2.9 | 30.5 | 4.3 | 31.6 | 3.7 | 10.6 | 3.5 | 3.0 | 1.3 | 1.2 | 0.8 | 0.4 | 0.4 |
| | South Eastern | 5.6 | 1.7 | 20.5 | 2.8 | 28.6 | 3.3 | 34.8 | 3.4 | 7.7 | 2.5 | 1.7 | 0.8 | 1.1 | 0.7 | 0.0 | 0.0 |
| | South Western | 6.5 | 2.4 | 26.4 | 6.0 | 26.4 | 3.5 | 26.1 | 3.1 | 8.6 | 2.8 | 3.5 | 1.6 | 2.2 | 1.1 | 0.3 | 0.2 |
| | MALAWI | 5.6 | 0.7 | 20.6 | 1.5 | 28.6 | 1.4 | 29.9 | 1.4 | 9.7 | 1.1 | 3.2 | 0.6 | 2.1 | 0.8 | 0.3 | 0.2 |

**Table 7.8: Percentage of pupils reaching various Mathematics competence levels by division (SACMEQ III and SACMEQ IV)**

| | Division | Level 1 | | Level 2 | | Level 3 | | Level 4 | | Level 5 | | Level 6 | | Level 7 | | Level 8 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2007 | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ III | Central East | 8.8 | 1.5 | 48.2 | 5.5 | 33.0 | 3.8 | 8.1 | 2.8 | 1.7 | 0.7 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Central West | 9.2 | 1.7 | 48.2 | 2.8 | 33.5 | 2.2 | 8.2 | 1.9 | 0.8 | 0.4 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| | North | 10.5 | 1.7 | 51.0 | 4.1 | 27.1 | 3.3 | 6.2 | 2.0 | 3.5 | 2.9 | 1.6 | 1.0 | 0.2 | 0.2 | 0.0 | 0.0 |
| | South East | 6.2 | 1.2 | 54.7 | 2.9 | 32.1 | 2.3 | 5.8 | 1.4 | 1.0 | 0.5 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Shire Highlands | 7.5 | 2.4 | 55.3 | 3.0 | 32.1 | 2.2 | 4.9 | 1.3 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | South West | 8.0 | 1.9 | 53.8 | 3.1 | 33.1 | 3.5 | 4.9 | 1.1 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | MALAWI | 8.6 | 0.7 | 51.3 | 1.5 | 31.8 | 1.2 | 6.6 | 0.8 | 1.3 | 0.6 | 0.4 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| SACMEQ IV | Central Eastern | 3.6 | 1.1 | 40.3 | 3.6 | 36.7 | 3.2 | 17.1 | 2.7 | 1.5 | 0.7 | 0.5 | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 |
| | Central Western | 2.2 | 0.8 | 35.7 | 3.8 | 43.2 | 3.8 | 15.8 | 2.2 | 2.5 | 0.7 | 0.5 | 0.3 | 0.2 | 0.2 | 0.0 | 0.0 |
| | Northern | 5.5 | 1.5 | 39.6 | 5.3 | 33.9 | 3.8 | 15.2 | 3.5 | 3.9 | 2.2 | 1.9 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Shire Highlands | 3.0 | 1.0 | 40.5 | 4.3 | 37.2 | 2.2 | 12.6 | 2.7 | 5.6 | 1.9 | 0.7 | 0.5 | 0.4 | 0.4 | 0.0 | 0.0 |
| | South Eastern | 2.7 | 1.3 | 38.5 | 3.5 | 37.9 | 2.7 | 16.9 | 3.1 | 3.5 | 1.2 | 0.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| | South Western | 2.3 | 1.1 | 42.6 | 4.0 | 31.7 | 2.8 | 19.3 | 3.1 | 3.5 | 1.3 | 0.6 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| | MALAWI | 3.1 | 0.5 | 39.1 | 1.7 | 37.4 | 1.5 | 16.3 | 1.2 | 3.3 | 0.5 | 0.7 | 0.3 | 0.1 | 0.1 | 0.0 | 0.0 |

**Table 7.9: Percentage of pupils reaching various Reading competence levels by subgroups (SACMEQ III and SACMEQ IV)**

| | SUBGROUP | Competence Level | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Level 1 | | Level 2 | | Level 3 | | Level 4 | | Level 5 | | Level 6 | | Level 7 | | Level 8 | |
| | | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ III (2007) | Pupil gender | | | | | | | | | | | | | | | | |
| | Boys | 10.2 | 1.2 | 23.4 | 1.6 | 35.1 | 1.5 | 22.7 | 1.5 | 5.8 | 0.8 | 2.0 | 0.6 | 0.8 | 0.3 | 0.0 | 0.0 |
| | Girls | 9.1 | 1.0 | 30.6 | 1.6 | 38.3 | 1.5 | 16.9 | 1.4 | 3.7 | 0.8 | 0.8 | 0.4 | 0.5 | 0.3 | 0.1 | 0.1 |
| | School location | | | | | | | | | | | | | | | | |
| | Rural | 10.9 | 1.0 | 29.8 | 1.5 | 36.3 | 1.4 | 18.0 | 1.3 | 3.3 | 0.7 | 1.2 | 0.5 | 0.6 | 0.4 | 0.0 | 0.0 |
| | Urban | 5.8 | 1.0 | 17.8 | 2.0 | 37.9 | 2.5 | 26.0 | 2.1 | 9.6 | 1.3 | 2.0 | 0.8 | 0.9 | 0.3 | 0.0 | 0.0 |
| | Socioeconomic level | | | | | | | | | | | | | | | | |
| | Low SES (Bottom 25%) | 12.5 | 1.6 | 29.7 | 2.6 | 34.0 | 2.5 | 17.6 | 2.2 | 3.1 | 0.9 | 1.8 | 1.3 | 1.2 | 1.2 | 0.0 | 0.0 |
| | High SES (Top 25%) | 6.3 | 1.3 | 21.0 | 1.9 | 34.7 | 2.2 | 23.9 | 1.7 | 10.8 | 1.8 | 2.2 | 0.7 | 1.1 | 0.5 | 0.0 | 0.0 |
| | **MALAWI** | **9.7** | **0.8** | **26.9** | **1.3** | **36.7** | **1.2** | **19.9** | **1.2** | **4.8** | **0.7** | **1.4** | **0.5** | **0.6** | **0.3** | **0.0** | **0.0** |
| SACMEQ IV (2013) | Pupil gender | | | | | | | | | | | | | | | | |
| | Boys | 6.2 | 1.0 | 18.4 | 1.6 | 27.8 | 1.8 | 29.9 | 1.9 | 11.4 | 1.5 | 3.6 | 0.8 | 2.6 | 1.0 | 0.1 | 0.1 |
| | Girls | 5.0 | 0.7 | 22.8 | 2.1 | 29.5 | 1.9 | 30.0 | 1.8 | 8.0 | 1.1 | 2.8 | 0.7 | 1.5 | 0.8 | 0.4 | 0.4 |
| | School location | | | | | | | | | | | | | | | | |
| | Rural | 6.3 | 0.9 | 23.1 | 1.7 | 30.1 | 1.6 | 29.0 | 1.7 | 8.2 | 1.2 | 2.0 | 0.4 | 1.3 | 0.6 | 0.1 | 0.1 |
| | Urban | 3.3 | 1.1 | 12.0 | 2.0 | 23.5 | 3.1 | 32.9 | 2.7 | 15.0 | 2.4 | 7.4 | 2.1 | 4.9 | 2.6 | 1.1 | 0.8 |
| | Socioeconomic level | | | | | | | | | | | | | | | | |
| | Low SES (Bottom 25%) | 5.9 | 0.9 | 21.6 | 1.6 | 29.4 | 1.9 | 31.0 | 2.0 | 8.4 | 1.2 | 2.0 | 0.5 | 1.5 | 0.9 | 0.1 | 0.1 |
| | High SES (Top 25%) | 4.2 | 1.0 | 16.4 | 1.8 | 27.7 | 2.3 | 30.2 | 2.0 | 12.1 | 1.8 | 5.5 | 1.2 | 3.4 | 1.5 | 0.6 | 0.5 |
| | **MALAWI** | 5.6 | 0.7 | 20.6 | 1.5 | 28.6 | 1.4 | 29.9 | 1.4 | 9.7 | 1.1 | 3.2 | 0.6 | 2.1 | 0.8 | 0.3 | 0.2 |

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 III and SACMEQ IV. In SACMEQ III, 26.0 percent of pupils in urban schools were at Level 4, 9.6 percent were at level 5, 2.0 percent were at Level 6 and 0.9 percent were at Level 7 while 3.3 percent of pupils in rural schools were at Level 5, 1.2 percent were at Level 6 and 0.6 percent were at Level 7. In SACMEQ IV 32.2 percent of pupils in urban were at Level 5, 11.2 percent were at Level 6 and 5.2 percent were at Level 7. In rural schools, 50.1 percent were at Level 4, 22.0 percent were at Level 5, 4.5 percent were at Level 6 and 1.1 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 III. Higher percentages of pupils in the high socioeconomic group than pupils in the low SES group reached Levels 3 to 7 in SACMEQ IV except for Level 7 where1.5 percent of pupils in the low SES group and 3.3 percent of pupils in the high SES group reached the level.

Table 7.10 shows the percentages of pupils reaching various levels of competence in Mathematics in SACMEQ III and IV by gender, school location and SES. When disaggregated by gender 0.1 percent of boys and 0.0 percent of girls reached Level 7 which was the highest level reached in SACMEQ III. While 0.2 percent of boys and 0.0 percent of girls reached Level 7 which was the highest level in Mathematics in SACMEQ IV. Greater percentages of boys than girls reached levels 3 and 4 in SACMEQ III while greater percentages of girls were located in the lower Levels 1 and 2. From Level 3 to Level 7 the percentages of boys were slightly greater than the percentages of girls in SACMEQ III. In SACMEQ IV, there were more girls (51.1%) who reached Level 3 than boys (43.1%).

In the case of Mathematics competence according to school location, the highest level reached in SACMEQ III was Level 7 (0.1%). Similarly, the highest Level reached in SACMEQ IV was Level 7(0.1). Slightly higher percentages of pupils in urban schools than in rural schools reached levels 2 and 4 in SACMEQ III. A higher percentage of rural schools reached levels 2 and 3 while more urban schools reached Levels 4 and 5 in SACMEQ IV. In general, there was a higher percentage of urban schools as compared to rural schools that reached Levels 4, 5 and 6 in both SACMEQ III and IV.

**Table 7.10: Percentage of pupils reaching various Mathematics competence levels by subgroups (SACMEQ III and SACMEQ IV)**

| | SUBGROUP | Competence Level | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Level 1 | | Level 2 | | Level 3 | | Level 4 | | Level 5 | | Level 6 | | Level 7 | | Level 8 | |
| | | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ III 2007 | Pupil gender | | | | | | | | | | | | | | | | |
| | Boys | 8.7 | 0.9 | 46.8 | 1.7 | 34.3 | 1.5 | 8.0 | 1.0 | 1.6 | 0.5 | 0.5 | 0.3 | 0.1 | 0.1 | 0.0 | 0.0 |
| | Girls | 8.5 | 0.9 | 55.9 | 2.1 | 29.2 | 1.7 | 5.1 | 0.8 | 1.0 | 0.7 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| | School location | | | | | | | | | | | | | | | | |
| | Rural | 9.3 | 0.9 | 53.3 | 1.8 | 30.1 | 1.4 | 5.3 | 0.9 | 1.4 | 0.8 | 0.5 | 0.3 | 0.1 | 0.1 | 0.0 | 0.0 |
| | Urban | 6.4 | 1.4 | 44.7 | 2.5 | 37.2 | 2.2 | 10.6 | 1.3 | 1.0 | 0.3 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Socioeconomic level | | | | | | | | | | | | | | | | |
| | Low SES (Bottom 25%) | 11.3 | 1.5 | 51.2 | 2.9 | 29.3 | 2.5 | 4.1 | 1.0 | 3.0 | 2.0 | 1.1 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| | High SES (Top 25%) | 6.1 | 1.1 | 49.2 | 2.7 | 34.2 | 2.5 | 8.8 | 1.3 | 1.7 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | **MALAWI** | **8.6** | **0.7** | **51.3** | **1.5** | **31.8** | **1.2** | **6.6** | **0.8** | **1.3** | **0.6** | **0.4** | **0.2** | **0.0** | **0.0** | **0.0** | **0.0** |
| SACMEQ IV 2013 | Pupil gender | | | | | | | | | | | | | | | | |
| | Boys | 6.2 | 1.0 | 18.4 | 1.6 | 27.8 | 1.8 | 29.9 | 1.9 | 11.4 | 1.5 | 3.6 | 0.8 | 2.6 | 1.0 | 0.1 | 0.1 |
| | Girls | 5.0 | 0.7 | 22.8 | 2.1 | 29.5 | 1.9 | 30.0 | 1.8 | 8.0 | 1.1 | 2.8 | 0.7 | 1.5 | 0.8 | 0.4 | 0.4 |
| | School location | | | | | | | | | | | | | | | | |
| | Rural | 6.3 | 0.9 | 23.1 | 1.7 | 30.1 | 1.6 | 29.0 | 1.7 | 8.2 | 1.2 | 2.0 | 0.4 | 1.3 | 0.6 | 0.1 | 0.1 |
| | Urban | 3.3 | 1.1 | 12.0 | 2.0 | 23.5 | 3.1 | 32.9 | 2.7 | 15.0 | 2.4 | 7.4 | 2.1 | 4.9 | 2.6 | 1.1 | 0.8 |
| | Socioeconomic level | | | | | | | | | | | | | | | | |
| | Low SES (Bottom 25%) | 5.9 | 0.9 | 21.6 | 1.6 | 29.4 | 1.9 | 31.0 | 2.0 | 8.4 | 1.2 | 2.0 | 0.5 | 1.5 | 0.9 | 0.1 | 0.1 |
| | High SES (Top 25%) | 4.2 | 1.0 | 16.4 | 1.8 | 27.7 | 2.3 | 30.2 | 2.0 | 12.1 | 1.8 | 5.5 | 1.2 | 3.4 | 1.5 | 0.6 | 0.5 |
| | **MALAWI** | **3.1** | **0.5** | **39.1** | **1.7** | **37.4** | **1.5** | **16.3** | **1.2** | **3.3** | **0.5** | **0.7** | **0.3** | **0.1** | **0.1** | **0.0** | **0.0** |

## 7.2 Pupils Level of Competence by Socio-economic status

**Policy suggestion 7.4:** Pupils from low SES performed less well than pupils from the high SES. The Ministry should mobilize the support of other stakeholders such as the donor community, NGOs to alleviate traits of poverty which prevent poor pupils from learning as much as they should. There should be provision of school meals, school uniforms, educational materials and others initiatives to pupils from low SES in order to improve their performance in class.

In terms of Social Economic Status (SES), in SACMEQ III there were more learners from high SES who reached LEVELs 3 and 4 as compared to those learners from Low SES. Similarly, in SACMEQ IV there were more learners from high SES who reached Levels 4, 5 and 6 as compared to those from Low SES. In general, there was a higher percentage of learners in SACMEQ IV from High SES who were in Levels 4, 5 and 6 compared to those from Low SES.

**Table 7.11: Percentage of teachers reaching various Reading competence levels by division (SACMEQ III and SACMEQ IV)**

| Year | Division | Competence Level | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Level 1 | | Level 2 | | Level 3 | | Level 4 | | Level 5 | | Level 6 | | Level 7 | | Level 8 | |
| | | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQC III 2007 | Central East | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24.9 | 10.2 | 75.1 | 10.2 |
| | Central West | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.8 | 5.0 | 35.1 | 8.2 | 58.2 | 8.6 |
| | North | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.2 | 6.3 | 19.7 | 7.7 | 70.2 | 9.0 |
| | South East | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 4.4 | 34.6 | 11.8 | 61.1 | 12.2 |
| | Shire Highlands | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31.6 | 11.2 | 68.4 | 11.2 |
| | South West | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.4 | 7.3 | 34.1 | 10.9 | 55.5 | 11.6 |
| | **MALAWI** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **5.7** | **2.1** | **29.9** | **4.0** | **64.4** | **4.2** |
| SACMEQ IV 2013 | Central Eastern | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.4 | 12.0 | 29.4 | 13.0 | 47.2 | 14.6 |
| | Central Western | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.8 | 8.7 | 9.2 | 6.2 | 33.3 | 9.9 | 44.7 | 11.0 |
| | Northern | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 34.5 | 13.2 | 65.5 | 13.2 |
| | Shire Highlands | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.2 | 6.7 | 45.5 | 15.0 | 46.3 | 15.0 |
| | South Eastern | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 49.2 | 13.4 | 50.8 | 13.4 |
| | South Western | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.5 | 6.7 | 5.3 | 5.5 | 16.8 | 11.5 | 44.8 | 16.2 | 26.6 | 14.0 |
| | **MALAWI** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.7** | **0.7** | **4.0** | **2.5** | **8.5** | **2.8** | **39.0** | **5.4** | **47.8** | **5.5** |

## 7.3 Teachers Level of Competence in Reading

Table 7.11 shows the percentages of teachers reaching various levels of Reading competence in SACMEQ III and IV according to education divisions. In terms of Reading competence, in SACMEQ III 64 percent of the teachers attained Level 8 while in SACMEQ IV only 47.8 percent of the teachers attained Level 8. There were more teachers in SACMEQ IV who attained Level 7 (39.0%) compared to SACMEQ III Level 7 (29.9%).

In SACMEQ III, the lowest Level of attainment in Reading competence for teachers was Level 6 while for SACMEQ IV the lowest level of teacher attainment was Level 4.

There were more teachers from Central East division (75.1%) who attained Level 8 in SACMEQ III, whereas, there were more teachers from North division (65.5%) who attained Level 8 in SACMEQ IV as compared to any other division in the country.

## 7.4 Teachers Level of Competence in Mathematics

Table 7.12 shows the percentages of teachers reaching various levels of competence in Mathematics in SACMEQ III and IV in the six education divisions. According to Mathematics competence at national level, 27.7 % of the teachers in SACMEQ III attained Level 8 while 26.6% of the teachers attained Level 8 in SACMEQ IV. More teachers from Central East (53.1%) in SACMEQ III attained Level 8 while more teachers from Shire Highlands division (44.7%) attained Level 8 in Mathematics competence.

In SACMEQ III Central West had the majority of the teachers who attained the lowest (Level 4) while in SACMEQ IV, similarly Central West had teachers who attained the lowest (Level 1).

**Table 7.12: Percentage of teachers reaching various Mathematics competence levels by division (SACMEQ III and SACMEQ IV)**

| | Division | Teacher Competence level in Mathematics | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Level 1 | | Level 2 | | Level 3 | | Level 4 | | Level 5 | | Level 6 | | Level 7 | | Level 8 | |
| | | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| SACMEQ III (2007) | Central East | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 | 4.2 | 11.9 | 7.2 | 30.8 | 10.7 | 53.1 | 11.9 |
| | Central West | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.2 | 5.0 | 23.7 | 7.8 | 10.6 | 5.5 | 32.3 | 8.5 | 25.2 | 8.2 |
| | North | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 | 2.6 | 12.7 | 7.0 | 13.1 | 6.6 | 46.7 | 9.9 | 25.0 | 8.6 |
| | South East | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.2 | 7.1 | 48.5 | 13.4 | 39.3 | 13.9 |
| | Shire Highlands | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 27.8 | 11.0 | 49.0 | 12.0 | 23.2 | 10.1 |
| | South West | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.6 | 9.5 | 28.9 | 11.0 | 47.9 | 12.2 | 2.6 | 1.8 |
| | **MALAWI** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **2.7** | **1.4** | **12.2** | **2.9** | **16.3** | **3.2** | **41.2** | **4.4** | **27.7** | **4.0** |
| SACMEQ IV (2013) | Central Eastern | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.3 | 9.1 | 2.8 | 2.9 | 56.3 | 14.5 | 31.6 | 13.8 |
| | Central Western | 4.0 | 4.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.8 | 9.3 | 25.3 | 9.8 | 32.4 | 10.6 | 21.5 | 9.4 |
| | Northern | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.2 | 8.5 | 6.6 | 6.6 | 43.4 | 13.8 | 37.8 | 12.7 |
| | Shire Highlands | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.2 | 9.9 | 41.2 | 14.1 | 44.7 | 14.3 |
| | South Eastern | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.4 | 12.1 | 28.1 | 12.4 | 29.7 | 11.2 | 15.7 | 9.0 |
| | South Western | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 3.7 | 22.8 | 12.4 | 59.5 | 15.3 | 14.0 | 9.6 |
| | **MALAWI** | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.0 | 3.9 | 18.1 | 4.2 | 41.3 | 5.4 | 26.6 | 4.7 |

## 7.5 Trend in the proportion of Pupils and teachers with acceptable Reading Skills from 2007 to 2013

Table 7.13 shows percentage of pupils and teachers with acceptable (at least competence Level 4) Reading skills by division for SACMEQ III and IV. The percentage of pupils reaching acceptable Reading skills increased from 26.7 percent in 2007 to 45.2 percent in 2013. This represents a significant increase in number of pupils reaching acceptable levels of Reading. However, this still means that 54.8 percent of the pupils in Malawi did not acquire acceptable Reading skills even by Standard 6.

**Table 7.13: Percentage of pupils and teachers with acceptable (at least competence Level 4) Reading skills by division (SACMEQ III and SACMEQ IV)**

| Division | PUPILS | | | | TEACHERS | | | |
|---|---|---|---|---|---|---|---|---|
| | 2007 | | 2013 | | 2007 | | 2013 | |
| | % | SE | % | SE | % | SE | % | SE |
| Central East | 27.9 | 5.3 | 46.9 | 4.9 | 100.0 | 0.0 | 100.0 | 0.0 |
| Central West | 28.8 | 4.0 | 50.8 | 4.8 | 100.0 | 0.0 | 100.0 | 0.0 |
| North | 27.6 | 5.5 | 37.5 | 8.3 | 100.0 | 0.0 | 100.0 | 0.0 |
| South East | 25.6 | 4.5 | 46.7 | 6.3 | 100.0 | 0.0 | 100.0 | 0.0 |
| Shire Highlands | 24.2 | 3.6 | 45.3 | 4.7 | 100.0 | 0.0 | 100.0 | 0.0 |
| South West | 23.8 | 2.6 | 40.7 | 6.4 | 100.0 | 0.0 | 100.0 | 0.0 |
| **MALAWI** | **26.7** | **1.9** | 45.2 | 2.4 | **100.0** | **0.0** | **100.0** | **0.0** |

The percentages of pupils with acceptable Reading skills in 2007 were spread from 23.8 percent in the South West division to 28.8 percent in the Central West division. In 2013 the percentages of pupils with acceptable Reading skills increased in all the divisions. The range of percentages of pupils with acceptable Reading skills in 2013 was from 37.5 percent in Northern division to 46.9 percent in Central West division.

In the case of teachers, 100 percent had acceptable Reading skills in all the divisions during SACMEQ III and SACMEQ IV.

## 7.6 Proportion of Pupils with Acceptable Reading Skills by Sub-groups

Table 7.14 shows percentage of pupils with acceptable Reading skills by subgroups for SACMEQ III and IV. Disaggregated by gender, the percentage of boys with acceptable Reading skills increased from 31.3 percent in 2007 to 47.7 percent in 2013. The percentage of girls also increased from 22.0 percent in 2007 to 42.8 percent in 2013. Significantly greater percentages of boys than girls acquired acceptable Reading skills in SACMEQ III and SACMEQ IV .

**Table 7.14: Percentage of pupils with acceptable Reading skills by subgroups (SACMEQ III and SACMEQ IV)**

| Background characteristics | 2007 | | 2013 | |
|---|---|---|---|---|
| | % | SE | % | SE |
| Pupil gender | | | | |
| Boys | 31.3 | 2.2 | 47.7 | 2.9 |
| Girls | 22.0 | 2.0 | 42.8 | 2.7 |
| School location | | | | |
| Rural | 23.1 | 2.1 | 40.5 | 2.6 |
| Urban | 38.5 | 3.1 | 61.2 | 4.7 |
| Socioeconomic level | | | | |
| Low SES (Bottom 25%) | 23.8 | 3.4 | 43.2 | 2.6 |
| High SES (Top 25%) | 38.0 | 2.5 | 51.7 | 3.4 |
| **MALAWI** | **26.7** | **1.9** | **45.2** | **2.4** |

In terms of school location, the percentages of pupils, in both rural and urban areas, reaching at least Level 4 in Reading increased in 2013 compared to 2007. In rural areas the increase was from 23.1 percent to 40.5 percent and in urban areas a marginal increase was registered from 38.5 percent to 61.2 percent. These figures indicate that greater percentages of pupils in rural areas had acceptable Reading skills than pupils in urban areas.

Grouping pupils by SES, the percentages of pupils in the low and high SES who acquired acceptable Reading skills increased in 2013 compared to 2007. The percentage of pupils in the low SES increased from 23.8 percent to 43.2 percent while the percentage of pupils in the highest socioeconomic quintile increased from 38.0 percent to 51.7 percent. These figures show that

greater percentages of pupils with low SES had acquired acceptable Reading skills than those with high SES.

## 7.7 Conclusion

There was a marked improvement in the mean test scores of pupils in both Reading and Mathematics and the scores were higher in SACMEQ IV than those registered in SACMEQ III. Pupils' Reading competence remained concentrated in the lower levels with 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. In general, the performance of girls trailed that of boys as was the case in SACMEQ III. However, by subgroup there were more girls attaining acceptable Reading skills as compared to boys in SACMEQ IV. 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 has greatly improved overtime comparatively to pupils with high SES. 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

## 8.1 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. HIV&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?

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

In SACMEQ IV, both pupils and teachers were given an 86 item test geared at assessing their HIV and AIDS knowledge levels.

Performance on the HIV&AIDS Knowledge Test (HAKT) of pupils

The mean performance on the HIV/AIDS Knowledge Test (HAKT) of pupils by gender reaching the minimum and desirable levels of knowledge about HIV and AIDS has been presented in Table 8.1.

**Table 8.1: Mean Performance on the HAKT of pupils by gender**

| Division | Learners Performance | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Transformed Scores | | | | Reaching Minimum Level | | | | Reaching Desired Level | | | |
| | Boys | | Girls | | Boys | | Girls | | Boys | | Girls | |
| | Mean | SE | Mean | SE | % | SE | % | SE | % | SE | % | SE |
| Central Eastern | 435.9 | 8.46 | 411.1 | 7.99 | 4.8 | 1.94 | 0.5 | 0.50 | 0.0 | 0.00 | 0.0 | 0.00 |
| Central Western | 466.5 | 12.50 | 441.2 | 7.54 | 18.4 | 9.24 | 8.1 | 3.08 | 0.3 | 0.31 | 0.0 | 0.00 |
| Northern | 423.8 | 16.26 | 425.2 | 22.83 | 8.7 | 6.82 | 10.8 | 9.10 | 0.8 | 0.77 | 2.5 | 2.30 |
| Shire Highlands | 469.7 | 9.26 | 437.2 | 7.69 | 13.1 | 5.41 | 4.7 | 1.77 | 0.8 | 0.78 | 0.0 | 0.00 |
| South Eastern | 453.5 | 14.74 | 439.9 | 10.24 | 11.6 | 4.38 | 7.5 | 3.54 | 0.6 | 0.63 | 0.0 | 0.00 |
| South Western | 444.9 | 9.41 | 423.0 | 9.32 | 9.2 | 4.44 | 2.3 | 1.33 | 0.0 | 0.00 | 0.0 | 0.00 |
| **Malawi** | **450.2** | **5.47** | **430.9** | **4.78** | **11.8** | **3.04** | **6.0** | **1.79** | **0.4** | **0.20** | **0.4** | **0.38** |

It can be noted from Table 8.1 that overall, boys had higher mean scores of 450.2 than the girls at 430.9. It can be noted that boys from Shire Highlands, Central Western and South Eastern scored above the mean score of 450.2. However, boys from Shire Highlands outperformed all the boys in the other divisions. Boys from the Northern Division had the least mean score of 423.8. For the girls, Central Western division had the highest mean score of 441.2 while Central Eastern division had the mean lowest score of 411.1. It should be also noted that girls from the Northern division out performed their counterparts, the boys with a margin mean score of 1.4.

It can also be noted that more boys than girls reached both the minimum and desirable levels. From Table 8.1, more pupils from the Central Western division reached the minimum level while more pupils from the Northern Division reached the desirable level. However, pupils from the Central Eastern division consistently performed lower than pupils from the other five divisions.

The knowledge levels of the pupils were also assessed by their socio-economic status. The mean performances of the pupils by their socio-economic status have been presented in Table 8.2.

**Table 8.2: Mean performance on the HAKT of pupils by SES**

| Division | Learners Performance | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Transformed Scores | | | | Reaching Minimum Level | | | | Reaching Desired Level | | | |
| | Low SES | | High SES | | Low SES | | High SES | | Low SES | | High SES | |
| | Mean | SE | Mean | SE | % | SE | % | SE | % | SE | % | SE |
| Central Eastern | 421.1 | 8.91 | 429.1 | 10.23 | 2.4 | 1.05 | 3.4 | 1.93 | 0.0 | 0.00 | 0.0 | 0.00 |
| Central Western | 452.8 | 9.56 | 461.2 | 12.12 | 12.3 | 5.07 | 17.9 | 8.79 | 0.3 | 0.31 | 0.0 | 0.00 |
| Northern | 416.3 | 9.30 | 443.7 | 29.95 | 4.3 | 2.67 | 16.1 | 13.11 | 0.0 | 0.00 | 3.2 | 2.80 |
| Shire Highlands | 449.9 | 8.14 | 465.8 | 10.56 | 9.0 | 4.19 | 10.2 | 3.48 | 0.6 | 0.54 | 0.0 | 0.00 |
| South Eastern | 449.9 | 12.08 | 449.2 | 9.85 | 9.8 | 3.42 | 10.4 | 3.47 | 0.5 | 0.52 | 0.0 | 0.00 |
| South Western | 433.5 | 11.11 | 444.8 | 10.29 | 2.8 | 1.56 | 10.9 | 4.05 | 0.0 | 0.00 | 0.0 | 0.00 |
| **Malawi** | **440.2** | **4.33** | **449.1** | **7.45** | **7.6** | **1.68** | **12.7** | **3.78** | **0.3** | **0.15** | **0.7** | **0.64** |

It can be noted from Table 8.2 that in general, high SES pupils scored higher than those from the low SES. It can also be noted that Central Western division, outperformed the other divisions in the low SES while Shire Highlands out performed all those in the high SES. However, in the South Eastern division, pupils in the low SES scored slightly higher than those in the high SES. It can also be noted that Central Western division reached the highest minimum level in both Low SES and high SES by 12.3% and 17.9% respectively. Furthermore, about 3% of pupils in the high SES and 0.6 % in the low SES reached the desirable levels.

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 8.3.

**Table 8.3: Mean performance on the HAKT of pupils by school location**

| Division | Learners Performance | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Transformed Scores | | | | Reaching Minimum Level | | | | Reaching Desired Level | | | |
| | Rural | | Urban | | Rural | | Urban | | Rural | | Urban | |
| | Mean | SE | Mean | SE | % | SE | % | SE | % | SE | % | SE |
| Central East | 417.4 | 7.23 | 459.2 | 0.07 | 2.6 | 1.30 | 3.1 | 3.52 | 0.0 | 0.00 | 0.0 | 0.00 |
| Central West | 461.9 | 12.12 | 439.5 | 10.77 | 17.4 | 8.32 | 6.1 | 2.50 | 0.0 | 0.00 | 0.5 | 0.48 |
| Northern | 398.9 | 6.77 | 507.2 | 55.70 | 0.8 | 0.76 | 39.1 | 27.43 | 0.0 | 0.00 | 6.8 | 5.55 |
| Shire Highlands | 449.4 | 8.10 | 478.6 | 0.00 | 8.0 | 3.41 | 18.2 | 0.00 | 0.4 | 0.39 | 0.0 | 0.00 |
| South East | 449.6 | 10.33 | 430.0 | 29.58 | 9.2 | 3.19 | 11.7 | 3.59 | 0.4 | 0.35 | 0.0 | 0.00 |
| South West | 431.3 | 9.84 | 441.9 | 12.09 | 6.2 | 3.47 | 5.4 | 2.91 | 0.0 | 0.00 | 0.0 | 0.00 |
| **Malawi** | **437.0** | **4.23** | **452.9** | **12.37** | **8.1** | **2.11** | **11.8** | **5.41** | **0.1** | **0.09** | **1.3** | **1.07** |

The information in Table 8.3 shows that overall; pupils from the urban areas outperformed their rural counterparts despite there being two divisions where rural pupils' mean score was higher than that of their counterparts in the urban schools. Urban pupils also performed better in reaching the minimum level. However, it is the urban pupils in the Northern division that managed to reach the desired level, while none from Central East and South West, reached the desirable levels. In fact rural pupils from Central East consistently performed lower than their urban counterparts. There is a need to focus interventions in the Central East division.

## Performance on the HAKT of Reading teachers

Comment [AMM(2)]: Format this into a heading

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 has been presented in Table 8.4.

**Table 8.4: Mean Performance on the HAKT of Reading teachers by gender**

| Division | Reading Teachers | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Transformed Scores | | | | Reaching Minimum Level | | | | Reaching Desired Level | | | |
| | Male | | Female | | Male | | Female | | Male | | Female | |
| | Mean | SE | Mean | SE | % | SE | % | SE | % | SE | % | SE |
| Central Eastern | 774.2 | 17.6 | 745.0 | 39.4 | 100.0 | 0.0 | 100.0 | 0.0 | 95.8 | 4.5 | 100.0 | 0.0 |
| Central Western | 714.6 | 21.2 | 794.7 | 25.8 | 100.0 | 0.0 | 100.0 | 0.0 | 63.0 | 12.1 | 100.0 | 0.0 |
| Northern | 733.1 | 38.9 | 665.0 | 62.3 | 93.5 | 6.6 | 81.0 | 19.4 | 73.3 | 14.1 | 56.0 | 25.6 |
| Shire Highlands | 712.8 | 37.5 | 785.3 | 64.8 | 100.0 | 0.0 | 100.0 | 0.0 | 69.9 | 26.8 | 100.0 | 0.0 |
| South Eastern | 725.4 | 20.5 | 659.0 | 19.1 | 100.0 | 0.0 | 100.0 | 0.0 | 79.1 | 13.9 | 33.5 | 27.1 |
| South Western | 728.7 | 25.4 | 671.1 | 24.9 | 100.0 | 0.0 | 90.6 | 9.7 | 92.5 | 7.1 | 59.2 | 17.7 |
| **Malawi** | **729.8** | **11.3** | **712.2** | **15.7** | **98.8** | **1.2** | **94.6** | **3.9** | **76.3** | **5.7** | **70.6** | **8.9** |

In Table 8.4, the male teachers outperformed their female counterparts with a Reading mean score of 729.8 against a mean score of 712.2 for the female teachers. Male teachers in Central Eastern division had the highest Reading mean score of 774.2 while female teachers in Central Western division had the highest mean score of 794.7. Male teachers in five divisions and female teachers in four divisions scored above the minimum level. They all had a Reading score of 100%. However, male teachers from the Northern division and female teachers from the Northern and South West divisions scored below the minimum levels. Furthermore, three divisions, Central Eastern, Central Western and Shire Highlands reached the desired levels by 100% in the female category. The male teachers in Central West, Shire Highlands and Northern division scored below the desired levels and in all the six divisions, the male teachers scored below 100%.

**Table 8.5 Mean Performance on the HAKT of Mathematics teachers by gender**

| Division | Performance of Mathematics Teachers | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Transformed Scores | | | | Reaching Minimum Level | | | | Reaching Desired Level | | | |
| | Male | | Female | | Male | | Female | | Male | | Female | |
| | Mean | SE | Mean | SE | % | SE | % | SE | % | SE | % | SE |
| Central Eastern | 745.5 | 21.75 | 679.8 | 28.93 | 100.0 | 0.00 | 100.0 | 0.00 | 84.0 | 12.47 | 64.2 | 30.67 |
| Central Western | 714.8 | 23.04 | 747.9 | 18.60 | 96.7 | 3.28 | 100.0 | 0.00 | 69.3 | 12.75 | 85.7 | 10.79 |
| Northern | 748.7 | 41.44 | 755.4 | 59.13 | 100.0 | 0.00 | 100.0 | 0.00 | 74.2 | 16.59 | 62.8 | 35.09 |
| Shire Highlands | 769.5 | 24.68 | 788.0 | 39.55 | 100.0 | 0.00 | 100.0 | 0.00 | 100.0 | 0.00 | 100.0 | 0.00 |
| South Eastern | 731.6 | 18.13 | 709.5 | 53.13 | 100.0 | 0.00 | 100.0 | 0.00 | 91.9 | 7.57 | 69.6 | 25.54 |
| South Western | 690.5 | 29.12 | 690.3 | 27.31 | 100.0 | 0.00 | 90.1 | 10.23 | 63.4 | 22.32 | 68.9 | 15.88 |
| Malawi | 731.4 | 10.79 | 724.7 | 16.41 | 99.1 | 0.87 | 97.9 | 2.13 | 79.9 | 5.42 | 76.1 | 8.71 |

In Table 8.5 the male teachers outperformed their counterparts, the female teachers in Mathematics with a mean score of 731.4 against 724.7. South West division had the lowest mean score for males and Central Eastern for females. Almost all the divisions reached minimum levels with the exception of Central West for males and South West for females. In Shire Highland both males reached desirable levels with a 100% score. However, in three divisions the male teachers did not reach the desirable levels and these divisions are Central Western, South Western and the Northern divisions while four divisions namely, Central Eastern, South Eastern, South Western and the Northern division had their female teachers not reaching the desirable levels.

**Table 8.5: Mean Performance on the HAKT of Health teachers by gender**

| Division | Health Teachers | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Transformed Scores | | | | Reaching Minimum Level | | | | Reaching Desired Level | | | |
| | Male | | Female | | Male | | Female | | Male | | Female | |
| | Mean | SE | Mean | SE | % | SE | % | SE | % | SE | % | SE |
| Central Eastern | 766.2 | 18.12 | 752.5 | 24.68 | 100.0 | 0.00 | 100.0 | 0.00 | 96.2 | 4.07 | 100.0 | 0.00 |
| Central Western | 725.2 | 20.40 | 760.0 | 25.47 | 97.3 | 2.69 | 100.0 | 0.00 | 68.4 | 10.61 | 79.4 | 12.20 |
| Northern | 777.2 | 31.35 | 799.1 | 54.80 | 98.0 | 2.09 | 94.4 | 5.97 | 85.3 | 9.08 | 94.4 | 5.97 |
| Shire Highlands | 742.7 | 25.26 | 786.1 | 31.11 | 100.0 | 0.00 | 100.0 | 0.00 | 82.5 | 12.35 | 100.0 | 0.00 |
| South Eastern | 731.7 | 11.64 | 680.1 | 33.71 | 100.0 | 0.00 | 100.0 | 0.00 | 88.6 | 6.09 | 53.3 | 18.40 |
| South Western | 736.9 | 35.56 | 710.3 | 33.73 | 100.0 | 0.00 | 91.4 | 8.77 | 83.5 | 16.25 | 60.9 | 15.99 |
| **Malawi** | **744.5** | **10.00** | **744.1** | **16.13** | **98.9** | **0.79** | **97.6** | **1.86** | **82.3** | **4.13** | **77.6** | **6.21** |

In Table 8.6, male and female teachers scored 744.5 and 744.1 respectively, hence no difference in the mean score. However, the female teachers outperformed their male counterparts with the Northern division scoring 799.1 as compared to 777.2 of the males in the same division; however, both these scores were the highest. Almost all the divisions reached the minimum level with the exception of Central Western division for the male teachers and Northern and South Western for the female teachers. For the male teachers in the Central Western division did not reach the desirable levels while female teachers in the South Eastern and South Western divisions did not reach the desirable levels.

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.

## 8.3 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 and the percentages of pupils, teachers and school heads expressing fear of casual contact with a teacher infected with HIV *(stigma)* have been presented in

Table 8.7.

**Comment [AMM(3]:** Delete this

It can be noted from the Table 8.6 that overall, 88.4 percent of the pupils had positive attitudes towards fellow pupils who were infected. The results also show that 98 percent of the teachers and all Head teachers (100 percent) had a positive attitude towards pupils infected to continue attending school. However, there were some 8.6 percent of pupils in the Central West education division who expressed negative attitudes towards pupils who were infected to continue attending classes.

**Comment [AMM(4]:** Interpret this in terr of "% of pupils taught by teachers who ..."

**Comment [AMM(5]:** Interpret in terms % of pupils as well

It can be noted from the Table 8.6 that overall, 87.3 percent of the pupils had positive attitudes towards teachers who were infected to continue teaching. The table also shows that 98.1 percent of the teachers and 99.3 percent of the head teachers had a positive attitude towards fellow teachers who were to continue teaching at their school. However, there were some 10.5 percent of pupils in the South West education division who expressed negative attitudes towards teachers who were infected to continue teaching at their school.

**Comment [AMM(6]:** Interpret this in terr of "% of pupils taught by teacher with ..."

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

Table 8.8.

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

| Division | 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 Eastern | 7.7 | 2.48 | 3.1 | 1.30 | 89.3 | 2.93 | 0.0 | 0.00 | 5.3 | 5.36 | 94.7 | 5.36 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 |
| Central Western | 8.6 | 1.62 | 4.6 | 1.23 | 86.8 | 2.21 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 |
| Northern | 8.3 | 2.39 | 3.7 | 1.17 | 88.0 | 2.58 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 |
| Shire Highlands | 7.3 | 2.38 | 3.4 | 1.49 | 89.3 | 3.39 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 |
| South Eastern | 8.3 | 2.06 | 4.5 | 2.09 | 87.2 | 2.87 | 0.0 | 0.00 | 6.1 | 6.06 | 93.9 | 6.06 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 |
| South Western | 5.2 | 1.39 | 3.5 | 1.16 | 91.3 | 1.90 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 |
| **Malawi** | **7.7** | **0.83** | **3.9** | **0.60** | **88.4** | **1.07** | **0.0** | **0.00** | **1.9** | **1.34** | **98.1** | **1.34** | **0.0** | **0.00** | **0.0** | **0.00** | **100.0** | **0.00** |

**Comment [AMM(8]:** Please note that, in this form, the **table title** does not communicate information in the table. This is because you have cut out an important **heading** which is contained in the very **first row** of the table. Please refer to the original table of results again. The header reads: "**RESPONSES ON THE POSSIBILITY OF A PUPIL INFECTED WITH HIV TO COTNINUE TO ATTEND SCHOOL**".

**Table 8.7: Percentages of pupils, teachers and school heads expressing fear of casual contact with a teacher infected with HIV (stigma)**

| Division | 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 Eastern | 8.4 | 2.85 | 4.1 | 1.49 | 87.5 | 3.58 | 0.0 | 0.00 | 5.3 | 5.36 | 94.7 | 5.36 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 |
| Central Western | 4.9 | 1.30 | 5.0 | 1.34 | 90.2 | 1.93 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 |
| Northern | 8.8 | 2.35 | 6.8 | 2.23 | 84.5 | 3.69 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 |
| Shire Highlands | 6.2 | 2.57 | 5.2 | 2.13 | 88.6 | 4.24 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 |
| South Eastern | 8.9 | 2.33 | 4.9 | 2.15 | 86.2 | 2.93 | 0.0 | 0.00 | 6.1 | 6.06 | 93.9 | 6.06 | 0.0 | 0.00 | 3.7 | 3.75 | 96.3 | 3.75 |
| South Western | 10.5 | 1.96 | 4.1 | 1.76 | 85.4 | 2.23 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 100.0 | 0.00 |
| **Malawi** | **7.7** | **0.88** | **5.0** | **0.75** | **87.3** | **1.21** | **0.0** | **0.00** | **1.9** | **1.34** | **98.1** | **1.34** | **0.0** | **0.00** | **0.7** | **0.66** | **99.3** | **0.66** |

**Table 8.8: Pupil willing to care for a relative ill with AIDS, pupil behaviour with a friend infected with HIV**

| Division | PUPIL BEHAVIOUR WITH A FRIEND INFECTED WITH HIV | | | | | | PUPIL WILLING TO CARE FOR A RELATIVE ILL WITH AIDS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Avoid/ shun him or her | | Not sure | | Positive attitude | | No | | Not sure | | Yes | |
| | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| Central Eastern | 8.9 | 1.98 | 10.4 | 3.48 | 80.7 | 4.49 | 7.3 | 1.94 | 3.0 | 1.36 | 89.7 | 2.90 |
| Central Western | 9.6 | 1.80 | 6.9 | 1.63 | 83.6 | 2.68 | 11.3 | 2.26 | 4.6 | 1.34 | 84.1 | 2.96 |
| Northern | 12.0 | 2.44 | 10.4 | 2.31 | 77.6 | 3.45 | 10.9 | 2.49 | 4.5 | 1.18 | 84.6 | 2.79 |
| Shire Highlands | 10.3 | 2.37 | 8.0 | 2.36 | 81.7 | 3.16 | 9.6 | 2.85 | 4.8 | 1.68 | 85.6 | 3.42 |
| South Eastern | 9.0 | 3.10 | 12.3 | 3.27 | 78.6 | 3.54 | 14.3 | 2.58 | 7.9 | 1.96 | 77.8 | 3.54 |
| South Western | 13.7 | 4.60 | 8.0 | 2.22 | 78.3 | 5.37 | 7.1 | 2.21 | 4.8 | 1.39 | 88.1 | 3.28 |
| **Malawi** | **10.5** | **1.14** | **9.1** | **1.03** | **80.4** | **1.54** | **10.3** | **1.02** | **5.0** | **0.63** | **84.7** | **1.35** |

**Comment [AMM(9]:** Please note that, in this form, the **table title** does not communicate information in the table. This is because you have cut out an important **heading** which is contained in the very **first row** of the table. Please refer to the original table of results again. The header reads: "**RESPONSES ON THE POSSIBILITY OF A TEACHER INFECTED WITH HIV TO COTNINUE TEACHING**".

**It can be noted from the information in**

Table 8.8 that in all the divisions, there was positive attitude in terms of discrimination although the South Western and Northern education division may require special attention because 13.7 and 12.0 percent of the pupils said that they would avoid contact with a person living with HIV or AIDS. Central West education division had the highest percentage of pupils with positive attitudes. Overall, more pupils were willing to take care of a relative (84.7 percent).

In summary, it can be noted that the attitude was in general positive especially for the teachers and head teachers. However, the South West and Northern division require 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 8.9 below.

**Table 8.9: Self risk assessment of being infected with HIV by teachers and school heads**

| Division | RESPONSES ON PERCEIVED LEVEL OF EXPOSURE TO HIV/AIDS RISK BY TEACHERS AND SCHOOL HEADS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TEACHERS | | | | | | SCHOOL HEADS | | | | | |
| | No or Low Risk | | Medium Risk | | High or Very High Risk | | No or Low Risk | | Medium Risk | | High or Very High Risk | |
| | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| Central Eastern | 48.4 | 13.06 | 18.5 | 10.07 | 33.1 | 12.81 | 57.5 | 12.04 | 12.6 | 8.62 | 29.9 | 10.60 |
| Central Western | 40.1 | 9.55 | 12.6 | 6.44 | 47.3 | 9.80 | 25.7 | 9.07 | 11.0 | 5.46 | 63.3 | 9.55 |
| Northern | 44.3 | 12.09 | 21.6 | 9.58 | 34.1 | 11.76 | 30.0 | 12.17 | 5.9 | 5.92 | 64.0 | 12.53 |
| Shire Highlands | 46.7 | 13.10 | 9.7 | 9.47 | 43.6 | 12.97 | 53.8 | 14.50 | 19.9 | 12.91 | 26.3 | 12.46 |
| South Eastern | 40.5 | 11.91 | 0.0 | 0.00 | 59.5 | 11.91 | 14.8 | 8.66 | 23.5 | 10.84 | 61.7 | 12.00 |
| South Western | 28.0 | 11.58 | 9.6 | 6.99 | 62.4 | 12.40 | 31.2 | 10.83 | 4.5 | 4.54 | 64.3 | 11.27 |
| **Malawi** | **41.2** | **4.79** | **11.8** | **3.07** | **47.0** | **4.85** | **33.3** | **4.46** | **12.9** | **3.39** | **53.9** | **4.70** |

It can be noted form Table 8.9 that 41.2 percent of the pupils had teachers who felt that they were at no/low risk while 47.0 percent of pupils had teachers who felt that they were at high risk. The Central East division had the highest percentage of pupils with teachers who thought that they were not at risk while the South West 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 West 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 East and Shire Highlands 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 West and Northern 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.

## 8.4 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. The majority of the pupils performed at Levels 3, 4 and 5. Very few reached Levels 6, 7 and 8. 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

## 9.1 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.

## 9.2 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 2013 were concentrated at level 4 (read for meaning) and level 5 (interpretive Reading) accounting for 72.8 percent. Nearly 48 percent of the pupils were able to read for meaning (level 4), representing an increase from 20 percent in SACMEQ III. Seven percent of the students reached Level 6 (inferential Reading) and 2.4 percent reached Level 7 (analytical Reading). A few students achieved Level 8 (critical Reading); however, they do not constitute a significant percentage of the sample. The trend between 2007 and 2013 shows that there were increases in the percentages of pupils who were performing at Levels 4 to 7. These increases were accompanied by a decline in the percentages of learners who were performing at lower levels of competence (Levels 1, 2 and 3) implying improvements in

skills acquisition. There was a 28 percent increase at Level 4 and a 20 percent increase at Level 5, signifying significant improvements.

All education divisions significantly improved their performances in Levels 4, 5 and 6. The South Western Education Division was the only division with students achieving Level 8 Reading skills.

Mathematics

For Mathematics, most of the pupils reached the basic and beginning numeracy skill levels (79.4%). None of the pupils reached abstract problem solving competency (levels 8). The trend between 2007and 2013 shows that the percentage of pupils who were performing at Level 3 (Basic Numeracy), increased by 14.1percent (+14.1%), and the percentage of learners performing at Level 4 increased by 26.9 percent (+26.9%). Correspondingly, the percentages of learners performing at Levels 1 and 2 decreased by 45.8 percent (-45.8%). Only 0.4% of students have Level 1 Mathematics competency.

Overall, the national level performance of Standard 6 pupils in Mathematics increased significantly from between 2007 and 2013. All education divisions saw more than a 10 point increase in both Levels 3 and 4. The Central Eastern Education Division had the best performing students in Mathematics.

## 9.3 Quality of the learning environment

This study showed that only around 12.2% and 10% of Standard 6 pupil in Malawi had their own Reading and Mathematics textbooks respectively. This is a significant decline in availability of textbooks compared to 2007 when around a quarter of the students had their own books and in 2002 when more than half had their own textbooks. This leads to ineffective participation in classroom activities. There was also a marginal decline in the percentage of students that had exercise books, pen/pencil and ruler from 72.8% in 2007 to 71.5% in 2013. Most of the pupils without the basic learning materials were in rural schools, but substantial numbers were also in urban schools. The number of classes with 40 students

or less (SACMEQ acceptable class size) fell from 28.9% in 2002 and 20.9% in 2007 to 20% in 2013. This may be due to increasing population and access.

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. Further, the supply of teaching and learning materials has been falling consistently since 2002. This is cause for concern.

## 9.4 Gender equality and promotion

The proportion of girls in the sample was 49.06%, representing a marginal decline from 49.2% in 2007. There were disparities in learning achievements between boys and girls. However, there have been improvements in closing the gap. In Reading, boys scored 5 points higher than girls in 2013, compared to 10 points higher in 2007. In Mathematics, the gap between performance of boys and girls has widened. While the performance of both boys and girls increased substantially between 2007 and 2013, the gap between them rose from approximately 12 score points to 16 score points. In all the education divisions, boys were systematically better in Mathematics than girls. This was also true for Reading, except in the Northern Education Division.

The proportion of female staff increased from 24.7% in 2007 to 26.9% in 2013. However, this figure is still lower than proportion of female staff in 2002, which was 28.1%. The overall proportion of Standard 6 pupils with female head teachers increased to 20 percent in 2013, up from 15 and 13 percent in 2002 and 2007 respectively.

## 9.5 Age amongst Standard 6 pupils

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 160.6 months (i.e. about 13 years) in 2013. This mean demonstrates that Malawian pupils were on average 28.6 months (i.e. 2.4 years) older for their standard. The trend, however, shows that the mean age has been decreasing over the years. The mean age in 2007 was 169.5, in 2000 was 174.0 whilst in 1995 it was 181.1 months.

## 9.6 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 IV Project that in 2013 a vast majority 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**.** Only 11.8% of boys and 6% of girls reached the minimum level. This has fallen dramatically since SACMEQ III where 57% of students lacked the minimal knowledge levels. 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 best performing division was Central West for boys with 18.4% reaching minimum knowledge level and North for girls with 10.8% reaching minimum knowledge levels. The Central East division had the worst performers with 4.8% of boys and 0.5% of girls reaching minimum knowledge level. The Ministry of Education, Science, and Technology should: (a) investigate the reasons for division level variations (b) find out why knowledge levels were so low in Central East Division and (c) investigate reasons the gender variations.

## 9.7 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 was marginally below 100% on average for Reading, Mathematics and health teachers. It is surprising that Mathematics teachers perform marginally better than Health Teachers. 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.

## 9.8 The Policy suggestions

The policy suggestions are summarised in Table 9.1. 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 9.1: Summary of Policy suggestions**

| | Policy Suggestion | Responsible Unit/Department | Time | Cost Level |
|---|---|---|---|---|
| 1 | Reading and Mathematics achievement levels of learners | | | |
| 1.1 | The mean scores for Reading and Mathematics for learners have been improving whereas those of the teachers for Mathematics the mean scores have been decreasing. The Ministry of Education needs to increase support to teachers in the form of having a well thought out continuing professional development (CPD) in order to equip the teachers with appropriate knowledge and skills to improve the teaching of Reading and Mathematics. | Department of Teacher Education and Development | Short | Moderate |
| 1.2 | Boys still performed better than girls in both Reading and Mathematics. The Ministry should improve the learning conditions in schools and in particular classrooms with special attention given to the needs of girls. | Department of Inspectorate and Advisory Services (Inspector of | Short | Moderate |

| | | | | |
|---|---|---|---|---|
| | The conditions should facilitate child-centreed teaching and continuous assessment as proposed by PCAR. | English) | | |
| 1.3 | Pupils in urban schools performed better than pupils in rural schools. The Ministry should continue to increase efforts to equitably distribute trained teachers (including female teachers) and teaching and learning materials to both rural and urban schools in all the districts. | Department of Education Planning | Long | High |
| 1.4 | Pupils from low SES performed less well than pupils from the high SES. The Ministry should mobilize the support of other stakeholders such as the donor community, NGOs to alleviate traits of poverty which prevent poor pupils from learning as much as they should. There should be provision of school meals, school uniforms, educational materials and other initiatives to pupils from low SES in order to improve their performance in class. | Department of Education Planning | Short | Moderate |
| 1.5 | 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 | Department of Education Planning | Short | Low |

| | | | | |
|---|---|---|---|---|
| | implementation of an advocacy and campaign strategy. | | | |
| 2 | Quality of the learning environment | | | |
| 2.1 | The average ages of both Reading and Mathematics teachers in Standard 6 have shown a steady increase between 2002 and 2007 and decreasing between 2007 and 2013. This is an indication that the majority of the youthful teachers that were recruited in the 2000s 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. | Department of Teacher Education and Development | Long | Moderate |
| 2.2 | It can be noted that most teachers with junior secondary education qualifications have not been upgrading themselves to senior secondary education and A-levels. Therefore the Ministry of Education should strengthen implementation of policies and programs aimed at encouraging the serving teachers to upgrade their academic qualifications. | Department of Teacher Education and Development | Medium | Moderate |
| 2.3 | The Ministry of Education needs to strengthen and intensify its In-service training programs through the use of its Teacher Development Centres (TDCs) in order to improve the skills of teachers in a fast changing teaching environment. The | Department of Teacher Education and Development | Medium | Moderate |

| | | | | |
|---|---|---|---|---|
| | 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. | | | |
| 2.4 | It appears that the Ministry of Education does not have clear guidelines or a monitoring framework on lesson preparation and delivery. Teachers were generally teaching less periods per week. It is suggested that the Ministry through the Department of Inspectorate and Advisory Services should develop, implement and monitor the implementation of a lesson preparation and teaching framework to ensure that teachers prepare adequately and spend all hours meant for teaching on actual teaching in classes. | Department of Inspectorate and Advisory Services | Medium | Low |
| 2.5 | Teaching and learning ought to be an enterprise that should be a joint venture of the school, parents and the community. The generally low percentage (about 41%) 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 take an active role in monitoring the learning of their children. | Department of Basic Education | Short | Moderate |

| | | | | |
|---|---|---|---|---|
| 2.6 | The Ministry should continue with positive efforts to limit the number of official days lost and should intensify efforts to ensure more focus on time-on-task. | Department of Inspectorate and Advisory Services | Short | Low |
| 2.7 | The Ministry should commission studies to determine the exact nature of problems experienced in schools and suggest steps that can be taken to eliminate these problems, particularly problems associated with late arrival, absenteeism, drop out, pupils' health, fights, thefts, use of abusive language and vandalism. | Department of Education Planning | Short | Moderate |
| 2.8 | The Ministry of Education and the Department of Inspectorate and Advisory Services, should set a minimum number of toilets per number of pupils and a mechanism for enforcing this should be devised and adhered to. | Department of Inspectorate and Advisory Services | Medium | High |
| 2.9 | Acceptable class size has been decreasing in primary schools from 2007 to 2013. This has resulted in overcrowding and poor learning environment.<br>There is need for the Ministry of Education to continue mobilizing resources in order to construct more classroom blocks and, train and recruit more qualified primary school teachers to reduce class sizes. | Department of Education Planning (Education Infrastructure Management Unit) | Long | High |
| 3 | Gender equality and promotion, | | | |
| 3.1 | 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 | Department of Basic Education | Medium | Moderate |

| | | | | |
|---|---|---|---|---|
| | balance at all levels including at school level. The Ministry therefore should try to strengthen teacher management and deployment/allocation practices at all levels. | | | |
| 3.2 | 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. | Department of Teacher Education and Development | Medium | Moderate |
| 3.3 | The Ministry of Education should continue to make deliberate efforts to involve women in at least 30 percent of headship and other leadership positions at school level. The District Education Managers through the Primary Education Advisors should continue to take the lead in this. | Planning Department and District Education Managers | Long | Low |
| 3.4 | The Ministry of Education and its cooperating partners should continue efforts to promote and expand interventions that promote girls participation in all primary schools to ensure that more girls are enrolled, remain in schools and participate actively. | Department of Education Planning | Medium | Moderate |
| 4 | Pre-school and out-of-school exposure | | | |

| | | | | |
|---|---|---|---|---|
| 4.1 | 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 |
| 4.2 | Government and its cooperating partners need to promote the availability and use of supplementary Reading materials in the homes of pupils. Studies should be conducted to establish how the availability of books in a pupil's home correlates with pupil's achievement scores in numeracy and Reading in Malawian context in order to guide on policy. | Department of Basic Education | Short | Moderate |
| 4.3 | Majority of pupils (90.6% combined) 'never' or 'sometimes' use the language of the test and instruction (English) at home. MOEST should explore ways of promoting the use of and practising of the language of instruction after school hours to improve competency of the pupils in the language. | Department of Basic Education | Long | Moderate |

| | | | | |
|---|---|---|---|---|
| 4.4 | Government and its cooperating partners should implement programmes that encourage adults to enrol for lifelong learning/adult education programmes to improve their academic levels which would in turn be beneficial for the children as such parents will be able to provide educational support to their children. | Department of Basic Education | Long | 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 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. | Department of School Health, Nutrition and HIV and AIDS. | Short | Moderate |
| 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 |

## 9.9 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 implementing to the best of its ability the National Education Strategy Plan (NESP) 2008-2017 and the Education Sector Implementation Plan (ESIP II), 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 further 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.

The experience levels and performance of teachers are a great source of concern. Malawi needs to invest in improving the quality and knowledge levels of teachers, though continuous in-service training. It will not be possible to significantly improve learning outcomes of students when teachers perform so poorly.

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 because 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.

To attain the gender-related objectives within the Education 2030 Agenda and Sustainable Goal #4, it is necessary to go beyond gender parity. The SACMEQ IV 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 analysed. The progress noted between SACMEQ III and SACMEQ IV 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 English guides and Reading and Mathematics textbooks as well as in sufficient teachers and classrooms. 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 2007 and 2013, more effort is needed. 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 IV Project research results that majority of Standard 6 pupils in Malawi during 2013 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 13.4 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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