

ANALYSIS OF THE RELATIONSHIP
BETWEEN TEACHER
CHARACTERISTICS
AND
LEARNER PERFORMANCE IN
ENGLISH READING IN NAMIBIA



UNIVERSITY *of the*
H.I.A KATALI
WESTERN CAPE

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**Analysis of the Relationship between Teacher Characteristics and Learner Performance
in English Reading in Namibia**

Henry Isak Amalovu Katali

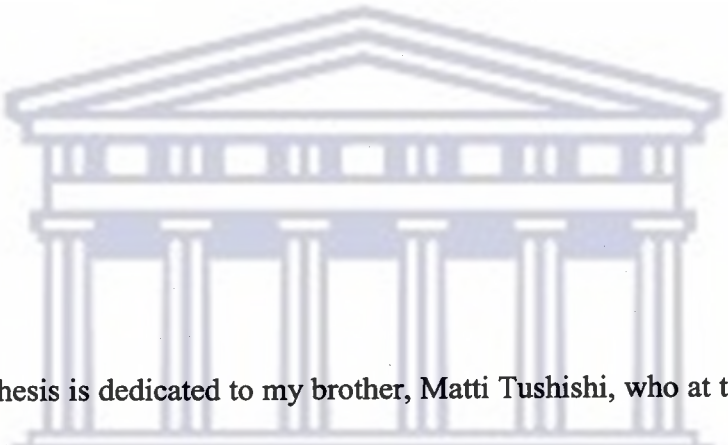


**A Mini-thesis in Partial Fulfillment of the Requirement of University of Western Cape
for the Master of Education Degree**

**UNIVERSITY *of the*
Supervisor : Prof. Peter Kallaway
WESTERN CAPE**

June 2001

DEDICATION

The logo of the University of the Western Cape, featuring a classical building with a pediment and six columns.

This mini-thesis is dedicated to my brother, Matti Tushishi, who at the beginning of my study was fighting for his life and for his beliefs and courage that motivated me to succeed, and to Dr. Heinrich Schulte whose professionalism saved his life.

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ABSTRACT

Analysis of the Relationship between Teacher Characteristics and Learner Performance in English Reading in Namibia.

Henry Isak Amalovu Katali

M. Ed mini-thesis, Department of Comparative Education, University of Western Cape

This mini-thesis investigates the relationship between teacher characteristics and learner performance in English reading in Namibia. The level of performance in national examinations is often linked to the level of English proficiency of learners. To address my research questions about the impact of selected teacher characteristics on learner performance in English reading in Namibia, I used descriptive, correlation, and regression analyses in my inquiry. These analyses allow me to measure the multivariate relationship of more than one independent variable to one dependent variable.

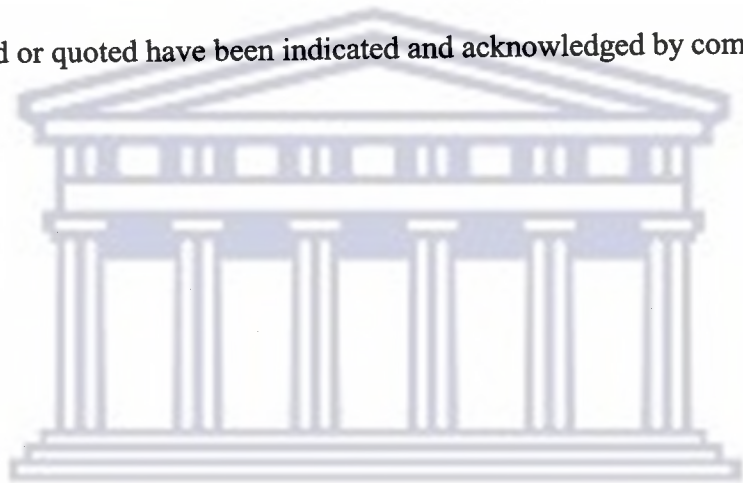
The learners studied were a sample of Grade 6 learners and their teachers who were in schools in Namibia in 1995. Measures of the learners were age, gender, number of books in the home, parent education, repetition etc. Measures of the teacher characteristics were age, gender, qualifications and experience.

The results of the study show that teacher characteristics have an influence, negative or positive, on learner performance. However, teacher training came out to be a strong influential variable to learner performance in English language reading in Namibia.

June 2001

DECLARATION

I declare that Analysis of the Relationship between Teacher Characteristics and Learner Performance in English Reading in Namibia is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.



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Chapter I : Introduction

This study sets out to investigate the relationship between teacher characteristics and learner performance. It seeks to isolate specific educational indicators with regard to teachers and learners that may have an influence on learner performance. The study further examines the extent to which of such influences are related to teacher factors. Educational indicators concerning learners are used as control mechanisms to judge the extent of learner influence on their performance. This introduction chapter outlines the main features in the transformation of education in Namibia as a background to the study. It sets out the purpose for undertaking the study and states the research questions. It further described the significance of the study and finally, it maps out the organizational structure of the study.

1.1 Education in transformation

After Namibia gained independence in 1990, the government, through the Ministry of Basic Education and Culture, was faced with many educational challenges that called upon it to address the issues related to national reconstruction. The government embarked upon numerous reforms to deal with the undesirable legacy of apartheid education. These reforms were to be felt in the field of educational organization and practices. These reforms were undertaken under the banner of the Ministry of Basic Education and Culture's four broad educational goals of equity, access, quality, and democratic participation. Among these educational issues the question of quality in terms of teaching materials, education infrastructure, teacher training, and teaching and learning, received considerable attention. The government established new schools and added new classrooms to existing schools. It designed policies to open up school opportunities to all regardless of race or colour. Further, most importantly for this study, the government introduced a unified teacher training

programme with an emphasis on a shift from the traditional teacher centered approach to a more modern learner centered approach in teaching methodology.

How far has the improvement of quality of teaching and learning measured in terms of learner performance been achieved in Namibia by the year 2001? What contributes to the quality of teaching and learning? Is there any relationship between potential changes in teacher performance and learner performance? In the absence of research in Namibia, the Southern Africa Consortium for Monitoring Educational Quality (SACMEQ) survey conducted in Namibia attempted to answer some of the above questions. The SACMEQ study conducted in Namibia and in some other countries in southern Africa (Botswana, Kenya, Malawi, Mauritius, Tanzania, Zambia and Zimbabwe) was specifically looking into the question of the provision of quality education in those countries.

The Ministry of Basic Education, Culture and Sport in Namibia has found it difficult to address equity in the distribution of educational facilities, materials, and teachers in the country. The inequities exist both in quantity and quality. Equitable distribution of teachers involves allocating teachers of equal qualifications to all regions and schools in an equitable manner.

The southern and central regions of Namibia have tended to be disproportionately favoured in terms of the distribution of educational resources in relation to their population. These resource distribution patterns go back to the apartheid years when Namibia had different education systems organized along racial lines. The racially organized education system included a divided system of teacher training and this therefore resulted in teachers in

different regions following different teacher training programs leading to different qualifications, and being deployed in an unequal manner.

The evidence indicates that this legacy left by this skewed distribution of educational resources led to poor regions with fewer resources having large classes and poorer educational facilities. Equally, these were the same regions that had poorly qualified teachers and poor learner performance. The opposite was also true, namely that the regions with better educational resources had relatively small classes, better qualified teachers and hence the learners performed better. In 1995 for example, one of the political regions in the north of the country, Ohangwena, had a teacher/learner ratio of 1:44 compared to that of another region in the south, Keetmanshoop which had a teacher/learner ratio of 1:20.8 (MBEC, 1996 p.80).

There was also variation in the qualifications of teachers, with some regions having a greater number of highly qualified teachers than others. The opposite also held true with unqualified teachers being similarly unequally distributed. It is rare to find an unqualified/untrained teacher in the schools in the southern region, whilst this is a common phenomenon in the northern regions.

After the collapse of the apartheid era, the Namibian education system was organized through one organ, the Ministry of Basic Education and Culture. Under the constitution, all Namibian learners regardless of race, colour, creed or ethnic origins were to be served by the same education system. Teacher training and teacher deployment would also be similarly restructured in a standardised way. The intentions of these arrangements is more equitable teacher training, teacher allocation and teaching materials that would lead to a more equitable quality of teaching and hence to less variation of learner performance on a regional basis.

There are seven educational regions in Namibia, namely Katima Mulilo, Rundu, Ondangwa East, Ondangwa West, Khorixas, Windhoek, and Keetmanshoop. The first four regions are in the north and they are historically disadvantaged economically and educationally. The last three regions are in the south and were relatively economically and educationally advantaged. A differential learner performance has been noticed between the southern regions and the northern regions with the former performing relatively better than the latter.

The question of the quality of learner performance has often been a central focus for various stakeholders (parents, learners, employers, school authorities, teachers and their organizations/unions) in education in different countries of the world in general and in Namibia in particular. Parents and learners are interested in learner performance as an index for better employment prospects or for further study opportunities. Employers use learner performance for selection when competition for employment is high. In commercial institutions there is evidence that managers not only select an applicant who is successful in Accounting, Business Studies or English, but will select one who has scored higher points overall in the secondary school leaving examination. The school is interested in high learner performance to boost the reputation of the school in the community it serves and the authority under which the school falls. High learner performance not only raises the status of the school but also that of all teachers and learners who went through the school and leads to the perception of schools, teachers, and learners as belonging to the category of high performance. Often learner performance is used to measure the quality of education. Schools that performed well are regarded as being of good quality and thus attract the attention of parents seeking admission for their children.

In Namibia, as in many countries, debates about the quality of education are frequently conducted in terms of individual performance in standardized national examinations. The national examinations in Namibia are written in certain grades (grade 10 and 12). All other grades are tested and marked at class or school level where the results are not made known locally to the public. The learner performance in the national examination is not only the result of the work of teacher in those grades in which they take the examination but also reflect a culmination of learning from the lower grades. Some learners do not finish primary school and not all learners take the first national examination. For those learners who do not finish primary school, it is hard to determine nationally the quality of education they received from school. The performance of learners in the school-based examinations varies markedly from region to region, between schools within regions, and notably among different subjects. As was mentioned above, the examination results led to comments by parents, teacher unions, student organizations and government officials, speculating on the possible causes of varied learner performance. Very often, these groups mention factors related to school, learner, and teacher characteristics. However, these assumptions have not often been tested or verified.

Empirical studies examining factors that are associated with learner performance are rare in Namibia. The few studies conducted with regard to learner performance as well as the relevant sections of the annual Namibian education reports have only identified factors that can be related to high or poor learner performance as reflected in examination results. There has not been an attempt to rank these causes in order of importance in the light of the available evidence. No research has been conducted in Namibia on the relationship between teacher characteristics and the learners' performance so far. This study attempts to examine teacher characteristics and see if the variations in the occurrence of these characteristics are related to variation in learner performance in the various education regions in Namibia. The

study looks specifically at the teacher factors that may have bearings on the learner performance.

1.2 The purpose of the study

The 1995 Southern Africa Consortium for Measuring Educational Quality (SACMEQ) study of the Grade 6 learner performance in English, which provides the data for this thesis, showed remarkable variations in teacher experience, teacher qualifications (professionally and academic), school facilities and materials among the seven educational regions in Namibia (Voigts, 1998). The greatest variations were found between regions where the majority of former white and coloured schools were located and the regions where the majority of formerly black schools were. Many of the variations that are found between the regions are the results of the previous separate education systems of apartheid geographical divisions, organized along racial and ethnic lines. In addition, variations were also found in the Grade 6 learners' performance in reading English both between and within the regions.

The testing of learner performance in English is crucial in Namibia for the following reasons. First, according to the constitution of the Republic of Namibia, English is an official language (Government of Namibia, 1990). Second, English is a medium of instruction in schools from Grade 4, yet in the majority of schools English is not widely spoken and is not the home language of most of the learners (MEC, 1993). Third, the majority of teachers who were trained in Namibia and South Africa, prior to Namibia's independence, did not receive training instructions through the medium of English but through an Afrikaans medium of instruction.

While many of the teachers who were trained through the medium of Afrikaans are teaching in primary schools today, their level and competence in teaching English remains questionable. The Ministry of Basic Education Sport and Culture requires constant monitoring and checking of the level of English competence of teachers for it to be able to make any necessary intervention. Fourth, a pass mark in English as a subject is a prerequisite for admission to senior secondary level and to tertiary institutions. It is therefore imperative that the government, ministry officials, parents, and teachers are aware of the quality of the teaching and learning of English at the lower grades.

The literature on learner performance considers key factors to be of primary importance in the promotion of learning. These factors relate to parents' education level, parent level of wealth, teaching strategies, availability of teaching and learning materials, teacher quality as measured in terms of academic and professional qualifications, and learner background, all of which are seen as having an influence on learner performance. However, the present study limits itself to examining issues of educational quality in terms of teacher factors while controlling for learner, school and other factors.

Teacher characteristics in general include items such as teacher age, gender, qualifications, experience, personality, level of commitment, motivation, etc. For the purpose of this study, teacher characteristics are defined in terms of the SACMEQ survey category which included teacher education, qualifications, age, gender, and training. These are some of the factors that the ministry is in a position to change for the better if it manages to intervene successfully. In other words, if the ministry becomes aware of the impact of teacher training on learner performance for example, it could make interventions aimed at raising teacher competence through training programmes. The purpose of this study is to investigate the relationship

between selected teacher characteristics such as age, gender, and teacher qualifications and the performance of the Grade 6 learners that are taught by such teachers, in order to judge the relation to success in reading English in Namibia.

1.3 The research questions

The study attempts to address the following research questions:

- a) Which are the most significant learner characteristics that effect English reading achievement?
- b) Which teacher factors impact most significantly on learner performance in reading English?
- c) Controlling for learner characteristics, do teacher characteristics have an effect on learner English reading performance? If so, how much of an effect?

1.4 The significance of the study

Although this study is undertaken for academic purposes, it stands to benefit the Ministry of Basic Education Sport and Culture, and its finding is applicable to other settings. Certainly the finding are more relevant to developing, than developed, countries. These analyses will help to provide information on how the pattern of teacher distribution in terms of selected teacher characteristics among the various regions has affected learner performance.

While Namibia has made reasonable strides towards achieving the goal of providing access to education, having achieved 95 percent net enrollment rate for the 7- to 13 year olds in 1997, it is far from meeting its equity and quality goals (MBEC, 1998 p.70). This study therefore serves as a yardstick by which the ministry can measure the extent to which the goal of equity has been achieved to date. The study will hopefully assist education planners and policy

makers in their planning and making informed decisions that ensure quality teaching and improve learner performance. It will also add to the existing knowledge and understanding of the relationship between teacher characteristics and learner performance in relation to other educational factors. The study will provide evidence to parents and other stakeholders in education with regard to whether their claims and beliefs regarding the determinants of learner performance are valid.

1.5 The study structure

Chapter Two orients the reader to the history of Namibia and its education system, prior to and post, independence. It starts by describing the country and the history that is relevant to the understanding of the context within which this study takes place. Next it describes the education system with specific reference to major changes that took place after independence in relation to teacher training, teacher qualifications and learner performance in national examinations. Chapter Three reviews the related literature on the topic that sets a general framework for my study. Chapter Four supplies the background information about the SACMEQ study from which the data for this study was drawn, the SACMEQ study design and outlines the research design of the present study. Chapter Five presents the descriptive analysis of the learner characteristics, teacher characteristics, and the English reading test results for SACMEQ. Chapter Six presents and analyzes the correlation and regression results. Chapter Seven concludes the mini-thesis in the form of a summary and discussions of the main research findings.

Chapter 2 : History of Namibia and its education system

The purpose of this chapter is to give a short background to assist in understanding the history of Namibia as a country and the parameters of the formal education system within which this study takes place. The chapter will discuss the education system in Namibia during the time when missionaries first arrived in Namibia and when it was under the German and South African administrations. Also, it will discuss teachers and teacher education prior to and post independence, while reference will be made to educational reform, with particular reference to the question of equity and quality as mentioned in the previous chapter.

2.1 Namibia : The country

The size of Namibia is 824,295 square kilometers with an estimated population of 1.7m as at the 1991 population census. Namibia (formerly South West Africa) was a German colony and subsequently a South African mandated territory from 1880 - 1990. A liberation war of independence was fought between the People Liberation Army of Namibia (PLAN) under the banner of the South West Africa People's Organization (SWAPO) from 1966 to 1989. In 1990, after a long and bitter war fought in the name of freedom and self-determination Namibia got its independence from South African and the new government set about constructing a more democratic and egalitarian society.

2.2 Education under the missionaries

Although traditional education existed before the arrival of the white man, formal education in Namibia can be traced back to the establishment of the Augustinium School at Otjimbingwe by the Rhenish Missionary Society in 1866. As in most parts of Africa, formal

education in Namibia was associated with the introduction of the written work by missionaries as a by-product of their evangelical word (Namibia, 1986).

The purpose of missionary education was to convert the indigenous Namibians to Christianity. Basic literacy and numeracy classes were introduced to enable the Namibians to read the Bible and engage in trade and enterprise. In Namibia, it can therefore be said that education spread concurrently with the spread of the Christian gospel. When a church was established, a form of schooling was started, firstly for adults and later for younger children. Educational policy went through various stages under the German and the South African administrations. However, there was never a complete take over from the missionaries of education by the various colonial governments.

This parallel provision by state and church is still a feature of education in Namibia today. There are still some private schools administered by the church, with or without subsidy by the state. The church schools were perceived to offer better education to the blacks than state schools. However, with the integration of schools after independence, there is evidence that the learner performance in church schools is similar to that of learners in former white schools.

2.3 Education under apartheid South Africa

Shinyemba (1999 p.9) stated that by 1923, the South Africa colonial government had imposed a 'normal' course of schooling in Namibia with a curriculum restricted to reading, writing, arithmetic, religion and singing, all taught in a local language. After 1918, under the South African administration, education was gradually separated for all racial and ethical groups - the policy of apartheid. Under apartheid policy until independence in 1990, there were eleven

of these racial and ethnic education authorities with separate administrations, teacher training institutions, programmes, and separate budget allocation.

By the time of independence in 1990, many Namibians had managed to acquire some degree of education beyond literacy and numeracy skills from within Namibia, South Africa, and from other countries. The majority of these were students who benefited from solidarity scholarships offered to SWAPO by governments and other organizations from both inside and outside Namibia.

2.4 Post independence education systems

From the management under the eleven separate authorities before Namibia's independence, education has changed to being presently managed through two ministries. The Ministry of Basic Education and Culture (MBEC) is in charge of Basic Education, Sport and Culture, including Adult and Continuing Education and Special Education. The Ministry of Higher Education Training and Employment Creation (MHETEC) is responsible for Higher Education and Vocational Training.

Pre- Primary Schools, where they exist, have not been the responsibility of the Ministry of Basic Education Culture as from 1994. Pre-Primary schools became the responsibility of the Ministry of Regional, Local Government, and Housing or the community. Some ministries also offer training in their related fields, for example, the Ministry of Agriculture and the Ministry of Fisheries and Marine Resources run their own training institutions.

The Namibian formal education system comprises twelve years of schooling, divided as presented in figure 1.1 below:

Table 1.1 : Formal Education Structure in Namibia

Phase	Grade	Duration	Expected age in Grade
Junior Primary	1 - 4	4	6 - 10
Senior Primary	5 - 7	3	10 - 13
Junior Secondary	8 - 10	3	13 - 16
Senior Secondary	11 - 12	2	17 - 18

Source: (MBEC, 1983 p.100)

Many schools do not follow the above divisions. The term “combined school” is used to describe schools that offer a mix of primary and secondary provision. While most of the schools in Namibia belong to the state, there is a constitutional provision allowing for the existence of private schools. In 1995 of all Grade 1 to 12 learners, only 4.1 percent were enrolled in private schools (MBEC, 1996).

Education is compulsory from the age of 6 to 16 or when a learner has completed primary education, whichever comes first. A child has to turn 6 years old by January of the year he or she starts school. As a result, some children start school at the age of seven. Namibia does not have enough schools and resources to accommodate all school age going children. There is therefore no law in place that forces parents to send their children to school. Notwithstanding the absence of the said law, learner enrollments have grown substantially since independence. According to the Education Management Information Systems (EMIS) 1996 report, this represented a growing demand for education in the post independence period. As a result of this late start many over-age learners are found in primary school grades, bringing the Gross Enrollment Rate (GER) to 136 percent while the Net Enrollment

Rate (NER) was 95.2 percent in 1995 (MBEC 1996, p.24). The NER tells us that there were less than 10 percent of the seven- to thirteen-year-old children not attending school in 1995.

2.5 Teacher education prior to and post independence

Prior to independence, Namibia had separate teacher's colleges for each racial group. Teachers received varied teacher training, based on the racial group they were going to serve. This meant varied entry requirements, organization, curricula, content, and different duration of the various courses and variation in the quality of the courses offered. For example, in the 1970's while teacher training for whites required Junior Secondary Certificate for entry to Teacher Training College, training for black teachers only required a Primary Education Certificate. Again the duration of courses for the two groups above was three years and two years for primary teachers, of teacher training respectively. This has resulted in the varied qualifications and levels amongst teachers that are in the education system today.

The Baseline Study into the Namibian Science and Mathematics teaching force reports 18 different teaching qualifications in possession of Namibian teachers, excluding those not obtained in Namibia and South Africa (MBEC, 1996 p.15). The majority of teachers who were not trained in Namibia or in South Africa were trained through SWAPO while in exile. According to Shinyemba, (1999 p.15) teachers were trained at the United Nations Institute for Namibia that was established in 1982 in Lusaka, Zambia. The Baseline Study report continued by stressing that these varied qualifications represent different quality and competence among the teachers. This statement was echoed by remarks such as the following:

“The various teacher education programs had different entry requirements, scope,

duration, organization and focus. Some were very resource intensive, developed extended competencies, and provided relatively high-level qualifications. Others were far more rudimentary, providing minimal qualifications."

MEC 1993, p.78

Shortly after independence in 1990, new programmes for teacher education were introduced. Three types of teacher education were developed for all prospective schoolteachers. The Basic Education Teacher Diploma (BETD), a Technical and Vocational Instructor qualification to teach Technical pre-vocational subjects, and a Senior Secondary School Teacher qualification specializing in teaching the last two years of secondary education. The BETD is a unified teacher education programme designed to prepare teachers for basic education (Grades 1 to 10), combining a common core foundation with specialization in relation to phases or levels of schooling and subject areas (Nghitwikwa, E.T. [1998]). The DETD is a replica of an Integrated Teacher Training Programme developed for Namibians in exile (Shinyemba, D.N. [1996], p.15).

2.6 Administration of the education system

Prior to independence, each ethnic group administered its education system under the South African colonial policy of apartheid. After independence a unified education system with central administration was introduced. While education in Namibia is now highly centralized in terms of policy-making and curriculum formulation, there has been a degree of decentralization of some functions (to the seven regions each headed by a Regional Director of Education), including monitoring of policy and curriculum implementation, school inspection, teacher recruitment etc. Regions are further divided into circuits headed by a Circuit Inspector who oversees a group of schools in some regions. Some regions have

established District Education Offices from which inspectors and other education officials operate.



Chapter 3: Literature review

The framework used in exploring the relationship between learner and teacher characteristics and learner performance in Namibia is derived from two bodies of literature. The first has to do with the concept of quality education and the second is the literature that seeks to identify factors related to learner performance. This chapter reviews the literature related to studies that seek to establish whether or not there is a relationship between teacher characteristics and learner performance.

One of the general aims of schooling is to get children through the formal education system with the skills, knowledge, attitudes and a set of values that will make it possible for children to be prepared to contribute meaningfully to the society. Some of these educational outcomes are difficult to measure. Whatever their limitations, the education systems in Namibia and elsewhere regard and use tests and examination as key tools for measuring learner performance. Teachers, often attract blame from the public when learners perform poorly. It is seldom that teachers get direct credit for their work when learners' performance is good. People tend to give this credit to the learners.

Teachers in schools differ in terms of age, gender, qualifications, experience, personality, attitudes and commitment towards their work etc. The differences in teacher characteristics may well have different impacts on learner performance. In an attempt to qualify the statement that teachers should share the blame for poor learner performance, it is necessary to look into the relationship between teacher characteristics and learner performance.

Writers such as Williams (1979) Schmelkes et al (1996), and Kay-ming (1996) regard the teacher as one of the important resource factors in quality educational provision. Mwamwenda and Mwamwenda (1989) concluded in support of research findings by Brophy (1986) and Fuller and Kapakasa (1991 p.123) that teacher factors showed a positive effect on the learners' academic performance. The above findings suggest that there is strong evidence to support the assertion that teachers have a strong influence, either positive and negative, on learner performance.

The academic achievement of learners is an outcome of a multiplicity of factors including teacher quality. The issue of teacher quality is delicate and complex. Although it is not

central to this study, a high level of learner performance cannot be divorced from teacher quality. In an attempt to explain teacher quality, Fuller and Kapakasa (1991 p.123) regard classroom conditions such as class size, pupil skills, instructional materials and teacher background in terms of social class, language skills, and training as factors that can be used to determine the quality of a teacher.

Heyneman and Loxley (1983 p.1162) failed to define teacher quality. However, they concluded that the effect of teacher quality on academic achievement is less than that of family background and other student characteristics. They were dissatisfied with the above conclusion because it was based on research done in Europe, North America, and Japan. The same concern was raised by Fuller (1987) when he said that most of the evidence on school effects was from the United States of America and England. This suggests that research conducted in other countries, especially in developing countries, on school effects to learner performance could have very different results.

In their paper which sought to investigate pupil achievement in Africa, Latin America, and the Middle East, Heyneman and Loxley (1983) concluded that the development status of a country impacts on the effect various factors may have on pupils' achievement. In a different study about pupil achievement they concluded that if a study includes socio-economically varied countries (which includes both less developed in Africa, Asia, Europe, and Latin America and in developed countries) the effect of the school and the teachers are the predominant factors which influence pupils performance. Socioeconomics influence was found to have more impact in less developed than in developed countries. This tendency toward different impact of teacher factors and learner achievement between developed and developing countries became more evident when the effect of school and teacher quality was correlated with the national per capita income. The available data from this correlation

suggests that the poorer the country, the greater the impact of school and teacher quality on achievement.

In Botswana, Mmamwenda and Mmamwenda (1992) conducted a study to investigate teachers' views on the improvement of quality education and successful student performance in their last primary school level (Std. 7). The study concluded that the quality of education which leads to learner performance does not happen in the absence of what was referred to as the "basic infrastructures". Those 'basic infrastructures' were identified as qualified teachers, classrooms, learning and instructional materials, level of teacher education and experience of teaching staff. All things being equal, the teacher characteristics (qualifications of teachers and the teaching experience) have been identified as key contributing factors to the quality of education and to learner performance. The teacher qualification and the training that goes with it are aimed at enabling a teacher to do his/her work competently and professionally. The research puts an emphasis on the professional training of teachers when it assumes that professionally trained teachers contribute more to quality education than untrained teachers.

A cross national analysis of case studies that sought to investigate the quality of primary schools in different development contexts measures in learner performance, concluded by confirming a positive correlation between the importance of teacher training and teacher experience, and learner achievement or outcomes. The same studies also concluded that although material conditions and teacher background are important factors, schools with the same learning materials yielded different achievement in language literacy and mathematics/arithmetic skills. The above findings show how difficult it can be to precisely point out the factors that influence learner performance. Carron and Chau had this to say:

“Indeed, differences in results are more related to quality of the teacher than to the availability of equipment.....Competence which is the result of training and experience was found to be important to some extent.”

(Carron and Chau, 1996 p.263)

The lack of competence as defined above could affect teachers in two ways. Firstly, their teaching of the subject is poor and secondly, they tend to devote less time to areas they feel they are not confident to teach. However, Carron and Chau, (1996 p.263) continue to argue that competence without motivation, as was revealed by individual schools results, tended not to be a sufficient condition for efficient learning and teaching process to take place.

It is often argued that qualification alone does not guarantee excellent teacher performance on the one hand. On the other hand, a higher level of education and training gives an individual teacher the knowledge and the teaching skills that unqualified teachers do not get. Brophy (1986) in his process-product study related to teacher influence on student performance from the behavioural point of view concluded that the quality of teachers make a difference in learner performance.

The finding among other things indicated that performance is maximized when teachers emphasize instruction as basic to their role. Learner performance is also maximized both by high expectation of teachers from learners to perform better, and by allocating more time to academic activities than to discipline or keeping order. High performance was also found to be a result of teacher time management. Teachers who apply effective time management establish efficient learning environments that support effective instruction and determine the amount of time spent on academic tasks and the way a teacher structures the lesson in relation

to what learners already know. There is some evidence that teacher performance is improved in contexts where there is a high degree of expectation of teachers - that they will work hard, that they respect the needs of their students, and that they prepare students in a systematic manner. However, the research does not say whether all teachers at whatever level possess these required skills or how they are to be promoted.

People often debate the ability of teachers based on gender. In their study, Mwamwenda and Mwamwenda (1989) investigated the relationship between gender, teaching experience, and pupils' academic achievement in Botswana. The research found that learners taught mathematics by male teachers performed better than those learners taught by female teachers. Female teachers were found to be better at teaching language than male teachers. Saha, (1983) in a comparative analysis of research studies by Coleman, (1966), Jencks, (1972) Bowles and Gintis, (1976), Rosenshine, (1971); Averch et al., (1974) etc., tried to find an explanation for variations in results relating to the teacher and achievement relationship in developed and less developed countries. He concluded with the following statement:-

“In spite of the large number of research attempts to analyze and measure the effects of school and teachers on student performance, and of several efforts to summarize and synthesize these researches, there is no clear-cut evidence for the existence of an unambiguous relationship”.

(Saha, 1983, p.71)

The overall pattern of relationship that pertain to students' success suggests that teacher factors can exert positive effects, or no effects, and, even sometimes, negative effects on student achievement. What came out clearly as a conclusion though, in the Botswana study,

was that male teachers were successful in science teaching while females did better in language teaching and related subjects.

The result of the study on teaching experience revealed that learners who were taught by experienced teachers performed far better than those taught by inexperienced teachers. In her evaluation report of the Working Party Committee in the investigation into rural black education provision in South Africa, Bot (1988) stated that teaching experience was a vital component in identifying the poor quality of education provision in rural black schools. Her argument was that a key factor to understanding why education was poor among the rural schools she studies was because a high proportion of teachers were young and had little professional experience. By implication, she attributed the poor quality of education to young and inexperienced teachers. Mwamwenda (1992) confirmed the findings of the earlier study that concluded that learners taught by experienced teachers out-performed their counterparts who were taught by inexperienced teachers in the Standard 7 national examinations in Botswana.

The findings regarding experienced and inexperienced teachers and their effect on learner performance in the Botswana study raise an important question as to whether this only happens in language and mathematics or whether there are similar patterns in which a particular gender has greater success in teaching certain subjects. Could this perhaps relate to the perception of and teaching received by the male and female teachers during their schooling and training?

There are two sides to the issue of experienced and inexperienced teachers. While it has been in some instances proved that experience teachers performed better than inexperienced

teachers, other factors could have influenced these findings. One factor could be the time at which the research was conducted in relation to the content and teaching method used in schools. Experienced teachers who received teacher training a long time ago are likely to do better if no change (to content and teaching methods) has been brought into the education system by the time the research was conducted. There is a need for a study that tests this conclusion in a situation where there is a change in the education system in which experienced teachers may have a problem revising old teaching methods in teaching when they may lack the latest knowledge of the subject content or methodology.

None of the research reviewed has made an attempt to analyse the reasons underlying the results. The reason for experienced teacher doing well may be attributed to the way the tests and examination questions are set. Experienced teachers have a greater advantage in mastering the examination technique over inexperienced teachers. Experienced teachers might drill learners only on those aspects that are likely to appear in the examinations. If this is the case then, it could be that the problem is not the teaching experience that counts but the experience in examinations preparation. There is a need for more research about the general knowledge of learners taught by experienced and inexperienced teachers before these findings can be generalized.

Another study carried out by the World Bank concluded that there is a relationship between teacher characteristics and learner performance. Among the thirty-two studies reviewed, sixteen of them showed that teacher characteristics have positive effects on the scholastic achievement of pupils (Orbach, 1992) These researchers demonstrated very clearly that teacher training has effects on students outcome; intelligent and knowledgeable teachers produce high student performance; teachers' own schooling (education) emerged as important

for primary and secondary teaching, and for subjects requiring skills such as mathematics, science and literature. The evidence indicates that training of teachers might make a significant difference too.

A study similar to that done by Orbach, (1992) was conducted by Mwamwenda and Mwamwenda (1989) in primary schools in Botswana. The aim of the study was to investigate the relationship between teacher characteristics such as gender, teaching experience, and learner performance. The results of the study show that in overall performance, learners taught by experienced teachers had higher mean scores than those learners who were taught by less experienced teachers. The same phenomenon held true in mathematics where learners taught by experienced teachers out-performed their counterparts who were taught by less experienced teachers. The same pattern emerged in Science and English.

With regard to gender, the results showed that the overall performance of learners taught by female teachers had higher mean scores than those learners who were taught by male teachers. The results were the same for English, Social Studies and for Science. Mathematics was the only exception, in which learners who were taught by male teachers performed better than their counterparts who were taught by female teachers. The study therefore reinforced earlier studies that argued that experience has a positive effect on learners performance and that there is a significant difference in performance between learners taught by male and female teachers.

In explaining the difference between gender difference in performance, Warwick and Jatoi (1991) attribute the problem to attitude and beliefs. Mathematics, they say, is regarded a male subject and teachers encourage male learners and discourage or do not make as much effort in

helping female learners. The results from the study carried out in Botswana cited earlier could probably be because of the perception and belief people have about Mathematics.

This chapter has examined the contribution of different pieces of research to our understanding of the relationship between teacher characteristics and learner performance. Literature has shown that various factors, including teacher characteristics, contribute to learner performance in different ways. The effect teacher characteristics have on learner performance can be influenced by the socio economic status of a country. For example, a qualified teacher only becomes an issue in studies conducted in less developed countries, but not in developed countries. It is therefore difficult to come up with research that can be representative of all regions of the world. For the purpose of finding solutions to countries in different setting, both geographical and economical or at particular stages of development, it is imperative to continue with more research as a way of monitoring the change, if any, in the effect of different teacher characteristics on learner performance.

Most of the studies reviewed above do not explain underlying reasons. However, these studies are sufficient to build a foundation on which future research can be based. With these earlier research findings as background, this present research expands on the research base by adding teacher age and teacher qualification to the teacher characteristics. The present study goes beyond the identifications of factors related to learner performance only, but it attempts to investigate the specific contribution of teacher factors to learner performance.



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Chapter 4 : Research Design and Methodology

The data analyzed in this study was drawn from the survey undertaken by the Southern African Consortium for Monitoring Educational Quality (SACMEQ). SACMEQ was jointly initiated by the Ministries of Education from participant countries in Southern Africa and takes the form of a consortium established to investigate and monitor the quality of education delivery in those countries. The countries involved in the launch in 1995 were Kenya, Malawi, Mauritius, Namibia, Tanzania (Mainland), Tanzania (Zanzibar), Zambia, and Zimbabwe. Lesotho, Swaziland, Botswana, Mozambique, and South Africa joined recently to

take part in the preparation and design of the second round of the SACMEQ research study that was conducted in each participant country late in the year 2000.

This chapter will give the background to the formation and purpose of SACMEQ, the study design and methods used to carry out the study, as well as the design and methodology for the present study.

4.1 The Southern Africa Consortium for Monitoring Educational Quality (SACMEQ)

SACMEQ was launched in Harare, Zimbabwe, in February 1995. The launching of this consortium was the outcome of a survey for monitoring educational quality conducted by the Ministry of Education and Culture in Zimbabwe in cooperation with the International Institute for Educational Planning (IIEP), a UNESCO training institution in Paris, in 1991 (Kulpoo et al., 1995).

According to Machingaidze et al, (1998), the 1991 study in Zimbabwe was conducted with the co-operation of the Zimbabwean Government to effect an investigation following curricular reforms designed at upgrading the quality of education. The investigation was also meant to address the question of curriculum relevance and to achieve equitable provision of educational services in that country.

As a background to this initiative, proper information was needed to inform decisions on inputs to be provided to schools, determine the processes that would take place, and the outcomes that should be targeted. The information contained in the annual education census collected by the Ministry of Basic Education and Culture in Zimbabwe was deemed to be

insufficient for the exercise (Machingaidze et al, 1998). It was against this background that Zimbabwe developed a set of indicators of quality education with the help of the IIEP staff in 1991. The IIEP staff helped mainly with research expertise and logistics and the technicalities in developing the indicators of quality education.

The research study and the report that was produced was well received and respected in the Southern Africa sub-region because of its perceived positive impact upon educational policy in Zimbabwe. The report produced was followed by two workshops. One workshop was held in Harare and another in Paris, conducted for 50 educational planners from the Southern Africa sub-region in 1992 and 1993 respectively. The workshops were designed to equip the educational planners with the technical skills and materials required in undertaking a national study on primary schools. The workshop materials and the skills gained from the workshops inspired those who attended the workshop to launch similar research studies in their own countries.

After the workshops the educational planners prepared a proposal to establish a sub-regional project aimed at monitoring progress towards achieving the educational goals defined by the 1990 Jomtien conference on "Educational for All". This proposal was developed into a major research plan at meetings in Paris (1993) and in Harare (1994). The development of this proposal involved the education ministers and other high ranked officials from the Southern Africa Sub-region (Kulpoo, 1998). It was on the basis of this research plan that the Southern Africa Consortium for Monitoring Educational Quality (SACMEQ) was launched in Paris in February 1995, and subsequently the first SACMEQ research study in 1995 was initiated. The SAMEQ (1995) study results for Namibia provided the basis for analysis and correlation of my present study.

One of the inspirations for these workshop participants to conduct similar research was the fact that the SACMEQ study had been designed with the inclusion of tested international research instruments on reading derived from the International Association for the Evaluation of Educational Achievements (IEA) on reading, conducted in 1991 - 1992. Another strength was due to the fact that the result of the (SACMEQ) study makes it possible to compare educational outcomes comparable between regions and schools within the country and between participant countries in Southern Africa sub-region, as well as internationally. One of the outcomes of the early study in Zimbabwe was that it was possible to identify that the average learner performance was below the international standard in English reading literacy.

In each of the participating countries SACMEQ is represented by a National Research Coordinator. The National Research Coordinator is assisted by a Policy Steering Committee composed of senior members of the Ministry and chaired by the Permanent Secretary or his/her equivalent. A Technical Committee responsible for technical and logistic issues, chaired by the NRC is also established. There is a Sub-regional Coordinating Committee (SCC) for the sub-region and a Governing Board which consists of all the chairpersons of the Policy Steering Committees.

The main aim of SACMEQ is to provide policy advice to key decision makers on educational quality issues ranked as having a high priority by each participating country's Ministry of Education and Culture. According to Kulpoo et al, (1995), at the country level, the main focus of the research is on preparing educational policy reports which seek to address identified currently challenging policy issues in Southern Africa. At the time of the launching of SACMEQ, the "challenging policy issues" identified were:

- What are the baseline data for selected input to primary schools?

- How do the inputs in primary schools compare with the benchmark inputs established by the ministry?
- Have educational inputs to schools been allocated in an equitable manner?
- What is the level of achievement of pupils at the upper primary school levels for the three main domains of reading literacy (narrative, expository and documents)?
- Which educational inputs to primary schools have most impact on improving pupil reading in English?

In the introduction I mentioned the broad goals of the Ministry of Education and Culture in Namibia and that the ministry has undertaken a variety of initiatives to achieve those goals. One of the attempts the Ministry of Education and Culture in Namibia made towards assessing these broad goals was through a National Learner Assessment study undertaken to assess the achievement of learners in English and Mathematics in 1992. A limitation to the Namibian study, which it shared with the Zimbabwe initiative of 1991, was that it did not collect sufficient substantial background information about the subjects (learners, teachers, schools) that help inform policy development (Voigts, 1998).

The ministry therefore decided to conduct a second study, the National Learner Baseline Assessment (NLBA), in 1995. It was in this study that the missing background information from the first study was to be developed. It was during the preparation of the National Learner Baseline Assessment that the officials from the Ministry of Basic Education and Culture in Namibia participated in the discussions about the Zimbabwean study. According to Voigts, (1998), the ministry took the opportunity to participate in the initiative taken by several African countries (Namibia included) with the help of the IIEP to use the (SACMEQ) study which eventually will serve the purpose intended by the envisaged NLBA.

4.2 Data Collection Instrument Development

The instruments for data collection of the SACMEQ survey were developed at the National Research Coordinators' workshop held in Harare toward the end of 1994. Some test items were developed by the workshop participants while others were taken from the 1991 Zimbabwe study, and also in the field of literacy from an international study on reading literacy conducted by the International Association for the Evaluation of Educational Achievement (Machingaidze et al (1998).

For the purpose of the SACMEQ study test, a definition of reading made by Postlethwaite & Ross, (1992) was adopted. Reading has not been taken as an identification of letters, words, or characters or the ability to pronounce words. Rather, reading was defined as

“the ability to understand and use those written language forms required by society and/or valued by the individual”. (Ross, 1998 p.7)

Postlethwaite & Ross (1992) explained that the reason for limiting the study to one measure of reading was the need to conduct the study quickly and the decision to focus on reading was because reading was regarded as a key basic subject in primary school.

The domains as adopted from Postlethwaite & Ross (1992) in which learners were tested are:

Narrative: - a continuous text in which the writer's aim was to tell a story, whether fact or fiction. These normally followed a linear time sequence and were usually intended to entertain or involve the reader emotionally.

Expositor: - a continuous text designed to describe, explain, or otherwise convey factual information or opinion to the reader. The text contained for example, brief family letters and description of animals as well as lengthy treatises on smoking and lasers.

Documents: - a structured information display presented in the form of charts, tables, maps, graphs, lists, or sets of instructions. These materials were organized in such a way that learners had to search, locate and process facts rather than read every word of continuous text.

After examining English language syllabi for Grade 6 across the participant countries, a common framework for reading tests was developed. The common reading skills in Grade 6 were identified after a discussion of the most important skills in the reading syllabus for each country. Blank tables were developed during the workshop to serve as an example for reporting the results. The questions were formulated according to the indicators identified by the workshop participants.

The four data collection instruments developed by the SACMEQ National Research Coordinators were: a learner test in basic reading literacy skills, a learner questionnaire, a teacher questionnaire, and a school head questionnaire. The learner test and learner questionnaire, the teacher questionnaire and the school head questionnaire were pilot-tested by the learners, the English teachers, and the school principals in Harare during the workshop, followed by another pilot study in each participant country.

When the results from the pilot study were analyzed, attention was given to checking ambiguous questions and the use of terminology by respondents in each participant country. Questions that were regarded as problematic as judged by the inconsistent responses by the respondents, were either improved or removed from the instruments. The table below shows

seven common skills and three domains adapted from the 1995 SACMEQ reports from participant countries. The table shows the skills and the domain taught in the Grade 6 syllabus and the number of items tested for each domain and skill.



Table 4.1: Skills by domain blueprint for the learner reading test

Reading skills	Reading Domain			Total Items
	Narrative	Expository	Documents	
Verbatim recall	10	14	-	24
Paraphrase	6	4	-	10
Find main idea	1	1	-	2
Infer from text	4	2	-	6
Locate information	-	-	9	9
Locate and process	-	-	6	6
Apply rules	-	2	-	2
Total items	21	23	15	59

Source: (Snyder, et.al, 1998 p.9)

Initially, 60 test items were selected for all the domains but these were later reduced to 59 when one item was dropped after the analysis of the pilot test results. The balance of test questions from each domain was based on the emphasis put on the domain in the Grade 6 syllabi.

4.3 Sampling and target population

A standard method of sampling design was applied to all participant countries with minor differences. According to Voigts (1998), the selection of a standard sampling method was chosen to meet the standards set down by the International Association for the Evaluation of Educational Achievement. These standards require sample estimates of important learner population parameters (Kulpoo, 1998), or a response rate of at least 90 percent of schools (Voigts, 1998). Where necessary, the sample should have weighting procedures to remove the potential bias that may arise from different probabilities of selection. The standard is also expected to have sampling errors that allow generalizations to be made from the sample to the total learner population with a 95 percent certainty of being correct within ± 5 percent points, and one tenth of a learner standard deviation unit for a mean index. The weighting procedure means that after the results from the sample are known, one can, with 95 percent confidence, generalize the research findings to all other learners in the target population.

The target population for the SACMEQ survey included the Grade 6 learners in Namibia who were in school during August 1995. The test was intended to test learners in their last grade of primary education. It should be noted that Grade 6 is not the end of primary school in Namibia. The end of primary education in Namibia is Grade 7.

The reason for selecting Grade 6 learners was because some participant countries had Grade 6 forming the end of primary education. The desirable grade for testing in Namibia should have been in Grade 7, that is the end of primary school. One would then test or evaluate the quality of reading achievement of learners at the end of primary education. This could not be done possible due to problems of standardisation as testing Grade 7 learners would mean that learners in the first year of junior secondary in some countries were tested, whereas in other contexts Grade 7 forms part of junior school, as explained above.

The selection of schools was done on the basis of the August 1994 Grade 6 enrollment. The Namibia National Research Coordinator decided to exclude from the sample two private schools, as they were not considered typical of the general Namibian schools, as they comprised a school for deaf and blind children, and schools with an enrollment of fewer than 10 learners. The schools with fewer than 10 learner enrollment were excluded to avoid clustering schools to make up the required 20 learners per school. Out of 708 schools, 37 schools were excluded on the basis of the reasons stated above. The schools excluded counted for 1.7 percent of the 1995 Grade 6 learners (Voigts, 1998).

Table 4.2 below, gives the number of schools and learners per education region. Desired schools and desired learners refer to the total number of possible sampled Grade 6 schools and Grade 6 learners. Excluded schools and excluded learners refer to the total number of schools and learners who were excluded from the sample as explained earlier; defined schools and defined learners refer to the total number of schools and the total number of learners who were actually sampled.

Table 4.2 : Number of schools and learners in the desired, excluded, and defined population of the Grade 6 learners in Namibia schools.

Education Region	Desired Schools	Desired Learners	Excluded Schools	Excluded Learners	Defined School	Defined Learners
Katima Mulilo	84	2665	2	17	82	2648
Rundu	51	2525	1	7	50	2518
Ondangwa E	144	7258	2	16	142	7242
Ondangwa W	191	9750	1	9	190	9741
Khorixas	63	2968	4	27	59	2941
Windhoek	89	6155	10	63	79	6092
Keetmanshoop	86	2852	17	95	69	2757
Total	708	34173	37	234	671	33939

Source : Snyder et.al. (1998 p.11)

In Namibia, the minimum of 20 schools was chosen from each region that brought the total number of schools in the sample to 671 schools nationally (Voigts, 1998) and the number of tested learners to 33939. Unlike in all participant countries where the sample of learners were drawn from the total target population group in a given school, in Namibia, the sample of 20 learners was taken from two Grade 6 classes if there were more than two Grade 6 classes. The learners and teachers were selected using a random sampling technique that gives every learner an equal chance of being selected (McMillan & Shumacher, 1993).

4.4 Data collection

The data collectors for the SACMEQ survey consisted of Ministry of Basic Education officials drawn from the ranks of education officers (Education Planners, Advisory Teachers, Education Inspectors etc.) Some technical assistance to carry out the survey was rendered by the Social Impact Assessment and Policy Analysis Corporation of Namibia (Voigts, 1998). The manual for data collectors that was developed during the workshop for the National

Research Coordinators was used to train data collectors. The manual contained step-by-step instructions and procedures to be followed during the survey in order to minimize differences and maximize uniformity in data collection by different data collection teams.

The data collectors were trained at a central place for five days and then the training continued regionally, with more data collectors for the duration of two days. The training in the region included a trial testing at a school not included in the sample, in the week prior the survey to give the data collectors practice in handling the data collection manuals and procedures (Voigts, 1998; Machingaidze et al, (1998). About 24 data collection teams went to schools over a period of two days per school. Letters were written well in advance to inform each school about its selection for involvement in the study. School principals were requested to do some logistical preparation before the dates of the survey.

4.5 Methodology of current study

This section explains the methodology used to answer the research questions stated in chapter one. In this research study I used quantitative research method since the instrument used to collect data was the questionnaire. The research represents a cross-sectional study since the results are based on a one-off test. I used the Statistical Package for Social Science (SPSS) computer software widely used in quantitative research. In SPSS the three files for learner data and teacher data were integrated under school data. This made it possible to link every learner with the teacher who taught him/her. There are three categories of variables in the study. These are outcome, question, and control variables. The outcome variable, at the learner level, is the average English reading test score out of 59 points. The question variables are all teacher-level variables. The control variables are at learner and school-levels. Table 4.3 presents all the variables and their description.

Table 4.3 : Type, level of measurement, and description of variables

Type	Measurement Level	Variable Name	Description of Variables
Outcome	Learner	N6pe59	Score 59 items
Question	Teacher	Xtsex	Teacher female
Question	Teacher	Xtagelvl	Estimated teacher age
Question	Teacher	Xtnumyrsl	Teacher years teaching experience
Question	Teacher	Xtqyrse	Teacher years total academic education
Question	Teacher	Xtprofe	Teacher years teacher training
Control	Learner	Xpageyr	Pupil age in years
Control	Learner	Xpsex	Pupil female
Control	Learner	Xpenglis	Speaking English
Control	Learner	Xpbooksh	Approximately books in home
Control	Learner	Xpfamoed	Combined parent education
Control	Learner	Xphhwkget	Homework frequency in 10 days
Control	Learner	Xppsede	Taking extra lessons
Control	Learner	Xprepeat	Number of times repeated a grade
Control	Learner	Xsprbpab	Number of days absent

To answer the first two research questions about the effect of learner characteristics on English performance I used the learner home - related variables, gender, age, parental education, total number of books at home, and social-economic status and school related variables of learner days absent, grade repetition, speaking English outside classroom, extra lessons received by learners, and the frequency of homework a teacher gives.

In answering the other research questions about the effect of the teacher characteristics on learner performance and the subsequent sub-research questions, I used the following teacher characteristics : teacher age, teacher gender, teacher years of teaching experience, teacher academic qualification, and teacher years of teacher training.

4.6 Analysis and interpretation

The analysis starts with the description, analysis and interpretation of the SACMEQ results. The description analysis is the description of a situation with regard to the distribution of teachers and learners in regions according to their characteristics. It also gives the distribution of learner performance in the English reading test. Since teachers were linked to their learners, the analysis and interpretation of the descriptive data was made in passive voice (from the point of the learner). It would start as follows “the Grade 6 learners were taught by the Grade 6 teachers who ... etc.” Throughout the analysis, reporting was mainly on the two extremes (low - high) and the average.

After the descriptive analysis and interpretation, I applied correlation and regression analyses. These are two statistical analyses widely used in quantitative research. Correlation tells us whether the two variables are significantly related; the direction of the relationship (positive or negative); and the strength of the relationship (Mertens, 1998; Hua, 1999).

Regression is a multivariate research technique that provides major statistical indicators. It explains the variance of independent variables in dependent variables, the significant level of independent variable on dependent variable and the effect size of independent variable on dependent variable. (Hua, 1999)



Chapter 5: Descriptive Analysis of Study Results

Much of the evidence reviewed in chapter three indicated that the role of the teacher remains an important and indispensable resource input in the provision of education. The quality of teachers is widely held to strongly influence learner performance. While seeking for an explanation of conditions that contribute to improved learner performance, it has been found that it is imperative to examine variable that may have influence on the quality of teachers that in their turn are deemed to have a powerful influence on the quality of education and learner performance.

The SACMEQ study that was outlined in the previous chapter, which intended to investigate the quality of education has, as a consequence, included some teacher variables designed to measure their influence on learner performance.

This chapter presents a descriptive analysis of the learner characteristics, the teacher characteristics and the Grade 6 English reading test results of the SACMEQ study in Namibia in 1995. The descriptive analysis is aimed at giving the reader an in-depth understanding of the background characteristics of learners and teachers in Namibia. It presents the SACMEQ English test result distribution among the regions. The descriptive analysis forms a basis for the correlation and regression analyses of teachers and learner performance that follow in chapter 6.

5.1 Grade 6 learner background characteristics

In the learner personal information questionnaire employed in the SACMEQ survey, learners were asked to answer questions about their background related to age, gender, estimated number of books available at their homes, and their parents' or guardians' level of education. The underlying assumption about the parent education and the number of books is based on some research findings that associate the level of parents' education and the availability of books with learner performance. As mentioned earlier in the design, the learner variables served as control variable for teacher variables that are the main focus of the inquiry. Table 5.1 below was generated by making an SPSS computer inquiry to give the mean and sampling errors for learners background characteristics per region.

Table 5.1 Mean and Sampling Errors for Selected Learner Home Background Characteristics

Education Region	Age (Months)		Sex (Female)		Books at home		Parents education		Speaking English	
	Mean	SE	%	SE	Mean	SE	Mean	SE	%	SE
Katima	166.5	1.93	42.0	3.28	15.2	2.69	4.1	0.17	57.2	3.29
Keetmans	162.1	2.57	47.9	6.92	22.9	7.20	7.4	0.47	56.6	6.87
Khorixas	169.7	4.18	50.8	8.44	30.1	9.67	7.5	0.55	77.2	7.08
Ondangwa E	195.2	4.69	59.3	7.42	31.7	8.91	5.2	0.40	81.7	5.83
Ondangwa W	183.2	2.28	52.2	3.95	26.6	4.13	5.6	0.18	76.4	3.36
Rundu	186.5	1.67	43.8	3.49	12.9	2.88	4.3	0.20	58.2	3.47
Windhoek	164.2	2.78	48.6	7.89	36.3	10.45	8.8	0.28	84.9	5.65
Namibia	178.3	1.41	51.2	2.44	27.6	8.72	6.2	0.15	74.7	2.12

5.1.1 Age of Grade 6 learners

The learners were asked to record their dates of birth from which the ages were calculated in months. In the analyses below, the age in years appear in brackets. Learners in Namibia are expected to be in Grade 6 at the age of 12 or 13 years if they started school at the official starting age of 6 or 7 years. Due to the long distance from school in some circumstances, young children often have to wait until they are old enough to be able to cover a long distance to school. Other factors that result in learners being old for the grade they are in were: lack of parent interest in sending their children to school at the starting age; parents keeping children at home to help with home chores; poor attendance and repetition. Although there is no law about poor attendance, repetition is allowed not more than twice in one school phase.

For Namibia, the average age for the Grade 6 learners was 178.3 months (14.3 years). The average age of the Grade 6 learners in the Keetmanshoop region, with 162.1 months (13.6 years), the Windhoek region with 164.2 months (13.8 years), and the Katima Mulilo region

with 166.5 months (13,10 years) were below the national average. In the above mentioned regions most learners started at the appropriate age and tended to have repeated grades less often than in the other four regions.

Khorixas region, Ondangwa West region, Rundu region, and Ondangwa East were the regions where the average age of the Grade 6 learners was above the national average. In Ondangwa East region, the Grade 6 learners had an average age of 195.0 months (17.3 years) which is much higher than the official age of a Grade 6 learner.

The survey results therefore indicated that on average most of the learners in Namibia either started school late or they repeated a grade more than once. This could be as a result of different rural set up between the regions. The rural set up in Katima Mulilo, Windhoek, and Keetmanshoop regions for example is that people live in the same village or locality making it easier for most learners to be near the school. In some cases, in particular in the Keetmanshoop area where hostel accommodation was available, primary school learners from remote rural settlement are accommodated in hostels. In the two Ondangwa regions and in Rundu region, people in rural areas are scattered and some learners travel long distances to school. A learner who has traveled a long distance to school may arrive late or they are tired when arriving at school. That may also affect his or her learning process. Long distances could therefore be one of the possible reasons why some learners do not start school at the official age or they repeat grades.

5.1.2 Learner Gender

The data reveals that the Namibian population of the six-to-thirteen year old age group is almost equally distributed between boys and girls. The Net Enrollment Rate of the same

group was 95.5 percent in 1995. We can conclude that the 5 percent of the six-to-thirteen year olds not in school also represent an equal number of girls and boys.

In terms of access to education in Namibia, gender appears not to be an issue since there is not much difference in the school participation between boys and girls in Namibian primary schools. In the literature review chapter, it was revealed that girls taught by female teachers tended to have performed better than when taught by male teachers. It is therefore important to control for this variable when testing for the effect of teacher gender on learner performance.

Namibia is commendable for having achieved a balance in gender representation in schools. The SACMEQ survey revealed that overall 51.2 percent of the Grade 6 learners were female. The number of Grade 6 female learners was therefore slightly higher (1.2 percent) than male learners. The percentage of the female Grade 6 learners in Ondangwa East region (59.3 percent) was higher by 8.1 percent than the male learners while they were slightly higher by 1.0 percent in Ondangwa West region. Khorixas region was the only region where the percentage of female and male Grade 6 learners was equal (50 percent each). The Rundu, Katima Mulilo, Keetmanshoop and Windhoek regions had percentages of Grade 6 female learners below the national average. If these figures are read in relation to their sampling errors only, the first two areas can be said to have more boys in Grade 6 than girls.

5.1.3 Index of books in the Grade 6 learners' home

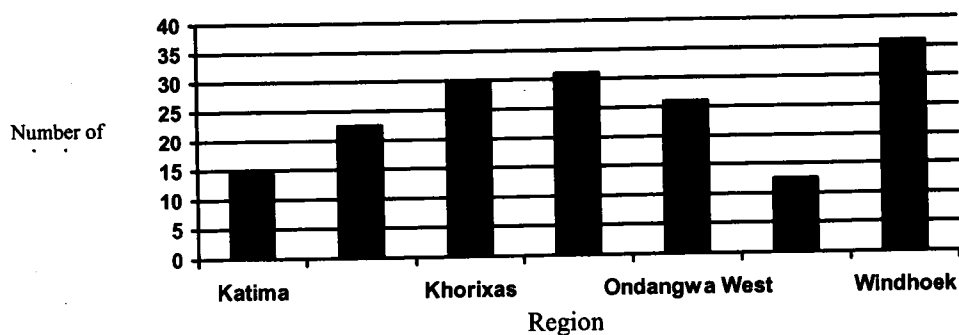
The number of books in a learner's home is regarded as an index to enabling conditions for learning and for access to reading resources. According to Kulpoo et al, (1996) other studies

have found that, in most countries of the world, the home availability of books for children to read is highly conducive to the promotion of better levels of reading achievement.

During the survey, the Grade 6 learners were asked to indicate the estimated number of books found in their homes. The number of books was divided according to the following six categories: 1= no books in the home; 2 = 1-10 books in the home;3 = 11-50 books in the home; 4 = 51-100 books in the home; 5 = 101-200; 6 = more than 200 books in the home.

The mid-point of each value was used to estimate the total number of books in the home. For example the value 1 was recorded as 0 while the value 2 was recorded as 5 books, the value of 6 was recorded to an estimate up to 250 books. It can be seen from Table 5.1 above that an average Grade 6 learner in Namibia came from a home where there were 27.6 books. The variation in value across regions ranged from 12.9 books in the Rundu region to 36.6 books in the Windhoek region. The wide range of these figures indicated major differences between the reading resources at homes in different regions. It can therefore be said that the Grade 6 learners in Namibia came from homes with widely differential access to books as reading resources. The mean number of books in the Grade 6 learners' homes is presented in Figure 1 below.

Figure 1 Mean books in homes of Grade 6 learners



The reliability of this conclusion raises some eyebrows. The Grade 6 learners were not prepared for this question and therefore their estimate of the number of books could be

distorted. One example of the problems that arose is that some local languages do not differentiate books from magazines. As there is only one name for a book and a magazine it is quite likely that the results are not precise.

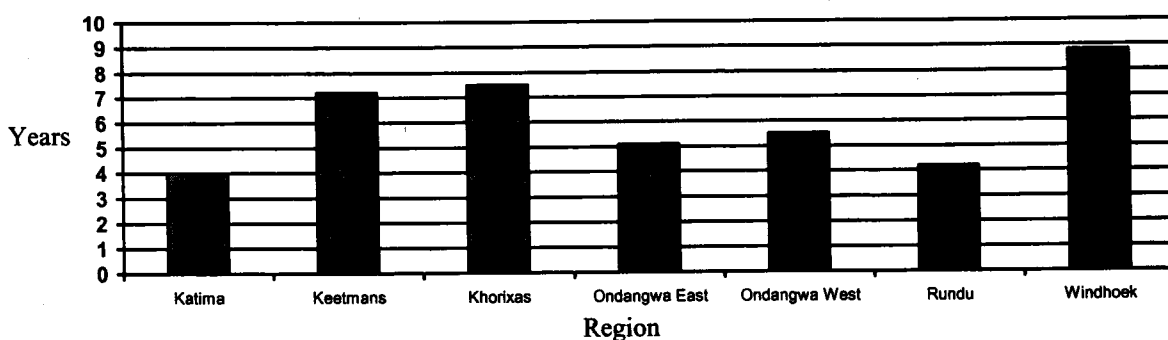
5.1.4 Parents education

In their questionnaire, learners were asked to state the education level of their parents. Parent education was included because it is widely believed that educated parents help their children with schoolwork and therefore are likely to contribute to their performance in general and in this case, in reading English, in particular. In Namibia parent education is even more important because since it is mostly educated parents who can speak English, one can assume that their children may also speak it.

The response to the question were recorded as 1 - did not go to school, 2 - completed some primary school, 3 - completed primary school, 4 - completed some secondary school, 5 - completed all secondary school, and 6 - completed some education and/or training after secondary school.

The average value for parent education for Namibia was 6.8. Ondangwa East, Ondangwa West and the Rundu regions were below the national average. The Rundu region had the lowest value of 5.8 while the Windhoek region had the highest value of 7.8 as can be seen from the graph below.

Figure 2 Mean Grade 6 learners parents education



5.1.5 Speaking English

While English is an official language and a medium of instruction in Namibian schools as from Grade 4 onwards (MBEC, 1993), it remains a foreign/second language to many Namibian learners. It is assumed that speaking English outside classroom enhances learner competence. The Grade 6 learners were asked to answer how often they speak English outside the classroom.

For Namibia overall 74.7 percent of the Grade 6 learners reported that they spoke English outside classroom. In all the regions more than half of the Grade 6 learners indicated speaking English outside the classroom. However, in the Windhoek region, 84,9 percent of the learners reported speaking English outside classroom that was the highest among all the regions, followed by Ondangwa East region with 81,7 percent. Keetmanshoop region had the lowest percentage of 56.6 percent which was below the national average (74.7 percent).

The learner home background characteristics presented in Table 5.1 was home related. Table 5.2 below presents the learner background characteristics - school related.

Table 5.2: Percentages, Means and Sampling Errors for Selected Learner Background Characteristics (School Related)

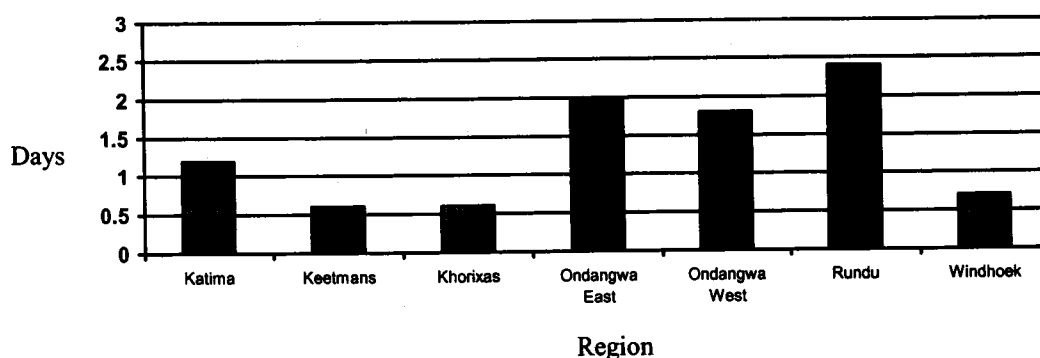
	Days Absent		Extra Lessons			Homework		Repetition
	Mean	SE	%	SE	%	SE	%	SE
Katima Mulilo	1.1	0.14	60.1	3.25	48.5	3.32	46.0	3.31
Keetmanshoop	0.6	0.18	24.7	5.97	66.1	6.56	50.6	6.93
Khorixas	0.6	0.23	29.8	7.72	79.0	6.88	55.9	8.38
Ondangwa East	2.0	0.42	38.5	7.35	64.7	7.22	60.0	7.40
Ondangwa West	1.9	0.17	28.5	3.57	71.1	3.59	69.3	3.65
Rundu	2.4	0.20	19.8	2.80	68.5	3.27	51.9	3.51
Windhoek	0.6	19.8	41.8	7.79	80.7	6.24	53.8	7.87
Namibia	1.4	41.8	34.6	2.32	69.8	2.24	58.8	2.40

5.1.6 Days absent from school

A learner who misses classes on a regular basis will automatically miss lessons and is therefore likely to perform poorly. According to the responses of the school principals to the question as to what the regard as problems at their schools, the Grade 6 learners were at schools where 50 percent of the principals regarded learner absenteeism as a major problem (Voigts, 1998). Learner absenteeism days recorded in Table 5.2 were out of 21 school days for the month of July that preceded the month the survey was conducted. These days were taken from the school attendance registers to avoid guessing.

The national mean absent days for Namibia in July was 1.4 days. The mean days in Rundu (2.4), Ondangwa East (2.0), and Ondangwa West (1,9) regions were higher than the national average as can be seen in Figure 3 below.

Figure 3 Learners absenteeism



5.1.7 Extra Lessons

Taking extra lessons has become a concern in some Southern African countries like Zimbabwe and Mauritius. Extra lessons refer to lessons given to learners by teachers or by other people to supplement the formal learning in what are regarded as important subjects or in subjects where a learner does not do well in school.

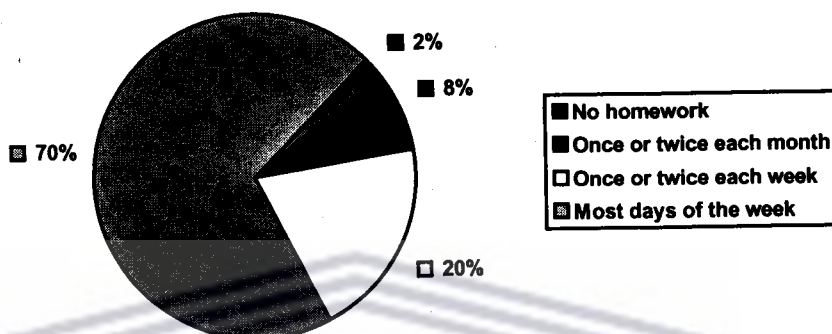
The survey revealed that 34.6 percent of the Grade 6 learners were receiving extra lessons. There was a wide variation among the regions, ranging from the lowest at 19.8 percent in the Rundu region to the highest at 60.1 percent in the Katima Mulilo region.

5.1.8 Frequency of homework given to learners

The learners were asked to write down the frequency of homework given by their teachers. They were asked to respond according to the following categories: No homework; once or twice per month; once or twice per week; most days of the week. The majority of the learners indicated having received homework most days of the week, namely 69.8 percent for all the regions. Windhoek and Khorixas regions had the highest percentage in the category of receiving homework most days of the week with 80.7 percent and 79.0 percent respectively. The rest of the regions had more than 60 percent of the learners getting homework most days of the week except Katima Mulilo where only 48.5 percent of the Grade 6 learners were

getting homework most days of the week. The frequency for each category has been presented in a pie chart in Figure 4 below.

Figure Frequency of homework given



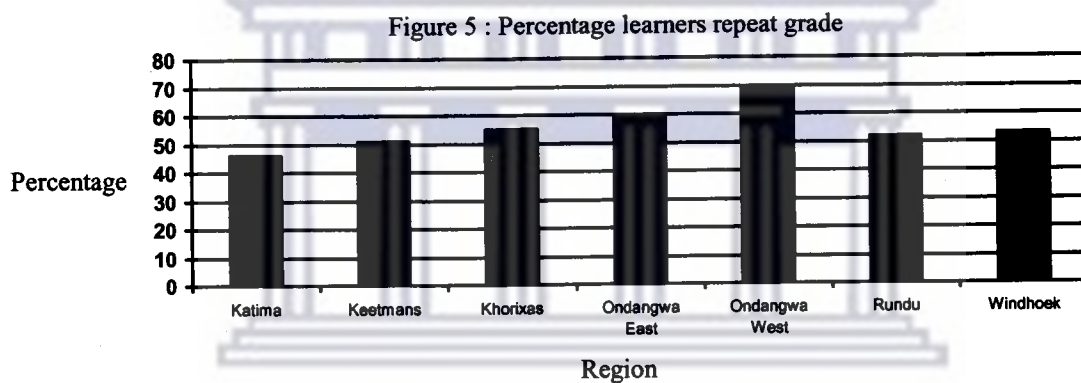
5.1.9 Repetition

The Namibian education system has been characterized by the emphasis placed on teaching learners for examination and promotion purposes. Sitting for examination in most cases goes together with repetition of grades when the requirements are not met. The Basic Education Reform Policy document for Namibia and its directives, prescribes learner promotion requirements to the next grades for schools to follow and for inspectors to monitor and control adherence thereof. A learner who has not fulfilled the prescribed requirements has to repeat a grade. However, the directives do not allow a learner to repeat a grade more than once after which such a learner should be transferred to the next grade. The teacher in the next grade is then charged with the responsibility of giving remedial teaching to that learner.

Repetition is affecting the Ministry of Basic Education and Culture in many ways. A learner who repeats a grade uses twice as many resources and takes up a space that could be allocated to a new entrant in the same grade. Repetition also causes overcrowded classes or demand for more teachers if the teacher/learner ratio is to be kept low. Very often learners who repeat

many times will eventually drop out of school completely which affects the rate of return both for an individual and the state.

In Namibia overall, 58.8 percent of the Grade 6 learners have repeated a grade once since they started school. Apart from the Katima Mulilo region where the lowest percentage (48.5 percent) of the Grade 6 learners repeated a grade, in the rest of the regions more than half have repeated a grade. Omdangwa West region had the highest percentage of learners who have repeated a grade. The variations among the regions are illustrated in figure 5.



5.2 The Grade 6 learners results in English reading

In addition to the collection of background information about the learners, the survey administered a reading test to the Grade 6 learners to address one of the identified challenging policy issues - the level of reading achievement of pupils in English language at the upper primary school level. In this exercise, the test items from the original items that were regarded as not essential for Namibia (as explained in chapter 3), were removed to bring the total items down from 59 to 36. The minimum level of mastery was set at 50 percent while the desirable level of mastery was 80 percent of the total 59 score. The result of the test out of essential 36 items per region in 59 items, desirable and minimum level of mastery, followed by an analysis of the results, is presented in the table below.

Table 5.3 Mean Performance on 36 Essential Items and Percentages of Learners Reaching Minimum and Desirable Levels of Mastery in English Language Reading.

Region	Essential 36 items		% Minimum 59 items		% Maximum 59 items	
	Mean	SE	%	SE	%	SE
Katima	10.6	0.27	3.9	1.01	0.0	0.0
Keetmanshoop	19.4	1.23	53.7	7.04	14.9	4.01
Khorixas	18.2	1.38	44.1	7.29	14.1	6.08
Ondangwa E	12.6	0.85	11.8	3.91	3.4	3.40
Ondangwa W	12.3	0.35	10.1	2.07	0.0	0.00
Rundu	12.7	0.37	15.8	2.15	0.1	0.00
Windhoek	21.0	1.42	60.4	6.72	24.7	6.74
Namibia	14.9	0.35	25.9	1.77	7.6	1.48

5.2.1 Performance on 36 essential items

The mean score on the essential items of the reading test was 14.9 for Namibia. However, there were variations in the performance where the Grade 6 learners in some regions performed better than in other regions. The mean scores varied from a low value of 10.6 scores for the Grade 6 learners in the Katima Mulilo region to a high value of 21.0 scores for their counterparts in the Windhoek region. The other regions that performed below the national average were Ondangwa West, Ondangwa East, and Rundu each with just above 12.0 mean scores. The Khorixas and Keetmanshoop regions performed above the national average with mean scores of 18.2 and 19.4 respectively.

5.2.2 Learners reaching minimum level of mastery in reading

In order to reach the minimum level of mastery in English reading, the Grade 6 learners were expected to achieve not less than 50 percent in the test items. From Table 5.3, it can be stated

than on average 25.9 percent of the Grade 6 learners in Namibia reached the minimum level of mastery in the English reading test. It can also be said that overall, the Grade 6 learners in Namibia performed relatively poorly in the reading test when judged against the English reading specialist expectation.

The average poor performance was not the same for the Grade 6 learners in all regions. In the Windhoek region for example, 60.4 percent of the Grade 6 learners achieved the minimum level of mastery in reading English. A better performance also came from the Keetmanshoop region with 53.7 percent and the Khorixas region with 44.1 percent.

The Grade 6 learners in the rest of the four regions (Rundu, Ondangwa East, Ondangwa West, and Katima Mulilo) performed far below the national average with Katima Mulilo region down to only 3.9 percent of the Grade 6 learners achieving minimum level of mastery in reading English.

5.2.3 Learners reaching the desirable mastery level in reading

The desirable level of reading achievement set by the Ministry of Basic Education and Culture for the Grade 6 learners was 80.0 percent. The Grade 6 learners almost followed the same pattern of achievement in the desirable mastery level as that of the minimum level of achievement discussed above. For Namibia overall, only 7.6 percent of the Grade 6 learners achieved the desirable mastery level of achievement in reading English. The highest performance was in the Windhoek region where 24.7 percent of the Grade 6 learners achieved the desirable mastery level followed by the Khorixas and Keetmanshoop regions with around 14.0 percent each. Ondangwa East had 3.4 percent and Rundu had 0.1 percent of the Grade 6 learners who reached the desirable level of achievement while there was 0.0 percent each in

Ondangwa West and Katima regions. The general poor performance and the large variations between the regions signal a caution in the education system against the expectations of those who support the use of English the medium of instruction in Namibian schools.

5.2.4 Minimum and Desirable Mastery Levels for Subgroups of Learners

The results for the minimum and desirable mastery levels are presented for two groups of learners in Table 5.4. The two groups were defined in terms of gender (boys or girls) and school location (isolated, rural, small town, and large city). An isolated school refers to a school in a rural or a farming area far from other schools, while a rural school is defined as remote if far from a town. The results showed that a slightly higher percentage of boys, 27.8 percent and 8.0 percent, than girls 24.1 percent and 7.2 percent, reached the minimum and desirable level of mastery. There was therefore not much gender difference between boys and girls level of achievement in reading among Grade 6 learners in Namibia.

Table 5.4: Percentages of Learners Reaching Minimum and Desirable Mastery level for Subgroups of Learners

	Minimum Mastery Level		Desirable Mastery Level		Sample Size
	%	SE	%	SE	
Gender					
Boys	27.8	2.58	8.0	2.17	2178
Girls	24.1	2.41	7.2	2.03	2279
School Location					
Isolated	17.7	8.51	6.1	2.46	144
Rural	12.1	1.63	0.5	0.48	2887
Small town	31.3	5.17	10.8	4.80	583
Large city	70.8	4.21	30.1	5.90	843
Namibia	25.9	17.7	7.6	1.48	4457

The results in achievement according to school location were expected to follow the traditional trend in Namibia - the more you move from schools in large cities to those in isolated rural schools, the less favorable condition for learning and the lower the level of achievement in English language proficiency. This trend was broken when 17.7 percent of

the Grade 6 learners in isolated schools reached the minimum mastery level an d6.1 percent reached the desirable mastery level compared to 12.1 percent and 0.5 percent of the Grade 6 learners in the rural schools. While it is not possible to explain these findings on the basis of the research carried out, the reason for this difference between isolated and rural schools achievement could possibly be attributed to less overcrowding in isolated schools where enough attention is given to each learner, unlike the situation in overcrowded rural schools.

There were major differences as one moved form one set of schools to the other. In large cities, a high percentage, 70.8 percent of the Grade 6 learners, reached the minimum level of achievement while the level was as low as 12.1 percent in the rural schools. The same trend was followed in the desirable mastery level of achievement. In small towns, although the mastery level of achievement was low, at 31.3 percent for the minimum mastery level and 10.8 percent for the desirable mastery level, learners in large cities achieved above the national average at 25.9 percent and 7.6 percent respectively.

5.2.5 Dimensions of reading

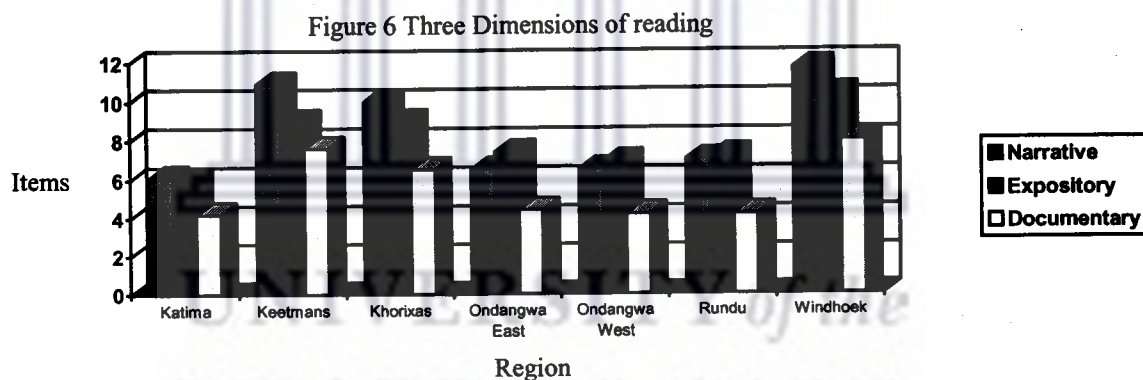
As was mentioned earlier, the literacy test was made up of three sub-scales (Narrative, Expository, and Documents). The means and sampling errors for the three dimensions are presented in Table 5.5.

Table 5.5: Means and Sampling Errors of Learners on Three Dimensions of Reading Achievements

Region	Narrative (21 items)		Expository (23 items)		Documentary (15 items)		Total Test	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Katima	6.3	0.17	6.1	0.17	4.2	0.15	16.6	0.32
Keetmans	10.6	0.77	9.1	0.72	7.6	0.48	27.7	1.82

Khorixas	10.0	0.86	9.0	0.83	6.9	0.61	26.0	2.13
Ondangwa E	6.7	0.56	7.3	0.56	4.7	0.40	18.9	1.30
Ondangwa W	6.7	0.17	6.9	0.22	4.5	0.17	18.2	0.40
Rundu	7.1	0.19	7.2	0.21	4.5	0.17	18.9	0.43
Windhoek	11.8	0.93	10.4	0.88	8.1	0.60	30.6	2.26
Namibia	8.2	0.23	7.9	0.21	5.6	0.16	22.0	0.54

The mean is calculated over the number of items in each dimension. Narrative had 21 items, Expository had 23 items, and Documents had 15 items. Since each dimension had a different number of items, an overall picture was obtained by converting the average scores into percentages. For Namibia as a whole the percentages in the three dimensions were - Narrative sub-scale 39.0 percent, Expository sub-scale 34.3 percent, and Document sub-scale 37.3 percent.



In general, the same pattern of achievement in the mastery level presented in Table 5.5 was followed in the three-dimension sub-scale. The Grade 6 learners in Windhoek (56.2 percent), Keetmanshoop (50.5 percent), and Khorixas (47.6 percent) regions were above the national average while in the rest of the four regions they were below the national average. The situation of Katima Mulilo region remained the same the region with the lowest scores in all the dimensions.

5.2.6 Subgroups of Learners and the Three Dimensions of Reading

The results of achievement of the Grade 6 learners according to subgroups are presented in Table 5.6. The same pattern as that pertaining to the minimum and desirable mastery level where there was no significant difference between boys and girls' performance was found. Again the Grade 6 learners in large cities performed better than those in small towns who in turn performed better than the Grade 6 learners in isolated and rural area schools. In general, it can be said here that the Grade 6 learners performed better in the Narrative and Expository subjects than in the Documents' dimension.

Table 5.6: Means and Sampling Errors of Different Subgroups of Learners on the Three Dimensions of Reading

Subgroups	Narrative		Expository		Documents	
	Mean	SE	Mean	SE	Mean	SE
Gender						
Boys	8.3	0.33	7.9	0.30	5.8	0.24
Girls	8.2	0.32	7.9	0.29	5.4	0.22
School Location						
Isolated	7.4	1.37	7.2	1.18	5.2	0.92
Rural	6.8	0.17	6.9	0.18	4.6	0.15
Small Town	8.8	0.67	8.3	0.64	6.2	0.48
Large City	12.8	0.63	11.3	0.69	8.6	0.47
Namibia	8.2	0.23	7.9	0.21	5.6	0.16

5.3 Characteristics of Grade 6 teachers

In the SACMEQ study, teachers were asked to respond to questions related to the characteristics as defined below. Although there are clearly other important teacher characteristics and factors related to the performance of learners such as teacher motivation,

teacher morale, condition of service, work ethics, etc. the SACMEQ study from which the data of this study is drawn limited itself to a few teacher characteristics such as teacher age, teacher sex, academic education of teacher, professional qualifications (years of teacher training) of teacher, and teacher years of teaching experience. In Table 5.7, the teachers background characteristics by region and for Namibia overall have been presented and are followed by an analysis.

Table 5.7: Means, Percentages, and Sampling Errors for Selected Teachers Background Characteristics

Region	Age		Gender (Male)		Academic Education		Teacher Training		Teacher Experience	
	Mean	SE	%	SE	Mean	SE	Mean	SE	Mean	SE
Katima	31.3	1.22	70.6	10.44	12.0	0.60	1.7	0.25	6.3	1.44
Keetmanshoop	39.6	1.77	52.6	11.44	11.6	0.47	2.1	0.35	15.7	2.00
Khorixas	35.3	1.23	71.1	10.20	12.9	0.53	1.8	0.32	11.7	1.66
Ondangwa/E	31.7	1.24	52.4	10.04	11.1	0.41	1.5	0.26	7.1	1.08
Ondangwa/W	30.8	0.92	63.0	8.79	11.7	0.46	0.8	0.24	5.9	0.75
Rundu	29.6	1.07	5.0	3.93	11.1	0.21	2.4	0.17	7.9	1.02
Windhoek	36.9	2.08	87.0	7.32	13.2	0.64	1.8	0.31	12.0	2.00
Namibia	33.2	0.61	60.7	4.09	11.9	0.21	1.8	0.11	8.7	0.60

In the analysis that follows, a comparison of these variables is made against the national average as well as among the regions in order to determine how each region fares in relation to the national average and in relation to other regions.

5.3.1 Teacher age

In the teacher questionnaire teachers were asked to record their date of birth from which the teacher age was calculated. The age of a teacher *per se* does not have an influence on learner performance. The significance given to the issue of teacher age in Namibia accounts for the fact that education went through some major changes in regard to teacher training and

teaching methods. Older teachers were retrained in relation to a teacher-centered teaching methodology, while the new teachers followed learner-centered approach or the first time during their initial teacher training courses. Age also serves as a proxy for experience since older teachers are generally presumed to have longer years of teaching service and to have acquired desirable experience that is able to promote learner performance.

According to the SACMEQ sample of the Grade 6 English teachers, the average age of Grade 6 English teachers in Namibia was 33.2 years. However, there were fairly large variations noted between regions. The average age of Grade 6 teachers in Keetmanshoop, Windhoek, and Khorixas regions tended to be higher than the national average. This means that older and in general more experienced teachers who taught Grade 6 were found in these regions more than in other regions. Grade 6 teachers in Keetmanshoop had the highest average age at 39.6 years. The four other regions were below the national average with not much significant difference between them. The Rundu region had the lowest average at 29.6 years.

Ondangwa East was just below the national average, but well below Windhoek and Keetmanshoop regions. There was a ten-year gap in average age of teachers between the lowest region, Rundu, and the highest region, Keetmanshoop.

The SACMEQ results have shown that in 1995 the Grade 6 learners in Namibia were taught by teachers with variations in age. Whether the teacher age variations is one of the factors that significantly effects learners performance will be seen when this variable is correlated with the learners results later in the next chapter.

5.3.2 Teacher gender

As shown in chapter 3 above there is same evidence in the literature that there is a difference between the performance of learners taught by female and male teachers in Botswana. According to the 1995 SACMEQ survey around 60 percent of learners in Grade 6 in Namibia in 1995 were taught by female teachers, a figure which was to be expected because about 60 percent of all teachers in the education system were female (MBEC, 1995). In the Windhoek, Khorixas, and Katima Mulilo regions between 71 percent and 87 percent of Grade 6 learners had female teachers, with Windhoek having the highest at 87 percent. In the Rundu region only 5 percent of the Grade 6 learners were taught by female teachers. The reason for these major disparities between the percentage of male and female teachers in the Rundu region can possibly be ascribed to the fact that only 36.5 percent of all teachers in Rundu were female. This situation in for Rundu is a matter of some concern to the Ministry of Basic Education, Sports and Culture and certainly warrants more detailed investigation in the future to find out why so few teachers are female in this region.

5.3.3 Academic education of teachers

In terms of a national average, the Grade 6 learners were taught by teachers who have completed 11.9 years of schooling. These years did not include “repeating years.” Based on the education structure prior to independence, completing 11 years represents completion of Junior Secondary School. There were three regions in which the teachers’ academic education was demonstrated to have exceeded 11 years. Those regions were Windhoek with 13.2 years, Khorixas with 12.9 years, and Katima Mulilo with 12.0 years. These figures revealed that teachers in these regions had, on the average, reached Senior Secondary School level or higher. The other regions although below the national average of 11.9 years, did not vary a great deal with Rundu and Ondangwa East down to 11.1 years each. The main

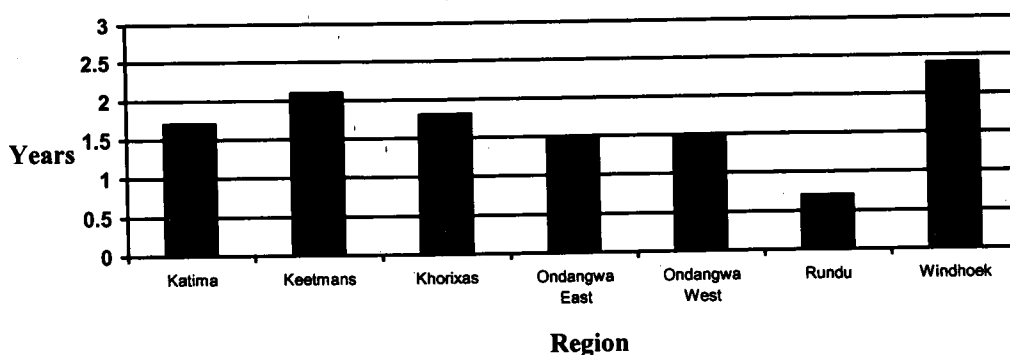
between-region difference for this variable was 2.1 years between a high of 13.2 years for Windhoek region and a low of 11.1 years for Ondangwa East and Rundu regions.

5.3.4 Teacher years of teacher training

In order to become an officially registered teacher in Namibia an individual is required to have at least one year of training. This official requirement is in contradiction with the annual school statistics that showed that there were 4567 “untrained” teachers in 1995 (MBEC, 1995).

The Grade 6 learners were taught by teachers with an average of 1.8 years of teacher training. The average number of years of training for the Grade 6 teachers in Windhoek and Keetmanshoop regions were 2.4 years and 2.1 years respectively. Ondangwa East, Khorixas, Katima Mulilo, and Ondangwa West regions had Grade 6 teachers with almost the same average number of years of teacher training but they were below the national average. Grade 6 teachers in the Rundu region had 0.8 years of training, which was a full year below the national average and a year and a half below that of the Windhoek region which had teachers with the most years of teacher training. The result related to teacher training clearly indicates the inequity in the allocation of the teaching staff in terms of number of years spent in teacher training. Figure 7 provides a graphic representation of the teacher average number of years of teacher training per region.

Figure 7 Average years of teacher training

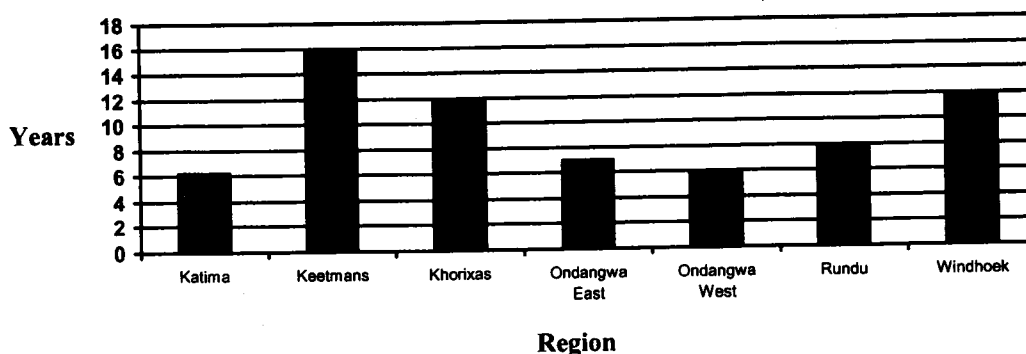


5.3.5 Teacher years of teaching experience

The average in years of teaching experience for the Grade 6 teachers in Namibia was 8.7 years. There were large variations around this variable among regions. The Keetmanshoop region had the most experienced Grade 6 teachers. Teachers in this region had 15.7 years of experience, followed by the Windhoek and Khorixas regions with around 12 years. The other regions had Grade 6 teachers with an average of between six to eight years of teaching experience. The data gathered for the SACMEQ project does not provide detailed information that provides an explanation for the differences.

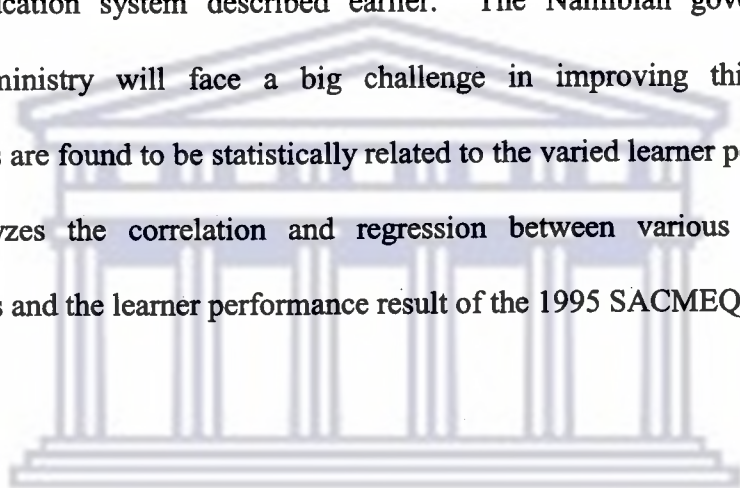
The difference in the years of experience Grade 6 teachers among the regions is presented in a graph below.

Figure 8 Grade 6 teacher years of experience



If teacher experience is a factor of concern in learner performance in the regions, the regions with less experienced teachers would be adversely affected in the circumstances.

The main features of the descriptive analysis dealt with so far are that there is a variety of teacher characteristics, learner characteristics, and varied learner performance results among the regions. The southern regions were shown to be more favorably situated than the northern regions in all the above aspects. These disparities could be partly explained by the historical apartheid education system described earlier. The Namibian government through the responsible ministry will face a big challenge in improving this situation if these characteristics are found to be statistically related to the varied learner performance. The next chapter analyzes the correlation and regression between various learner and teacher characteristics and the learner performance result of the 1995 SACMEQ survey.



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Chapter 6 : Correlation and Regression Analyses

This chapter attempts to look at how and why the factors described in Chapter 5 relate to the learner performance. I use the two research techniques, bi-variate correlation and multivariate regression to conduct the analyses.

6.1 Correlation Analysis

Correlation is a statistical research technique commonly used in social science research. When it is used in education research, it tells us about the relationship between two educational indicators. For example we can use correlation analysis to understand if factors relating to teacher characteristics have a relationship to learner performance. In this section, I'll describe how I used correlation to analyze several bi-variate relationships among the key variables that were chosen. The following tables present the correlation matrix between the SACMEQ learner performance in English test cited above and the selected learner and teacher characteristics explained in the study design. These are three statistical indicators that are important in this table, 1) significant level (p-value), 2) direction (+ or -), 3) strength (alpha co-efficient).

Six variables are correlated in the matrix below. If we start by examining the English performance variable with other five variables, we find that four variables are significantly correlated with performance. These four variables are parent education, number of books in home, speaking English outside classroom, and learner age. The correlations varied in terms of significant level, direction, and strength.

Table 6.1a: Correlation coefficients of learner performance and the learner characteristics.

	Learner Achievement (59 score items)	Learner Gender (M=0, F=1)	Learner Age (Years)	Speaking English	Books in Home	Parent Education
Learner Achievement (59 score items)	1.000	-0.03	-0.35**	0.06**	0.16**	0.38**
Learner gender (M=0, F=1)	-0.03	1.000	-0.16**	0.02	0.00	0.01
Learner Age (years)	-0.35**	-0.16**	1.000	0.09**	-0.04**	-0.36**
Speaking English	0.06**	0.02	0.09**	1.000	0.02	0.07**
Books in Home	0.16**	-0.00	-0.04**	0.17**	1.000	0.18**
Parent Education	0.38**	0.01	-0.36**	0.07**	0.18**	1.000

** Correlation is significant at the 0.01 level (2-tailed).

The correlation between gender and learner performance was insignificant ($r=-0.03$ and p -value = 0.08). We cannot prove that girls perform worse than boys, even though there is a negative coefficient. In other words, there is no significant gender gap in English performance measured in the SACMEQ English test. Learner age variable, as we can see, is negatively correlated with learner performance. This means that the older a learner is, the worse he/she is likely to perform.

The SACMEQ result revealed that those learners who either dropped out or were absent frequently, significantly but negatively, correlated with learner performance.

It is worth reporting on a significant relationship between the learners speaking English outside classroom “variable” and “learner performance result”. The result shows that those learners who reported speaking English often/always outside classrooms performed better than those who reported sometimes or never speaking English outside classroom. It therefore

demonstrates that the frequent use of English contributes to better performance in English test.

The variable in the model relating to the number of books in the home is positively and significantly correlated with learner performance. The number of books in the home also significantly correlated with parent education.

The level of parent education is positively correlated with learners' English performance. This means that the more formal education parents received, the better the children of those parents are expected to perform. The table also shows a significant relationship between parent education and learner age. Since the correlation between parent education and age variables is negative, it means that older learners performed worse than younger learners.

The strong correlation between the level of parental education and books in the home in relationship to the level of achievement in English language indicates that the level of parents' education or home education resources helps childrens' learning in English. It should be understood that it is not necessarily the parents' education or the number of books in the home that automatically leads to enhanced learner performance. But, it would seem to be the enabling conditions brought about by the two home factors that directly contribute to better learner performance. For example, it might be assumed that an educated parent is more likely to help his/her child with schoolwork. Likewise the variety of books in the home serves to expose a child to a wider range of influences which facilitate the performance in English language reading. It can also be argued that those parents with a greater number of books in their homes are the same ones who are likely to have received higher education ($r=0.18$ and $p=0.0001$).

The SACMEQ learner information questionnaire required the learners to provide information about the frequency with which teachers give homework to their learners, whether learners received extra lessons, and the number of times a learner has repeated a class.

Although learners were asked to record the number of days they were absent in the course of the month prior to the survey, the number of days absent were recorded from the school attendance register for that period. The following table presents other learner characteristic variables.

Table 6.1b: Correlation coefficient of learner performance and learner characteristics.

	Learner Performance (59 score items)	Homework frequency	Taking extra lessons	Number repeated grade	Learner Absenteeism
Learner Performance (59 score items)	1.000	0.16**	-0.08**	-0.24**	-0.42**
Homework frequency	0.16**	1.000	-0.04**	-0.06**	-0.18**
Taking extra lessons	-0.08**	-0.04**	1.000	0.02	0.02
Number repeated grade	-0.24**	-0.006**	0.02	1.000	0.11**
Learner Absenteeism	-0.42**	-0.18**	0.02	0.11**	1.000

** Correlation is significant at 0.01 level (2-tailed)

It can be noted that the frequency of homework assigned by teachers significantly and positively correlates with better English performance (0.16**). This means that the more a teacher assigns homework to learners, the better the learners perform in English tests. However, the other variables tested, taking extra lessons, repetition, and absenteeism all have a negative correlation with the English performance.

The negative correlation between taking extra lessons and performance indicates that those learners who received extra lessons nevertheless performed poorly.

It is common knowledge that the work of a learner who was absent from school for many days is likely to be negatively influenced. Absenteeism of learners significantly, but, negatively correlated with English performance. The negative relationship between performance and absenteeism tells us that those learners who were absent frequently performed poorly.

In terms of the SACMEQ framework we have made a comparison between learner characteristics as control variables and the learner performance in English reading test scores. We noted that some of the relationships were positive others were negative. Now I present correlation analysis results between teacher characteristics and learner performance in English reading test scores.

The purpose of this correlation is to see which factors relating to teachers characteristics are positively related to learner performance, and if it is found to be positively related, to investigate the direction and the strength of the relationship.

Table 6.2: Correlation coefficient of learner performance and teacher characteristics

	Learner performance (59 score items)	Teacher gender (f=1, m=0)	Teacher age	Teacher experience	Teacher academic education	Teacher years of training
Learner Performance (59 score items)	1.000	0.22**	0.27**	0.20**	0.28**	0.39**
Teacher gender	0.22**	1.000	0.10	0.08**	0.08**	0.38**
Teacher age	0.27**	0.10	1.000	0.06**	-0.01	0.19**
Teacher experience	0.25**	0.06**	0.84**	1.000	0.74**	0.19**
Teacher academic education	0.28**	0.08**	-0.01	0.74**	1.000	0.20**
Teacher years of training	0.39**	0.38**	0.19**	0.16**	0.20**	1.000

** Correlation is significant at the 0.01 level (2-tailed).

The correlation table above contains 6 variables with paired relationship indicators. All five teacher characteristics variable (teacher gender $r = 0.22$, teacher age $r = 0.27$, teacher years of experiences $r = 0.25$, teacher academic education $r = 0.28$, and teacher years of training $r = 0.29$) significantly correlated with pupil performance. While all these relationships are positive, the teacher number years of training variable ($r = 0.39$) showed the strongest relative relationship with pupil performance. It therefore tells us that the Grade 6 learners taught by teachers with more years of teacher training performed better than those learners taught by teachers with fewer years of teacher training.

It is also important to note that the number of years of teacher training variable has a significant relationship with teacher gender variable ($r=0.38$). Since female teachers are coded 1 and male teachers are coded 0, the relationship means that in Namibia among the Grade 6 teachers, female teachers are more likely to have received teacher training taking into account that they consist of the majority (61 %) of the teaching force. A similar trend of positive correlation is true for teacher gender variable with teacher academic education and teacher number years of teacher training with $r=0.08$ each.

The correlation coefficient informs us about the relationship, direction, and strength of the relationship between two variables. I have examined learner characteristics in relation to learner performance above. I have found that the home environment such as parent education plays a significant role in learner performance prediction. With regard to teacher characteristics it was found that teacher training (a proxy for teacher qualification) has most significantly correlated with learner performance in reading English. The above correlation can only give us the single relationship analysis results. It does however not tell us precisely how multiple learner factors and teacher factors together influence learner performance.

Correlation has some limitations. Hua, (1999) has summarized three limitations of correlation as follows: 1). Correlation does not give us a representative average relationship that could be used to predict individual values (to fit the data points). 2) Correlation does not tell us how much a change in one variable affects the change in the outcome variable (effect size) because we don't get β . 3) Correlation does not tell us how one predictor affects the values of outcome taking into consideration the effect of other predictors on the same outcome. To perform the above function another statistical technique, regression, is required.

6.2 Regression Analysis

Regression is one of many multivariate statistical techniques. It is widely used in social science research. Unlike correlation, regression not only helps us to understand the relationship between two educational factors, but also helps us to understand multiple relationships among multiple indicators. Regression gives us the ability to detect how much of the achievement can be predicted by some educational predictors. It requires one dependent continuous variable (test results) and at least one continuous predictor (e.g. teacher qualification). Regression is intended to explain or predict the variability of the dependent variable such as learner achievement test by using independent variables such as teacher qualification, teacher age, learner gender, and/or class size etc.

The regression results provide us with three major statistical indicators. 1). The R-square informing us of the percentage of the variance in the dependent variables, which is reading English performance, which has been explained by independent variables. 2). The significant level of the effect of the individual independent variable on the dependent variable (t-statistics and p-value associated with the slope coefficient to indicate how much effect the independent variable has on the dependent variable), and 3) The effect size of the independent

variable on the dependent variable (slope coefficient) that explains how much each individual independent variable contributes to the dependent variable. In order to understand how teacher factors influence learner performance I decided first to look at how individual learner factors influence their performance. The following is a presentation of the result tables of the multivariate regression of learner characteristics and the English performance results, each followed by an analysis.

Table 6.3a: Regression analysis of learner characteristics

Dependent variable : score 59 items

Predictors : (Constant) Speaking English, Learner Gender, Learner Age, Books in Home,

Parent Education

Variable	B	SEB	Beta	T	P-value
(Constant)	34.	1.392		24.694	0.000
Speaking English	0.37	.202	-0.32	1.823	0.068
Learner Gender	1.45	.359	-.069	-4.030	0.000
Learner Age	-1.15	.081	-.265	-14.283	0.000
Books in Home	2.3	.003	.135	7.084	0.000
Parents Education	0.93	.066	.260	13.978	0.000
R-square	.22			P-value<0.01	

In the table above, 22 percent (R-square = .22) of the learner performance in the test has been explained by the five learner characteristics (Speaking English, Learner Gender, Learner Age, Books in Home, and Parents Education). Controlling for all other variables, each of the five learner characteristics has a significant effect on English performance. Learner Gender and Learner Age variables are negatively correlated with learner performance controlling, in turn, for the four other variables, Speaking English, Books in the Home, and Learner Gender or Speaking English and Learner Age.

According to SACMEQ figures among the Grade 6 learners, for every year's increase in age, we can expect on average about 1,15 points decline in the level of achievement in the test for English language proficiency, controlling for the other two factors in the model. This in turn, means, female learners performed 1.45 points lower than their male counterparts, taking into consideration the effects of pupil age and English spoken outside classroom.

In earlier models, we found that learner characteristics and home environment had a significant effect on English performance. When all these factors are put together in predicting the outcome variable - English test score performance - the effect of these factors on the outcome variable are different from the earlier findings due to the interrelationship among all the factors. For example, gender didn't have a significant correlation with learner performance when examined individually. But now after we have considered all other learner - level factors equal, we see the gender effect on performance. When controlling for learner characteristics and some home environment factors, male learners perform better than female learners.

We can also see that "Speaking English Outside of the Classroom" has become insignificantly related to performance in this model. This is because "Speaking English Outside the Classroom" is highly correlated with Parent Education and with Books at Home. The learner factors analysis presented above were more learner related characteristics. In Table 6.3b I further present the analysis of learner home and school related factors.

Table 6.3b: Regression analysis of learner home and school factors

Dependent variable: Score 59 items

Predictors:(Constant) Homework Frequency, Repetition, Learner Absenteeism, Extra Lessons

Variable	B	SEB	Beta	T	P-value
(Constant)	32.1	.549		58.453	0.000
Homework	0.29	.042	.078	5.707	0.000
Repetition	-2.25	.154	-.198	-14.593	0.000
Learner absent	-6.51	.232	-.386	-28.056	0.000
Extra lesson	-1.51	.288	-.070	-5.226	0.000
R-square	.23			P-value <0.01	

The regression model above consists of four variables. The R-square (.23) tells us the 23 percent of the variance in performance has been explained by the four variables in the model. By looking at the p-value, all of the variables are significantly related to the outcome variable, English reading test results. However, three variables (repetition, absenteeism, extra lessons) are negatively correlated and one (homework frequency) is positively correlated. The negative correlation tells us the following about each of the variables. With repetition, it means that for every year a learner repeated, he/she is expected to perform 2.25 points worse in the English reading test controlling for the other variables. For every additional day a learner is absent he/she is expected to perform 6.51 point lower in the English reading performance, controlling for all the other variables. When taking into consideration other factors, homework frequency has the only positive correlation with performance, which indicates to us that for additional homework a teacher gives, learners are expected to score 0.29 point more in their performance. Although all the variables significantly correlated with

the performance, absenteeism came out as the strongest factor effecting learner performance negatively in the model. Having looked at the control variables and their effect on performance I now present the analysis of the teacher factors in the next table.

Table 6.4: Regression analysis of teacher characteristics

Dependent Variable: Score 59 items

Predictors (Constant): Teacher Gender, Teacher Age, Teacher Experience, Teacher Academic Education, Years Teacher Training.

Variable	B	SEB	Beta	T	P-value
(Constant)	-7.34	1.232		5.548	0.000
Teacher gender	1.94	.310	.092	3.271	0.000
Teacher age	0.20	.034	.147	16.040	0.000
Teacher experience	0.12	.036	.083	6.251	0.000
Teacher academic education	1.45	.091	.224	5.847	0.000
Years of teacher training	2.17	.123	.268	17.611	0.000
R-square	.25			P-value	<0.01

The multivariate regression above has five teacher predictors. All five predictors are significantly related to the dependent variable, namely, learner performance (Score 59 items).

All the predictors that significantly related to the dependent variable in the model have a positive relationship.

It is noted that Teacher Gender and Teacher Academic Education are both significantly related to learner performance. Since female and male teachers were coded 1 and 0 respectively, the Grade 6 learners taught by female teachers perform 1.94 points higher than those taught by male teachers.

Teacher academic education is statistically, positively and significantly related to learner performance. It can be stated in terms of this sample that for every additional year of

academic education of a teacher, learners are expected to score 1.45 points higher in the English test.

The R-square statistics (0.25) indicates that 25 percent of the total variance in the English reading test performance has been explained by all predictors in the model. Among the teacher predictors, teacher training (number years of teacher training) significantly contributes (2.17) to the overall explanation of the variability in English reading test performance. Controlling for the effect of other variables, it can be reported that the Grade 6 learners taught by teachers with a greater number years of teacher training perform 2.17 points higher in English language proficiency tests than those taught by teachers with less years of teacher training.

The multivariate regression analysis above examined the effect of learner and teacher factors on performance separately. We have seen how each factor related to the English reading performance when controlling for the effect of other variables. In conclusion, I present a multivariate analysis consisting of learner and teacher factors together. The nine learner and teacher variables in this model are the ones that showed a strong relationship between learner performance in the previous analysis.

Table 6.5: Regression analysis of learner and teacher factors

Dependent Variable: Score 59 items

Predictors (Constant): Teacher Academic Education, Teacher age, Teacher training, Speaking English, Learner age, Parent Education, Homework, Repetition, Absenteeism

Variable	B	SEB	Beta	T	P-value
(Constant)	12.53	1.981		6.324	0.00
Teacher academic education	.93	.103	.144	9.060	0.000
Teacher age	.19	.022	.137	8.715	0.000
Teacher training	2.05	.136	.243	15.134	0.001
Speaking English	.43	.182	.036	2.339	0.019
Learner age	-.48	-.077	-.107	-6.252	0.000
Parent education	.59	.061	.161	.687	0.000

Homework	.20	.062	.050	3.241	0.001
Repetition	-1.69	.193	-.130	-8.321	0.000
Absenteeism	-4.93	.274	-.288	-18.005	0.000
R-square	.30			P-value	<0.01

The R-square statistics tells us that 30 percent of the total variance in the English reading test performance has been explained by the nine predictors in the model. All the nine variables correlated negatively or positively with learner performance during earlier analyses. When learner and teacher factors are considered together, the strength of the relationship changes. Teacher academic education and teacher training are the two teacher factors with a significant positive relationship with learner performance. Teacher training (qualification) remains the strongest teacher variable effecting learner performance in English reading in Namibia. It can therefore be stated that considering learner characteristics, learner home and school circumstances, and other factors relating to teacher characteristics, learners taught by teachers with more years of teacher training perform 2.05 points higher than those taught by teachers with fewer years of teacher training.

Considering all other factors to be equal, repetition and absenteeism are the two learner factors with a significant correlation with performance. Unlike the teacher factors that have a positive relationship, these two learner factors have a negative relationship with performance in English reading. This, therefore means that those learners who were recorded to have been absent from school regularly or those who repeated a grade were the ones that performed poorly when compared to other learners.

Chapter 7 : Conclusion

This study investigated the relationship between teacher factors and learner performance for a select sample of Grade 6 learners in relation to English reading in Namibia as measured in a set of tests conducted as part of the SACMEQ survey in 1995. The Namibian education system went through a period of transformation after 1990 from an apartheid system of education to a unified education system. The transformation was aimed at achieving the four broad goals of education. These are access, equity, quality and democracy. The change entailed moving from the racially segregated apartheid educational system to a unified system, and also included the unification of teacher training institutions from the many existing racially divided institutions. The aim of the education transformation was in part to improve on the quality of teaching and learning, especially in former disadvantaged schools. There was considerable confidence that this aim could be achieved through equitable distribution of material and human resources across the regions. Yet the pace of success in achieving this aim has been too slow.

Since English is the medium of instruction, but is not widely spoken in Namibia, the quality of English teaching and learning in schools became one of the major concerns among the stakeholders in education. The concerns about English teaching and learning were highlighted because of unsatisfactory learner performance in English language in the national examination. The examination results were attributed by many to poor English background in the primary school.

Many factors are believed to contribute to this poor performance in English language. Since no evidence was initially available to assist in shaping policy, some studies - the National Baseline Study (NBS) and the Southern Africa Consortium for Monitoring Educational Quality (SACMEQ) survey - were conducted in Namibia in an attempt to measure the quality of teaching and learning in schools. The data used in this study was taken from the SACMEQ survey of 1995.

From the literature reviewed in this study, it became clear that educational factors related to learner performance are complex. It is not easy to pin point one factor as the main contributor to learner performance. However, researchers have found that issues related to teachers, among other factors, effect learner performance.

None of the research findings from the reviewed literature was conclusive about which teacher factors were most significant in effecting learner performance. The results from research conducted in countries with sound economical status produced different results from those that are experiencing economic hardship.

The descriptive analysis of the SACMEQ data made in this study has revealed a number of issues about the education system in Namibia, particularly with regard to learner background and teacher characteristics and their relation to issues of quality and equity. The analysis revealed the inequity in the allocation of teachers among the education regions. Learner performance in the English reading test was also shown to vary in many respects among the regions.

The study revealed that there were a considerable number of over-aged learners in the Namibian education system. While it could be expected for Namibia to have over-aged learners because of the history of its educational provision under apartheid, over-aged learners are mostly found in the former disadvantaged regions of the north. These are the regions where access to education was a problem in the past and hence, with independence, many schools were established and many learners from the war stricken areas enrolled at different age levels. Lacking background, many of them found it difficult to cope, especially in English language.

The relationship between age and learner performance in the English test was statistically significant but negative. It can be concluded that over-aged learners performed worse than their younger counterparts. Over-aged learners were often the same ones who repeated and were frequently absent from school. These two learner factors have been shown by the SACMEQ to adversely affect learner performance. The study results suggest that if absenteeism and repetition are minimized, the learner performance can be significantly improved.

The study results did not show a difference in English reading performance between boys and girls. Although the correlation between these two variables and learner performance is negative, the correlation is not significant.

Even when books at home are considered together with other learner factors, the books at home effect on learner performance remains the strongest. Therefore, learners who are exposed to a variety of English reading materials stand a chance of performing well in the reading test. Equally, educated parents in one way or another play a role in predicting the

level of a learner's performance. However, parent education became a weak contributor when considered together with other learner and teacher factors.

The study shows that "Speaking English Outside Classroom" matters much in predicting learner performance. The Speaking English factor's negative influence in predicting learner performance can be expected because the majority of the learners in Namibia are not from English speaking families. The other reason is that speaking English outside classroom correlates with both Books at Home and Parent Education. Much of the "Speaking English Outside the Classroom" effect is therefore the same as that of the other two factors (Books at Home and Parent Education).

There is a large variation in the distribution of teachers according to age among regions. In the regions where the average age of teachers was above the national teacher age average, learners tended to have performed better than in the other regions. Since teacher age can be a proxy for experience in teaching, learners taught by older teachers/experienced teachers did on average perform better than those learners taught by younger/inexperienced teachers.

The fact that older teachers produced on average better results poses a potential threat to the future of the quality education system when the present older teachers retire from the system. There is therefore a need for further investigation of other teacher factors such as motivation, content of teacher training, work ethic etc. if we are to establish the key factors for successful education.

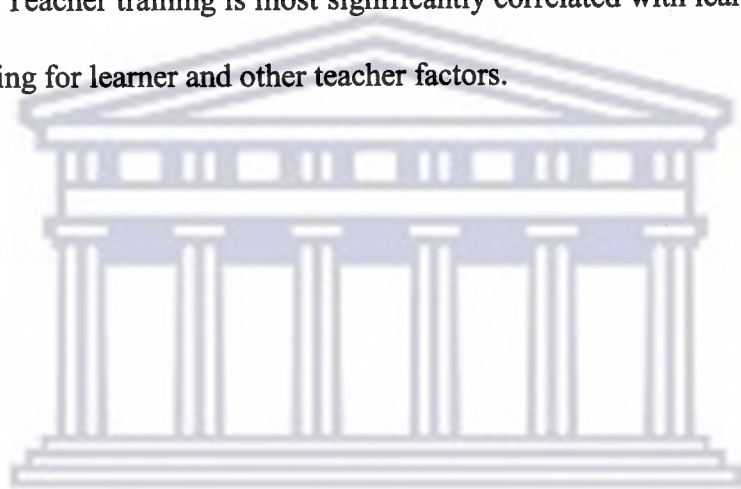
Another finding from study is the fact that 60 percent of the teachers who taught Grade 6 English in 1995 in Namibia were female. The bi-variate and multivariate analysis revealed that female teachers received more years of teacher training than male teachers. Female

teachers in Namibia also had more years of academic education than male teachers. Since gender correlated positively with learner performance it can also be concluded that female teachers had an effect on learner performance in reading English in the Namibian schools. This does not suggest that female teachers, given the same training as their male counterparts perform better, but it simply means that in this sample female teachers were better qualified than and more plentiful than male teachers. Female teachers' concentration was also high in better off areas where learners in general performed better. While the government cannot employ female teachers only, it needs to look into reasons why the male teachers appear to be out-performed by their female counterparts in most parts of the country.

In most of the regions the Grade 6 teachers attained the required 12 years of academic education necessary to become a teacher. It appeared that the majority of these teachers were female. Statistically, the degree of academic education of teachers correlated positively with learner performance. It can therefore be stated that the amount of academic education of teachers positively effects learner performance. Those learners who were taught by teachers with a greater number of years of academic education, performed better than those who were taught by teachers with fewer number of years of academic education. This study confirmed the earlier finding mentioned in the literature reviewed, that teacher training has an effect on the learner performance. Teacher training, a proxy for teacher qualification, is demonstrated to play an important role in the Namibia education system. Among all the teacher characteristics investigated, teacher training shows the strongest and most significant positive correlation. All the regions with a high number of qualified teachers had Grade 6 learners who performed better in English language than learners in the other regions.

Since there is a relationship between teacher academic education and teacher training it means that learner performance can be enhanced partly by teachers having higher academic education and longer teacher training.

In conclusion it can therefore be stated that there are some factors (age, repetition and absenteeism) that have an influence on learners' performance in English language proficiency. Controlling for learner factors, teacher factors have a positive relationship with performance. Teacher training is most significantly correlated with learner performance even when controlling for learner and other teacher factors.



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Appendix A



Southern African Consortium for Monitoring
Monitoring Educational Quality

and

International Institute for Educational
Planning

Grade 6 Reading Study

Pupil Booklet

PART 1 : QUESTIONNAIRE

SOME QUESTIONS ABOUT YOU

1. Which Grade 6 class are you in this term?
(Please tick only one box)

6A	6B	6C	6E	6F	6G	6H	6I	6J
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. What is your date of birth?
(Please write numbers in the boxes below.)

Day	Month	Year
<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

3. Are you a boy or a girl?
(Please tick only one box.)

Boy

Girl

4. Do you speak English outside school?
(Please tick only one box.)

- Never
- Sometimes
- Often
- All of the time

SOME QUESTIONS ABOUT THE PLACE WHERE YOU STAY DURING THE SCHOOL WEEK (THAT IS MONDAY TO FRIDAY)

5. Where do you stay during the school week?
(Please tick only one box.)

- With my parents/legal guardian
- With other relatives or another family
- In a hostel/boarding school accommodation
- By myself or with other children

6. How many books are there in the place where you stay during the school week?
(Do not count newspapers or magazines.)
(Please tick only one box.)

- There are no books in the place where I stay during the school week.
- 1 - 10 books
- 51 - 100 books
- 101 - 200 books
- 201 or more books

7. How often do you read the books in the place where you stay during the school

week?

(Please tick only one box.)

I never read any of them.

I sometimes read something from them.

8. Which of the following things can be found in the place where you stay during the school weeks?

(Please tick one box for each line.)

	No	Yes
8.1 Daily newspaper	<input type="checkbox"/>	<input type="checkbox"/>
8.2 Weekly or monthly magazine	<input type="checkbox"/>	<input type="checkbox"/>
8.3 Radio	<input type="checkbox"/>	<input type="checkbox"/>
8.4 TV set	<input type="checkbox"/>	<input type="checkbox"/>
8.5 Video cassette recorded (VCR)	<input type="checkbox"/>	<input type="checkbox"/>
8.6 Cassette player	<input type="checkbox"/>	<input type="checkbox"/>
8.7 Telephone	<input type="checkbox"/>	<input type="checkbox"/>
8.8 Refrigerator	<input type="checkbox"/>	<input type="checkbox"/>
8.9 Car	<input type="checkbox"/>	<input type="checkbox"/>
8.10 Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>
8.11 Bicycle	<input type="checkbox"/>	<input type="checkbox"/>
8.12 Piped water	<input type="checkbox"/>	<input type="checkbox"/>
8.13 Electricity	<input type="checkbox"/>	<input type="checkbox"/>
8.14 Table to write on	<input type="checkbox"/>	<input type="checkbox"/>

9. What is the highest level of education that your mother/female guardian have completed?

(Please tick only one box.)

Did not go to school

Completed some of primary school

Completed all of primary school

Completed some of secondary school

- Completed all of secondary school
- Completed some education/training after secondary school
- I don't know.
- I don't have a mother/female guardian

10. What is the highest level of education that your father/male guardian have completed?
(Please tick only one box.)

- Did not go to school
- Completed some of primary school
- Completed all of primary school
- Completed some of secondary school
- Completed all of secondary school
- Completed some education/training after secondary school
- I don't know.
- I don't have a mother/female guardian.

10. What is the highest level of education that your father/male guardian have completed?
(Please tick only one box.)

- Did not go to school
- Completed some of primary school
- Completed all of primary school
- Completed some of secondary school
- Completed all of secondary school
- Completed some education/training after secondary school
- I don't know.
- I don't have a father/male guardian.

10(a) Is your mother or female guardian able to read? No Yes

10(b) Is your father or male guardian able to read? No Yes

11. How often are you usually given homework?
(Please tick only one box.)

- I do not get any homework.
- Once or twice each month
- Once or twice each week
- Most days of the week

12. How often does someone outside your school make sure that you have done your homework?
(Please tick only one box.)

- I do not get any homework.
- Never
- Sometimes
- Most of the time

13. How often does someone outside your school usually help you with your homework?
(Please tick only one box.)

- I do not get any homework.
- Never
- Sometimes
- Most of the time

14. How often does someone outside your school ask you to read to him/her?
(Please tick only one box.)

- Never
- Sometimes
- Most of the time

15. How often does someone outside your school ask you questions about what you have just read?
(Please tick only one box.)

- Never
- Sometimes
- Most of the time

16. How often does someone outside your school look at the work that you have completed at school?
(Please tick only one box.)

- Never
- Sometimes
- Most of the time

17. Do you take extra lessons in school subjects school hours?
(Please tick only one box.)

- No
- Yes

18. How often do you normally eat each of the following meals?
(Please tick one box for each line.)

	Not at all	1 or 2 days per week	3 or 4 days per week	Every day of the week
Morning meal/breakfast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lunch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Evening meal/supper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SOME QUESTIONS ABOUT YOUR SCHOOL

19. On how many school days were you absent during the month of July?
(Please write "0" if you were not absent.)

days

20. How are the readers/English textbooks used in your classroom during your reading lessons.
(Please tick only one box.)

- There are no readers/English textbooks.
- Only the teacher has a reader/English textbook.
- I share a reader/English textbook with two or more pupils.
- I use a reader/English textbook by myself.

21. Are you allowed to have books from the school library on an overnight loan?
(Please tick only one box.)

- There are no library books at school.
- No
- Yes

22. How many on the following items do you have for use with your classroom work this term?
(Please write "0" if you do not have any.)

22.1 Exercise books (for writing which is marked by the teacher)

22.2 Note books (for writing which is not marked by the teacher)

22.3 Pencils

22.4 Rules

22.5 Pencils

22.6 Pens or ball point pens

23. How many times have you repeated a grade since you started school?
(Please tick only one box.)

- I have never repeated.
- I have repeated once.
- I have repeated twice.
- I have repeated three or more times.

24. On what do you sit in your classroom?
(Please tick only one box.)

- I sit on the floor.
- I sit on a bench with other pupils.
- I sit at a desk/on a separate chair.

25. On what do you write in your classroom?
(Please tick only one box.)

- I have nowhere special to write.
- I write on the same bench or chair that I sit on.
- I write on a table/at a desk.

Appendix B



**South Africa Consortium for
Monitoring Educational Quality**

and

International Institute for Educational Planning

Grade 6 Reading Study

Teacher Questionnaire

1. In the first column of the table below, tick all of the Grade 6 classes which you take for English language (reading) this term. If your school does not use 6A, 6N, 6C, etc. as class names, please speak to the Data Collector before you complete this question.

For each of the classes you have ticked, please state:

- the number of pupils in the class;
- the number of English lessons they usually receive per week; and
- the length of a typical English lesson in minutes.

1.1 6A	<input type="checkbox"/>	<input type="text"/>	pupils	<input type="text"/>	lessons	<input type="text"/>	minutes
1.2 6B	<input type="checkbox"/>	<input type="text"/>	pupils	<input type="text"/>	lessons	<input type="text"/>	minutes
1.3 6C	<input type="checkbox"/>	<input type="text"/>	pupils	<input type="text"/>	lessons	<input type="text"/>	minutes
1.4 6D	<input type="checkbox"/>	<input type="text"/>	pupils	<input type="text"/>	lessons	<input type="text"/>	minutes
1.5 6E	<input type="checkbox"/>	<input type="text"/>	pupils	<input type="text"/>	lessons	<input type="text"/>	minutes
1.6 6F	<input type="checkbox"/>	<input type="text"/>	pupils	<input type="text"/>	lessons	<input type="text"/>	minutes
1.7 6G	<input type="checkbox"/>	<input type="text"/>	pupils	<input type="text"/>	lessons	<input type="text"/>	minutes
1.8 6H	<input type="checkbox"/>	<input type="text"/>	pupils	<input type="text"/>	lessons	<input type="text"/>	minutes
	<input type="checkbox"/>	<input type="text"/>		<input type="text"/>		<input type="text"/>	

1.9 6I pupils lessons minutes
1.10 6J pupils lessons minutes

SOME QUESTIONES ABOUT YOU

2. What is your sex?
(Please tick only one box)

- (1) Male
- (2) Female

3. What is your age?
(Please tick only one box.)

- (1) Under 20 years
- (2) 20 - 24 years
- (3) 25 - 29 years
- (4) 30 - 34 years
- (5) 35 - 39 years
- (6) 40 - 44 years
- (7) 45 - 49 years
- (8) 50 years and over

3a What is your home language? _____

4. How many years of academic education have you completed?
(Please indicate the number of years in each box. Please exclude the years you were repeating, if any.)

- 4.1 years of primary school
- 4.2 years of secondary school
- 4.3 years of post secondary academic education

5. How many years of teacher training have you received altogether?
(Please tick only one box.)
- I did not receive any teacher training.
- I have had a short course of less than one-year duration.
- I have had a total equivalent of one year of teacher training.
- I have had a total equivalent of two years of teacher training.
- I have had a total equivalent of three years of teacher training.
- I have had a total equivalent of more than three years of teacher training.

6. How many years altogether have you been teaching?
(Please round to '1' if it is less than 1 year.)

years

7. How many in-service courses have you attended during your teaching career?
(Please write '0' if you have attended no course.)

courses

SOME QUESTIONS ABOUT YOUR CLASSROOM

Note: If you teach in more than one classroom, please answer questions 8,9 and 10 for the largest class you teach.

8. How many books do you have in your classroom library?
(Do not count magazines or newspapers)
(Please write '0' if there is no classroom library.)

books

9. How many of the following do you have in your classroom or teaching area?
(Please write '0' if you do not have any.)

9.1 Sitting places for pupils (on chairs or benches)

9.2 Writing places for pupils (on desks or tables)

10. Which of the following list of teaching resources do you have in your classroom or teaching area?
(Please tick one box on each line.)

	No	Yes
10.1 A usable chalk board	<input type="checkbox"/>	<input type="checkbox"/>
10.2 Chalk	<input type="checkbox"/>	<input type="checkbox"/>
10.3 A wall chart of any kind	<input type="checkbox"/>	<input type="checkbox"/>
10.4 A map of your country	<input type="checkbox"/>	<input type="checkbox"/>
10.5 A map of Africa	<input type="checkbox"/>	<input type="checkbox"/>
10.6 A world map	<input type="checkbox"/>	<input type="checkbox"/>
10.7 A cupboards	<input type="checkbox"/>	<input type="checkbox"/>
10.8 One or more book shelves	<input type="checkbox"/>	<input type="checkbox"/>
10.9 A classroom library or book corner	<input type="checkbox"/>	<input type="checkbox"/>
10.10 A water tap	<input type="checkbox"/>	<input type="checkbox"/>
10.11 A teacher table	<input type="checkbox"/>	<input type="checkbox"/>
10.12 A teacher chair	<input type="checkbox"/>	<input type="checkbox"/>
10.13 An atlas	<input type="checkbox"/>	<input type="checkbox"/>
10.14 An English dictionary	<input type="checkbox"/>	<input type="checkbox"/>

SOME QUESTIONES ABOUT YOUR TEACHING

11. How many periods/lessons of actual teaching do you have in a typical school week at this school?

(Please write the numbers in the boxes below.)

periods/lessons each week

12. How many minutes are these periods/lessons **altogether** per week?
(Please write the numbers in the boxes below.)

minutes

13. How many hours do you spend in a typical school week working on lessons preparation and marking for this school?
(Please write the numbers in the boxes below.)

hours each week

14. How important do you consider the following pupil activities to be in the teaching of reading?
(Please tick one box on each line.)

	Not very important	Of some important	Very important
14.1 Listening to someone reading aloud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.2 Silent reading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.3 Learning new vocabulary from a text	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.4 Pronouncing or sounding words	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.5 Reading for comprehension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.6 Taking books home to read	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.7 Reading materials in the home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15. Of the seven activities listed in the above question, select the one that you consider to be the most important.
(Please write its number in the box below.)

16. Do you ask parents or guardians to sign that pupils have completed their home reading assignments?
(Please tick only one box.)

No

Yes

17. How important do you view each of the following goals of reading to be?
 (Please tick one box on each line.)

		Not very important	Of some important	Very important
17.1	Making reading enjoyable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.2	Extending students' vocabulary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.3	Improving word attack skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.4	Improving students' reading comprehension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.5	Developing a lasting interest in reading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. Of the five goals listed in the above question, select the one that you consider to be the most important.
 (Please write its number in the box below.)

19. How often do you use the following approaches when teaching reading?
 (Please tick one box on each line.)

		Never or rarely	sometimes	often
19.1	Introducing the background of a passage before reading it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.2	Asking questions to assess text comprehension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.3	Asking questions to deepen understanding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.4	Using materials you have created yourself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.5	Reading aloud to the class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. How often do you give our pupils written test in reading?
(Please tick only one box.)

- I do not test the pupils
- Once per year
- Once per term
- Two or three times per term
- Two or three times per month
- Once or more per week

21. How often do you usually meet with the parents of the pupils in your class to discuss pupil progress?
(Please tick only one box.)

- Never
- Once a year
- Once a term
- Once a month or more

SOME QUESTION ABOUT YOUR SCHOOL

Note: In this questionnaire, which is used in several countries, "Inspector" means the Officer visiting the classroom teacher for professional purposes. This person might be called Inspector, Education Officer, or Advisory Teacher, etc. in your country.

22. Does the school report each pupil include a specific section for comment on reading?
(Please tick only one box.)

- No
- Yes

23. On how many occasions did an Inspector (see note before Question 22) visit you in **your classroom** in this school?
(Please write '0' if there was no visit by the Inspector. If you were not teaching in this school for one or more of the years given, please write "NA" for not in the appropriate space.)

23.1 1995 occasions

23.2 1994 occasions

23.3 1993 occasions

24. How do you see the role of the Inspector (see note before Question 22)?
(Please tick one box on each line.)

The Inspector is someone who... No Yes

24.1 Comes to advise

24.2 Comes to criticize

24.3 Suggest new ideas

24.4 Clarifies educational objectives

24.5 Explains curriculum content

24.6 Recommends new teaching materials

24.7 Provides information for self-development

24.8 Contributes very little to my classroom teaching

24.9 Makes suggestions on improving teaching methods

24.10 Encourages professional contacts with teachers in

other schools

25. How often does your School Head advise you on your teaching of reading?
(Please tick only one box.)

Never or rarely

Sometimes

Often

SOME QUESTIONS ABOUT YOUR JOB AND LIVING ACCOMMODATION

26. There are many things that improve teachers' satisfaction with their work.
How important do you think each of the following is?
(Please tick one box on each line.)

		Not very important	Of some important	Very important
26.1	Your travel distance to school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.2	Availability of teacher housing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.3	Quality of teacher housing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.4	Quality of the school buildings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.5	Quality of classroom furniture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.6	Level of teacher salary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.7	Seeing my pupils learn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.8	Quality of classroom supplies (e.g., books, paper, pens, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.9	Quality of school management and administration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.10	Amicable working relationships with other staff members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.11	Good relationships with the local community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.12	Expanded opportunities for promotion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

26.13 Opportunities for professional development through further study and/or training.

27. Of the thirteen reasons listed in the above question, select the one that you consider to be the most important.
(Please write its number in the box below.)

--	--	--

28. Which of the following items do you have at home?
(Please tick one box on each line.)

	No	Yes
28.1 Daily newspaper	<input type="checkbox"/>	<input type="checkbox"/>
28.2 Weekly or monthly magazine	<input type="checkbox"/>	<input type="checkbox"/>
28.3 Radio	<input type="checkbox"/>	<input type="checkbox"/>
28.4 TV set	<input type="checkbox"/>	<input type="checkbox"/>
28.5 Video cassette recorder (VCR)	<input type="checkbox"/>	<input type="checkbox"/>
28.6 Cassette player	<input type="checkbox"/>	<input type="checkbox"/>
28.7 Telephone	<input type="checkbox"/>	<input type="checkbox"/>
28.8 Refrigerator	<input type="checkbox"/>	<input type="checkbox"/>
28.9 Car	<input type="checkbox"/>	<input type="checkbox"/>
28.10 Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>
28.11 Bicycle	<input type="checkbox"/>	<input type="checkbox"/>
28.12 Piped water	<input type="checkbox"/>	<input type="checkbox"/>
28.13 Electricity	<input type="checkbox"/>	<input type="checkbox"/>
28.14 Table to write on	<input type="checkbox"/>	<input type="checkbox"/>

29. Is your accommodation (place of living) provided by the school, community, responsible authority, or government?
(Please tick only one box.)

- No, I arrange the provision of my own accommodation
- School or community
- Local or responsible authority
- Government
- My accommodation is provided by an agency other than school, community, responsible authority, or government.

30. How far is your accommodation from your school?
(Please write "0" if you live on or next to the school premises)

kilometres

31. Which of the following reflects most accurately the condition of your living accommodation?
(Please tick only one box.)

- Generally in a poor state.
- Some parts require major repairs
- Some parts require minor repairs
- Generally in good condition

32. How many years have you been teaching English?
(Please tick only one box)

- Less than 8 months
- 1 - 2 years
- 3 - 5 years
- More than 5 years