LOOKING BEYOND EDUCATIONAL INDICATORS:

An Analysis of Differences in Learner Results of a Standardised English Language Comprehension Test Administered in Katima Mulilo and Rundu Educational Regions of Namibia

By Demus Kaumba Makuwa

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DEMUS KAUMBA MAKUWA

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Supervisor: Prof. Nelleke Bak

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KEYWORDS

Educational Indicators

Teaching/learning conditions

Learner achievement

Learner test scores

Learning environments

SACMEQ

Katima Mulilo

Rundu

Namibia

ABSTRACT

LOOKING BEYOND EDUCATIONAL INDICATORS: An Analysis Of Differences In Learner Results Of A Standardised English Language Comprehension Test Administered In Katima Mulilo And Rundu Educational Regions of Namibia.

DEMUS KAUMBA MAKUWA
D.Phil. thesis, Department of Philosophy of Education, University of the Western Cape.

This thesis attempts to develop an insight into why, contrary to expectation and predictions, learners in Rundu obtained better scores in a standardised English comprehension test than learners in Katima Mulilo, given that the conditions of teaching and learning were judged to be least favourable in Rundu.

The main trends in literature indicate that in developed countries, the socio-economic status (SES) of learners has a greater influence on learner achievement compared to school factors, while the opposite is the case in many developing countries. However, my research findings show that the use of SES measures that are more suitable to developing contexts confirms the prominence of SES, but of greater influence, are school factors such as the teacher's competence, commitment and motivation, as well as the leadership role of the school principal. Much of the literature assumes a causal relationship between ever-increasing numbers of more detailed indicators and learner achievement. The aim of my research was to examine why this assumed relationship led to unexpected results, and to identify indicators that are context sensitive to Namibia.

The statistical analysis of the findings of the 1995 SACMEQ I project in Namibia, formed the basis of my research into the relationship between educational indicators and learner achievement. The analysis showed that SES measures such as parental education and wealth, as well as school factors such as teacher qualifications and regular homework showed a negative statistical relationship with learner achievement in Katima Mulilo. I argue that there is no automatic, causal and static relationship between pedagogical factors and learner achievement. In response to the main research question, my fieldwork investigations showed that the poor performance in Katima Mulilo was influenced by school environmental factors such as teacher lack of knowledge, lack of enthusiasm and inappropriate use of teaching methods. These factors interacted dynamically with

community environmental factors such as tribal hostilities, political tensions and fear of witchcraft, with reciprocal influences to impact negatively on the operation of schools, teacher morale, and subsequently, learner achievement, whereas in Rundu, the internal micro dynamics in human interactions supported and incentivised teachers.

Existing theories focus mainly on indicators of material inputs to schools as static separate variables that have a causal relationship with learner achievement. The contribution that my research findings make to academic debates about educational indicators and learner achievement is that in developing contexts such as Namibia, pertinent indicators relating to human behaviour, attitudes and the interaction between variables are in ever dynamic reciprocally influencing processes that have a greater influence on learning outcomes than the narrow notion of classical indicators.

August 2003

DECLARATION

I declare that Looking Beyond Educational Indicators: An Analysis Of A Standardised English Language Comprehension Test Administered In Katima Mulilo And Rundu Educational Regions Of Namibia is my own work, that it has not been submitted before 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.

DEMUS KAUMBA MAKUWA AUGUST 2003

SIGNED:.....

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Table of Contents

List of Acronyms

BETD	-	Basic Education Teacher Diploma
ECP	-	Education Certificate for Primary Teaching
ELTDP	-	English Language Teacher Development Programme
EMIS	-	Educational Management Information System
GDP	-	Gross Domestic Product
HIID	-	Harvard Institute for International Development
HPS	-	High Performance School
IAE	-	International Academy of Education
IAEA	-	International Association for Evaluation of Education Achievement
IBE	-	International Bureau of Education
IEA	-	International Education Association
IIEP	-	International Institute for Educational Planning
INSET	-	In-Service Teacher Training
LPS	-	Low Performance School
PEP	-	Professional Enhancement Programme
MBEC	-	Ministry of Basic Education and Culture
MBESC	-	Ministry of Basic Education Sport and Culture
MEC	-	Ministry of Education and Culture
NAMPEP	-	Namibia Primary Education Programme
NEC	-	National Education Certificate
NIED	-	National Institute for Educational Development
NLA	-	National Learner Assessment
NPC	-	National Planning Commission
NUNW	-	National Union of Namibian Workers
NRC	-	National Research Co-ordinator
OECD	-	Organisation for Economic Co-operation and Development
OTL	-	Opportunity To Learn
SACMEQ	-	Southern Africa Consortium for Monitoring Educational Quality
SES	-	Social Economic Status
SWAPO	-	South West Africa People's Organisation
UNAM	-	University of Namibia
UNDP	-	United Nations Development Programme
UNESCO	-	United Nations Educational, Scientific and Cultural Organisation
USAID	-	United States Agency for International Development

Introduction

Background to the study

In 1995, a national survey of primary schools was conducted in all the seven educational regions of Namibia, to investigate the conditions of teaching and learning in primary schools. The seven educational regions were, Katima Mulilo, Rundu, Ondangwa East, Ondangwa West, Khorixas, Windhoek and Keetmanshoop. A set of educational indicators that were deemed to capture the pedagogical conditions that influence learner achievement were selected with the help of the International Institute for Educational Planning (IIEP) in collaboration with the other participating Southern African countries – Mauritius, Tanzania (Mainland), Zanzibar, Zambia and Zimbabwe. These indicators were used to help measure the existing conditions in learners' homes and schools to help assess to what extent these conditions had any influence on learner achievement in a standardised English language comprehension test.

The survey, conducted under the auspices of the first Southern Africa Consortium for Monitoring Educational Quality (SACMEQ), was based on the conception that generally there is a relationship between pedagogical conditions and learner achievement. These pedagogical conditions were measured by a number of educational indicators relating to the family background or social economic status (SES) of learners, conditions in their schools/classrooms, and characteristics of their teachers and school heads, which drawn from previous research documented in literature were judged to have influence on learner achievement. Learners were therefore asked questions about themselves, their homes and their schools. Teachers were asked questions about their personal details, their living conditions, their teaching and the school. School heads provided information about themselves, their schools, their teachers as well as school facilities and operations (Voigts,1998). A summary of the indicators used in the SACMEQ I project is presented in Tables 1.1, 1.2, and 1.3.

Table 1.1 SACMEQ I learner characteristics indicators

Learner personal characteristics	Learner school/classroom Related characteristics	Learner home background characteristics
• Age • Gender	• Extra lessons after school hours • Days absent from school • Use of English readers/ textbooks • Borrowing books from school library • Number of classroom materials • Frequency of grade repetition • Availability of sitting/writing places • English reading test	• Father's education • Mother's education • Place/Home where learner lives • Frequency of meals • Possessions in the home • Number of books in the home • Frequency of speaking English at home • Home assistance with homework • Someone at home looks at homework

Table 1.2 SACMEQ I teacher characteristics indicators

Personal characteristics	Classroom characteristics	Opinions and behaviour	Home characteristics
• Age • Gender • Home language • Academic qualifications • Professional teaching qualifications • Years of teaching experience • In-service training courses	• Number of learners in class • Number of books in class library • Sitting/writing places for learners • Classroom resources	• Opinion on different teaching activities • Opinion of goal for reading • Opinion on role of inspector • Lesson preparation • Teaching approaches • Frequency of testing learners • Frequency of meetings with parents • Frequency of visit by school inspector • Job satisfaction	• Possessions in the home • Condition of accommodation • Distance of home from school

Table 1.3 SACMEQ I school head/school characteristic indicators

Personal characteristics	School characteristics	Opinions and behaviour
• Age • Gender • Academic qualification • Professional teaching qualification • Number – teaching periods • Years of experience	• Location of school • Distance from basic services • Number of male/female teachers in the school • Teacher qualifications • Accommodation for teachers • Total school enrolment by sex • Start and end of school day • Last year of full school inspection • Types of discipline problems experienced by school • Number of school days lost in previous year • Number of permanent and temporary classrooms • Availability of toilets for boys and girls • Total school resources • Number of books in school library • Are learners allowed to borrow books from the school library	• Important activities for work of school head • School activities that support learning **Home characteristics** • Condition of accommodation

SACMEQ I was the first national educational policy research in the country. The indicators presented in Tables 1.1, 1.2 and 1.3, were used to provide a baseline for the analysis of the pedagogical conditions or conditions of schooling in primary schools in Namibia, in order to inform policy development. For the purposes of this research, the term "pedagogical conditions" is used interchangeably with the term "teaching/learning conditions," to refer to the overall conditions existing in a given community, in the homes, schools and classrooms of learners in general, and the conditions which formed the basis for the SACMEQ I analysis in particular. However, in the analysis of the SACMEQ I results, more emphasis was placed on the indicators of the conditions that were judged to be within the Ministry of Education's sphere of influence through policy interventions. Consequently, in the statistical analysis of the results, some of the specific indicators were truncated in order to address the broader policy questions (reported in chapter 3), which they were meant to answer. For example; the variable "total school resources" was created by truncating 18 specific school variables, namely, school library, school hall, teacher staff room, store room,

office for school head, play ground, piped water, electricity, telephone, type writer, duplicator, radio, tape recorder, overhead projector, TV Set, photo copier, computer and first aid kit. Secondly some indicators may not have been reported on because they did not yield any statistical significance for pedagogical and policy implications for the Ministry of Education in Namibia even if they provided valuable baseline information. Therefore, the analysis of SACMEQ I that is made in this thesis focuses only on 53 key indicators discussed in chapter 4 that were considered cardinal to the project in terms of their assumed influence on learner achievement and/or policy development. These indicators were selected because it has been argued by different theorists, that these particular indicators have a more direct (or stronger) influence than other indicators on the interaction between the learner, the teacher and the teaching/learning process, which consequently, has an influence on learner achievement.

The results of the SACMEQ I project in Namibia showed that generally, learners in schools in regions where the conditions were judged to be more favourable, achieved higher scores than learners in regions where conditions were judged to be less favourable. This prediction was in keeping with the dominant theories about learner achievement. However, the research could not explain why learners in Rundu educational region obtained higher scores in the standardised English language test than learners in Katima Mulilo region, given that the pedagogical conditions in Rundu were judged to be less favourable. This study attempts to explore this supposed disjuncture between pedagogical conditions and learner achievement as well as other related issues arising from the first SACMEQ I project in Namibia. It aims at providing not only a more nuanced understanding of the relationship between pedagogical conditions and learner achievement, but also at filling the apparent gap in the knowledge of other possible reasons influencing learner achievement in the northern Namibian context. In doing so, this study makes a new contribution to the general academic field and to the body of knowledge of working with educational indicators in relation to learner achievement under different socio-historical contexts.

Aim of the Research

The main aim of this study is to identify possible factors and other unaccounted for variables, influencing the differences in achievement among learners in Katima Mulilo and Rundu educational regions in Namibia, given that the conditions of teaching and learning were judged to be least favourable in Rundu. In so doing, I hope to:

- Investigate the disjuncture between general predictions based on existing theories of effective conditions for learner achievement and actual learner achievement.
- Through an analysis of existing theories listing factors influencing learner achievement, investigate whether there are significant omissions that contribute to learner achievement, and explore how these theories shape our thinking about learner achievement.
- Analyse the SACMEQ I data. Despite the test being administered in 1995, no full analysis of the findings has been made. This analysis will focus specifically on the findings in Katima Mulilo and Rundu educational regions.
- Provide a more environment-bound astute understanding of the relationship between conditions of teaching/learning and learner achievement, by analysing the assumed relationship between pedagogical conditions and learner achievement, by identifying the underlying assumptions of this relationship, and by showing that there is no automatic causal relationship between pedagogical conditions and learner achievement.

Policy Implications

This thesis attempts to tackle an intellectual puzzle, which has been brought to the educational debate in Namibia. The puzzle is why Katima Mulilo educational region, with more favourable educational resources and some other commonly used indicators than its neighbouring region, Rundu, consistently has lower achievement than Rundu, according to results drawn from the National Learner Assessment (NLA, 1992) and SACMEQ I, 1995. What factors, if not resources or

other educational inputs could possibly improve learner achievement in Katima Mulilo? Can these factors inform policies? What is the nature of the relationship between pedagogical conditions and learner achievement, given that actual findings contradict theoretical predictions?

This research therefore, further attempts to provide new knowledge on the possible reasons influencing learner achievement in Katima Mulilo and Rundu in particular. It provides a basis for informed policy dialogue and considerations, aimed at improving the conditions of primary education in the two regions and the other previously disadvantaged regions of northern Namibia in general. In doing so, the thesis further attempts to pursue the epistemological thread underpinning the ongoing debate in Namibia, about the relationship between the broad pedagogical conditions and learner achievement, especially in the previously disadvantaged regions in northern Namibia.

Main Research Question

The main question this thesis addresses is:

What explains the poor performance of Katima Mulilo in English compared to Rundu, given that current theories appear to fail to adequately explain it?

Rationale for the Study

Before independence in 1990, there were eleven ethnic educational authorities, which administered education in Namibia based on apartheid policies. Apartheid policies led to wide disparities in the allocation of educational resources among the various ethnic authorities. According to Nahas Angula, Minister of Education and Culture 1990-95, "...educational resources were historically unevenly and unequally distributed among communities and schools. This state of affairs resulted in differential achievement rates across communities, schools and learners." (Angula, 1994:xiv). The unified Ministry of Education and Culture (MEC), which was created after independence was entrusted with the task of redressing the disparities of the past and laying the foundation for the new challenges for the development of education in Namibia. However by 1996, John

Mutorwa, the second Minister of Basic Education and Culture after independence lamented that "even if the education sector is already consuming close to 30% of the government's annual recurrent expenditure, this is not enough to meet all the requirements, especially in the rural areas where the backlog is enormous" (Mutorwa, 1996:3)

Further, "the Constitution of the Republic of Namibia makes education the right of every Namibian and charges the government to provide reasonable facilities to render that right to education effective initially at primary education level." (MEC, 1993*a*: 54-5). This is one reason why government expenditure on education has been increasing since independence in 1990. However, a number of Namibian politicians, some parents, and students' organisations, have argued at different times through the media that the conditions of teaching and learning in the previously disadvantaged regions of northern Namibia have not changed much since independence. In his letter published in the Namibian Newspaper, Sikongo, (2000:15) argues that education was lacking in the Kavango region, which makes up the Rundu educational region. In a report published in the same Newspaper, a Staff Reporter (2001:5) reported that the National Union of Namibian Workers (NUNW) had warned that the problem of lack of classrooms/school places for learners and other school facilities in the northern regions of Namibia was a "time bomb" that is likely to explode in the future. In reference to the same problem, Shivute (2001:3) observed that the northern regions were feeling the pinch of trying to accommodate the large number of learners into Grade 1 and Grade 11. Different people have complained about the continuing disparities in the provision of school resources between educational regions and between schools in the same regions as hindrances to the provision of quality education. The Presidential Commission Report on Education, Culture and Training summed up the sentiments expressed differently by different people as follows:

> Namibia has greater disparities in wealth than any other country in the world. At one end of the scale are prosperous people living in fine houses and with all the comforts of modern society. At the other end are people living in abject poverty; they are hungry and diseased, and lack adequate shelter, food and amenities. The children of the first group attend schools which are the equivalent of schools in the capital cities of the most advanced countries, while the children of the latter group attend schools

> which are totally inadequate for their needs, without toilets, adequate classroom facilities, electricity, telephone communication, text books and writing materials. In addition many of their teachers are under qualified. (The Presidential Commission Report on Education, Culture and Training, 1999:11)

The Ministry of Basic Education and Culture (MBEC) argues that redressing the poor conditions of teaching and learning such as "lack of qualified teachers, shortage of classrooms, over crowed classes, insufficient furniture and textbooks," which are prevalent in the four northern education regions of Katima Mulilo, Rundu and the two Ondangwas, will improve the teaching/learning process, and enhance the academic performance of learners (MBEC, 1995*a*:51-76, 1996*a*:46-71, 1997*a*:48-78). In order to take this charge seriously, it will be necessary to understand why learners in Rundu, where conditions were judged to be least favourable according to the SACMEQ 1 project, performed better than learners in Katima Mulilo, where conditions were judged to be more favourable.

The government nevertheless, acknowledges that improving the conditions of teaching and learning in the northern regions is imperative. The Minister of Basic Education and Culture, Hon. John Mutorwa, in his "Overview" to his Ministry's annual report concurred with Hugh Africa that 'apartheid cost us a lot, and undoing the effects of apartheid will also be costly,' adding that " ...the high cost is therefore a necessary evil" (Mutorwa, 1995: 7). However, doing so will require more financial, material and human resources, which would inevitably further drain the education budget. Some education officials on the other hand, concur with the Minister of Education when he argues that "it is ...possible to achieve a more equitable distribution of educational resources ...within the confines of the present material, financial and human resources" (Mutorwa, 1997: 3).

Whatever the case might be, an understanding of the possible reasons influencing learner achievement in Rundu and Katima Mulilo regions of Namibia is important and necessary. Apart from the Grade 7 National Learner Assessment (NLA, 1995) and the Grade 6 SACMEQ 1 study of 1995, I am not aware of any other previous research that has dealt with this particular problem in the Namibian context in

general, and Katima Mulilo and Rundu educational regions in particular. I therefore, hope that this thesis will lay the theoretical groundwork for a model of assessing pedagogical conditions in Namibia. The insights I aim to develop in this thesis will, I hope, also inform future policies and programmes aimed at improving pedagogical conditions in Namibia in particular, and contribute to academic debates about pedagogical conditions and learner achievement in general.

Framework of the Research

The conceptual framework of this thesis was partially informed by Keeves (1988), Landsheere (1988), Husen (1988) and others, through their work on some aspects of the "history of educational research" and "research paradigms in education". Many of the studies that have investigated the relationship between pedagogical conditions and learner achievement have mostly been surveys, applying the "empirical" methods to provide "causal" linkages between teaching/learning conditions and learner achievement. Of all the different studies that have been conducted in this field, this thesis particularly takes into account the analyses from twenty eight developed countries by Walberg (1998), the report on "Teaching/learning conditions in developing countries", by Caillods and Postlethwaite (1989), the analyses of research conducted by other researchers in more than thirty developing countries from Latin America, Africa and Asia, and Carron and Chau's book (1996), on "The quality of primary schools in different developing contexts". The analysis also takes into account the work done by Lockheed and others (1989), Fuller and others (1998), Maja (1997), as well as Hua (1999). These and other authors who will be mentioned in the next chapter have argued in various ways, that there are many factors or variables which operate together to have an influence on learning and achievement. These factors, observable and measurable variables or educational indicators, represent what are considered to be conducive conditions for enhanced learner achievement.

This study argues that:

- there is more to learner achievement than what these indicators are able to show;
- there is no automatic relationship between the existence of these indicators and learner achievement;
- this relationship is dynamic, fluid, complex and influenced by subtle environmentally bound contexts.

Descriptive outline of each chapter

Chapter 1

This chapter deals with a critical review of selected literature on the relationship between educational indicators for the conditions of teaching and learning, the learning process and learner achievement. It identifies some of the different indicators that have been used in developed countries only, those that have been adapted for use in both developed and developing countries and those that are seen to be more appropriate to developing contexts. It further identifies the common ones or the generally agreed indicators for teaching and learning conditions and begins to analyse the disjuncture between the general predictions based on the theories of effective conditions for learner achievement and actual achievement under different contexts. (A further analysis of the disjuncture between predictions based on existing theories and actual learner achievement is developed in chapters 4 and 5, with a focus on the relationship between the existing conditions in the two educational regions in Namibia, and the actual learner achievement). Chapter 1 further analyses the assumed relationship between different pedagogical conditions and learner achievement by identifying the underlying assumptions of this relationship and by showing that there is no automatic causal relationship between the two. The chapter provides a full framework of the various categories of educational indicators.

Chapter 2

In this chapter an attempt is made to identify some of the main elements of the broader context of education that are pertinent to Namibia, starting with the evolution of the political, economic, social and cultural climate. A brief historical contextualisation of the development of education in Namibia, which takes into account the above-mentioned wider conditions, is also discussed in this chapter. Reference is made to some of the key policies pertaining to education after independence, and to some of the (current) key issues in education in Namibia. The chapter concludes with a discussion of some specific dynamics and conditions of teaching and learning that may be pertinent to the Namibian context in comparison and contrast to some of the conditions discussed in chapter 1.

Chapter 3

The third chapter provides a brief exposition of the origins of, and the rationale for Namibia's involvement in the SACMEQ 1 project. The research design, survey instruments and the conditions of teaching and learning, which SACMEQ highlights, are examined within the conceptual framework developed in chapter 1 and the broader historical context discussed in chapter 2. The results (average learner scores), of the Grade 6 English comprehension test for all the education regions in Namibia are given. A short summary of a few learner and teacher factors prevailing in Katima Mulilo and Rundu at the time of the SACMEQ I project are presented, to illustrate the point that there were differences in the conditions existing in the two regions, which were in favour of Katima Mulilo. Therefore in keeping with theory, learners in Katima Mulilo should predictably, have performed better than learners in Rundu.

Chapter 4

The existing learner achievement measures in Katima Mulilo and Rundu, the sixth Grade English comprehension test scores and the existing conditions under which the learner achievement scores were attained are presented in this chapter, through the analysis of the existing SACMEQ 1 data. The distributions of the learner test

scores in each region and in each individual school in each region are presented through the SPSS generated "box plots" to support the argument that there were marked differences in learner achievement. Comparisons of learner achievement within and between the two regions are made. Further analysis of the individual factors (existing conditions) relationship with learner achievement in the two regions is made, which reveals the disjuncture in the form, content and extent of the assumed relationship between the conditions investigated under the SACMEQ I project and the actual learner achievement. I provide evidence of some of the "paradoxes" that emerge from the analysis of the pedagogical conditions investigated under SACMEQ 1, and their relationship to learner achievement in the context of Katima Mulilo and Rundu regions in Namibia. The chapter concludes with a summary of the main paradoxes that emerge in the analysis.

Chapter 5

The rationale for the qualitative field work at two schools from each region, the criteria for selecting the schools, methods of data collection, the presentation and discussion of the new data are all presented in this chapter. A comparative analysis of the main characteristics of the high performance and low performance schools in each region is made. An attempt is made to argue for a broader and multifaceted conceptualisation and understanding of the complex nature of the relationship between pedagogical conditions and learner achievement, and that all the possible factors influencing leaner achievement cannot be completely quantifiable. I further argue that a conception of teaching/learning conditions in Namibia, should take cognisance of the political, economic, social, historical and cultural aspects of each educational/political region as school inputs alone may not fully explain differences in learner achievement. The discussion considers the implications of the findings for planning, financing, resource allocation and policy. The chapter concludes with a more contextualised model for Namibia or other developing countries that entails a varied approach to the investigation of social phenomena, taking into account ever changing interaction between human activities and the broad environment.

Research Design

I conducted a literature review in which I identified key readings on educational indicators and engaged with the authors on the strengths and shortcomings of what are seen as the leading educational indicators by leading theorists in the field. I made use of conceptual analysis and a historical narrative approach, drawing on existing literature, in attempting to deal with my research question, while arguing for a deeper understanding of the relationship between conditions for learning and actual learner achievement.

I analysed the interpretations given by theorists to educational indicators, investigated the underlying assumptions these theorists reflect of the conceptual relationship between pedagogical indicators and learner achievement and discussed these in terms of the historical context in which they are developed and applied. I reviewed several Namibian educational and other documents to provide a socio-historical contextualisation of the dynamics of education in Namibia.

The second set of analysis involved the statistical investigation of SACMEQ 1 data using SPSS to answer the questions raised under chapter 4 by:

- Analysing the distribution of learner English comprehension test scores;
- Identifying the SACMEQ I key indicators of the conditions of teaching and learning under which these scores were obtained;
- Analysing the relationship of these key indicators with the English test;
- Identifying differences in what the indicators predict in Katima Mulilo and what they predict in Rundu.

A third methodological approach included qualitative fieldwork in four schools: two in each region. I made observations, looked at learners' exercise books/textbooks, school-based English language test papers, and conducted structured interviews with Grade 6 learners, parents, teachers, school heads and relevant regional office officials. The schools visited in each region were stratified according to the highest, and lowest achieving schools from each

original sample of twenty schools for Katima Mulilo and eighteen schools for Rundu respectively, based on the 1995 SACMEQ project. The aim was to collect information to be able to make comparisons within and between the two regions and to search within and beyond the education indicators investigated under SACMEQ I in an attempt to find answers to the main research question. This was done by critically examining the existing pedagogical conditions in Katima Mulilo and Rundu at the time of the SACMEQ I survey and their possible influence on learner achievement.

Learner achievement as a dependent variable could be influenced by several independent variables, which themselves could be dependent variables of a multiplicity of other variables. Some of these variables are only discernible through observations, discussions and understanding of the socio-economic, cultural and historical development of a given society and the behaviours of its people. The generally low learner scores in Katima Mulilo and the apparent "narrow spread" of these scores indicates that there could be a problem with either all the learners in the region or a problem with the way in which they were taught. The field work investigation provided some standard indications that some of the teachers in Katima Mulilo had poor accommodation, were less enthusiastic about their teaching, they misapplied teaching methodologies such as learner centred education, and did not have enough textbooks for learners. However, these factors coupled with poverty, the prevalence of orphaned learners, the problem of ethnicity and a volatile socio-political environment may have an influence on learner achievement. These are some of the factors that the current theories and SACMEQ I did not take into account in the analysis of the Namibian context in general and Katima Mulilo and Rundu in particular.

CHAPTER 1

Literature Review of the Relationship between Educational Indicators and Learner Achievement

1.1 Development of Educational Research

The emergence of the use of different types of educational indicators to quantify conditions of teaching and learning, in order to explain how and why they influence learning achievement, is closely associated with the historical development of the use of the empirical approach in educational research. This approach, emphasises the "...use of empirical, quantifiable observations, in order to provide causal explanations of educational phenomena" (Keeves, 1988: xvi). Keeves argues that it is mainly this "way of seeing" things which has shaped many educational researchers' "way of understanding" the relationship between conditions of teaching/learning and learner achievement in school subjects. Researchers operating from the base of "empirical educational research" have identified a list of different educational indicators or independent variables (used as proxies), to quantify or provide an indication of the existing conditions under which teaching and learning take place. They have endeavoured in different ways (as will be discussed later on in this chapter), to show how the conditions influence the dependent variable, i.e. learner achievement.

However developments in the social sciences have led to the rise of other different approaches to the investigation and understanding of social phenomena including education. This has led to the understanding that the results obtained from investigations in education, are to a large extent influenced by the type of approach or perspective of the investigator whether he/she is aware of it or not. It is these different perspectives and perceptions that Keeves refers to as different ways of seeing and different ways of understanding. In order to understand the contexts under which the different approaches to educational research have been applied, it is necessary to briefly make reference to the historical development of educational research.

According to Landsheere (1988: 9), "educational research as a disciplined inquiry with an empirical basis was first known as 'experimental pedagogy'," which was similar in certain aspects, to 'experimental psychology.' Educational research in the form of "experimental" research had reached an advanced stage in Germany '(Wundt in Leipzig)', towards the end of the 19th century. This type of research also known as "empirical educational research" was mainly concerned with different aspects of the study of the child such as the mind of the child, language and behaviour. "...Empirical educational research focused on rational management of instruction, challenging the concept of transfer of training, psychology of school subjects, development of new curricula, psychological testing, administrative surveys (school attendance, failure rates etc), and normative achievement surveys" (Landsheere, 1988:9).

Landsheere (1988:9) further notes that, by the beginning of the 20th century scholars such as "...Lay and Meumann in Germany, Binet and Simon in France, Rise, Thorndike and Judd in the United States, Claparede in Switzerland, Mercante in Argentina, Schuyten in Belgium, Winch in England, and Sikorsky and Netschajeff in Russia..." had embraced experimental educational research. This implies that empirical education research was the dominant approach in educational research for many years, from the last quarter of the 19th century up to the middle of the 20th century. However Landsheere also argues that a "...new education or progressive movement, where philosophy took precedence over science and life experience over experimentation...," began to emerge during the second half of the 20th century. In some ways the new approach was a "...combination of empirical research and social and political philosophy..." emerging in the "...free enterprise, liberal spirit..." of the mid 20th century (Landsheere, 1988:9). During the 1960s and 1970s educational research was further influenced by new knowledge and technical developments on the international scene. For example, following the technological advances made by the former Soviet Union, the United States government began spending a lot of

money on educational research to either catch up with their opponents, advance or to surpass them. The use of computers starting from this time,

> ...added a new dimension to educational research leading to the introduction of sophisticated experimental design since data processing and data analysis were no longer limited by calculation time as in the pre-computer era. From this, new ways of thinking about educational issues developed, which were concerned with assessing probabilities, the interaction of the influences of many factors on educational outcomes, and the introduction of mathematical and causal modelling to predict and explain educational phenomena (Landsheere, 1988:9).

The new ways of thinking about educational issues gave impetus to the development of different approaches and ways of investigating educational phenomena such as the relationship between conditions of schooling and learner achievement. As Landsheere observed, these developments were taking place amid an " ... epistemological debate in the social sciences, perhaps a reaction to the strident empiricism which had developed, ...that the rigid scientific ideal embodied in the neo-positivist approach, cannot take into account the multifaceted aspects of human behaviour and all its environment-bound subtle nuances" (Landsheere, 1988:10). This type of debate continued into the 1980s and helped clarify considerably "...the respective strengths and weaknesses of the qualitative and the quantitative approaches..." leading to the conclusion that "...no one research paradigm can answer all the questions which arise in educational research" (Landsheere,1988:15). This has lead to improvements in educational practice in that there has been better understanding of situations where "...subtle classroom management including careful definition and negotiation of objectives, consideration of students' and teachers' characteristics, of cognitive and affective styles and of economic and social needs..." play a significant role (Landsheere, 1988:16).

On the other hand, caution is necessary, lest the pendulum swings from one extreme to the other, and by doing so researchers be guilty of "throwing away the baby together with the bath water." Husen argues that:

> Those who turn to social science research in order to find the 'best' pedagogy or the most 'efficient' methods of teaching are in a way victims of the traditional science which claimed to be able to arrive at generalisation applicable to practically every context. ...Through critical philosophy, researchers have become increasingly aware that education does not take place in a social vacuum. Educational researchers have

> also begun to realise that educational practices are not independent of the cultural and social context in which they operate. Nor are they neutral to educational policies. Therefore, dogmatic evangelism for particular philosophies and ideologies espoused as 'scientific' and not accessible to criticism is detrimental to the spirit of inquiry. The two main paradigms are not exclusive, but complementary to each other (Husen, 1988:19-20).

So, on the basis of the experiences gained during the historical development of educational research mainly in the developed countries in Europe and the United States, several educational research paradigms emerged some of which were critical of the empirical approach. I am not aware of similar developments taking place in most developing countries especially in large parts of Africa from the 19th to the first half of the 20th century. This could be partly due to the fact that this was the period of the process of conquests and colonisation of large parts of the African continent. It is for this reason that caution ought to be exercised so that the approaches applied to educational research in Africa could take into account the realities of the historical developments of the social and cultural contexts of different parts of Africa. The approach to the analysis made in this thesis takes into account Husen's counsel by applying a combination of both the statistical and qualitative approaches as complementary to each other.

1.2 Educational Indicators of Teaching/Learning Conditions

There is an enormous quantity and wide ranging quality of literature on the assumed relationship between pedagogical conditions and learner achievement measured by test scores. Although references will be made to general educational literature, this research attempts to examine closely, the work of seven key theorists, who have either conducted surveys and/or reviewed research, which has been conducted in developed and in developing countries. The focus is on selected pertinent examples from developed countries such as the USA, Canada, Western Europe, Japan, Australia and New Zealand as well as developing countries in Asia, Latin America and Africa. I hope that this will provide a framework for the analysis of the Namibian situation in relation to Katima Mulilo and Rundu educational regions in particular. The analysis made in this chapter

starts with Herbert Walberg and Guoxiong Zhang's analysis of the international indicators' model of the Paris based Organisation for Economic Co-operation and Development (OECD). The analysis of the OECD educational indicators model is important because the twenty eight member states of the OECD represent the largest education indicators model from developed or industrialised countries. The analysis of the OECD model is followed by an analysis of the research by Carron and Chau that was conducted under the auspices of UNESCO in four different developing contexts in Latin America, Africa, Asia and the Far East. This is followed by Caillods and Postlethwaite's "meta analyses – analyses of analyses" of different research projects with examples from more than thirty developing countries in Africa, Asia and Latin America. Most of these studies were conducted by different researchers working for or in collaboration with UNESCO, the World Bank or the International Education Association (IEA), and Ministries of Education in the various countries.

Of particular interest is the analysis of the influence of specific indicators, using two examples. The first example is based on the analysis of the influence of the family background on learner achievement in Malawi, by Lockheed, Fuller and Nyirongo. The second example is based on the analysis made by Fuller and Heyneman in India. This is followed by Botshabelo Maja's analysis of the "enabling conditions for successful learning environments" in the South African context. Maja's analysis of the South African situation is particularly important because of the similitude between the South African and Namibian contexts. This chapter concludes with the analysis of Haiyan Hua's model of "learning environments." Hua's model sets the conceptual model for the analysis of the SACMEQ I project in Namibia, as well as the analysis of the pedagogical conditions and learner achievement dichotomy in general, that is made in the chapters that follow. The common thread in the above mentioned analyses and other analyses (as I will show later on in this chapter), is that there is an inseparable relationship between the indicators of teaching/learning conditions, and learner achievement. However, the nature of this relationship is quite

complex and may be influenced by yet other, more complex historical and contextual variables, such as the ones discussed in chapter 5 of the thesis.

1.3 Educational Indicators of the Organisation for Economic Co-operation and Development (OECD)

With the coming into being of globalisation, policy makers in a number of developed countries began to realise the importance of close co-operation not only in the economic sense, but in educational development as well. In the educational sector, this co-operation may be seen in the formation of international organisations such as the OECD. The OECD has been working towards the promotion of educational progress among developed countries, such as the USA, Canada, Australia, Japan, New Zealand and twenty three other industrialised countries in Europe since 1987. Over the years, policy makers, senior government officials and leading scholars from the OECD countries have developed a set of educational indicators, which have been used to determine national policies and to measure educational progress.

Writing in the Comparative Education journal Herbert J Walberg, University of Illinois and vice president of the Brussels based International Academy of Education (IAE), and Guoxiong Zhang, give an analysis of the educational indicators of the OECD. According to Walberg and Zhang (1998), the OECD has over the past years developed an elaborate set of indicators by which to judge different aspects of education systems. However, the elaboration of this set of indicators seems to be a never ending process as scholars from the OECD countries continue to "... propose indicators, assess their features, carry out pilot studies and..." recommend more indicators for what they consider to be an "evolving" indicators model (Walberg and Zhang, 1998:55).

Walberg and Zhang report that the current OECD indicators model has been influenced by other previous models of educational indicators that were developed by scholars and policy makers in developed countries before the 1980s. While the

early indicator models focused on the cost of education and student enrolment figures, which could easily be obtained from "national statistical agencies," the later models included other variables such as educational attainment and youth employment opportunities in addition to educational organisation, decision making process and policies. Because the OECD indicator model falls within the later category, it is regarded as an advancement in the scope of indicators and understanding of the broad categories into which they can be classified. Walberg and Zhang report that the current OECD model may be classified under three main blocks of indicators namely, "(1) the contexts of education indicators, (2) the costs, school processes and resources indicators, and (3) the results of education indicators" (1998:57-60). The authors classify the indicators under these three broad categories according to what they consider to be linear or "causal relations across the three blocks of indicators". They argue that the contexts of education such as the population or social characteristics, economic factors and public opinion and expectations have an influence on costs, provision and distribution of educational resources, enrolment rates and school processes. These factors in turn have an influence on learner achievement, participation rates and the broad outcomes or results of the education system such as youth employment and earnings. In order to highlight the relationship between the three blocks of indicators, Walberg and Zhang further claim that all the "635 indicators" of the OECD model can be grouped into "13 categories and 51 subcategories" (Walberg and Zhang, 1998:57). Even if Walberg and Zhang do not specifically numerate the 13 categories of indicators, the following main categories may be identified from the long list, which they provide:

Context indicators	
1.	Demographic context
2	Women opportunities
3	Social economic contexts
4	Economic vitalities
5	Opinions and expectations
6	Curricular opinions
7	Home responsibilities
Cost/process indicators	
8	Expenditure on education
9	Participation in education
10	Instructional time
11	Human resources
Results indicators	
12	Student outcomes
13	Labour market outcomes

Of the 13 categories of education indicators listed above, the first 7 are context of education indicators, followed by 4 costs and process indicators and the last 2 are results of education indicators. In the analysis of the OECD educational indicators, Walberg and Zhang classify the 13 categories of indicators and some of the subcategories of indicators falling under them into these three main blocks. The "context of education" indicators are presented in Table 1.4; the "cost, resources and process of education" indicators are presented in Table 1.5 and the "results of education" indicators are presented in Table 1.6. The classification of the OECD indicators into the three blocks presented in the three Tables is in conformity with Walberg and Zhang's assumed flow of influence from the context indicators to the cost/process indicators and the results of education indicators (Walberg and Zhang, 1998:57).

Table 1.4 Some OECD context of education indicators

1. Demographic Context

Population educational levels

- At least upper secondary, age 25- 34 years
- At least upper secondary, age 35-44 years
- At least upper secondary, age 45-54 years
- At least upper secondary, age 55-64 years
- Upper secondary, age 25-64 years
- University, age 25- 64 years
- Age 5-29 years in total population

2. Women's general opportunities

- Women with upper secondary education
- Gender difference in education, age 55-64 years
- Women with early childhood, primary and lower secondary
- Gender difference in education, age 25-34 years
- Women with university education
- Women with non-university education

3. Social and economic context

- Unemployment
- Unemployed youth, age15-24years
- Unemployed rate men plus women, age 15-64 years

4. Economic vitalities

- Labour force, total men plus women
- GDP per capita
- Youth labour force, age 15-24 years
- GDP per capita annual change

5. Opinions and expectations

- Teaching opinions
- Budget % important
- How subjects taught important
- Teacher selection important
- Teaching time important
- Teacher salaries important
- Good citizen said important
- What subjects taught important
- Leadership important
- Not very respected

6. Curricular opinions

- International understanding
- Education for citizenship said important
- Arts thought important
- Social subjects said important
- Desire to study said important
- Study skills said important
- Very respected
- Technology studies said important
- Healthy life style said important
- Discipline said important
- Physical education thought important
- Job skills said important
- Homework said important
- Mathematics said important
- Wide range of subjects important
- Parent involvement said important
- Information technology said important
- Sciences said important
- Foreign language said important
- Native language said important
- Self-concept said important
- Help with learning said important
- Career guidance said important

7. Home responsibility

- Not at all respected
- Home as responsible as school
- Home more responsible than school

Confidence

- Confidence in important subjects
- Confidence in important qualities
- Living among people said important
- Fairly respected

The seven main categories of context indicators and 56 sub-indicators falling under them have been presented in Table 1.4. The four costs of education and two results of education indicators are presented in Tables 1.5 and 1.6, respectively.

Table 1.5 OECD cost/resource/school process indicators

8. Expenditure on education • Expenditure per student • Expenditure per student public secondary • Expenditure percentages • Compensation for teachers as % total all levels • Public primary all level expenditure as % of GDP • Ratio of expenditure to enrolment public department early childhood • Sources of educational funds • Central funding • Funds central initial all levels • Regional funding • Public funds initial all levels • Teacher salary • Starting salary primary • Salary raises	**10. Instructional time** • Percentage of teaching time • Percentage of teaching time mathematics lower secondary • Percentage of teaching time sciences lower secondary • Percentage of teaching time religion lower secondary **11. Human resources** • Percentage of female teachers primary • Yearly teaching hours upper secondary general • Years of education for teaching • Years of education required lower secondary public • Percentage of primary teachers age < 30 • Percentage of teachers lower secondary, age 40-49 years • Students as percentage of labour force
9. Participation in education • Net enrolments • Net enrolment rate, age 5 years pre-primary • Net enrolment rate full-time, age 17 years • Net enrolment rate full-time, age 20 years • Net enrolment men plus women total, ages 18-21 • Net enrolment men plus women total, ages 26-29	

Table 1.6 OECD results of education indicators

12. Student outcomes • Difference in mean reading, age 9-14 years System outcomes • % engineering and architecture degrees men plus women • Science graduates per 100,000, age 25-34 • % law and business degrees men + women • % natural and physical science degrees men plus women Earning non-university • Ratio of earning non-university women • Ratio of earnings non-university men • Ratio of earnings by level	**13. Labour market outcomes** • Years of education by occupation • Years education manufacture of chemicals • Years of education computing professionals • Percentages by occupation • % manufacturing of office, age 35-54 • Percentage of managers, age 35-54% • Physical engineering professionals, age 35-54 • Unemployment rates/years of education • Unemployment rate total, age 25-64

What is the rationale behind the indicators presented in the three tables? The educational indicators presented in the three tables refer to a broader conception of education as opposed to school education only. A broader conception of education encompasses both formal and non-formal education. It also encompasses all levels or phases of education such as pre-primary education, primary education, secondary education, adult education, vocational/skills training, and different types of professional/tertiary education (in different disciplines) up to the university level. The OECD educational indicators do not only spread across several phases of education, but also include outcomes of the educational system such as earnings, unemployment rates and percentages of university graduates in key professions as well, among other things. This may be so owing to the multidisciplinary and broad nature of the OECD scope of work, which among others includes economic co-operation and socio-economic development issues. It may therefore be fitting for the OECD to have a system of educational indicators, which tries to capture as many of the aspects of the organisation's work as possible. However, this is different from other models of educational indicators that have been used by other international organisations such as the IAE, UNESCO, SACMEQ and individual Ministries of Education in different parts of the world. Much of the work with educational indicators, which the latter have been involved in, tend to focus on school education or basic education only.

The indicators presented in Tables 1.4, 1.5 and 1.6 do not constitute the whole set of indicators that have been developed by OECD countries. The indicators summarised and presented in the Tables are based on Walberg and Zhang's analysis and the need to highlight some of the main indicators of this complex system of 635 indicators. Equally, the analysis made in this thesis focuses on some of the main sub-categories of indicators only because, as the authors observed, "... a large number of indicators is likely to provide a more comprehensive account of country standings, but indicators are expensive to collect and a smaller set makes it more likely that countries will provide complete

information. A smaller, well-prioritised set of indicators, moreover, may also focus attention on the most important policies...." as the main concern of many governments are the "costs and achievement", and in the case of the OECD model, to be able to make across-country comparisons (Walberg and Zhang, 1998:56).

In tracing the development of the OECD's comprehensive system of educational indicators, Walberg and Zhang observed that the comprehensiveness of the indicators is a result of the collaborative work of different staff from the different countries. However, they also argue that the "...cross-disciplinary nature of the indicators themselves ... that draw on the professional and academic disciplines of accounting, administration, anthropology, economics, education, political science, psychology and sociology" to name but a few, is rather problematic (Walberg and Zhang, 1998:56). Part of the problem is achieving consensus. But what type of consensus or what degree of consensus ought to be achieved any way? It may be possible to reach consensus on a complex system of indicators as the OECD has been able to achieve, but there will always be variations in the operation of these indicators in the different national, regional and local contexts.

Walberg and Zhang argue that the OECD model implies internal causal relations across the three blocks of indicators, that is, contexts – processes – results. Contexts such as national demographics, economics and public opinion, for example, have an influence on educational resources, participation rates, processes, staffing, as well as research and development, which in turn affect such results as student achievement, graduation rates, youth employment and earnings. Such a model has to be a result of continuous formative and summative evaluations involving a network of specialists and scholars. However, the authors also acknowledge inherent difficulties of building such a model and the need for further improvements. They argue that "...many policy-relevant causal relations remain controversial even among leading researchers as in the case of the relationship between spending on education and levels of learning, '*(Hanushek,*

1994; Hedges et al., 1994)'," (Walberg and Zhang, 1998:57). They also argue that "... broad sets of indicators transcend the boundaries of often-segregated academic disciplines and government departments. Yet it is just such a broad set of indicators and their relations that are of keenest interest to policy makers" (Walberg and Zhang, 1998:57). In short, an analysis of a well selected larger set of indicators drawn by specialists in different disciplines and agreed upon by several countries that have many things in common, are bound to exert more influence on policy. They further argue that the "... assumed causal ideas about education on which national policies are based", such as the assumption that "... greater education spending raises achievement test scores, and that greater school participation rates are associated with better employment prospects ..." need further examination. "If there is evidence contrary to these and other assumptions, it may call for a re-examination of the indicators, assumptions and policies" (Walberg and Zhang, 1998:60). The OECD actually did find out that in some cases there was no correlation between expenditure per learner and reading progress, and that countries that spend the most money tended to gain the least in reading achievement (Walberg and Zhang, 1998:69). However, Walberg and Zhang hasten to indicate that one conclusion that can be made from such findings, especially in developed countries, is that it is not the amount of money spent on education that really matters the most, but rather *how* that money is spent. This thesis takes into account this argument in the analysis of the disjuncture in the prediction of learner achievement in Rundu and Katima Mulilo educational regions based on the SACMEQ I project, in relation to educational expenditure in Namibia.

Proceeding from the OECD's 13 categories of educational indicators and some of their respective sub-categories discussed earlier on, it may be prudent for the purposes of this research, to re-examine and to re-classify educational indicators for their adaptability and applicability in the Namibian context. It is not the intention of this thesis to add more indicators to the already complex list of educational indicators. To the contrary, an attempt is made to provide a better

understanding of the relationship between indicators and learner achievement in two ways. Firstly, by narrowing down the focus to a more manageable set of categories and sub-categories of indicators that might have a direct influence on achievement and relevant to the analysis of the Namibian context and secondly, by analysing the social, cultural and historical context in which they have emerged and operate. In this regard, an analysis of the relationship between these indicators and learner achievement in different developing contexts has been made in the next part of this chapter to help provide a conceptual framework for the analysis of the Namibian context.

1.4 The Relationship between Pedagogical Conditions and Learner Achievement in Different Contexts.

1.4.1 Reports from different developing contexts in four countries

In investigating the relationship between teaching/learning conditions and learner achievement, Carron and Chau (1996), worked with national research teams from four countries, in conducting four studies. The four countries were Guinea, India, China and Mexico. From each country, one province or state was selected except for Guinea. From each province, five zones or specific locations were selected for the research project on the basis of the rural-to-urban continuum. The five selected zones in each province had to represent each of the following classifications; an urban zone, a semi-urban zone, a developed rural zone, a less developed rural zone and a highly under developed rural zone. Guinea was a country already divided into five administrative regions, which fitted into the above classification, and so the national research team decided to select a zone from each administrative region instead of selecting the zones from one region. However, they decided to make a distinction between the developed rural zone and the less-developed "forested" rural zone by creating another zone – the semi-developed rural zone or "rural Kankan," thus ending up with six zones. The researchers claimed that each of the selected zones in all the four countries, represented a specific, different context and that this stratification allowed for the

investigation of learner achievement in different local contexts within one country or within one province in a given country (Carron and Chau, 1996: 5-12).

The research project set out to answer the following questions, inter-alia:

- What are the material conditions of education and how do they vary from zone to zone and from school to school?
- What are the characteristics of the teaching staff, their living and working conditions, their attitudes, their motivation and their expectations?
- How does the education process occur, what are the teaching styles and what makes the difference between high- and low- performance schools?
- How well and to what extent do pupils master basic skills especially in the areas of communication and arithmetic and what are the key factors influencing the acquisition of these skills? (Carron and Chau, 1996:6).

In order to answer these and other related questions, a global profile was drawn up for each zone, which included the "... main demographic, economic, socio-cultural and educational variables" (Carron and Chau, 1996: 5). Some aspects of the profiles of the zones and some of the main categories of indicators used in the project have been summarised and presented in Table 1.7. Carron and Chau used four main categories of indicators for their analysis – demographic indicators, socio-cultural indicators, economic indicators and educational indicators. The first three sets of indicators seem to fall into what Walberg and Zhang refer to as the context of education indicators and the last category has some elements of the costs and results of education indicators.

Table 1.7 The main categories of indicators identified by Carron and Chau

Demographic indicators: • Location – urban rural continuum • Size of population • Population density	**Economic indicators** • Type of habitat • Main economic activities • Occupations/job opportunities
Socio-cultural indicators • Community • Social structure of population • Religious characteristics • Linguistic characteristics • Public health and nutrition Literacy rates of men and women	**Educational indicators** • Learners, their homes and their parents • The material conditions of education in the school • Teachers and the teaching process • Learner achievement

Even if the four categories of indicators advanced by Carron and Chau appear to be similar to some of the categories of the OECD indicators in form, they differ in content. The demographic indicators of the OECD mainly refer to the educational levels of the population while Carron and Chau's demographic indicators refer to the size of the population and the type of location where they live. The social and economic indicators of the OECD refer to unemployment rates, total labour force and GDP per capita, whereas the socio-cultural and economic indicators analysed by Carron and Chau, among other things, refer to the social structure of the population, religious/linguistic characteristics, public health and nutrition, on one hand, and the type of habitat, main economic activities and occupations of the people on the other hand. So the actual content of the socio-economic indicators may not necessarily be the same in all cases. Therefore, the actual contents of the type of indicators used in any analysis in a particular context, at any given time, need to be clearly understood before any inferences or comparisons to other contexts can be made.

It is also important to note that the OECD model looks at the entirety of the education/training system and its outcomes, Carron and Chau's analysis focuses on learner mastery of basic skills in two to three school subjects at the primary school education level only.

Carron and Chau report that data relating to the demographic, economic and socio-cultural indicators were collected in advance from secondary data such as national census and/or school census information. However, data on some aspects such as teacher motivation and teaching style were collected through school and classroom observations using specific observation schedules in addition to interviews. The interviews with teachers were extended to include interviews with local education officials and learners' parents. This approach was deemed necessary because they argued there was a need to analyse the socio-economic and developmental context in which schools operate and to understand the operation of the schools in terms of the teaching/learning process. The project used both qualitative and quantitative methods in data collection and in the analysis. Data collected through interviews and observations were not subjected to statistical analysis but were analysed separately without coding and computerising it. Data collected through school head questionnaires, teacher questionnaires, learner questionnaires and the test scores were subjected to quantitative analysis. Carron and Chau's educational indicators relating to the questionnaires used in the project are grouped into four subcategories:

(a) Learners, their homes and their parents

(b) The material conditions of education/the school

(c) Teachers and the teaching process; and

(d) Learner achievement

The specific indicators, which fall under each of the above listed categories of indicators, are presented in Table 1.8.

Table 1.8 A Summary of the educational indicators used by Carron and Chau

Learners, their homes and their parents: • Living conditions such as type of houses, furniture and possession in the home • Availability of basic services such as water and electricity • Availability of reading materials/books, newspapers and magazines in the home • Parents level of education • Assistance with homework • Child labour • State of health and nutrition • Parents' opinion about school/teachers • Frequency of parent/teacher meetings • Parents' educational and occupational aspirations for their children • Reasons for learner absenteeism, repetition and drop out	**Teachers and the teaching process** • Number of teachers • Teacher gender • Teacher training • Teacher living conditions • Teacher working conditions • Teacher attitude • Teacher motivation • Teacher expectation • Teacher teaching style School head • School head's perspectives • Support from local community • School management strategies
Material conditions of education in school • Size of school • Location of school • Type of school buildings • Type of building materials • Conditions of classrooms • Surface area of classroom per learner and class size • Number of chairs and desk • Textbooks • Classroom equipment/facilities • Teaching guides and other documents • Financial provision within school	**Learner achievement tests** • Language test • Mathematics test

The four subcategories of indicators and their specific elements that have been presented in Table 1.8 may be briefly explained as follows:

(a) Learners, their homes and their parents

This category of indicators was used to refer to learners' home living conditions, that is, the possessions in the home, the type of support learners received from parents and all the other variables indicated under this category in Table 1.8. However, it may be argued that the mere existence of certain conditions in the home does not automatically improve learner achievement. For instance, even if the availability of books and other reading materials in the home is very important, such books should be accessible to the child and written in the language the child understands and at a level at which the child is able to read. In the case of the semi-urban zone of Guinea, which was predominantly Muslim, most of the reading materials in learners' homes were in Arabic, while French was the language of instruction at school. In this case, the availability of Arabic books in the home may not have an influence on learner achievement in French.

The educational level of parents may have an influence on learning outcomes only when parents are able to spend regular time with the child and help the child with schoolwork. Further, what may be referred to, as child labour in industrialised countries should be differentiated from what may be considered as "legitimate" household chores in many parts of rural Africa. In these rural areas domestic chores such as cooking, milking animals, drawing water and cleaning around the homestead are in harmony with societal values and form an integral part of the broader conception of the education of the child for survival in their local environment. If societies are allowed to determine the values in their education systems then educational researchers should be encouraged to take cognisance of those values in their analysis of different social contexts.

(b) Material Conditions of Education in School

This category among other things refers to the size and location of the school; the basic conditions such as the type and condition of school buildings; and the availability of the necessary school and classroom resources such the number of desks, chairs and textbooks. The project investigated these conditions because they were deemed to be very important prerequisites for the smooth operation of the school. It was therefore necessary to investigate the influence of these conditions on learner achievement.

(c) Teachers and the Teaching Process

The availability and distribution of the number of teachers among regions and schools in the selected zones, their qualifications, salaries, living conditions and level of work satisfaction were also some of the factors considered crucial to the project because these factors were considered to have a bearing on learner achievement. A combination of different aspects such as the teacher's presence in the classroom, the teacher's level of competence, clarity of presentation, teaching ability and interaction with learners were expected to create the necessary atmosphere for learning. When learning actually takes place then learners would be able to demonstrate the acquired competencies in school subjects by being able to do well in achievement tests. It was therefore argued that teachers and all the other variables that interact in the teaching/learning process would have an influence on learner achievement.

(d) Learner Achievement

One of the main objectives of the research project was to identify "... what children really learn in primary education and to evaluate to what extent the educational objectives are attained, not only from the access point of view, but especially from that of the results obtained" (Carron and Chau, 1996: 204). So a number of tests were designed (to measure learner achievement) based on among

other things, "... the objectives and content of the curriculum" of each country, and the competencies or basic skills which learners were expected to master in the fourth and sixth grades in each of the participating countries (Carron and Chau, 1996:204). In other words the tests were based on each country's specifics. In the Puebla state of Mexico, pupils were also tested in "...knowledge and attitudes about health and hygiene...," and "...productive work...." In China, the tests were based on "...literacy, numeracy... and general knowledge of history, nature, music, house work and moral judgement" (Carron and Chau, 1996: 8). It is worthwhile to note that the use of tests in a variety of subjects may demand from the learner to equally demonstrate a variety of skills and competencies required for answering the questions. The demonstration of various competencies in different subjects could provide a relatively broader scope for judging learner achievement as opposed to a test in one subject only.

All the indicators discussed in the above four subcategories were embedded in the questionnaires for learners, teachers, head teachers, parents and local officials. The inclusion of parents and local officials in the questionnaires expanded the web of information beyond the classroom and school.

1.4.1.1 Description of the different contexts and the results from each country

The Republic of Guinea

Guinea was a former French colony, whose income at the time of the study was dependent on mineral exports, which accounted for 86 percent of export income. Even if 80 percent of the population were subsistence farmers, the contribution of agriculture to the GDP was only 30 percent. At the time the research project was conducted, Guinea was implementing a International Monetary Fund (IMF) and World Bank "structural adjustment programme," which had affected all sectors including education (Carron and Chau, 1996:24-25). The study involved 75 primary schools 1,817 learners, 222 teachers and 231 parents from the following 6 zones:

The Urban Zone in Guinea:

This zone was within the area of administration of Conakry, the capital city of Guinea and the major commercial town of the country. It was a densely populated area with an average of 66 learners per class in primary schools. Although it had the lowest number of learner school absenteeism and drop out rates, it had the highest number of repeaters because both teachers and parents seemed to believe that grade repetition improved learner performance. The majority of the parents in this area were working class.

The Semi Urban Zone in Guinea:

This zone was in the provincial town of Kankan. It was characterised by a growing cosmopolitan type of population even if many people were Muslims. Many Muslim children attended Muslim schools or Koranic schools. There was a strong demand for education manifested by the average class size of 77 learners. This means that there was an imbalance in the supply and demand for education in the sense that there were more learners and few schools. However, the government's efforts to provide more schools to meet the demand could be compromised by the structural adjustment programme. This could be so because the structural adjustment programmes initiated by the IMF/World bank in a number of African countries are often accompanied by reductions in government expenditure on social services such as education.

The Developed Rural Zone in Guinea:

This area was located in a semi mountainous area some 130 kilometres from Conakry. The majority of the people in this area were farmers who grew different types of tropical crops, fruits and vegetables, which were sold in the nearby town of Conakry. Nearly the whole population was Muslim and there were many Muslim schools apart from a few government schools.

The Semi Developed Rural Zone in Guinea:

This zone was situated in the savannah grasslands of the rural part of the town of Kankan. The majority of the people in this region were farmers who lived in small-scattered villages. Most of these farmers had never attended school. If parents do not know how to read and write, it is difficult for them to help their children with their homework, especially where the language spoken at home is different from the one used by their children at school.

The Less Developed Forested Rural Zone in Guinea:

This was a mountainous area situated in the tropical forest region of Guinea. It was characterised by small subsistence farming villages.

The Highly Under Developed Rural Zone in Guinea:

This zone was characterised by a mixture of woody savannah with sparse population and dense forest in some parts. The people practised subsistence farming and were mainly Muslims.

A Summary of the Results in Guinea

Generally, the fact that the country was undergoing a structural adjustment programme implies that all was not well from the economic point of view. This could have had an influence on the entire national economic and social sectors, even if Carron and Chau do not highlight this. The six zones that were selected for the project had different physical features, different levels of socio-economic development, and different living standards (SES) of the people as well as their cultural characteristics. In the semi-developed, less developed and highly under developed zones about 80 percent of the mothers had never attended school and so they were unable to read or write in French, the language of their children at school. This made it difficult for parents, especially mothers, to assist their children with homework (Carron and Chau, 1996:47-48). However the parents

had good opinion of the school and teachers in all the zones although there were fewer parent-teacher meetings and parents did not know the teachers very well, especially in the rural zones. More than half of the children in all the zones in Guinea regularly helped their parents with work at home or in the fields. The percentages were higher in the rural zones than the urban zones. Living conditions differed across the zones. There was very little reading outside school in the rural zones where, as mentioned earlier, more than 80 percent of the mothers had never attended school and only less than 10 percent could read and write in French. About 50 to 70 percent of the learners in the rural zones reported that they never got assistance with homework, even if it was also true that there was very little homework given. Learner absenteeism, mainly due to "illness" was a serious problem. Because of absenteeism learners ended up not learning much and would often fail a grade, but repetition enabled them to learn what they had missed and pass. Therefore grade repetition was common and it seemed to have a positive effect on learner achievement in the case of Guinea. This is contrary to experiences in other developing countries where it has been argued that grade repetition did not lead to improvements in achievement '(Unesco, 1984)'. Generally, parents had high occupational aspirations for their children. This seemed to be a motivating factor for sending their children to school even if most of the parents did not know what went on in schools.

The State of Puebla in Mexico

This state was chosen because it represented the average region in the country on some main school developmental indicators such as enrolment, illiteracy rates, drop out and repetition rates. Within the state of Puebla the five zones that were selected for the study were classified as the Average Urban zone, Marginal Urban zone, Developed Rural zone, Marginal Rural zone and the Indigenous Population zone. The zones were selected or demarcated on the basis of the percentage of the labour force that was employed in agriculture and the illiteracy rate of the population over fifteen years. The study was conducted in 77 schools involving 413 teachers, 2,265 learners and 743 parents.

The Average Urban Zone in Mexico:

This was an industrial and commercial area where most of the people were workers.

The Marginal Urban Zone in Mexico:

This zone was mainly in a subsistence agricultural area but near to the city where some of the people had jobs.

The Developed Rural Zone in Mexico:

Agriculture was the main activity in this zone even if a small industrial sector existed. Only about two thirds of the households had electricity and only half had access to running water.

The Marginal Rural Zone in Mexico:

This was a mountainous and arid area, with a dispersed population that depended on subsistence agriculture. The male population often went for work in the cities. The area was characterised by small multi-grade schools due to a shortage of teachers. Learner absenteeism was high because learners had to take care of animals or work in the fields. The area did not have running water.

The Indigenous Population Zone in Mexico:

This zone was also in a mountainous, densely forested and humid region that was inhabited by an indigenous population. Subsistence agriculture was the main occupation. The area was characterised by unqualified teachers, high drop out rates especially among girls - because they had to do household work and take care of siblings. The majority of the people spoke indigenous languages only.

A Summary of the Results in Mexico

The five zones were all different in terms of wealth, living conditions and socio-cultural diversity. Half of the learners lived with their families in single room houses and one third had no electricity. This means that it was difficult for these learners to do homework. The learners also received very little assistance with homework from their parents because most of the parents were not able to give assistance. Learners often had non-school work assignments to do at home, which included shopping, household chores and caring for sibling in the case of urban learners and working in the fields or looking after animals in the case of rural learners. There were more health-related problems in the indigenous zone than in the other zones. Parents were generally satisfied with school and believed that the quality of the school depended on the teacher. There were more qualified teachers in the urban zone than the rural zones - but some of the unqualified teachers in the rural zones showed more motivation probably to compensate for their lack of qualifications. There were fewer parent/teacher meetings in the rural zone where parents also had moderate occupational aspiration for children. Generally learners in the urban zones where conditions were favourable performed better, than learners in the rural areas where conditions were difficult.

The State of Madhya Pradesh in India

The geographical features of this state were a mixture of hills, plateaux and river valleys. Agriculture was the main economic activity. The majority of the people spoke Hindi. Madhya Pradesh was one of the 10 educationally backward states of India, with a literacy rate that was lower than the national average. Five zones were selected out of 45 districts within the state. The zones were selected on the basis of the rate of urbanisation, percentage of tribal population, percentage of people in employment and the literacy rate. The selected zones were stratified as follows: Privileged Urban Zone, Semi Urban Zone, Developed Rural Zone, Marginal Rural Zone and the Tribal Population Zone.

The Privileged Urban Zone of India:

This was situated in the city of Indore, the most developed urban zone in the state of Madhya Pradesh. It was well provided with infrastructure, with many schools including a University. Over 90 percent of the people were working class.

The Semi Urban Zone of India:

This was a township with a rail road connection to other areas which had all the basic infrastructure.

The Developed Rural Zone of India:

This was composed of 11 villages, some of which because of being located along the main road had at least bus stops and post offices and so communication was relatively easier. Four fifths of the population were engaged in agriculture.

The Marginal Rural Zone of India:

This zone had 11 villages, which could not be easily accessed due to bad roads. Some of the people belonged to castes.

The Tribal Population Zone of India:

Composed of 12 villages situated in a densely forested area. About 90 percent of the inhabitants belonged to the Baigas tribe, who depended on fishing, hunting and gathering for their livelihood, with a little agriculture. This zone had very low literacy rate. Primary schools were established and managed by the "Ministry of Tribal Development" but the Ministry of Education took care of pedagogical supervision.

A Summary of the Results in India

All the five zones had contrasting situations geographically and in terms of living conditions and level of socio-cultural development. The general living conditions differed in all the zones. In the rural zones, there was very little learner reading at home due to lack of reading materials. More than 80 percent of the mothers had never attended school, while 50 to 70 percent of the learners never received assistance with homework even if they also received very little homework. These factors were associated with the differences in learner achievement between the rural and urban zones, with predictably the urban learners scoring higher.

The Province of Zhejiang in China

Zhejiang is a coastal province of China with more than 41 million people. The province was well developed economically and agriculturally compared to other parts of China, but great disparities existed within the province. Different counties within the province had different per capita income and different degrees of industrialisation. The province was chosen for the study because its different contexts provided an opportunity for the investigation of the influence of these different contexts on learner achievement. The study was conducted in a total of 41 schools, involving 127 teachers, 2,463 learners and 224 parents from five selected zones. Learners were tested in General Knowledge, Language and Mathematics. Primary education in this region took 5 to 6 years, with 100 percent net enrolment of learners at this level probably owing to the socio-economic and cultural aspects of China. Given below is a brief description of each zone.

The Urban Zone of China:

This was based in the city of Hangzhon the capital of Zhejiang and a centre of commerce and industry with adequate transport, communication as well as cultural facilities.

The Industrial Rural Zone of China:

This zone was composed of two townships in the county of Zhaozing. Agriculture was the main activity in this area but there were some rural industries as well. The region was well connected to railway transport and other communication network. Primary school enrolment was almost 100 percent. This indicates that there were enough school places to cater for the population

The Advanced Rural Zone of China:

A highly populated area with railway line connections but less developed. A small industrial sector existed but a large number of the people were engaged in agriculture.

The Developing Rural Zone of China:

This zone covered two townships in a less developed county, with a low agricultural output. The zone experienced transport problems.

The Poor Minority Rural Zone of China:

This zone, located in a mountainous area, was home to an ethnic minority group. Agriculture was the main activity in addition to transport and basic services.

A Summary of the Results in China

Living conditions differed from one zone to another. Generally learners had more reading after school than in all the other countries, partly because of the existence of reading materials in the homes and a student newspaper, which parents also read, even if 60 percent of the mothers in the rural zone had never attended school. In the urban zone, more than half of the learners had their own room in their parents' homes, although this was the case in only one to two out of five learners in the rural areas. Therefore, almost all children did homework everyday and

some of them did housework as well. The parents valued education and they had regular contacts with teachers. Parents had academic aspirations for their children - not occupational ones. The problems of learner absenteeism, repetition and dropouts were non existent here. Generally in the Zhejiang province of China there was more interaction between teachers, their learners and parents than in the other countries partly because teachers were required to visit learners in their homes at least twice per year. There was also very little difference in the teaching practices of teachers between the zones. Teachers followed a strict teaching plan with standardised plans and strict supervision of the class. So the teaching/learning conditions in China could be said to be generally better than in the other countries. Learners in all the regions performed very well, with over 80% or 90% of the learners achieving basic knowledge of Mathematics at primary 6 level. Unlike in other countries, the distribution of learner scores did not show a distinct association with the socio-economic statuses of the different zones. For example, the advanced rural zone had higher achievement in language than the urban and the industrial rural zones. Even if there was very little difference in learner achievement between the different zones, there were more under-achieving schools in both subjects in the developing rural zone and the minority zone.

A Comparative Analysis of the Results from all the Four Countries

The four countries and the specific zones selected in each country had different levels of socio-economic and educational development, different cultural backgrounds and different political systems, which had an influence on learner achievement. In all the four countries, the results showed "...an overall better performance in urban than in rural schools" (Carron and Chau, 1996:223). Carron and Chau argue that this was expected because the "...quality of educational services was better in the urban areas...."(Carron and Chau, 1996: 223). Schools in urban areas had better infrastructure and teaching materials than schools in rural areas. Parents' level of education and their social economic status were higher in urban than in rural areas. The authors argue that these factors accounted for the differences in learner achievement between rural and urban areas. Further, the

percentage of learners who helped their parents with work at home and in the fields was in some cases higher in rural than in urban areas. In urban areas learners helped parents with either shopping or taking care of siblings. Shopping is relatively an easier task to perform than working in the fields. So the rural learners could be said to be more disadvantaged in that they performed more rigorous work than their urban counterparts. The authors reported that the variation in achievement by rural – urban location was strong. Notwithstanding this, the variation by school was even stronger in the sense that between 25 and 75 per cent of the variance in the test results was related to the type of school a learner attended. They further argue that the particularly high variance in the test results, which was much higher than that observed in developed countries, could be ascribed to the following factors:

- *Local* or geographic, in the sense that different school catchment areas are inhabited by populations with unequal advantages in educational terms. This is the difference one can observe between urban and rural zones;
- *Structural*, when official or unofficial selection practices result in certain institutions admitting only the 'good pupils', while others are reserved for the 'not so good'. This may be the case, for example, of private versus public education;
- *Qualitative*, when certain schools provide better education than others, because of the competence or motivation of their teachers, or because of better school infrastructure (Carron and Chau, 1996: 225).

As mentioned earlier on, the higher levels of parents' education, higher social economic status and better educational services were some of the educational advantages that urban areas had over rural areas. Some private schools used selection procedures to recruit only the best learners. These factors coupled with teacher competence, motivation and good school infrastructure have a greater influence on learner achievement in urban areas. This scenario may be contrasted with the example of a rural zone called Mandla in the Madhya Pradesh State in India, which was characterised by a "...highly dispersed population, ...multi grade classes..." and low level of parents' education. The overall performance of learners in this zone was low, but there were "significant differences" between schools even if the conditions were seemingly the same. The "...school with the highest marks, and the one with the lowest are single-teacher schools... without

...school buildings. The main distinction between them is the teacher's style" (Carron and Chau, 1996: 231). Many questions necessarily arise. What is meant by the "teacher's style."? If the teacher's style was the main factor influencing the differences in learner achievement in schools within the same locality as mentioned above, how was the teacher's style measured? Before attempting to answer the above questions there is a need to firstly highlight the differences that were observed between the "low-performance school" and the "high-performance school."

> In the low-performance school, the teacher comes from the community and lives in the community. He is a university graduate. This might seem, *a priori,* an ideal situation for this community. Unfortunately since the teacher has no pedagogical training, his salary is only 300 rupees per month. He does not come to school regularly, never prepares lessons, rarely uses the chalkboard, and does not conduct the class in a systematic and orderly manner. Teachers often complain about their salary and manifest total dissatisfaction with their work. Neither teaching nor learning actually occurs in class.
>
> In the high performance school, the teacher is not from the community and must travel 12 kilometres to come to school. However the teacher has taken pedagogical training and therefore receives a decent salary. He also has much professional experience. Although he lives far from the school, he comes to class regularly. Lessons are prepared and a pre-determined work plan is followed.
>
> The pupils are divided into small groups by level. They frequently have to do class exercises and homework; these exercises and homework are regularly corrected. There is nothing terribly original in all this, but it is a school that functions better than others (Carron and Chau, 1996:231).

The differences between the low-performance school and the high-performance school that are highlighted in the above quotation shed some light not only on some elements of the teacher's style, but its decisive influence on achievement as well. A summary of the other differences between the high-performance school and the low-performance school is presented in Table 1.9.

Table 1.9 A Summary of some characteristics of the high and low-performance schools in Puebla - Mexico

Characteristics of The High-Performance School	**Characteristics of The Low-Performance School**
• Head teacher goes into classrooms to talk about punctuality, academic matters, discipline and respect.	• Head teacher visits classes only when there are urgent problems to solve
• Teachers prepare their lessons, and know how to animate the class and achieve pupil participation	• Teachers do not seem to thoroughly know the material they teach
• Teachers chose a teaching career because they like children	• Of the 3 teachers interviewed, 2 would like to change employment for economic and family reasons
• Teachers are rarely absent	• Teachers are sometimes absent for health reasons, transportation or trade union duties
• Teachers have the means required to teach, interested in their work and are better prepared	• Teachers complain that classes are too large, work-load too heavy, and pupils not interested • Teachers lack motivation and complain about lack of teachers' guides, teaching materials and pedagogical support
• Parents are liberal professionals, merchants or salaried employees	• Fathers work in construction, or as truck drivers, and mothers as domestic help
• Parents meet teachers regularly and discuss their children's results • Parents help their children with homework	• Parents are not interested in their children's studies.
• Children read stories, magazines or encyclopaedias	• The only reading material available are school text books and comic books

From the "characteristics" of the high and low-performance schools that have been presented in Table 1.9 the following indicators, some of which are quantifiable, may be derived:

- The leadership and management role of the school head
- Teachers' attitude, competence and teaching style
- Teachers' interest in teaching career
- Frequency of teacher absenteeism from class
- Availability of classroom resources and teacher motivation
- The social economic status of parents

- Frequency of teacher-parent meetings
- Parental assistance with homework
- Availability of textbooks and other reading materials

The above listed indicators derived from Carron and Chau's analysis of the characteristics relating to the two schools that have been presented in Table 1.9 indicate that, even if the two schools operated in the same location the home background of learners as well as the school/teacher characteristics were different. Thus strengthening the argument that these characteristics also influenced learner achievement differently.

One of the conclusions to be drawn is that schools in the same locality (urban or rural) may perform differently depending on the professional training, income, motivation, experience and attitude of the teacher. Carron and Chau bring to the fore, the teacher's professional training, income and experience, (quantifiable factors) to support their argument. So if these three teacher factors are so important why are there still differences in achievement among learners in two classes that are taught by two teachers who have the same income, qualifications and years of experience? Perhaps it could be due to the individual "teacher's style," as argued by Carron and Chau. However some elements of the teacher's style may only be obtained through classroom observations of the teacher-learner-subject matter interaction in the teaching/learning process. But what about differences in achievement between learners who are in one and the same class, who are taught by one and the same qualified and experienced teacher with the same teaching style? Other factors such as home background and the individual learner's ability and effort come into play and the list goes on '(Gamoran, 1991).' Therefore, the assumed relationship between teaching/learning conditions, (however conducive they might appear to be), and the actual learner achievement is more complex than a simple input-output relationship.

It is also reported that in the state of Puebla, in Mexico there were great disparities among schools. In this state, the "...average mark in communication varied from 81.2 per cent in the best school of the urban zone to 7.9 per cent in the weakest school in the marginal rural zone" (Carron and Chau, 1996: 232). Further,

> In the urban zone of Puebla, the high and low performance schools have a number of characteristics in common. Both are complete schools with a teacher for each class. Both have satisfactory infrastructure, and according to the teachers, both have the necessary teaching equipment and materials: pupils have the text books they need, their furniture is in good condition, and they are comfortably arranged in their classroom. The size of the teaching staff is approximately the same: 19 (including three men) in the first case, 17 (again with three men) in the second. The two head teachers have no classroom responsibilities and spend all their time on the management of the institution. The pupils in the two schools also seem to be rather similar. They have relatively favourable living conditions, most of them attended pre-school, and their age corresponds to their class of enrolment (Carron and Chau,1996: 233).

The authors pose an obvious but crucial question: "What makes the difference between these two schools?" (Carron and Chau, 1996: 234). Their answer is that the difference between the two schools was "...essentially the role of the head master, the attitude of the teachers and their teaching styles, the family environment of the pupils and the interaction between the parents and the school" (Carron and Chau, 1996:234). Here, the authors provide four other significant factors: (1) the role of the school head, (2) the attitude and teaching styles of the teacher, (3) the family environment, and (4) the degree of interaction between the parents and school. Because of the significance of these factors, this thesis takes into account their possible influence in the investigation of possible factors for explaining the differences in learner achievement in Rundu and Katima Mulilo, which will be made in chapters 4 and 5.

The examples from the four countries investigated by Carron and Chau, indicate that there were differences in learner achievement according to the location of the school, i.e. rural or urban, and that urban schools tend to perform better than rural schools. However, differences in achievement could still be found in schools that were situated in one and the same locality and that had the same conditions. Differences in achievement could also be found between pupils in one and the

same school/class, taught by the same teacher. Their explanation for this is that pedagogical conditions may influence achievement in different ways in different locations under different contexts at different times, as well as influence achievement in different ways in the same location under the same contexts at the same time. Some of these conditions may be of such a subtle and complex nature that they may not easily be observable, deductible or quantifiable.

The authors conclude that in comparing the high and low-performance schools based on the data, which they had collected using different methods, it was the classroom observations which provided a "... better understanding of what makes the real difference in the quality..." of the teaching and learning process. They argue that confining oneself to "classical indicators" only conceals the real difference between high and low-performance schools. Their investigations showed that a small school with multi-grade classes produced better results than a larger school, with classes having separate grades, while a school with over-crowded classes produced better results than another school in the same locality, which had smaller class sizes. They conclude that, "what distinguishes high-performance schools from low-performance ones is in fact a set of factors that interact with one another, and either, favour success or lead to discouragement and failure" (Carron and Chau, 1996: 238). While acknowledging the importance of essential inputs to schools such as classroom buildings, desks, chairs, necessary equipment and facilities, textbooks and other teaching/learning materials, they argue that the quality of a school and learner achievement was largely influenced by human factors such as:

- The leadership and supportive role of the school principal
- The attitude, motivation and teaching style of the teacher
- The composition of learners in the school/class, their social economic status and the support which they receive from their families
- The relationship between parents and teachers, and the frequency of their meetings

They also argue that school-related inputs do not necessarily have the same influence in different zones or localities. These inputs have only a relative influence on the personal characteristics of learners, their family backgrounds and on their achievement, as it was found that in certain zones the influence of a given variable may be "strongly positive", "very weak" or no influence at all in another zone and a "negative" influence in yet another zone. This has implications for the analysis of the results of the SACMEQ 1 project in Namibia. In the case of Namibia, the influence on learner achievement, of some of the variables used in the project, was also different in different educational regions as will be shown in the analysis of the case of Katima Mulilo and Rundu, which is made in chapter 4.

The conclusion that can be drawn from Carron and Chau's analysis is that learner achievement is significantly influenced by the interaction between various human factors such as the principals instructional leadership role; the teacher's motivation to teach and his/her teaching style; the quality of parental support and a cordial regular interaction between teachers and parents, than a mere aggregation of discrete factors. In other words, differences in learner achievement are mainly influenced by a multiplicity of several observable human attributes, experiences and actions pertaining to specific contexts, which may not be generalised.

1.4.2 Analyses of Research from Developing Countries

Caillods, F. and Postlethwaite, N.T.

On the basis of an international meta-analysis of research conducted by different scholars in different developing countries in Asia, Africa and Latin America, Caillods and Postlethwaite (1989), writing in an IIEP/UNESCO publication also argue that there are many factors, which operate to produce learning and achievement. Their analysis is based on a broad theme - "Teaching/learning conditions in developing countries". Under this theme they provide two main broad categories:

- Teachers and teaching/learning conditions
- Learners and factors affecting learner achievement

Teachers and teaching/learning conditions

This category includes analysis of different personal characteristics of teachers, their working conditions, the classroom and school teaching environment as well as the availability of relevant school resources. These have been summarised and presented in Table 1.10, followed by an elaboration.

Table 1.10 A Summary of the teacher characteristics and the teaching/learning conditions analysed by Caillods and Postlethwaite

Teacher characteristics: • Number of years of academic education • Professional teacher training • Type and level of qualification • Number of unqualified teachers • Teaching experience • Teaching skills and competence • Lesson preparation • Marking homework
Working conditions: • Learner/teacher ratios • Teacher salaries • Status of the teaching profession
Teaching environment • Teacher guidance and supervision • Teaching aids and classroom resources • School facilities • Motivation
Availability of learning materials for learners • Textbooks, exercise books and pencils Expenditure on instructional materials per learner

(a) Teachers

The main teacher characteristic analysed by Caillods and Postlethwaite including some elements of the conditions of service and of the actual teaching environment in the school have been presented in Table 1.10. Caillods and Postlethwaite begin their analysis by examining variations in teachers' academic/professional qualifications, their working conditions, working environment, and availability of the necessary teaching and learning materials in the school. They argue that teachers are a key factor in the teaching and learning process and an understanding their characteristics is imperative since teachers constitute the main factor in

imparting knowledge in schools in many developing countries. This is in consonance with Carron and Chau's argument on the decisive role of teachers and school heads. In analysing teacher characteristics Caillods and Postlethwaite found out that the years of training and the qualifications of primary school teachers differed greatly from country to country in many developing countries. They found out that due to a shortage of qualified teachers in some countries, Ministries of Education sometimes recruit teachers who were not only untrained, but had lower general or secondary education. They argue that teachers should have sufficient education which should entail "...a high level of general education...", preferably completion of secondary education in addition to "...a good knowledge of the subject..." they have to teach (Caillods and Postlethwaite, 1989:3-4). They claim that a common feature in many developing countries is the fact that there are more unqualified teachers in rural areas than in urban areas. "An extreme example of this phenomenon can be seen in Brazil. While unqualified teachers represented 25 per cent of the whole teaching force in first level schools at the national level in 1982, they constituted 73 per cent of rural teachers" (Caillods and Postlethwaite, 1998: 3). In Tanzania, 'Criper and Dodd (1985),' found out that most of the teachers did not have the fluency and accuracy to teach English partly because in Tanzania, as in other African countries, English was a foreign language for both teachers and learners. This appears to be the trend not only in the case of Guinea, India and Mexico, (Carron and Chau, 1996) but in some parts of Namibia as well.

They also point out that in many developing countries, the teachers' level of (subject) knowledge and competence was low. They cite a study conducted in India, (Shukla, 1974), where science teachers of 14 year-olds were tested (in science) and their average score was "...lower than that of 14 year-old students in some European countries" (Caillods and Postlethwaite, 1989: 4). Another example is the low teacher competence in English in Tanzania.

(b) Teaching conditions

Apart from the problems of untrained teachers and low teacher competence, Caillods and Postlethwaite argue that other problems associated with teachers in developing countries relate to the following conditions under which teachers work:

- the prevalence of large class sizes of up to "120 pupils" in the case of Burkina Faso;
- declining teacher status and teacher salaries, in real terms, in countries such as Mexico, Peru, Sudan and Zaire (DRC);
- weak teacher supervision/support services;
- lack of essential teaching aids and teaching materials such as chalk boards, textbooks and libraries;
- shortages of classrooms in schools;
- inadequacies such as poor lighting and poor ventilation in existing classrooms;
- inadequacy or non-availability of desks and chairs, toilets, electricity, and drinking water.

Not all of the above mentioned factors may have a direct influence on the teaching/learning process and learner achievement, nevertheless they have an influence on the "...degree of commitment and motivation of teachers..." (Caillods and Postletwaite, 1989: 7). The commitment and motivation of the teacher, coupled with the teaching style ultimately have a greater impact on the teaching/learning process and learner achievement, as demonstrated in the analysis of the characteristics of the high and low-performance schools in the Puebla State of Mexico.

(c) Availability of resources

When focusing on learners, Caillods and Postlethwaite reported that in some parts of many developing countries, learners did not have textbooks and other learning materials. For example:

> In the Parish of St Thomas Jamaica, 13 per cent of the pupils had neither pen nor pencils at the time of the survey; 42 per cent of primary-school pupils and 49 per cent of middle-school students had no textbooks (IIEP,1983b). In the Kilosa district of Tanzania, pupils had no textbooks at all in 52 per cent of the schools and there was an insufficiency in 79 per cent of them (IIEP,1982a). 70 per cent of the pupils at Kirundo, Burundi, did not have the required books either in French or in Kirundi (IIEP1982b). At Bilene, Mozambique, textbooks were available for less than 10 per cent of grade 1 pupils and less than 50 per cent of Grade 3 pupils (IIEP, 1987). ...The expenditure on instructional materials per pupil in 1980 had been estimated at $1.68 in South-Asia, $2.24 in Sub-Saharan Africa, $2.47 in East-Asia and $8..99 in Latin America (World Bank, 1986a). On average, developing countries spent $4.80 on instructional materials per pupil annually, 22 times less than in developed countries. The per-pupil non-salary recurrent expenditures have an extremely large range over countries, from $0.11 in the Philippines to over $250 in Canada. Many developing countries spend under $4 per child on these items (Caillods and Postlethwaite, 1989:7).

They observe that the meagre expenditure on classroom instructional materials such as textbooks has serious consequences for the development of literacy skills for learners because the learners have very little "...opportunity to read or study from printed materials..." (Caillods and Postlethwaite, 1989: 7). This state of affairs could be a result of the interplay between political, social and economic factors operating nationally and internationally, which are far beyond the control of the school and its local community.

Learners and Factors affecting Learner Achievement

The first part of this section focuses on some aspects of learner characteristics, and variations in learner achievement, while the second part focuses on the analysis of the factors affecting learner achievement based on findings from Caillods and Postlethwaite's analysis.

(a) Findings of Learner Achievement

Caillods and Postlethwaite (1989:9) analysed the results of several studies of learner achievement from developing countries. They argue that even if there was evidence of learner acquisition of basic knowledge and skills in particular school subjects in many developing countries, this was not the case in other countries. They further argue that the level of cognitive achievements in many developing countries was not only low, but it was generally lower than the level observed in developed countries. They provide examples of low achievement in Jamaica,

where 35 per cent of primary learners were said to read below their grade level. Of these nearly two-thirds were not able to read at all. In Tanzania, "...two-thirds of pupils in the last grade of primary education were unable to read and understand any text in English. In spite of five years of learning English in school, 95 per cent of primary school children had not started to master this language" (Caillods and Postlethwaite, 1989: 9). However it is important to also note that in some parts of many developing countries especially in Africa, the foreign languages that are taught, such as French and English could either be a second or third language for both teachers and learners. This problem may be compounded as mentioned earlier on, by the shortage of textbooks and other reading materials as in the case of Tanzania, Burundi '(IIEP, 1982)' and Mozambique '(IIEP, 1987)'. The insufficient provision of textbooks and other reading materials to schools may be caused by other factors beyond the school, such as insufficient financial resources. In some instances the shortage of textbooks and other reading materials may further be compounded by the inability of some parents to read and write in their children's languages of instruction at school as in the case of the French language among parents in rural Guinea (Carron and Chau, 1996). So in making any comparisons between developed and developing countries as well as comparisons between developing countries, the broad spectrum of all the conditions have to be taken into account.

Because of the above it may be misleading to base the assessment of learner achievement in one subject only, because a learner or a country that may have high scores in one subject may have low scores in another, and vice-versa. Secondly, the comparison of achievement between countries could be problematic because, the curriculum, the socio-economic and cultural conditions may be different from one country to another. The set of values, attitudes and commitments that the society and schools may want to encourage may also be different from one country to another as Carron and Chau observed in the case of Guinea, Mexico, India and China. To highlight the differences between developed and developing countries Caillods and Postlethwaite report that through the analysis of data from the

International Education Association (IEA) and " ... other surveys in twenty five countries, Heyneman and Loxley '(1983, p. 1173)' concluded that school children in low and middle income countries have learned less science after the same, or approximately the same, length of time in school as wealthy countries. In the United States the average mean is 32.8, in Japan 40.9. ...However in India it is 20.6, in Colombia 24.0 and in Thailand 28.2" (Caillods and Postlethwaite, 1989: 10). It was found that generally, the performance of learners from the OECD countries, who were in the same age group and grade level as learners from developing countries, was higher in Mathematics and Science.

Caillods and Postlethwaite report that the results of an IEA mathematics study for 13 year-olds conducted in 1981 showed the following:

> ...13 year-olds in the OECD countries scored an average of 52.9 per cent, and the same age group in Nigeria and Swaziland scored an average of 34.5 per cent.... A similar study on science achievement was undertaken in the period 1984 - 86 in which five developing countries participated together with developed ones,... the 14 year-olds in the OECD countries scored 60 per cent on a thirty-item test, while Ghana, Nigeria, Zimbabwe and the Philippines scored 46, 41, 41, and 38 per cent respectively (Caillods and Postlethwaite, 1989: 10).

This comparison was probably possible because it is reported that the science curricula in all the participating countries were "very similar," and all countries had agreed that the test was "... fair for their pupils and that comparison with other countries achievement was legitimate" (Caillods and Postlethwaite, 1989: 11). Nevertheless, as indicated earlier on, the difference could be attributed to several other factors such as the social, cultural and economic factors. These factors in turn have an impact on the availability of teaching/learning resources in the classroom, the motivation, commitment and competence of the teachers and the support they receive from the school head and parents, to mention but a few. The report further argues that in many developing countries, achievement differences between schools seemed to account more for achievement differences between learners.

In many developing countries the between-school differences in learner achievement accounted for "30 per cent" of the differences in learner achievement

at Grade 6. The between-school differences in learner achievement seemed to have a cumulative effect or increased to "50 per cent at Grade 9, and 60 to 70 per cent at Grade 12" (Caillods and Postlethwaite, 1989:13). Which school a child goes to makes a big difference in achievement. In other words, differences in learner achievement are influenced by different school environments such as the type of teachers in a given school, what and how they teach, as already discussed in the example of the high and low-performance schools in the state of Puebla in Mexico. In addition, the school infrastructure, the quantity and quality of school resources and classroom instructional materials available in a given school will not only have an influence on the teaching/learning process but on learner achievement as well. They argue that in order to give all children equal opportunities to learn, it is important that countries that have big differences between schools should carry out regular surveys of schools. Such surveys would help identify among other things, the "... differences in teachers and resources and try to redress the balance through differential allocation of resources" (Caillods and Postlethwaite, 1989: 13). This is was one of the main reasons for Namibia's participation in the SACMEQ project. However, even if the survey revealed huge differences in the distribution of qualified teachers and school resources in Namibia, the education indicators used in the survey could not adequately explain the reasons for differences in learner achievement in the case of Katima Mulilo and Rundu educational regions.

What lessons can be learned from the different studies on the effects of certain variables on learner achievement? In answer to the above question Caillods and Postlethwaite like Carron and Chau, argue that it is not easy to disentangle the effects of variables on achievement. They argue that firstly, the "...results of correlation research need to be tried out in experiments, as ... any one result needs to have occurred several times" before a firm conclusion can be established. "Hence the use of meta-analyses - analyses of analyses" (Caillods and Postlethwaite, 1989:14). They report that a number of 'alterable' variables such as textbooks and other school resources have been identified through analyses carried

out by the World Bank and IEA. However they caution that the meta-analyses "...which make it possible to identify patterns of relationships across societies, do not by definition take into account structural and cultural determinants of variations in achievement" (Caillods and Postlethwaite, 1989: 14). A survey of the conditions of schooling has to be carried out within the contexts of any given country before a policy or programme of action can be defined. Better still, the set of indicators used and their content ought to be adaptable to the local conditions in order to measure accurately what is intended to be measured in order to arrive at realistic conclusions. For example, a measure of learner family background characteristics or SES that uses only the classical indicators used in developed countries such as level of parental education and possessions in the homes, may not adequately measure the SES of learners in some parts of rural Africa. In these parts, variables such as the type of house and number of livestock may be good additions to the index of variables used to measure the wealth of the family. My thesis takes this argument into account in the analysis of the SACMEQ project within the Namibian context focusing on Katima Mulilo and Rundu educational regions.

Caillods and Postlethwaite, also argue that "...quantitative macro-level studies should whenever possible, be complemented by other more qualitative research, ...based on observational methods and interview techniques to allow the researcher to pick up nuances and identify variables operating in classrooms and influencing achievement, which cannot be otherwise identified" (1989:14). My research design takes this criticism into account. The results of the SACMEQ I quantitative studies in Katima Mulilo and Rundu education regions that are analysed in chapter 4 are complemented by findings from a qualitative fieldwork conducted in the two regions that are discussed in the fifth chapter.

(b) Factors affecting learner achievement

There are many factors that have an effect on learner achievement. The main indicators of the factors affecting learner achievement according to Caillods and Postlethwaite have been presented below.

Table 1.11 A Summary of factors affecting learner achievement at the school level according to Caillods and Postlethwaite

General school factors
- school curriculum
- books and other materials
- availability of school resources
- language used as medium of instruction
- learner's home back-ground or SES
- learners' motivation

Teachers
- teachers' level of education and status
- teachers' behaviour and their teaching practices
- teachers' perceptions of the ability of the class
- frequency of assigning homework
- frequency of correction of homework by teacher

Time at school or length of the school day
- number of school days
- instructional time per subject
- time on task within the lesson

School organisation and facilities
- school size
- class size
- number of shifts
- work ethos of the school

Urban and rural schools
- staffing
- allocation of resources between rural and urban schools
- willingness of trained teachers to work in rural areas
- quality of teachers in rural areas
- education of rural parents

In the analysis of the above listed variables, Caillods and Postlethwaite particularly highlight the influence of the school curriculum, books and other teaching/learning materials, as well as teachers and the teaching process.

The curriculum

The curriculum is a very important element in the analysis of teaching/learning conditions and learner achievement because it states what is to be learned, at what

level, how much and provides guidelines on how learning will be organised. Caillods and Postlethwaite argue that the curriculum has to be differentiated and understood from three perspectives:

(a) The 'intended curriculum' – This refers to the contents of the syllabus, broken down into themes, topics or learning objectives.

(b) The 'implemented curriculum' – This refers to what the teachers actually teach or the opportunity to learn (OTL). There is often a mismatch between the intended curriculum and what teachers are actually able to teach depending on their knowledge, instructional time, the available resources/facilities and the preparedness of learners.

(c) The 'achieved curriculum' – this refers to what the learners actually learn. What learners actually learn is to a large extent influenced by their previous learning experiences, their abilities, motivation to learn, methods of learning and the general learning conditions or environment.

They further argue that the demands of the curriculum have an influence on achievement in the sense that "...if pupils get the opportunity to learn something they usually do so; but if they do not get the opportunity they cannot learn. In short, the more that is demanded in the 'intended ' curriculum, other things being equal, the more the children will learn" (Caillods and Postlethwaite, 1989:14). Trimming the curriculum or adding more to it should be done with care to make sure that learners learn what is relevant to basic life and work skills within the available school time.

Books and other teaching/learning materials

The authors argue that more books and other reading materials lead to increased learner achievement. They cite a World Bank study of the Philippines where "... the number of books provided to primary-school classrooms was changed from

ten pupils to one book to two pupils to a book, (and), the proportion of students achieving at grade-level rose from 50 per cent to 70 per cent in one year " (Caillods and Postlethwaite, 1989:15). They also quote Fuller (1986), who observed that "...a shortage of textbooks was more of a problem in some subject areas than in others; but always has an effect on achievement." (Caillods and Postlethwaite, 1989:15). Apart from the books that are used in the class as instructional materials, the existence of a school or class library would lead to "higher reading achievement," if learners borrow more books and read them. This is a very interesting claim. As discussed earlier on in this chapter, the special attention accorded to the availability of books has to be augmented by equal attention to other closely related aspects of books such as the type of books, quality of text, relevance of content and language used. These aspects coupled with the individual learner's ability and interest in reading could make the use of the book more effective. My research attempts to take some of these aspects into account through the qualitative fieldwork discussed in chapter 5.

The quality of teachers and their teaching

It has already been mentioned earlier on in this chapter that teachers play a key role in the teaching/learning process especially in some parts of developing countries where the other resources for learning may be scarce. Caillods and Postlethwaite argue that what teachers actually do in the classroom or rather the quality of their teaching can help improve achievement. Their argument is in conformity with Carron and Chau's findings that the attitude and the teaching style of the teacher makes a difference in learner achievement. However, Caillods and Postlethwaite go further than Carron and Chau by focusing not only on the quality of teaching but on the quality of the teacher as well. The two, they argue, are inseparable.

In this regard, they hold that experienced teachers "... tend to develop stronger instructional and classroom management skills, ... are quick at restoring order and develop a tempo of teaching which fosters more 'time on tasks' on the part of

students " (Caillods and Postlethwaite, 1989:16). The quality of the teacher and the quality of the teaching, together with all the other variables that interact in the teaching/learning process in the classroom, have an immense influence on learner achievement. Therefore, Caillods and Postlethwaite argue that experienced teachers have to be allocated equally between rural and urban areas. The type of experience meant in this context includes the teacher's level of academic and professional education and good classroom practices in addition to the total number of years of teaching. They argue that when teachers prepare their lessons well, set and mark homework and class work, and are skilful in using a variety of teaching methods to reach every learner, they would be able to produce higher achievement in their learners '(Anderson et al., 1988; Nitsaisook and Postlethwaite, 1987)'. Caillods and Postlethwaite further argue that teachers who are dedicated to their work are able "... to inspire children to learn in the most deprived areas," and that teachers with "... more post-secondary education achieve more with their pupils than teachers with less post-secondary education"(Caillods and Postlethwaite, 1989: 16). Hence the need to have the equal distribution of both experienced and dedicated teachers to rural and urban areas.

A combination of post-secondary education and professional teacher training are a prerequisite to good classroom practices for two reasons. Firstly, the teacher has to be knowledgeable and competent in the subject matter of the subject he/she is expected to teach. Secondly, a teacher who has at least post-secondary education and has undergone professional teacher training, stands a better chance of influencing learner achievement if he/she has good attitude towards work, is motivated, prepares well for lessons and regularly gives learners homework, which is often corrected (Caillods and Postlethwaite, 1989:16).

Caillods and Postlethwaite conclude that many variables within and outside the school system have an influence on achievement. In developing countries these

include, for example, children's nutrition level, parents' attitudes, and their education level, as well as the way they interact with the school.

However the following variables have been found to be significant:

- Academic/professional training and motivation of teachers
- Equitable allocation of experienced teachers
- School infrastructure and availability of resources
- Effective school management
- More instructional time
- Curriculum demands.

Caillods and Postlethwaite provide an exposition of teaching and learning conditions and their influence on achievement by using a wealth of examples from developing countries. They analysed evidence from research carried out in several developing countries by different researchers, which shows that there is a relationship between the teaching/learning conditions listed in this section and the actual learning that takes place leading to improved learner achievement. They arrive at the same conclusion as Carron and Chau that different teaching/learning conditions have an influence on learner achievement, under different contexts. They acknowledge that there are many factors, which may have an influence on learner achievement in different ways and sometimes under the same conditions or under different conditions. However, as with Carron and Chau, they also point out the significant influence on learner achievement of teachers' competencies and commitment.

1.4.3 Family Background and School Factors in Thailand and Malawi - Lockheed, Fuller, and Nyirongo.

The analysis made by Caillods and Postlethwaite mainly centres on the interaction between teachers, the curriculum, instructional materials and learner achievement in developing countries, using educational indicators commonly used in developed

countries. Lockheed, Fuller and Nyirongo (1989), chose to focus their investigation on the influence of family background characteristics on learner achievement with the following two questions in mind:

- To what extent can the educational indicators used in developed countries be applied to developing countries?
- To what extent can the findings from developed countries be generalised to developing countries?

In an apparent attempt to address these and other questions, they analysed the effects of "family background" on learner achievement in what they claimed to be a broader sense than before, and using indicators that were more applicable to developing countries. Their analysis is based on research conducted in Thailand and in Malawi. They proceed from the argument that:

> Past research from Third World countries showed that school-related factors have stronger effects on students, achievement than do family background factors. This finding contrasts sharply with evidence from industrialised countries, where family background characteristics explain substantially larger proportions of variations in educational achievement. It has led to the optimistic inference that Third World schools are more effective than schools in industrialised countries, both in raising achievement and in providing routes for social mobility.
>
> However, the earlier work suffered from conceptual and methodological flaws. Two important conceptual shortcomings were (1) limiting the concept of family background to the material aspects of class and failing to consider other aspects of family background, such as motivational variables, that influence students performance and (2) using measures of family background that are conventional for industrialised settings (such as parents' educational attainment and occupational status), rather than indicators of class that are more culturally valid for the country in which the study is conducted. Methodologically, prior research suffered from (1) being limited to cross-sectional data that are incapable of distinguishing the initial level of achievement from gains in achievement over time and that tend to confound the effects of school and family characteristics, (2) seldom analysing school and family effects separately for different regions within countries and, more specifically, rarely including non urban samples, and (3) rarely using multiple indicators of achievement (Lockheed, Fuller, and Nyirongo, 1989:239).

They reviewed prior research on the influence of family background characteristics on one hand, and school characteristics on the other hand, vis-à-vis learner achievement. Prior research mostly arrived at the conclusion that the

"effect" of school characteristics, compared with the "effect" of family background, on learner achievement, was more in developing countries than in industrialised countries. They give an example from 'Heyneman and Loxley (1983)' who "...reported that, taken together, characteristics of schools in developing countries explain a greater share of the variance in students' achievement than do students' background characteristics" (Lockheed, Fuller, and Nyirongo, 1989: 240). Another example from India indicates that "...27 per cent of the variance in achievement among children in India was attributable to school factors, while only 3 per cent was explained by variation in background characteristics. In contrast, achievement levels within industrialised countries were explained mostly by the students' back ground" (Lockheed, Fuller, and Nyirongo, 1989: 240).

Lockheed, Fuller, and Nyirongo's study conducted in Thailand was a longitudinal one and investigated family "effects" on the gains in mathematics achievement for Grade 8 learners over a period of time. They expanded family background indicators to include motivational aspects of:

- social class
- learner educational expectation
- parental encouragement
- learner's attitude, and effort

This means that in this case, other elements of family background such as the value that parents placed on the education of their child, their constant communication of this to the child, their interest in the progress of the child and their encouragement of the child to work hard and excel in schoolwork, were used as opposed to the use of only conventional measures of family background such as parents' level of education, occupation, income and possessions in the home.

The learners' educational expectations and attitudes were measured by:

- the additional number of years of full time study that the learner expected to complete
- the learner perception of own ability in the subject
- the usefulness of the subject
- the motivation to obtain better results in the subject

The results showed that:

> ...Conventional measures of the social-class background of families, although correlated with the initial and final levels of eighth-grade mathematics achievement, contributed little to the student's *gains* in achievement over time, ...however, families continue to influence students' achievement by providing their children with material and nonmaterial support for learning activities, by raising their children's educational expectations, and by reinforcing their children's motivation and effort (Lockheed, Fuller and Nyirongo, 1989:245).

They concluded that conventional measures of family background characteristics such the occupation of the father and mother's level of education were correlated with Grade 8 Mathematics achievement in the pre-test but they contributed little to learners' gain in achievement over a period of time. These measures, however, were related to other intervening variables such as the learners' educational aspirations, perceived parental encouragement and motivation. It was found that the father's occupation status was related to the learner's perception of the usefulness of Mathematics, while the mother's education was positively related to greater effort by the learner. Together, the father's occupation and mother's education were significantly related to learner educational expectations, perceived parental support and motivation. In the final analysis the intervening variables such as educational expectations of the learner, the attitude and effort of the learner, the learner's perception of own ability, perceived usefulness of the subject and motivation were related to learner achievement.

In the study conducted in Malawi, Grade 4 and Grade 6 learners were tested in mathematics and Chichewa, a local language. Apart from the conventional indicators such as parents' level of education and occupation, the study among others, "...focused on material aspects and measures of social class that are more relevant to Third World settings... such as feeding livestock and carrying fodder or water, care for siblings or preparing meals" (Lockheed, Fuller and Nyirongo, 1989:250). This thesis attempts to capture similar elements in the context of the two educational regions under investigation through the qualitative fieldwork. The analysis examined the influence of the local measures of a social class on learner achievement in mathematics and language. The study revealed that the "...indicators of social class that are more relevant to the Third World setting - the parents' demand for labour, the basic attributes of houses, and mother tongue - were more consistently related to the students' achievement than were global, Western proxies" (Lockheed, Fuller and Nyirongo, 1989:251-2). Researchers need to broaden their understanding of learner background characteristics "...when examining the comparative influence of family and school on children's achievement" (Lockheed, Fuller and Nyirongo, 1989:253).

The evidence from Thailand shows that learner attitudes, motivation and effort help in explaining gain in learner achievement, while the evidence from Malawi shows that measures of differences in social class which are so obvious in the African context, such as type of housing, access to water and electricity and child labour, have an influence on learner achievement, but caution has to be exercised in generalising these findings to all developing countries. The crux of the matter seems to lie in the suitability and applicability of the set of indicators that one is using at any given time whether in the developed countries or in developing ones. Therefore, in applying the conventional indicators used in developed countries to developing ones, efforts have to be made to make sure that these indicators include elements or measures that are relevant to the specific developing context under investigation. It is for this reason that it is inappropriate to generalise findings obtained in developed countries to all developing contexts.

Fuller and Heyneman.

Fuller and Heyneman (1989), make reference to a similar study by Heyneman and Loxley (1983), that analysed data from 16 developing countries and 13 developed countries using the same educational indicators or "quality index." The school quality index included indicators such as the number of textbooks and desks, the length of the instructional time and the educational level of teachers. Fuller and Heyneman do not provide the set of indicators that comprised the family background of learners, but they report that in the case of India, Heyneman and Loxley's study showed that "... nine tenth of the explained variance in the achievement of children was accounted for by differing levels of school quality. Family background and other pre-school influences accounted for the remaining one tenth. The reverse was true for industrialised countries..." (Fuller and Heyneman, 1989:14). This conclusion seems to rest on the narrow conception of family background which Lockheed, Fuller and Nyirongo critique.

It is true that in some rural regions in some developing countries, family background is characterised by illiterate parents who do not understand the language in which their children are taught at school and so they cannot help with homework. There is abject poverty, malnutrition, and illness coupled with children working in the fields, taking care of siblings or engaged in household chores. These elements of family background characteristics have an influence on the cognitive proficiency of learners and subsequently on learner achievement. Secondly, for a comparison between developing and developed nations to be made, the same set of family background indicators has to be used to avoid comparing apples with pineapples. However the set of family background indicators used should include socio-economic and cultural variables that are applicable to developing countries. Working only with the narrow classical set of family background indicators used in developed countries (such as educational level and occupation of parents), in comparing the influence of family background on learner achievement in developing and developed countries may be inadequate. As Lockheed, Fuller and Nyirongo found out, an expanded notion of family

background indicators that were more applicable to developing countries in fact does play a more significant role in learner achievement, albeit only in the initial stages of learner achievement.

The conclusion that Fuller and Heyneman draw is that even if a lot of research has shown that in developing countries, it is the basic school inputs that have a significant influence on learner achievement than family background, an expanded notion of family background nevertheless, shows that family background also plays a role in determining learner achievement. The point however, was that the influence of school characteristics on learner achievement was stronger in developing countries compared to developed ones. The lesson to be learnt here is that the influence of pedagogical conditions on learner achievement differs under different contexts and within the same context whether in the industrialised countries or in developing countries, depending on the set of indicators used and their respective elements. This remains a complex issue which this thesis attempts to further explore within the context of the two educational regions in Namibia.

1.4.4 "Enabling Conditions for Successful Learning Environments" in a South African Context - Maja.

In investigating the relationship between pedagogical conditions and learner achievement in the post apartheid South African context, Maja (1997) proceeds from a conceptual framework that goes a step further than the other analyses made in the other developing contexts, which have been discussed thus far. Maja introduces into the picture, the concept of "access to learning," and argues that this is a prerequisite to a more meaningful understanding of learner achievement. Maja's conception of "access to learning" in reference to the South African context in particular should be seen from both an historical and epistemological perspective. Historically, access to schooling under apartheid in South Africa (as was the case in Namibia), was based on racial lines for the advantage of "white"

schools and learners. Maja argues that in attempting to understand learner achievement, cognisance should be taken of the difference between the two types of access, which Morrow (1994:38-42) refers to as formal access and "epistemological access" to learning.

Maja explains that in the post 1994 South Africa, various legal constraints had been removed, paving the way for learners from disadvantaged backgrounds to enter privileged former Model C schools, but "...access to learning and the learning matter (similar quality learning opportunities leading to optimum levels of performance and achievement), remains questionable within the South African context" (Maja, 1997:1). Historically, there were deliberate attempts by the apartheid administration to use education to preserve the oppressive system of separate development. In response to such manoeuvres, black schools in particular became more "sites of political struggle" through class boycotts, protests and demonstrations, than real centres of learning. As learners became more and more involved in these activities, and in the face of increased police brutality, the culture of learning in many schools did not only diminish, but was difficult to rekindle in the post 1994 era. Thus Maja argues that it was relatively easier to provide "formal access," which meant:

- Opening up all schools to all races;
- Providing school places to all learners by providing new schools and classrooms;
- Providing enough qualified and helpful teachers
- Providing facilities and other resources such as libraries, and good textbooks that the previous government did not provide for the disadvantaged groups; and,
- Encouraging learners to attend classes regularly.

Maja acknowledges that in the post apartheid South Africa, it was important that all learners should have entry into good and well functioning schools, that is, "formal access." However, he argues that formal access is not sufficient.

What is also needed is "epistemological access," that is, what to do with those learners once they are in school, in order for them to engage with the subject matter. Epistemological access refers to:

- The process or learning practices by which the learner actually acquires knowledge; and,
- Learning how to become an active participant in the learning practices through individual effort.

In other words there are many things that can help a learner to learn, but the onus to learn is largely on the learner, as the teacher or anyone else cannot engage in the learning practices on behalf of the learner. It is probably due to this reason that Maja further argues that, "departments of education have so far, and correctly so, focussed on ensuring 'formal access' to education and training opportunities, *but* the challenge of 'epistemological access' to teaching and learning,..." was on the other hand, just beginning to gain momentum in the new South Africa (Maja, 1997:1). It is also probably due to this background that Maja's work is entitled - "Access to learning: The enabling conditions for successful learning environments." Maja's conceptual analysis of "access to learning" and "enabling conditions for successful learning environments" within the South African context, provides valuable lessons for the analysis of some aspects of the Namibian context, which has been made in chapters 2, 3, 4 and 5 of this thesis from both the conceptual and historical points of view. This is due to the fact that the two countries share a common historical background of apartheid educational policies.

The "Access to Learning project" which forms the basis of Maja's analysis was initiated in three of the nine provinces in South Africa. The selected provinces were Western Cape, Free State, and the Northern Cape. In each province, six schools were selected, comprising of three primary and three secondary schools. The main purpose of the study was to investigate what were regarded as the "enabling conditions for successful learning environments" in South Africa. Maja seems to proceed from similar conclusions as the ones arrived at by the other authors discussed earlier on in this chapter, that there are different enabling conditions, which have an effect on learning in different ways. In order to highlight just what these enabling conditions could entail, Maja selected schools for the study based on the following criteria:

- The type of school – secondary and primary schools
- The stratification of schools according to resources – well resourced schools, poorly resourced schools and average resourced schools
- Examination results of these schools
- Efficiency measures such as repetition and drop out rates
- Information gathered from the "School Register of Needs" survey, such as physical facilities, materials and resources.

These criteria are similar to what has been referred to earlier in this chapter, as categories of education indicators. It is interesting to note that Maja's study, consistent with research findings in other parts of the developing world, should concentrate on school qualities, rather than family background, in looking at enabling conditions for learner achievement. The above mentioned criteria were supplemented by information based on opinions of local education officials, school principals, teachers, learners and parents as well as information from non-governmental service providers, through observations, interviews and questionnaires. However, unlike the other authors discussed in this chapter, Maja argues that working with these criteria entailed firstly, that a definition of the

meaning of learning and the learning process was necessary, and secondly, that an understanding of what individuals had to do when they own the learning process was also necessary. In line with the above approach the project came up with its own operational definition of learning and the learning process:

> The project defined learning as the acquisition of knowledge. Such knowledge entails information, skills and appropriate values and attitudes. The information values and attitudes are shaped and perceived by what society describes as appropriate. Thus learning can be alternatively defined as the "practice of becoming a participant in some other practice" (Morrow, 1997). Such practices are interpersonal and of a co-operative nature between the participants. It follows that learning is not passive, but entails an active involvement of the learner in taking responsibility for his/her own learning. Formal teaching, *as the practice of organising learning systematically*, is an invaluable resource in learning and can generate successful learning (Maja, 1997:2)

Maja, in contrast to previous authors, articulates what learner achievement entails, viz. how competently a learner engages with the practices that consititute the particular subject. Proceeding from Maja's definition of learning and learning process, the project identified ten interrelated categories of enabling conditions for successful learning environments based on the school/classroom characteristic and dynamics summarised in table 1.12.

Table 1.12 Maja's enabling conditions for successful learning environments

1. Institutional and functional arrangements • Teachers and the school time table • Well-planned assessment measures • Class attendance by teachers and learners • Time spent on tasks	**6. Physical facilities and materials** • Structure of school buildings • Physical resources such as a library • Teaching /learning materials such as chalkboard, textbooks chairs and desks
2. Functional arrangements and leadership • Teacher: learner ratio • Class size • Principal's management and leadership style	**7. School support services** • Officials' interaction with school • Frequency, duration and quality of interaction • Local community involvement • School governance
3. Teacher support and development • Pre-service and in-service training • Length and depth of training • Teachers' own effort and motivation • Teachers' peer support	**8. Relevant curriculum** • Values • Choice of subjects • Medium of instruction
4. Teacher attitude • Mastery of subject matter • Knowledge/use of appropriate teaching skills • Professional attitude • Understanding of learners • Commitment and enthusiasm	**9. Stability and change** • Education reforms • Teacher involvement • Understanding of reforms • Willingness to implement reforms • Alternatives and innovation
5. Teaching strategies and classroom dynamics • Learner-centred education • Group work • Problem solving oriented teaching	**10. Learners' family background** • Parents' education • Parents occupation • Parents educational expectations • Home support

Institutional and functional arrangements

This category consisted of the following indicators:

- The availability of a school timetable
- Involvement of teachers in the design of the time table and how it is used to enhance teaching and learning of the various subjects.

- Well-planned assessment measures that are used to promote learning and monitor progress
- Punctuality and consecutive attendance of classes by teachers and learners
- The time spent on learning tasks

Maja argues that the above mentioned factors give some indications of whether teaching and learning are actually taking place, and the time spent on learning tasks is known. These are consistent with Caillods and Postlethwaite's findings.

Functional arrangements and leadership

Some of the indicators under this category were:

- Teacher: learner ratio
- Class size
- The principal' s management style and leadership traits such as:
  - the degree of commitment
  - involvement of stakeholders in running the school
  - encouragement given to teachers and learners
  - level of education

Maja acknowledges that there is conflicting literature on the influence of class size on learner achievement. He argues that even if smaller class sizes are ideal, it did not mean that schools with large class sizes were doomed to failure. Maja's analysis is congruent with Caillods and Postlethwaite's argument that generally learners in smaller class sizes do achieve more than learners in larger classes. However the Koreans and Japanese (Caillods and Postlethwaite, 1989), produce better results with larger class sizes than many OECD countries, but this is mainly due to environmental and cultural values peculiar to these societies. Therefore, it is not just the class size that matters, but what actually goes on in the classroom

coupled with other social and cultural factors. So caution should be exercised to avoid generalisation, because what works in Korea or Japan may not work elsewhere. The educational and professional training of the principal as well as the leadership/management style and supportive role she/he plays helps create enabling conditions for successful learning environments. This is enhanced when the principal involves parents and other stakeholders in the running of the affairs of the school. Further, when the principal supports and encourages teachers and goes to classrooms to talk to learners about academic matters and discipline, learners will be motivated to learn as seen from the example of the high performance school in Puebla, Mexico and Mandla, in India (see page 45) (Carron and Chau, 1996) as well as borne out by Caillods and Postlethwaite (see page 63). Maja includes the attitudinal characteristics of the principal such as commitment. This is crucial because in some cases training or incentives only, cannot produce commitment but it is something that develops from within the individual.

Teacher support and development

This category consisted of:

- Pre-service and in-service training of teachers which included
  - the length of the training;
  - the depth of training; and,
  - the administration and quality of in-service training
- Teachers' own efforts to master subject content and teaching methods
- Peer/teachers support activities

Maja argues that the availability of pre-service professionally trained teachers who are trained by recognised teacher training institutions as well as the provision of in-service training have an influence on learning. Equally important are not only the length of such courses and the degree of the depth of the coverage of the subject matter but also how well such training is administered. Qualified teachers are more likely to master their subject matter and be more innovative in using a variety of teaching and learning methods especially if they applied their own

efforts by continually reading and consulting widely. Such consultations will not only further improve the lot of the teacher if it includes sharing problems and expertise but will have a positive influence on learning as well. These findings are consistent with those of Caillods and Postlethwaite who found that the academic and professional training of teachers were significant influences on learner achievement.

This is also particularly true in the case of Namibia, where after independence, a number of unqualified/under qualified teachers registered for cheaper distant education teacher training courses offered by a particular private institution in South Africa. It later turned out that the credibility of the institution was questionable and so the Diplomas it offered could not be recognised by the Namibian Ministry of Basic Education. Worse still, some of the teachers who obtained these Diplomas could not demonstrate the acquired knowledge, skills and competencies in their teaching.

Teacher attitudes

The specific indicators that Maja discusses under teacher attitudes as well as under teaching strategies and dynamics, constitute elements of what according to his conception, can be refered to as *epistemological acccess* indicators. The teacher's attitude may be shaped by factors such as:

- Mastery of the subject matter of the subject she/he is teaching
- Knowledge and use of appropriate teaching skills
- Acquisition of professional attitudes
- Knowledge and understanding of the learner
- Commitment and enthusiasim

A teacher would develop self-confidence when she/he has a mastery of the teaching subject matter and uses a variety of teaching methods. This can boost the teacher's morale, and enhance the teacher's positive attitude towards learners, parents and education officials, which will in turn have an impact on teaching and learning.

Teaching strategies and classroom dynamics

Maja emphasises the importance of the inseparable relationship between the learners' learning style and the teachers' teaching strategies. Equally important and meaningful is the extent to which a particular teaching and learning style is used in practice to enhance learning. He observes that the new "progressive approach" to education, which forms part of the new curriculum in South Africa, emphasised the following:

- Learner-centred education
- Learners working in pairs or groups
- Communicative language teaching and problem solving oriented teaching.

Maja contrasts the above mentioned approach with the "... traditional approach ... of teacher-centredness, drilling, chanting, chorusing, and memorising ..." which had dominated South African Education for many years (Maja, 1997:9). He argues that the task of the project was not to determine which of the two approaches was the best, but rather to focus on the aspects of the two approaches that promote learning. He therefore argues that the following elements are crucial:

- The teachers' understanding of what knowledge is and their treatment of that knowledge
- The teachers' knowledge of the learners and how they expect the learners to interact with knowledge

- The teachers' knowledge of the practice of teaching and the role that teaching plays in the acquisition of knowledge

The above listed elements emphasise and presuppose the interaction between knowledge, the learner and the practice of learning, with the teacher playing the role of a facilitator. This is consistent with Maja' conception of learning and the learning process, which implies that the learner must take responsibility to actively engage with the subject matter in order to acquire knowledge. Therefore, in order to play a meaningful facilitating role, the teacher should not only know the learner, the subject matter and what knowledge is, but should also know how learning occurs and strive to place the learner and learning above his/her own teaching to create an enabling environment. In concurring with 'Hollins (1987)', Maja argues that the following conditions should be present in classroom practices to help disadvantaged learners to achieve:

- The process and content of learning that is familiar to the learner
- The communication of content in a way that is acceptable and comprehensible to the learner
- The provision of adequate time for the learner to access, process and apply the content
- The existence of an environment that makes the learner feel comfortable and supported

Maja concludes that both school-based dynamics and classroom dynamics have a set of complex factors, which have an influence on each other but do not necessarily depend on each other. Similar changes in approaches have occurred in the Namibian context as part of the education reforms embarked upon after independence. Some aspects of the teacher application of elements of the new approach such as learner-centred education methods are reported in the analysis of qualitative fieldwork that is made in chapter 5.

Physical facilities and teaching/learning materials

Based on Maja's conception, this category of indicators corresponds with the elements of *formal access* indicators. Maja uses this category of indicators to specifically refer to:

- The structure of the school building
- The availability of physical resources such as:
  - a library
  - science laboratory
  - school hall and toilets
- Teaching and learning materials such as
  - desks and chairs
  - chalkboards
  - textbooks and exercise books
- Punctuality and class attendance
  - distance learners have to travel to school
  - availability of transport

Maja observes that physical facilities such as the school building, library, science laboratory, school hall and toilets are some of the easily identifiable indicators for enabling conditions for successful learning environments, in addition to different types of teaching/learning materials such as desks and chalkboards. Equally important too, were learning resources such as textbooks and exercise books. So the study took all the above formal access indicators into account and also looked at some aspects such as punctuality and class attendance in relation to the distance learners had to travel to school and the availability of transport.

Support school receives from institutional structures and communities

Maja observes that schools operate within a given environment which is "guided" or regulated by departments or Ministries of Education on one hand and the local communities whom they are meant to serve on the other. So to help measure the state of this interaction the following indicators were used:

- The extent to which the Ministry of Education officials interact with the school
    - Frequency of interaction
    - Duration of the interaction
    - The quality of the interaction
- Local community involvement in the affairs of the school
    - School governance
    - A sense of ownership

While acknowledging the necessity for the interaction between schools and Ministry of Education officials Maja argues that it is the frequency, duration and quality of this interaction that would promote teaching and learning in the school. On the other hand, the extent to which the local community within which the school is located gets involved in the affairs of the school, such as school governance, creates a sense of ownership which may lead to the promotion of the welfare of school property and learners.

Relevant curriculum

Maja's argument that there has to be a distinction between the intended curriculum or "content of the curriculum that is taught" on one hand, what is actually taught and the way in which it is taught or the "hidden curriculum" on the other hand, is in consonance with Caillods and Postlethwaite's analysis. Maja identifies some of the important elements of the curriculum as the following:

- Values underpinning the basic principles of the nation

- The choice of subjects
- The medium of instruction

He argues that "the hidden curriculum as a way of expressing values can influence how children will understand and cherish the values underpinning the basic principles of nation building" (Maja, 1997:8). He also argues that curriculum models need to be understood within their political and social contexts observing that according to 'Berg and Berkhout (1994)', debates regarding educational policy and change in South Africa were overlooking the presence of the hidden curriculum. He further argues that the school curriculum in South Africa relegates subjects like domestic science to girls while mathematics and the sciences are seen as male subjects. Rural learners may also be disadvantaged when they are denied the opportunity to study certain subjects in the curriculum due to lack of resources. This might be so because the people who design the curriculum sometimes include things in the curriculum without a clear understanding as to where the resources to implement the curriculum are going to come from. Lastly, "the medium of instruction within the curriculum also affects the extent to which both teachers and pupils are at ease with the language, which has an effect on the language used in the classroom" (Maja, 1997: 8).

Stability and change

Maja argues that built into the various enabling conditions for successful learning environments is the aspect of change in society, such as the democratic changes taking place in South Africa after 1994. These changes included educational reforms. Maja argues that the necessary resources were not usually available in order to ensure the successful implementation of new demands placed on schools through education reforms. He argues that for reforms to become part of a teacher's classroom practices, the teacher must:

- Be willing to implement the reforms

- Be involved in planning of the training that goes with the reforms
- Recognise the alternatives throughout the change process
- Have a basic understanding of the principles behind the change
- Be innovative enough in order to meet the requirements for the implementation

Like South Africa after 1994, Namibia also had initiated educational reforms after independence in 1990 and so Maja's observations have implications for Namibia. In Namibia, a single, national Ministry of Education was created out of 11 ethnic education authorities, a new curriculum was phased in, as well as learner-centred methodologies and the use of English as a medium of instruction, to mention but a few. However it is beyond the scope of this thesis to probe into the extent to which some of the above mentioned elements affected general teacher morale and thus learner achievement.

Learners' family background

Under this category Maja uses family background variables such as:

- Parents' educational backgrounds
- Parents' occupational backgrounds
- Parents' educational expectations for their children
- Home support mechanisms

Maja observes that learners come from different home backgrounds, which can have an influence on the ability and extent to which the learners take full advantage of responsibility in the learning process. Based on the conception of family background characteristics used in developed countries, the project identified the level of parental education, type of occupation, and supportive home mechanism as the key elements. However, the inclusion of "parental expectations" signals an expanded notion of family background as advanced by

Lockheed, Fuller and Nyirongo. Maja argues that even if "well-educated" parents and "poorly educated" parents tend to have the same aspirations for their children, the former's aspirations were reinforced by other home support mechanisms, which the latter did not have. Even if Maja does not spell out what the home supportive mechanisms are, other studies that have employed a similar notion of family background have used variables such as availability of books in the home and/or assistance with homework. He therefore concludes that the home background of the learner has an influence on the extent to which the learner is able to assume responsibility in the learning process.

The terms "enabling" conditions or "conducive" conditions offer a different dimension to the relationship between pedagogical conditions and learner achievement. Enabling conditions may be regarded as "opportunities" or "possibilities" only, which may interact with other conditions that are bound to be influenced by other subtle factors pertaining to the teaching/learning process and contextual complexities to enhance or be transformed into "realities" of learner achievement. There is no guaranteed or automatic link. The conditions may or may not enhance learner achievement and so it would be over zealous to regard these conditions as "determinants" of learner achievement. This approach strengthens Maja's concluding argument that, "access to learning and the learning matter (similar quality learning opportunities leading to optimum levels of performance and achievement), remains questionable in the South Africa context" (Maja, 1997:1).

A brief summary of Maja's findings

From observations and interviews with teachers, Maja concludes that the main factors which played a pivotal role in all the classes where effective teaching and learning situations were observed were the following elements:

- A calm, accepting, supportive and facilitative teacher

- A teacher who:
    - shows interest in individual learners
    - holds learners in esteem
    - conveys expectations and confidence in the competence of learners
    - provides a well structured and reasonably demanding environment
    - regularly meets with parents
    - informs parents about their children's performance
    - is honest and frank with parents about their children's performance
    - encourages parents to check and sign their children's exercise books
    - portrays a role model of genuineness
    - allows learners to discuss tasks in groups and help each other in performing them
    - establishes a high degree of private and semi-private communication with learners
    - promotes discussion, unity and friendship with learners
    - uses humour without humiliating the learner
    - uses positive reinforcement of learners by awarding them with positive compliments for correct answers to questions
    - uses a variety of teaching methods and teaching/learning aids
    - makes provisions for individual differences among learners
    - differentiates between individual learners regarding high order and low order questions

- encourages critical thinking abilities
- maintains discipline in a creative way without the use of corporal punishment
- demonstrates mastery of both the subject matter of the subject being taught and the language used
- demonstrates thorough prior lesson preparation through eloquent and logical lesson presentation

Maja's findings ascribe a key role to quality of teachers and show that different combinations of the teacher's attitude, competence and teaching practices or style are the most significant contributing factors to learner achievement. Maja reports that even if the schools were stratified into well resourced, poorly resourced and average resourced schools, school resources in themselves did not seem to have a direct impact on classroom dynamics, except under extreme circumstances. The study further found that:

> not only was there a great variety of factors, but also within each of these factors there was a great variety. For example, the intensity of a teacher's teaching methods varied not only between classes of a similar grade, but also across the grades; pupils' interaction and enthusiasm not only differed between teachers, but also with the same teacher, different groups of pupils interacted in different ways; teaching and learning methods might be similar at a specific school or grade or even class, but the intensity and chemistry that prevailed in classes or during certain periods differed tremendously within a school (Maja,1997:14).

Maja arrived at the same general conclusion as the other researchers discussed in this chapter, viz. that in order to create an enabling environment for effective teaching and learning to take place, many different factors have to be taken into consideration. These factors also have an impact on one another in different ways and this varies from context to context.

1.5 Five General categories of educational indicators

In the first part of this chapter I offered a brief analysis of the historical development of educational research as well as the multidimensional approaches to educational research. This is followed by the analysis, which has included among other things, the quantification and classification of educational indicators by different researchers from different backgrounds who have either conducted research or analysed the results of research conducted in different developed and developing contexts. In this part I attempt to narrow down all the different categories of educational indicators into five main groupings developed by Haiyan Hua of the Harvard Institute of International Development (HIID). According to Hua (1998:7), educational indicators can be grouped into five main categories. The first one is the "learner's own attributes" and the other four, which he calls learning environments are the "social environment", "community environment", "family environment" and the "school environment" (Hua, 1998:7). For the purposes of this thesis, I provide an adapted conception of Hua's categories of indicators. I find Hua's model useful as a framework for the following reasons. Firstly, Hua's classification generally captures most of the key indicators analysed by the other researchers discussed in this chapter. Secondly, Hua's model provides a conceptual framework that is best suited for the analysis of the SACMEQ I model because of the similarities intrinsic in the two models. Thirdly, Hua's model generally provides an ideal starting point for the analysis of the SACMEQ I project in Namibia that is made in chapter 3 and the analysis of the results in Rundu and Katima Mulilo education regions in particular that is made in chapter 4. This sequentially forms the basis for the analysis of the new findings, which is made in chapter 5. The presentation of Hua's five categories of educational indicators which follows is an adapted version which includes variables that are pertinent to developing contexts such as Namibia.

The learner's attributes

Hua argues that the individual learner's learning process starts with individual attributes such as:

- age
- gender
- ability and effort
- prior knowledge
- motivation

These attributes of learners are differently formed and can already be discernible when the learner enters school. Hua implies that all learners are not the same, and in attempting to understand learning and learner achievement, cognisance should be taken of the individual differences that learners come with to school. Learners enter school with different backgrounds. They may differ in age, ability, prior learning experiences and motivation to learn, depending on their respective family backgrounds and their own individual make up. Factors from four other environments also influence the learning process.

Social Environment

This relates to the broader social and economic contexts under which educational systems and schools are established and in which teaching and learning take place. In developing countries such as Namibia this may include additional understanding of the natural environment as well as the following:

- National wealth and its distribution
- Infrastructure
- National economic structural adjustment programmes
- Income/poverty levels
- Social capital, measured by crime rate, and divorce rate

- Political transformation brought about by national independence
- Educational reforms
- Introduction of new national language which has to be taught in schools

Hua argues that all the above listed factors may affect the learners' learning in schools although these factors may not be so easy and direct to be monitored as I also found out in Katima Mulilo and Rundu. An expanded notion of the above mentioned factors which may be of interest in the Namibian context may include the following, inter alia:

- Mortality rates
- Poor nutrition
- Tropical diseases such as Malaria
- Impact of HIV/AIDs
- Ethnicity and traditional social conventions
- People's perception of, and commitment to education

These factors may not only differ from one developing country to another but may also differ from one region to another in the same country. The prevalence of political instability and civil wars especially in Africa is not only a drain on financial resources that could be used for education but a disruption of all spheres of social life and entire education systems. The civil war in Angola, which lasted for 27 years had a negative impact on Namibia. The civil war in the Democratic Republic of the Congo (DRC), between 1999 and 2002 in which Uganda, Burundi, Rwanda, Zimbabwe and Namibia were involved is another example.

Community Environment

Learners in the same school or class may come from different communities. These communities may have different norms and interact with the school differently. So the community environment may include the involvement of parents and other people within the vicinity of the school who may not have children at the school as well as the broader local communities in the area in which the school is located. The interaction of all these people in many different ways, with education officials at various levels of the educational system such as classroom, school, village, municipal, regional or national, levels may ultimately have an influence on what goes on in the school. Community involvement may include:

- The funding of specific educational programmes or projects
- the purchase of textbooks, exercise books and pencils
- the construction of classrooms
- the provision of desks and chairs

Community involvement may also be in the form of contribution to the management of schools and other forms of interaction between teachers and educational officials on one hand, and parents, traditional authorities, local government authorities, non-governmental organisations and the local business community on the other hand, depending on the area where the school is located. Another way of community involvement in Namibia, is in the form of regional education forums where various stakeholders are represented.

Family Environment

Hua agues that the learner's home environment is an important area where influential factors that affect learning may be identified. He therefore identifies the following as some of the indicators falling under this category:

- Parents' level of education

- Parents' occupation
- Parents' income
- Number of siblings in the family
- Parents' participation in parent-teacher activities
- Assistance with homework
- Time spent with child

The above set of indicators are similar to the ones used by many other researchers, but Lockheed, Fuller and Nyirongo argue that these indicators on their own present a rather narrow conception of a learner' family background which may work well for industrialised contexts but not in developing contexts. Hua's family background indicators also fall short of Carron and Chau's analysis, which included indicators that were considered suitable for developing contexts such as the type of houses, availability of basic services such as water and electricity, availability of reading materials in the home as well as learners' state of health and nutrition. Even if the SACMEQ I model is similar to Hua's model, there were some differences in the specific indicators used, in that SACMEQ family background indicators included possessions in the home and frequency of meals.

Learners' family background indicators may include other indicators such as:

- Parents opinion about the school and its teachers
- Parents' educational and occupational aspiration for their children
- Learner's access to reading materials such as books, newspapers and magazines in the home
- Child assistance with household chores, and other forms of labour such as herding livestock and tilling the land
- Learner school attendance, reasons for absenteeism, repetition and/or drop out

School Environment

Hua argues that "factors at school-level, class-level teacher-level, and peer-level are designed to boost learning" (Hua, 1999:17). Hua classifies school environmental factors into five subcategories namely, teachers, principals, facilities, curriculum and peers. Under some of these subcategories are specific indicators such as library use/capacity, number of textbooks per learner, learner-teacher ratio, teachers' attitudes and teaching methods, number of trained teachers/untrained teachers and number of learners per class. Added to the above factors is the key role played by the school principal as a supervisor, manager and instructional leader who provides support and motivation to both learners and teachers. Equally important is the availability of the necessary school facilities such as classrooms with adequate lighting and ventilation as well as toilets. Learners learn better among their age mates. So the peer - groupings in the school, their characteristics and the learner choice of subjects have an influence on learning.

Table 1.13 A summary of Hua's school environmental factors:

Teachers: • Pre-service qualification • In-service training • Years of teaching • Teaching hours • Salary • Teaching methods • Expectations of learners • Motivation • Use of time • Frequency of tests • Frequency of giving homework • Frequency of correcting h/work	**Principals:** • Pre-service qualification • In-service training • Supervision • Supportive role **Curriculum**: • Contents • Relevance • Relevant textbooks • Teacher guides • Subject time
Facilities: • Classrooms • Desks and chairs • Library use • Visual aids • Lighting • Toilets	**Peers**: • Class groupings • Characteristics

There are conceptual similarities between Hua's framework of the five categories and some elements of the SACMEQ framework. Hua's learner attributes are related to some of the SACMEQ learner personal characteristics such as age, gender and ability or test scores. Hua's family environmental factors are similar to SACMEQ's learner home background characteristics such as parents' SES, parents' involvement in school activities, as well as home assistance with schoolwork. SACMEQ learner background characteristics also include some aspects of Hua's community environment. Most of the school environmental factors listed under teachers and principals in table 1.13 are similar to the SACMEQ's teacher and school head characteristics such as academic and professional qualifications, teaching experience, in-service training, school and classroom resources, frequency of tests and homework, teaching approaches,

length of school day, use of library, type and number of classrooms, teachers' job satisfaction, and the supportive role of the school head as well as inspection visits. It is only the broader elements of Hua's social environmental factors that SACMEQ did not seem to take into account.

1.5.1 Conclusion

Relating Pedagogical Conditions to Learner Achievement in Namibia

An attempt at identifying key educational indicators and the current theories and debates about their relationship to learner achievement has been made in this chapter. I explored the contradictions of what some indicators predict under different industrialised and developing contexts. A specific conception of learning and learner achievement has been highlighted, using Maja's analysis. In the analysis that follows in the next chapters, I shall attempt to creatively adapt Hua's conceptual model to the Namibian context. Hua's model is not only similar to the SACMEQ I model, but also it is simplistic and yet complex. It is simplistic in the sense that Hua's five categories of what he calls learning environments are less complicated than the other models and are more appropriate in the analysis of school education instead of using indicators of education per se, as in the case of the OECD model. But it is also complex because nearly all the specific indicators that have been discussed in this chapter can be grouped or classified under each one of Hua's learning environments. These categories can therefore be enriched by the inclusion of some of the indicators analysed by Carron and Chau, Caillods and Postlethwaite, and particularly, Maja. Like Maja, Hua's analysis is not linked to specific learner scores in a particular school subject but to the learning process. So my analysis in the subsequent chapters will largely be informed by a combination of some elements from Maja and some from Hua.

Finally, a wholesome application of all the indicators discussed in this chapter to the Namibian context would not only be beyond the scope of this thesis but may probably not yield additional benefits. From the literature reviewed, I found that the indicators that were found to exert a greater influence on learner achievement either in different contexts or under the same contexts at different times were those relating to the following:

- The role of the teacher
- The role of the school principal
- The availability of school and classroom teaching/learning resources
- The parents' involvement and other family background factors
- The learner's engagement

Where there are other variables that were reported to have a greater influence on learner achievement, these were in most cases a result of classroom observations and personal interviews. The SACMEQ I project in Namibia did not use classroom observation and/or open ended interview questions, which would have provided some kind of triangulation and verification of some of the opinion based questions. In the absence of such verifications, the analysis was restricted to the quantifiable variables only. However the prediction made on the basis of these quantifiable variables and their relationship with learner achievement generally seems to have worked relatively well in most of the educational regions in Namibia but could not adequately explain the disjuncture in the case of Katima Mulilo and Rundu. This is one reason why it was deemed necessary to complement the statistical analysis of the SACMEQ data that has been made in chapter 4 with a qualitative analysis that has been made in chapter 5.

CHAPTER 2

The Context of Pedagogical Conditions in Namibia

2.1 Some Elements of the broader context of education in Namibia

This chapter serves as a prelude to the analysis of the pedagogical conditions that were investigated under the SACMEQ I project and their influence on learning and learner achievement in Katima Mulilo and Rundu. Since the two regions are an integral part of the whole Namibia, an understanding of the conditions in the two regions would be incomplete without an appraisal of some elements of the broad Namibian national context.

This is so because educational systems do not emerge and develop in a vacuum. They emerge and take shape within a broader context, which embraces national, regional and local levels of the social, cultural, political and economic life of society. The national and regional umbrella conditions may have a direct or indirect influence on the local, specific concrete (school level) conditions under which teaching and learning take place. For example, there is an inseparable relationship between the national socio-economic conditions, the human, material and financial resources available for the education system, how these resources are allocated, when, where and what actually goes on at the regional, district, school and classroom levels to directly or indirectly benefit the learner. Regionally, the intensification of the civil war in Southern Angola between 1999 and 2001 did not only bring about an influx of displaced people into the (Kavango region) Rundu educational region, but it also led to the disruption of peace and security, which resulted in the temporary closure of some schools in the region.

A broader knowledge of the context of education therefore, provides a solid background for a fuller and clear understanding of the conditions of teaching and learning in any given country. In Namibia the historical evolution of the social, cultural, political and economic conditions, which shaped the development of education under apartheid, and continue to have influence on current educational

developments in the country, have to be known. In this way, I hope to develop a deeper understanding of the conditions existing in Katima Mulilo and Rundu, and their influence on learner achievement, and other key educational issues in Namibia today under the new and changing conditions.

2.2 Political climate

Political developments in Namibia have been guided by a democratic national constitution, which was adopted at independence in 1990. The country is divided into thirteen political regions, namely Caprivi, Kavango, Ohangwena, Oshikoto, Oshana, Omusati, and Kunene in the northern parts of the country, Erongo, Otjozondjupa, Omaheke and Khomas around the central part, and Hardap and Karas regions in the southern part. Plans are underway to decentralise government functions from Windhoek to the thirteen regions to give local people more say in developmental issues pertaining to their own/local welfare. It is expected that education administration will also be eventually decentralised from the current seven educational regions to the thirteen political regions.

The country has continued to enjoy relative peace and political stability based on a multi party parliamentary democratic system (with regular national and local government elections), under which the basic rights and freedoms of the individual and a free market economy are upheld. The short-lived secessionist rebellion of August 1999 in the Caprivi region is an exception. People exercise freedom of speech, freedom of movement and freedom of association. The electorates have continued to vote for the ruling party - SWAPO - with a two third majority in parliamentary elections held in 1994 and 1999.

2.3 The economy and human development

Namibia is a large country, spread over an area of 824,2680 square kilometres with a total population of about 1.8 million people according to the National Planning Commission (NPC) preliminary report of the "2001 Population and Housing Census." About three quarters of the total population lives in the northern regions of the country, that is, the area stretching from the Caprivi strip in the north east to Kunene region in the north west. The main sector of the economy is mining, which in the first five years of independence contributed between 10 to 15% of the annual Gross Domestic Product (GDP). Other main sectors are fishing, agriculture and tourism. The economy is characterised by a modern sector, which employs only a few people, depending on a few natural resource based sectors, and little employment creation, leading to huge income disparities. An estimated 35 to 40 % of the employed population were employed in subsistence agriculture while 60% of the labour force was either unemployed or underemployed (NPC, 1996:4-10). Angula (1999:2) notes that underdevelopment and poverty were major challenges facing the people of Namibia.

The United Nations Development Programme (UNDP) Global Human Development Report for 1997 classifies Namibia as a 'middle income' country in terms of *per capita* GDP. However, even if Namibia is classified as such, there are wide disparities in the distribution of incomes within the country. According to the UNDP Human Development Report for Namibia (1998:5), the "...richest 10% of society still receive 65% of income, leaving only 35% for the remaining 90%. In other words, half of Namibia's population survives on approximately 10% of the average income, while 5% enjoys incomes that are five times the average, and the ratio of per capita income between the top 5% and the bottom 50% is about 50:1."

The report further states that in spite of all the changes that have taken place since independence Namibia still has the "highest level of malnutrition of any country in the world with a per capita income in excess of US$1,000, and, ...about 40% of

households live below the poverty line with no access to potable water" (UNPD, 1998:4).

2.4 Social and Cultural climate

Namibia is a country of great contrasts both geographically and culturally. Geographically the northern part of the country stretching from the Caprivi region in the north east to the Kunene region in the north west, is covered by savannah vegetation, receives good rainfall and is home to about 60% of the total population of the country. This is in contrast with the southern part of the country, which is characterised by short shrubs and little grass due to little rainfall, and has a sparse population. The entire western coast of the country, stretching from the north to the south is covered by the sandy Namib desert, in contrast to the stony and short shrubs of the Kalahari desert in the east. These geographical differences have had an influence not only on the movements and settlements of the people but on their ways of life and cultures as well. Angula (1999) observes that the Namibian cultural spectrum has to be understood in terms of the cultural diversity of its people and their origins. He notes that while the San or Khoi people add to the Namibia cultural rainbow with their links to the Karoo people of South Africa, others again have cultural roots in the Bantu speaking people who can be traced from central and east Africa, in addition to the Indo-Germanic cultural groups.

The cultural aspects of the people, such as their way of life and the language, may have an influence on the type of education provided and the outcomes thereof. For example, the Ministry of Basic Education in Namibia has had to provide "mobile schools" to cater for needs of the semi-nomadic Ovahimba people of Kunene region. The so-called mobile schools, are schools with classes made up of movable materials such as tents. This makes it easier to set them up wherever the community settles and to dismantle them again to be set up in another area wherever the community moves to in search of water and grazing land for their cattle. In this way Ovahimba children are able to attend school. Another example is that children from some minority ethnic groups such as the San people cannot

be taught in their mother tongue at the lower primary phase due to lack of written materials in these languages and/or lack of qualified teachers to teach in the language. This is contrary to the policy of the Ministry of Education, which states that at the lower primary phase, learners shall be taught through the medium of their mother tongue.

2.5 Educational developments

The earliest schools in South West Africa, as Namibia was known before independence, were established by German and later Finnish missionaries starting from 1805. By the time of German annexation in 1884, missionaries had introduced for the indigenous people rudimentary education programmes, which focused on the following subjects:

- Reading and writing
- Mother tongue
- Arithmetic
- Religion
- Biblical geography
- Singing (Cohen, 1994:85)

In later years, other subjects such as "moral" education, craft and Afrikaans were added. Throughout the period of German colonisation from 1884 to 1915, education for native Africans continued to be largely in the hands of missionaries. Education provision was based on racial lines for people classified as "whites," "coloureds" and "blacks", thus the seeds of racial segregation were already planted in the education system in the country prior to the South African administration. South African troops occupied South West Africa after the defeat of German troops in 1915, during the First World War. In 1919 the League of Nations entrusted South West Africa as a mandate to the Union of South Africa representing Britain, with the responsibility of eventually leading the country to independence. Instead, South Africa administered the territory as its fifth province in defiance of UN resolutions. Education for "blacks" continued to be neglected

up to the time the National Party, the architects of apartheid came to power in 1948. During the first phase of the South African administration from 1915 to 1948, education for native Africans was neglected and with the institutionalisation of apartheid, the purpose for education was meant to make "black" people become good servants only. The Bantu Education Act of 1953 was extended to South West Africa in 1958. A four year junior primary school course was designed for "blacks" which was very much the same as the missionary education of the 1880s. The course provided basic literacy in mother tongue, some working knowledge of Afrikaans, manual work, agriculture, religious instruction, elementary arithmetic and hygiene aimed at equipping the "blacks" for unskilled work (Cohen 1994). The Odendaal Commission of 1962 led to the division of the country into twelve ethnic groups for "separate development" in their respective "homelands," and in 1980 eleven ethnic education authorities were established. Up to the time of independence in 1990, there was great inequity in the distribution of educational resources among the eleven ethnic groups, to the disadvantage of the majority "black" population.

After the attainment of national independence in March 1990, a new structure of education was created under one Ministry with seven regional education administrative regions coordinated from head office in Windhoek. The new educational regions replaced the previous ethnically based education authorities. Apart from Katima Mulilo and Rundu, the boundaries of the other educational regions spread across two or more political regions as indicated below, with political regions in brackets: Katima Mulilo (Caprivi region), Rundu (Kavango region), Ondangwa East (Ohangwena and Oshikoto regions), Ondangwa West (Omusati and Oshana regions), Khorixas (Kunene and Erongo regions), Windhoek (Otjozondjupa, Omaheke and Khomas regions), Keetmanshoop (Hardap and Karas regions). The new Ministry of Education embarked upon a process of educational reforms, guided by the broad goals of "access, equity, quality and democracy" (MEC, 1993*a*: 32-42). Starting from 1993, new curricula, syllabuses, teaching methods and an educational ethos had to be phased in, to

replace the old apartheid education, and to meet the immediate as well as the future needs of a new democratic non-racial society in Namibia. The curriculum reforms for Grades 1 to 12 were completed by 1998.

During the first nine years of independence, government annual recurrent expenditure on education continued to rise steadily, reaching up to about 9% of GDP by 1998 (Sherbourne, 2002). The big investment in education was seen as a prerequisite to developing the human resource capital of the country that had been neglected in the past. There was a greater need for basic and higher education to provide the much needed skilled and qualified personnel for national development. This was the driving force behind the expansion of the education system.

The total number of schools increased from 1,171 in 1990 to 1,545 in 2001. The total learner enrolment increased from 382,445 in 1990 to 528,958 in 2001. Of the 528,958 learners enrolled in Namibian schools in 2001, a total of 237,274 were at the lower primary level, 158,978 at upper primary, 105,643 at junior secondary and 24,934 at senior secondary level. Of the 396,252 learners enrolled at the primary school phase, 50.0% were female (MBESC, 2001*b*:25-8). At the lower primary phase (Grades 1-4) learners were taught in their mother tongue and English was taught as a subject. However, from the upper primary phase (Grades 5-7) up to Grade 12 English was not only taught as a subject but it was also the medium of instruction.

The Namibian constitution provides for free and compulsory primary education. By 2001 the net enrolments of the age groups 7 – 13, 7 – 16 and 7 - 18 year-olds were 89.1 per cent, 90.8 per cent and 87.9 per cent respectively (MBESC, 2001*b*:54). Much has been achieved as far as access to schooling is concerned, that is, putting learners into the classroom but much still needs to be done as regards equity and the provision of quality education for all. The SACMEQ study of 1995 revealed that inequities of the past were still in existence. The disparities

seem to follow the pattern of the social structure of the country, which was previously enforced by apartheid. The conditions of teaching and learning, in the formerly disadvantaged northern regions of Katima Mulilo, Rundu, Ondangwa East and Ondangwa West were characterised by inadequate classrooms, teaching materials, school resources and lack of qualified teachers. Currently most of the learners in these areas come from poor households, they are undernourished and walk long distances to schools. At school, they sit in overcrowded classrooms with few desks, chairs and other classroom facilities. These are also the most populated regions of Namibia, where the needs are great and equitable distribution will take time.

The 1999 Presidential Commission Report on Education Culture and Training in Namibia highlight the disparities in wealth, standards of living and the provision of educational resources among the different educational regions in Namibia. The report recommends that in order to improve equity and the quality of education, educational expenditure should be based on "unit costs calculated for each learner" so that all elements of the recurrent costs such as textbooks, stationery and other teaching/learning materials, as well as staff salaries would be based on the number of learners at each educational phase in each region (Presidential Commission Report on Education, 1999:23).

The main current educational issue in Namibia relates to the need for equity in the allocation of various educational resources. Other key issues relate to the high levels of government expenditure on education on the one hand, and what some people perceive to be declining standards of teaching/learning as demonstrated by seemingly poor performance by learners in examinations on the other hand. Anxieties have been expressed over the curriculum content, the relationship between promotional and non-promotional subjects, the language policy, the policy of semi-automatic promotion, learner-centred education, teaching methods, teacher competencies and learner achievement. A study conducted by the British

funded English Language Teacher Development Project (ELTDP) in Namibia in 1999, reported among other things, that:

- 35% of lower primary teachers/student teachers
- 43% of upper primary teachers/student teachers; and,
- 49% of junior secondary teachers/student teachers do not have levels of proficiency in English usage that is desirable to teach at the respective levels within the context of the Namibian education system, without making comparisons to other countries. The situation is reported to be worse in the four northern educational regions of Katima Mulilo, Rundu, Ondangwa East and Ondangwa West.

This thesis focuses on the conditions of teaching and learning in Rundu and Katima Mulilo by reviewing the conditions existing in the two regions at the time of the first SACMEQ study in 1995. The historical developments of the changes that have taken place in the two regions will be further explored to provide a better understanding of these conditions and the influence they have on learner achievement. As indicated in chapter 1, and further discussed in this chapter, the broad contextual factors such as government policy and economic level of activity have an impact on the functioning of schools and so indirectly and ultimately, on the learner. Given this background, I hope to provide a better understanding of the possible reasons why learners in Rundu performed better than learners in Katima Mulilo in the SACMEQ English language standardised comprehension test, given that the conditions of teaching and learning were judged to be less favourable in Rundu than in Katima Mulilo.

CHAPTER 3

Pedagogical Conditions and Learner Achievement - The Case of the first SACMEQ Project in Namibia

Introduction

The main question that my thesis addresses arises from the apparent disjuncture between the pedagogical conditions that were investigated in the first SACMEQ project in Namibia and their influence on learner achievement. This chapter therefore, focuses on the design, execution, results and outcomes of the first SACMEQ project in Namibia.

SACMEQ is an acronym for the Southern Africa Consortium for Monitoring Educational Quality, a regional grouping or consortium of Ministries of Education in the southern Africa sub-region, which was officially launched in 1995. This consortium works in close co-operation with UNESCO's Paris based International Institute for Educational Planning (IIEP), in undertaking educational policy research in order to provide information that can be used by key policy makers in Ministries of Education to plan for the quality of education. By 2000, SACMEQ had become a registered NGO, with its regional co-ordinating centre based in Harare, Zimbabwe. The organisation has a membership of fifteen developing countries in Southern Africa that were also involved in the second SACMEQ project in 2000.

3.1. Origins of SACMEQ

The origins of SACMEQ can be traced back to the cooperation between the IIEP and the Ministry of Education in Zimbabwe, which began with the educational survey in primary schools in Zimbabwe in 1991. The Zimbabwean survey set to establish a baseline for selected inputs to primary schools and to explore the relationship between these inputs and learner achievement. In other words, the study set to investigate which inputs to schools made the biggest impact on teaching/learning and learner achievement.

In subsequent years the IIEP shared the Zimbabwean experience with other Southern African countries who showed interest in this type of research. In 1994 SACMEQ was formed with the IIEP, Kenya, Malawi, Mauritius, Namibia, Zambia, Tanzania (Zanzibar) and Zimbabwe as members. Five of these countries - Mauritius, Namibia, Zambia, Tanzania (Zanzibar) and Zimbabwe - undertook the first SACMEQ educational policy research project in 1995 (Voigts, 1998:6).

3.2 Rationale for Namibia's involvement in the first SACMEQ project

As mentioned earlier, a single Ministry of Education was created out of the previously eleven ethnic education authorities after independence in 1990. The new Ministry of Education and Culture set itself to achieve the four broad goals for education in Namibia, that is, access, equity, quality and democracy (MEC, 1993*a*:32-42). In pursuance of these goals, the focus was on redressing the disparities of the colonial-apartheid past, and bringing about new changes and reforms in conformity with the new needs and aspirations of the Namibian society. However, five years after independence, there was an increasing concern about the efficiency and quality of the education system because the "...education sector was consuming 27% of government recurrent expenditure..." by 1996 (Voigts, 1998:3). This was a big investment in education but there were still major disparities in the quality of education and resource allocation to educational regions and different schools within the regions, which could undermine this investment.

Other "deficiencies" in the education system included high repetition rates, over-age learners and under-qualified teachers. Voigts (1998) observes that problems pertaining to issues such as efficiency, equity, access, gender equality, age spread, teacher competencies, support services and the curriculum, needed attention in 1995. Policies and relevant actions were needed in these areas to meet the challenges of the education system. Therefore, the SACMEQ project was expected to help find answers to the following broad policy questions:

- "What affects learner achievement? To what extent can differences in learner achievement be attributed to factors relating to learner's characteristics and home background, the teacher, the school, etc? Are there gender differences in achievement?"
- "How do achievements vary between education regions within Namibia?"
- "What are the differences in the availability of educational materials in different schools?"
- "How does the achievement of Namibian primary learners compare with the achievement in comparable countries?"
- "What are the similarities and differences in factors affecting achievement in different countries?" (Voigts, 1998:4).

The study specifically targeted Grade 6 because it was the second highest Grade for the teaching of English in primary schools in SACMEQ participating countries. Grade 7 could not be tested because in many countries learners wrote the end of primary school examination at this level. It was partly due to the need to compare learner achievement in Namibia with other countries in the sub-region that the Ministry decided to take part in the study. The main reason however, was to investigate the nature and magnitude of the problems relating to the educational goals and policies in Namibia, in order to come up with new policies and programmes for the new Ministry of Education in an independent Namibia to address them. The broad policy questions were formulated into the following specific research questions:

(a) What are the baseline data for selected inputs to primary schools?

(b) Have educational inputs to primary schools been allocated in an equitable fashion among and within educational regions?

(c) What is the level of reading achievement of Grade 6 learners?

(d) Which educational inputs to primary schools have most impact upon the reading achievement of Grade 6 learners? (Voigts,1998:5).

The data collected and the analysis to be made was expected to assist in answering the above mentioned questions.

3.3 The Research Plan

SACMEQ's formal research plan was adopted at a meeting of National Research Coordinators (NRCs) and the IIEP, which was held in Harare in September 1994. Five participating countries, that is, Mauritius, Namibia, Tanzania (Zanzibar), Zambia and Zimbabwe conducted the survey in their own countries between August and September 1995, using a common sampling frame, instruments and procedures.

Survey Instruments

All the questionnaires were constructed/developed by NRCs in collaboration with IIEP technical staff, based on the pertinent policy issues identified by key decision-makers within the Ministries of Education of participating countries. The questionnaires used for data collection were as follows:

- School Head Questionnaire:

  The school head questionnaire had indicators relating to the personal details of the school head such as sex, age, qualifications, years of experience and teaching periods. The school head was also asked to indicate whether the school was a government school or a private one; year of establishment and location; number of teachers and their qualifications; learner enrolment, class groups and class sizes. Other questions related to school operations such as number of sessions, inspection and the school head's opinion of various professional activities and problems relating to teachers and learners in addition to school facilities such as buildings, school resources and equipment, as well as parental/community involvement.

- Teacher Questionnaire:

  Grade six teachers of English were also asked to indicate their sex, age, qualifications, number of short courses attended and years of teaching experience; some details about their classes such as number of books, sitting/writing places for learners and classroom resources; some questions about their teaching and their perception of the role of school inspectors/advisory teachers; and the teachers' living conditions.

- Learner Questionnaire:

  Grade six learners were asked to state their class, age and sex, in addition to some questions about their background, the place where they live, that is, whether they live with parents or other relatives. They had to state their parents' level of education and possessions in the home; frequency of meals, frequency of homework and assistance with homework; as well as school attendance. They were also asked questions about their school and classroom factors such as library use, textbooks and type of sitting/writing places. In section 4 of this chapter, I will discuss how the indicators that were chosen for inclusion in SACMEQ I, through the above mentioned questionnaires link with the indicators discussed in chapter 1.

- Learner English Reading Comprehension Test

  The learner English Reading Comprehension Test was made up of a combination of items supplied by NRCs based on Grade 6 syllabi of participating countries, items from a similar study that was conducted in Zimbabwe in 1991 and items from the International Association for the Evaluation of Educational Achievement (IEA) item bank. The test items were pilot-tested in each of the five participating countries to determine their suitability. After a post-test item analysis, the items considered unsuitable were dropped.

The English test consisted of 59 items selected according to the 3 main domains of language questions, namely, "narrative" prose and "expository" prose as well as "document" questions. There was 21 narrative prose type of questions. These were questions consisting of a "continuous text in which the writer aimed to tell a story, whether fact or fiction". There were 23 expository prose type of questions which also consisted of a "continuous text in which the writer aimed to describe, explain or otherwise convey factual information or opinion to the reader". The document type of questions were 15 and consisted of "structured information organised in such a way that learners were required to search, locate, and process selected facts rather than to read every word of a continuous text" (Voigts, 1998:7). All the questions had multiple choice answers, with 4 options (A, B, C and D), and learners were required to "tick" only one option or one correct answer for each question. Reading comprehension was defined as "the ability to understand and use those written language forms required by society and/or valued by the individual" (Voigts, 1998:7).

In each of the three reading domains mentioned there were seven reading skills required, based on "the most important reading skills mentioned in several syllabi." To have a "balanced test," the total number of test items for each of the seven reading skills in each domain had to be proportional to the emphasis given to them (reading skills/domains) in the syllabus. The table given below shows the distribution of test items according to reading skills in the three domains.

Table 3.1 Reading skills and the 3 domains of the SACMEQ I English test

Reading skills	**Reading domains and number of test items in each domain**			**Total**
	Narrative	Expository	Documents	
Verbatim recall	10	14	-	24
Paraphrase concept	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

The NRCs argued that the 59 close-ended multiple-choice test items (with four optional answers per item) were sufficient to cover the general construct of reading literacy, and would have an adequate level of reliability. Voigts reports that the reliability (Kuder-Richardson formula 20) of the final test was 0.90 for Namibia (Voigts, 1998:8). In other words, in Namibia the degree of the reliability of the whole test was 90%.

3.4 The survey sample

The survey sample was selected using strict "state of the art scientific procedures" to meet the standards set down by the International Association for the Evaluation of Educational Achievement.

> These standards required (a) a response rate of at least 90 percent for schools and, where necessary, sampling weights to be calculated to remove the potential for bias that may arise from different probabilities of selection, and (b) 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 plus or minus 5 percent for a percentage, and one tenth of a learner standard deviation unit for a mean (Voigts, 1998:8).

The target population in Namibia was all learners at the Grade 6 level in 1995 in the eighth month of the school year who were attending government or registered private schools in the country, excluding special schools and schools with less than 10 learners in Grade 6. The NRC in collaboration with the Ministry of Education stratified the schools according to educational regions and randomly selected a minimum of 20 schools in each education region. "To ensure that the regional population mean scores would be estimated within ±5 percent with a 95 percent probability, sampling weights were applied in the final analysis to adjust the results in such a way as to adjust for different probabilities of selection, which included adjustments for the different sizes of the regions" (Voigts, 1998: 9).

The teacher and school principal's data were associated with the learner. In other words, teacher and school principal data were collected for 4,457 learners who were taught by 173 teachers in 158 schools selected from all educational regions.

The research teams reported that 12 teachers and 5 principals were absent on the day of data collection and so teacher data was collected from 161 teachers only, for 4,165 learners and from 153 school principals for 4,338 learners. These constituted the actual national sample size. The achieved sample of schools from each of the seven educational regions in Namibia is presented in table 3.2.

Table 3.2 SACMEQ I sample size

Region	**Number of Schools**
Katima Mulilo	20
Rundu	18 +2
Ondangwa East	25
Ondangwa West	30
Khorixas	20
Windhoek	25
Keetmanshoop	20
Total	158 (160) schools

Table 3.2 shows the number of schools selected from each region to make up the national sample of a total number of 158 schools. However, there were two very big schools in Rundu, each of which had a learner enrolment equivalent to that of two schools. Therefore, each one of these schools was divided into two parts and the two parts were treated as two separate schools. A sample was then drawn from each of these two parts in each school, thus bringing the total number of 'schools' in Rundu to 20 when in actual fact there were 18 schools. On the basis of this, the national sample could also be said to be 160 schools, when the actual number of schools was 158. For this reason, the analysis made in chapter 4 shows that there were only 18 schools in Rundu. Figure 2(C), in chapter 4, shows the distribution of learner test scores in the sample schools in Rundu. The two schools where the double sample was drawn can be identified by the indicated number of 33 learners instead of the 17 learners that have been shown for the

other schools. The achieved total number of learners in the national sample was 4,457.

3.5 Choice of indicators included in the SACMEQ design

All the indicators included in the SACMEQ design have been presented in Tables 1.1, 1.2 and 1.3 on pages 2 – 3. These indicators were selected to help answer the specific research questions noted in 3.2 on page 106, regarding the distribution of different types of inputs to schools. The single Ministry of Education that had been created by amalgamating the eleven pre-independence ethnic educational authorities inherited big disparities that existed in the allocation of inputs to schools. The disparities in inputs led to disparities in learning outcomes as well. The Ministry was faced with the daunting task of overcoming disparities by bringing about a more equitable system. However, the Ministry did not have all the details of the magnitude of these problems. The Ministry therefore wanted to know about the inputs to schools such as the type and condition of buildings, provision of water and electricity, libraries and other school resources.

The Ministry also wanted to know the characteristics of teachers and school principals who were regarded as part of the human inputs to the education system. There was a need to find answers to the following questions:

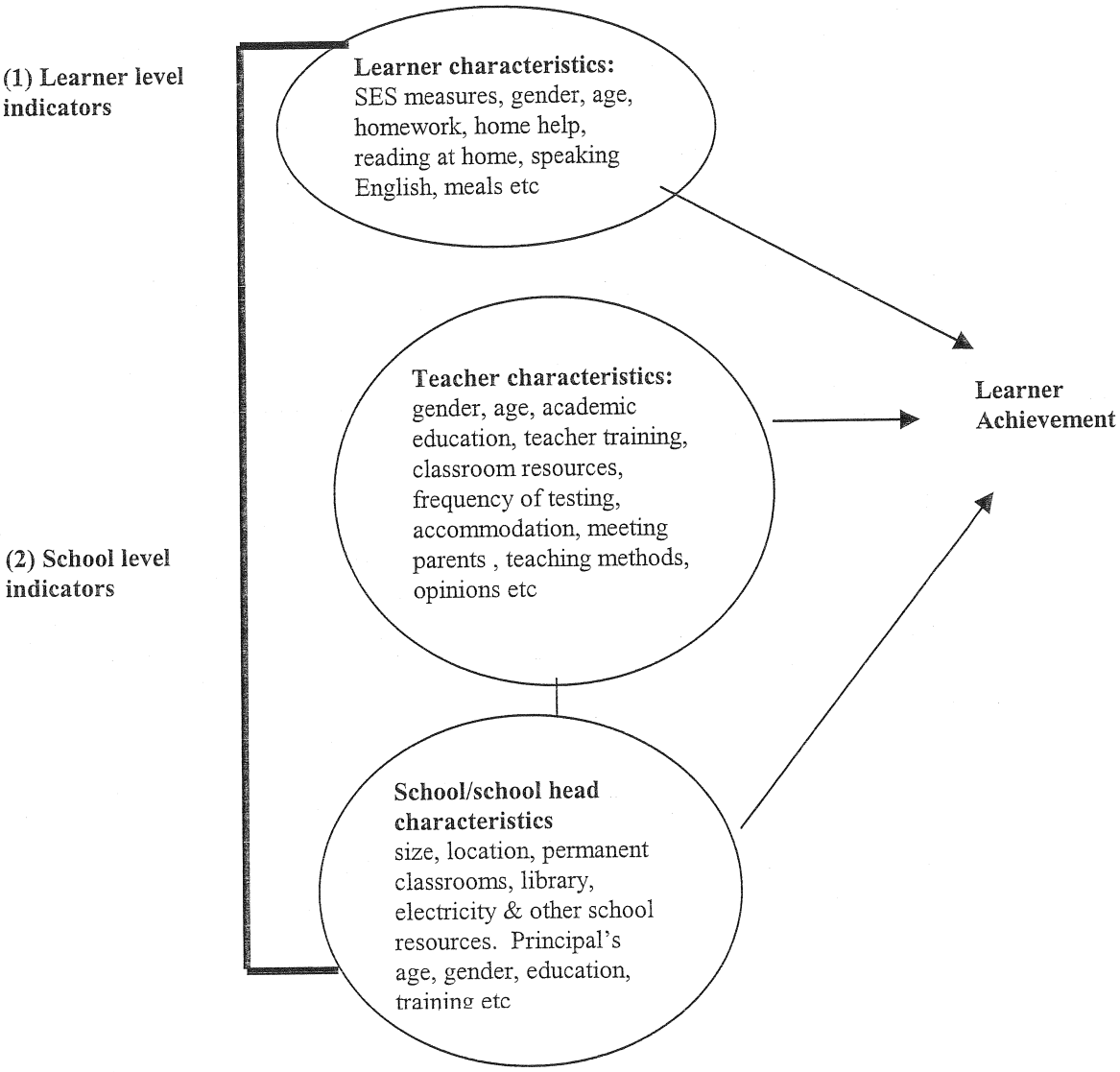
- How many teachers were trained and how many were not?
- How were (qualified) teachers distributed among schools and the various educational regions in the country?
- To what extent were teacher qualifications related to learner achievement?
- What were the conditions of school buildings and teacher accommodation, which may have an effect on the motivation of teachers?
- What was the status of classroom resources and learning/teaching materials such as textbooks, chalkboards, desks and chairs?

The above mentioned questions were related to the factors that were considered to have a greater influence on learner achievement and therefore crucial to the work of the Ministry at that time. English was regarded as a key subject because all the other subjects were taught through the medium of English, from Grade 5 to 12. So, the Ministry also wanted to know the level of English literacy among learners in addition to their family background factors that may have an influence on achievement. The analysis of the results that are presented in chapter 4, focuses only on the key indicators of key inputs to schools under the following main categories:

- Learner family/home background factors, including some personal and school related factors
- Teacher characteristics and classroom related factors
- School head characteristics and school related factors

The learner, teacher and school head questionnaires were used to provide three dimensions of background information, which could be linked with learner achievement as illustrated in Figure 1. Only the main key compound indicators in each category are given. For example, SES is a compound indicator consisting of a number of other specific indicators such as mother and father's level of education, possessions in the home and regular meals. In like manner, total school resources is an indicator that includes a number of specific resources such as classrooms, offices, type writer, telephone, library books as well as desks and chairs.

Figure 1. A simplified conceptual model of the SACMEQ I design



Model adapted from Haiyan Hua's unpublished course material, Harvard Institute for International Development (HIID), 1999.

The simplified SACMEQ model illustrated in Figure 1, shows only two main categories of indicators, that is the learner level indicators and the school level indicators. The learner level indicators are represented by a few examples of some learner characteristics. The school level indicators include teacher characteristics and classroom facilities, school head characteristics, school resources and other related characteristics. All these characteristics are linked to the learner and learner achievement. The model is in some aspects similar and in some aspects different to the other models discussed in chapter 1. Firstly, I already mentioned

in chapter 1 that the OECD model was based on a multi-national and multi-disciplinary approach to education, ranging from pre-primary to university education. The OECD model also includes outcome indicators that are outside the education system, such as labour market indicators, that are used for comparisons among industrialised countries in socio-economic co-operation and development. So the OECD model in its entirety was not well suited for the analysis of a small school system in a developing country such as Namibia. Secondly, Lockheed, Fuller and Nyirongo's model focuses mainly on family background. Even if they provide an expanded conception of family background factors that were found to be suitable for (a developing context) Malawi, they do not put much emphasis on school factors. Yet, in a different study conducted in India by Fuller and Heyneman, school factors were found to have a stronger influence on learner achievement, than family factors.

Caillods and Postlethwaite, Carron and Chau, Maja, as well as Hua, all emphasise the importance of using different types of indicators. Even if they make reference to different external factors that may have an influence on schools and learner achievement, they nevertheless seem to indicate that it is the interaction between learner characteristics, teacher characteristics and school characteristics that ultimately has a significant influence on learner achievement.

This is closer to the SACMEQ model even if there are differences in the actual contents or the specific indicators used. Maja however goes a step further by looking at some of the support mechanisms beyond the school, such as the role of inspection and advisory services. He also makes an analysis of teachers' teaching strategies and classroom dynamics, based on interviews with teachers as well as classroom observations spanning over a three weeks period. SACMEQ did not include an investigation of the teaching process through classroom observations. To do so would have required several classroom observations in all the 158 schools in the sample that was spread over several hundreds of kilometres, across Namibia. Data collection would have taken a much longer time, compared to

Maja 's project, which targeted only 36 schools in three adjacent provinces in South Africa.

Hua's model provides for four learning environments in addition to the learner's attributes. These learning environments have to be understood in their rather hierarchical order. The social and community environments provide the umbrella conditions under which the family and school environmental factors operate to have influence on learner achievement. The learner/family characteristics and school environmental factors in Hua's model are similar to the learner/family and school characteristics in the SACMEQ model. The difference however, is that the SACMEQ model did not take into account Hua's broader social, cultural and community environments.

In all the models, some similarities can be found in the identification and grouping of the main categories of indicators such as the learner family background characteristics, teacher characteristics and school characteristics. However there are still some differences in the number and content or elements of the specific indicators that are classified under these broad categories. Nevertheless, the common conclusion arrived at in all the models is that there are several factors that combine to have an influence on learner achievement, but this may differ from one context to another. Some indicators have a more immediate, direct and stronger influence on learner achievement than others. Generally where a combination of the prevailing learner/family background, teacher and school conditions are favourable for teaching/learning, learner achievement is higher than where these conditions are less favourable. This, to a very large extent, was the case with the results of the 1995 SACMEQ study in Namibia. However, the study also brought to light a major contradiction, which forms the basis of this analysis. The contradiction was that in Rundu, a region characterised by lower SES, poor school infrastructure and a large number of unqualified teachers compared to all the other seven educational regions in Namibia, learners achieved better results

than learners in adjacent Katima Mulilo, where these and others factors, were judged to be more favourable.

3.6 Results of the Learner English Language Comprehension Test in Namibia

Firstly, as mentioned earlier on in this chapter, the 59 multiple choice English language test items had 4 optional answers each, and if all learners had to "guess" or randomly tick one answer per item, a mean score of 14.8 would have been expected, (59 divide by 4). However mean scores of 16.6 and 18.9 for Katima Mulilo and Rundu respectively were recorded, indicating that learners did not just guess. Nevertheless, the mean scores in both regions were generally low. The mean score for Katima Mulilo was not only unexpectedly low (the lowest among the seven educational regions), but barely about 1.5 points above the guesswork score. The mean scores of learners from all the seven educational regions in Namibia have been presented in Table 3.3. The shaded row shows the mean and standard errors (SE) of learner scores in Rundu and Katima Mulilo educational regions.

Table 3.3 Total mean score on all 59 test items

	Total test (59 items)	
Educational Region	**Mean**	SE
1. Katima Mulilo	**16.6**	0.32
2. Rundu	**18.9**	0.64
3. Ondangwa E	18.9	1.30
4. Ondangwa W	18.2	0.40
5. Khorixas	26.0	2.12
6. Windhoek	30.6	2.12
7. Keetmanshoop	27.7	1.82
National	22.0	0.54

Secondly, as indicated under Learner English Reading Comprehension Test, in the section Survey instruments, the English reading test items were designed and classified under three main language domains, that is, narrative prose, expository and document. The 59 test items comprised twenty-one narrative prose questions, twenty-three expository questions and fifteen document questions. Table 3.4 shows the mean scores of learners in each domain according to educational regions. The mean scores of learners from Katima Mulilo and Rundu are presented in the shaded row. It can be seen from the table that in all the three domains, the mean scores for Katima Mulilo were lower than Rundu and were also the lowest of all the seven educational regions.

Table 3.4 Total mean scores by reading domains

Education Region	**Narrative** (21 items)		**Expository** (23 items)		**Document** (15 items)		**Total** 59 items
	Mean	SE	Mean	SE	Mean	SE	
Katima Mulilo	6.3	0.12	6.1	0.15	4.2	0.15	
Rundu	7.1	0.22	7.2	0.21	4.6	0.27	
Ondangwa E	6.7	0.52	7.3	0.46	4.9	0.36	
Ondangwa W	6.7	0.15	6.9	0.17	4.6	0.16	
Khorixas	10.0	0.80	9.0	0.76	7.1	0.59	
Windhoek	11.8	0.80	10.4	0.77	8.4	0.57	
Keetmanshoop	10.6	0.73	9.1	0.65	7.9	0.47	
National	8.2	0.21	7.9	0.20	5.8	0.15	

Thirdly, the 59 test items were evaluated by a group of Namibian English teachers and advisory teachers who identified 36 essential test items. The essential items were items identified by the Namibian language specialists as reflecting the essential aspects of the Namibian Grade 6 English syllabus. These experts pre-determined the percentage of the 36 test items that a learner had to answer correctly to be classified as having reached either a "minimum" or a "desirable" level of achievement. From the 36 essential items, a score of 9 was expected if all learners had randomly ticked one answer per item. Table 3.5 shows that the mean scores for learners in Katima Mulilo and Rundu on the 36 essential items were

10.6 and 12.7, respectively as presented in the shaded row of the table. The table includes learner mean scores for the other educational regions for reference purposes. The mean scores of learners in Katima Mulilo and Rundu were lower than the national mean score of 14.9. The mean score for Katima Mulilo was in fact the lowest mean score compared to all the other educational regions in Namibia.

Table 3.5 Means and standard errors of learner scores on 'essential' items by educational region

	Mean score on 36 essential items	
Educational Region	**Mean**	SE
1. **Katima Mulilo**	**10.6**	0.27
2. **Rundu**	**12.7**	0.55
3. Ondangwa East	12.5	0.85
4. Ondangwa West	12.3	0.35
5. Khorixas	18.2	1.37
6. Windhoek	21.0	1.33
7. Keetmanshoop	19.4	1.24
National	14.9	0.36

Further, the English-reading specialists determined that a learner who obtained a score of 18 out of 36 or 50% correct answers on the 36 essential items would have achieved a *minimum* level of competency. A score of about 29 out of 36, or 80% was designated as achieving the *desirable* level of competency. The percentages of learners reaching the minimum and desirable levels of competence in Katima Mulilo and in Rundu are presented in the shaded row of Table 3.6, together with the results for the other educational regions for reference purposes.

Table 3.6 Percentage of learners reaching minimum and desirable levels of mastery

Education Region	Percentage of learners reaching **minimum level of mastery**		Percentage of learners reaching **desirable level of mastery**	
	%	SE	%	SE
1. **Katima Mulilo**	**3.8**	1.0	**0.0**	0.0
2. **Rundu**	**15.8**	3.2	**0.1**	0.1
3. Ondangwa East	11.8	4.0	3.4	3.4
4. Ondangwa West	10.1	2.1	0.0	0.0
5. Khorixas	44.1	7.3	14.1	6.1
6. Windhoek	60.4	6.3	24.7	6.3
7. Keetmanshoop	53.7	7.1	15.0	4.1
National	25.9	1.8	7.6	1.5

The results presented in Table 3.6 show that there were only about 4 percent of the learners in Katima Mulilo who reached the minimum level of mastery and none reached the desirable level of mastery. In Rundu, almost 16 percent of the learners managed to reach the minimum level of mastery, even if there was an insignificant number of learners who reached the desirable level of mastery. This means that the number of learners who managed to reach at least the minimum level of mastery in Rundu was four times more than the number of learners who managed to reach the minimum level in Katima Mulilo. This is a significant difference.

Summary

The results of the SACMEQ I English language comprehension test that have been presented in Tables 3.3, 3.4, 3.5 and 3.6 show great variations in learner achievement between educational regions in Namibia. Of the seven educational regions, learners in Katima Mulilo obtained the lowest mean score of 16.6 on the 59 test items; the lowest mean score in each of the three main domains of the test; the lowest mean score of 10.6 on the 36 essential items as well as the lowest percentage (3.8%) of learners attaining the minimum level of mastery. None of the learners in Katima Mulilo reached the desirable level of mastery. The poor

results in Katima Mulilo were unexpected because the Caprivi administrative region whose boundaries form the Katima Mulilo educational region was at different times before independence administered from the then Northern Rhodesia (Zambia) and Bechuanaland (Botswana), using English as the official language. A number of people from the region attended English medium schools in these countries. The Caprivi region also has a longer history of teaching English in schools, as well as using English as a medium of instruction in schools, than any other region in Nambia. So the level of English usage in the region was believed to be generally higher than in other regions of Namibia. Besides, the key educational indicators used in the SACMEQ study showed more favourable conditions in Katima Mulilo than Rundu at the time of the study. The learners in Katima Mulilo were therefore expected to achieve higher scores than learners in Rundu.

Conclusion

Details regarding the origins of the SACMEQ I project, the rationale for Namibia's participation in the project, the research plan and the results of the English comprehension test in Namibia have been discussed in this chapter. As indicated in this chapter, the results of the English test show that contrary to expectations, learners in Katima Mulilo obtained a low mean score of 16.6 points out of the 59 test items. The Katima Mulilo mean score was the lowest compared to the other six educational regions in Namibia. It was surprising that learners in Rundu, a region adjacent to Katima Mulilo, and a region where conditions were judged to be least favourable in the entire country, out-performed Katima Mulilo by obtaining a mean score of 18.9 points. These scores were obtained under specific conditions that formed the basis of the SACMEQ I investigations. Therefore, in the next chapter, I shall focus on the analysis of the conditions existing in Katima Mulilo and Rundu, under which the scores were obtained at the time of the SACMEQ I project. This analysis also forms the basis for the comparison of the status of the conditions in each region in order to determine

which region had relatively better (favourable) conditions than the other, and whether these conditions had an influence on learner scores in each region.

CHAPTER 4

The Existing Conditions and English Achievement* in Katima Mulilo and Rundu at the Time of the SACMEQ I Project

Introduction

This chapter is divided into three main sections. The first section is a concise summary of the analysis of learners test scores, focusing on the *distribution* of the scores in Katima Mulilo and Rundu as an expansion on the comparison of mean scores that have already been dealt with in chapter 3. The second section deals with the analysis of the existing conditions in Katima Mulilo and Rundu at the time of the SACMEQ I study. This analysis is important because it is under these conditions that the learner scores were obtained. In the third section, the statistical relationship between some of these conditions and learner achievement is examined. The analysis made in this chapter is therefore, centred on the attempt to answer the following specific questions:

- What is the distribution of the Grade 6 learner test scores in the standardised English language comprehension test administered in Katima Mulilo and Rundu educational regions?
- What are the existing teaching and learning conditions under which the test scores have been achieved in each region?
- Do these teaching and learning conditions have any statistically significant effect on learner achievement in Katima Mulilo or Rundu?

I attempt to answer these questions through statistical analysis, and use SPSS generated graphic presentations for the distributions of learner test scores in each of the two region, and the distributions of the scores within each school in each region, as presented in figure 2(A) figure 2(B) and figure 2(C).

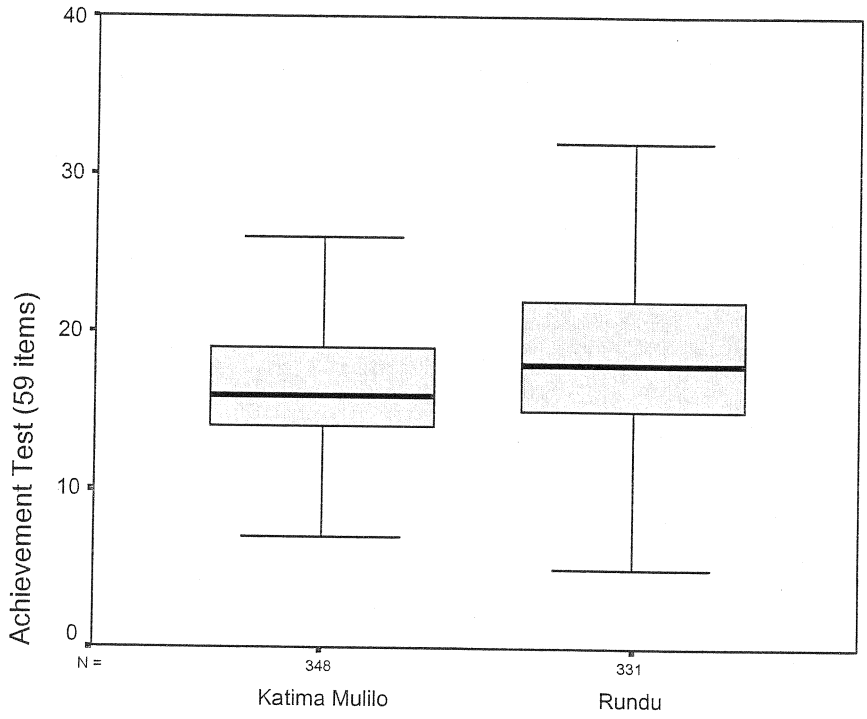
*Learner achievement in this context is used as being synonymous with "learner test scores"

4.1 The Distribution of Learner Test Scores in Katima Mulilo and Rundu

Working with mean scores as I have done in chapter 3 is one way of comparing the learner test scores between the two regions, but working with mean scores only does not provide a clear picture of the range of these differences. Further analysis is required to bring out the magnitude of the differences and the variations in the spread or distribution of the learner scores within and between the two regions. To start with, SACMEQ selected a random sample of 20 primary schools from each region for the SACMEQ I questionnaires and tests. At each school a random sample of a maximum of 20 Grade 6 learners were selected for the administration of the 59 items, standardised English comprehension test. Where the number of Grade 6 learners in a given school was less than 20, all learners were tested. The test results showed that some learners got low marks and others got high marks on a scale ranging from 0 to 40 marks as indicated in Figure 2(A). Figure 2(A) shows two SPSS generated "box plot" diagrams of the distribution pattern of learner scores in Katima Mulilo and Rundu respectively.

Figure 2 (A)

The distribution of the Grade 6 learner test scores in the standardised English test in Katima Mulilo and Rundu.



The vertical axis in Figure 2(A) shows the scale of learner test scores ranging between 0 and 40'on the 59 test items, because no learner got more than 40 marks. The horizontal axis shows the total number of learners from each of the two education regions, that is, 348 learners from Katima Mulilo and 331 learners from Rundu. Above these numbers are the two "box plot" diagrams, the "grey rectangular boxes", each with "T" shaped lines on top and at the bottom. These two "boxes" and their "tails" show the distribution of learner test scores for Rundu and Katima Mulilo respectively. The two grey rectangular boxes represent the distributions of the scores of 50 per cent of all the learners who took part in the test in each region. The "thick black" lines cutting through each grey rectangular box indicate the median score for each region. The 'T' shaped "tails" on top and bottom of the grey rectangular boxes represent the scores of the top 25 per cent and the bottom 25 per cent of the learner scores for each region. The diagram

indicates that the median score for learners in Katima Mulilo was lower than the median score of learners in Rundu.

The diagram further shows that the lowest scoring learner in Rundu scored 5 points, while the highest scoring learner in the same region scored 32 points - a difference of 27 points in the spread of scores between the lowest and the highest scores. This means that there is a wider distribution or spread in learner scores in Rundu, compared to the 18 points difference between the lowest score of 8 points and the highest of 26 points in Katima Mulilo. Further, even if Rundu had higher scoring learners than Katima Mulilo, overall, the lowest scoring learners could also be found in Rundu. This again means that the spread of the learner test scores in Rundu could be said to be broader or more "heterogeneous" than the distribution of learner scores in Katima Mulilo. Therefore in statistical terms, the distributions of the learner test scores between the two regions could be said to vary significantly.

Generally, in any given situation there are likely to be learners with high abilities who may obtain higher scores in a given test, as well as learners with lower abilities who may obtain lower scores. So the wider spread of learner scores in Rundu may be regarded as relatively normal. The apparent narrow distribution of learner scores in Katima Mulilo may also be said to be relatively normal even if the range of the spread is narrower compared to Rundu. By comparing the range of the differences in the distributions of learner scores for the two regions it can be argued that the narrow distribution of learner scores in Katima Mulilo is due to generally low performance among learners in this region. All the learner scores in this region ranged between 8 and 26 points. This may also be interpreted to mean that generally, learners in this region may have lower abilities than learners in Rundu because of their low scores or marks. But such a generalisation would be inappropriate without an understanding of the complex conditions under which these learners learn and under which they obtained the scores. In this thesis, the

claim is that there are other unspecified factors that have an influence on teaching/learning conditions in Katima Mulilo.

The range of the distributions of learner scores discussed above, including the median scores for each region as shown in the box plots in Figure 2(A) provide the first level of analysis in comparing the distribution of learner scores between the two regions. This does not reveal the extent of the variations in the distribution of the test scores *within* the individual schools in each region. There could be high achieving schools and low achieving schools in each region just as much as there could be high achieving learners and low achieving learners in a class. Therefore, in order to reveal the magnitude of the variations in learner scores between the schools in each region and between learners within each school in each region, a second level of analysis, which reveals differences within each region is necessary. The output of this analysis is presented in the box plots for all the sample schools in Katima Mulilo and Rundu in Figure 2(B) and 2(C) respectively.

Figure 2 (B)

The Distribution of Test Scores in all the Sampled Schools in Katima.

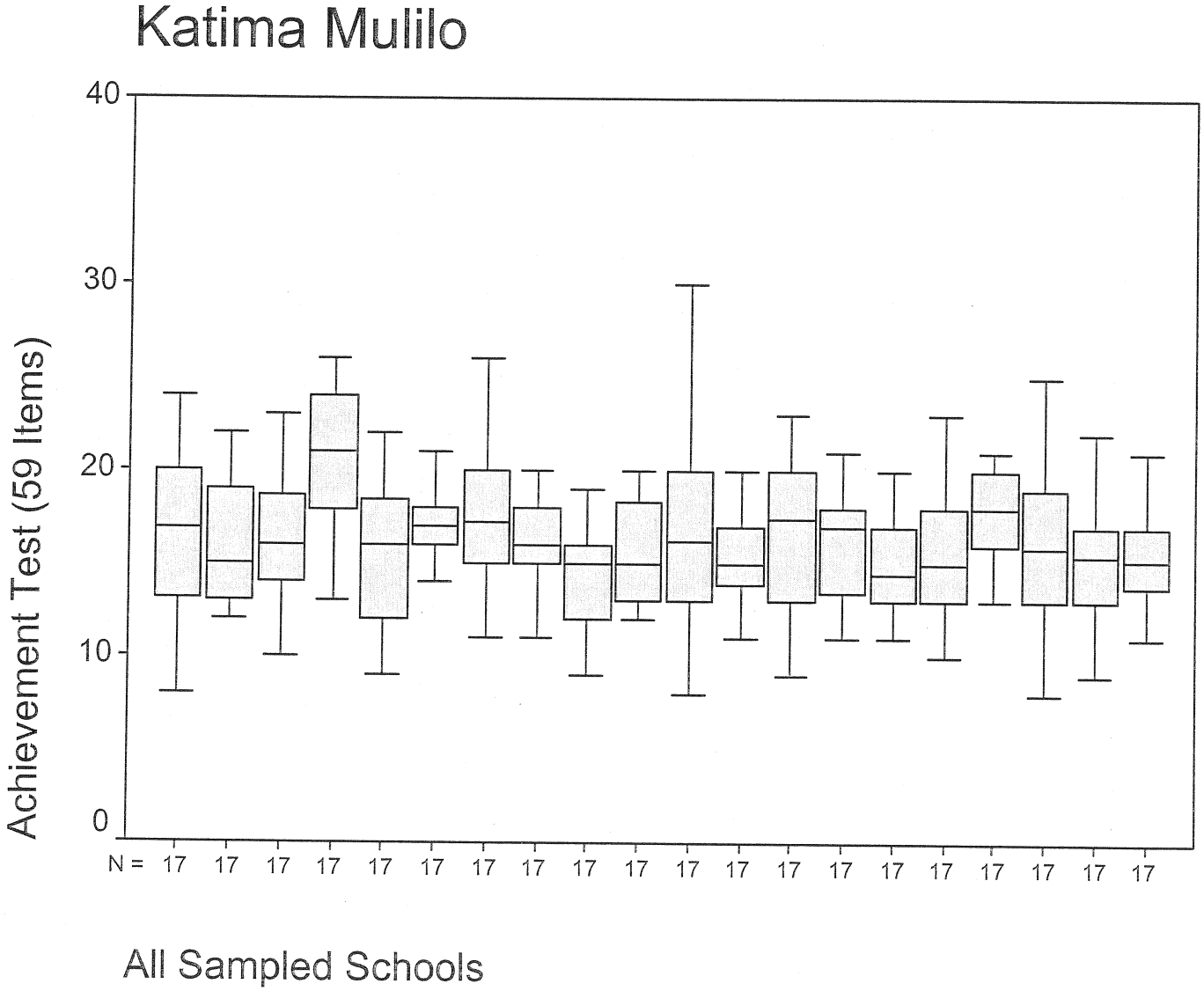
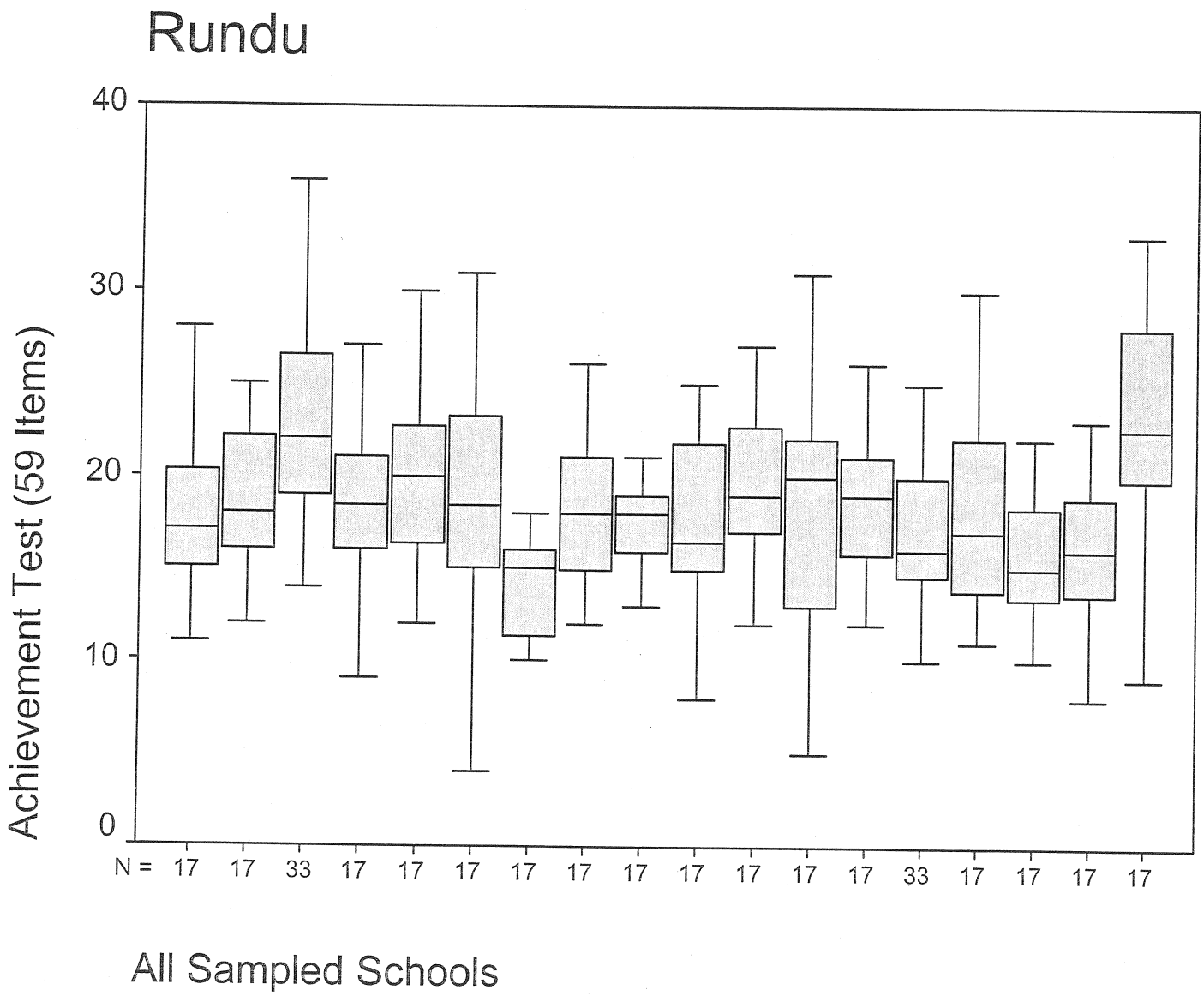


Figure 2(C)
The Distribution of Learner Test Scores in all the Sampled Schools in Rundu



Figures 2(B) and 2(C) show the distribution of learner scores in each single school that was included in the sample that was selected from each education region respectively. As in figure 2(A), the vertical axes show the scale of learner scores from 0 to 40. The horizontal axes show the distribution of learner scores in each individual school in each region. Figure 2(B) demonstrates the distribution of learner scores from the 20 sample schools selected from Katima Mulilo and

Figure 2(C) demonstrates the distribution of learner scores from the 18 sample schools selected from Rundu. The "thick black" lines across each grey rectangular box represents the median score for each school. The distributions show that the best performing learners and schools, as well as the lowest performing learners and schools could be found in Rundu, Fig. 2(C). Also Fig. 2(C) reveals that there are large variations within some schools and between schools in Rundu. On the other hand, Katima Mulilo has relatively smaller variations within its schools and between the schools as shown in Fig. 2(B).

Why are there such variations within schools and between schools within the same region as well as variations between one region and the other? Furthermore, do other characteristics of these schools such as learner, teacher and school resources also vary? It is not only very difficult to answer the first question, but it touches the very nature of the problems this thesis attempts to address through the analysis made in this chapter and in chapter 5. The second question calls for an examination of the existing conditions of schooling in Katima Mulilo and Rundu, under which the learner test scores were obtained, and this is discussed in detail in the next section. But first, a short note about how I approach the interpretation of data relating to teachers, principals and schools.

4.2. Interpretation of the data relating to teachers, principals and schools.

The results of the educational indicators relating to learner family background characteristics, teacher characteristics, school head as well as school characteristics have been presented in tables in this chapter. The tables present a comparison of the mean values or percentages of specific variables between Katima Mulilo and Rundu educational regions. In the analysis and presentation of the results pertaining to teachers, principals and schools that appear in the tables, it should be noted that the quantities have to be understood in terms of learners. In other words, *learners were the unit of analysis,* even if some quantities refer to teachers or schools. Where a percentage for a variable that describes teachers has been represented, the percentage should be interpreted as *'the stated percentage of*

learners were taught by teachers having the particular characteristic'. In the same way, a percentage for a variable that describes schools must be interpreted as *'the stated percentage of learners were in schools with the particular characteristic'.* (See Example Table 1).

Example Table 1 Teacher percentages of provision of a chalkboard.

	No	**Yes**	Number
Region	Row %	Row %	100%
Katima Mulilo	6	94	296
Rundu	0	100	331

The results presented in *Example table 1* show that in Katima Mulilo 6% of the learners were taught by teachers who did not have a chalkboard in their classrooms, whereas in Rundu, all of the Grade 6 learners -100% - were taught by teachers who had a chalkboard in their classrooms. The "Number", indicates valid cases or the total number of learners for whom this information was collected. In the case of Katima Mulilo information was collected from the teachers of 296 learners only, even if the total number of learners in the sample was 348. The teacher/s for 42 learners were either absent on the day of data collection or did not provide the information.

Where a mean value has been presented for learners, teachers or schools, it should be interpreted as *the average Grade 6 learner in Katima Mulilo or Rundu had ...'.* (See Example Table 2)

Example Table 2 Learner mean number of books in the home

Region	**Mean**	Standard deviation	Number
Katima Mulilo	2.01	.97	348
Rundu	1.82	.98	331

The interpretation of the (results) or mean values presented in *Example table 2* is that on average, Grade 6 learners in Katima Mulilo had 2.01 books in their homes compared to Rundu with 1.82. It can therefore be said that on average, Grade 6 learners in Katima Mulilo had slightly more books in their homes than learners in Rundu. The "Number" refers to the valid cases or number of learners in the sample who actually provided the information. In this example all the learners in the sample in the two regions provided the information.

4.3 The Existing Conditions under which the Learner Test Scores were obtained in Katima Mulilo and Rundu

The analysis made in this section is based on the premise that the test scores were achieved under specific teaching/learning conditions, which were considered to be important for the investigations under the SACMEQ I project. These conditions relate to learner family characteristics, learner personal characteristics, teacher and classroom-related characteristics as well as the school head and school-related characteristics. The SACMEQ I project did not use all the educational indicators discussed in chapter 1. The project used only 66 educational indicators that were deemed adequate for measuring the general conditions of primary schooling in Namibia (see Tables 1.1, 1.2 and 1.3). For the first part of the analysis that is made in this section, I have selected 53 key indicators out of the original 66 SACMEQ I indicators. The selected indicators represent the main pedagogical conditions existing in Katima Mulilo and Rundu at the time of the study. The 53 indicators have been selected for three reasons. Firstly, they *represent the key material and human inputs to school education*, which were considered important by the designers of the SACMEQ I study. Secondly, these indicators represent more than two thirds of all the SACMEQ I indicators and so they provide a basis for judging the status of the conditions investigated by the SACMEQ I project. Thirdly, research literature in general and the literature reviewed in chapter 1 in particular, attest in different ways to the primacy of these indicators, among others, in capturing the pedagogical conditions that have a greater effect on learner achievement. My argument is based on the premise that the 53 specific indicators

have a stronger influence on learner achievement than others. To examine this claim, I have proceeded in two steps. The first step is the identification and classification of these indicators in relations to learner, teacher and school characteristics. The second step is the statistical analysis of the status of the conditions that these indicators represent in both regions. The results of the analysis of these indicators are presented in Tables 4.1(a), (b) and (c). The tables show the mean values of the selected learner, teacher, school/principal indicators, which have been calculated using the SPSS (statistical) software to be able to compare the means, in terms of what these indicators show in Katima Mulilo and what they show in Rundu. The mean values of learner family background characteristics have been presented in table 4.1(a). The results in bold only indicate factors more favourable in Katima Mulilo. The characteristics printed in bold and the results that are underlined indicate the factors more favourable in Rundu.

Table 4.1(a) Mean values for selected learner family background characteristic

Learner family characteristics	Katima Mulilo	Rundu
Selected Indicators	Mean	Mean
Mother's education	**3.23**	2.64
Mother able to read	**1.74**	1.72
Father's education	**3.89**	2.97
Father able to read	**1.83**	1.81
Frequency of being given homework	3.36	**3.61**
Someone helps with homework	**2.91**	2.55
Someone makes sure homework is done	3.04	**3.08**
Someone asks learner to read for him/her	**1.93**	1.78
Someone looks at school work	**1.89**	1.86
Extra lessons outside school	**1.60**	1.20
Number of books at home	**2.01**	1.82
Allowed to take library books home	**2.32**	1.68
Someone asks learner to read to him/her	**1.93**	1.78
Reading at home	**1.71**	1.58
Speaking English outside school	**1.87**	1.68
Frequency of breakfast	2.83	**2.96**
Total possessions in the home	4.05	**4.34**
Possession of a radio in the home	**1.85**	1.83
Possession of a table to write on	**1.78**	1.75
Learner absenteeism	2.65	**2.37**

2.37 Bold and underlined figures indicate the few factors that were in favour of Rundu

Table 4.1(a) shows that of the 20 indicators representing learner family characteristics, all but 5 indicate that the learner factors investigated were more favourable in Katima Mulilo than in Rundu. The 5 factors in favour of Rundu, are frequent homework, someone making sure that homework is done, regular breakfast, and more possessions in the homes. Learners in Rundu were also less absent from school than learners in Katima Mulilo. Other factors pertaining to the learner's personal attributes have been analysed and presented in the form of percentages in the next section of this chapter. Table 4.1(a) presents the main

learner characteristics that are related to the family or home background based on SACMEQ I. However the actual teaching and learning process takes place at school, through the interaction between learners and their teachers in the classrooms. Therefore an understanding of teacher and classroom characteristics is essential. In order to investigate the status of the teacher and classroom characteristics in each region for comparison purposes, I have selected 17 key teacher and classroom indicators from SACMEQ I for the analysis. The results of the analysis have been presented in Table 4.1(b).

Table 4.1(b) Mean values for selected teacher and classroom characteristics

Teacher/classroom characteristics	**Katima Mulilo**	**Rundu**
Selected indicators	Mean	Mean
Frequency of testing learners	**5.41**	4.95
Frequency of teacher meeting parents	**2.59**	2.40
Frequency of principal's advice	**2.29**	2.05
Years of teaching English	2.56	**2.95**
Total years of academic education	**11.29**	10.95
Professional qualifications	**3.47**	1.95
Number of in-service courses attended	2.24	**2.83**
Existence of a teacher's chair	1.47	**1.75**
Existence of a teachers' table	1.47	**1.80**
Existence of classroom library	**1.41**	1.25
Books in classroom library	**59.50**	34.15
English readers/textbooks for learners	**4.37**	3.88
English dictionary for teacher	1.53	**1.60**
Classroom cupboard for storage	1.59	**1.80**
Chalkboard in the classroom	1.94	**2.00**
Total number of classroom resources	**8.00**	7.50
Teachers needing access to housing	**2.85**	16.21

2.00 Bold and underlined figures indicate the few factors that were in favour of Rundu

Table 4.1(b) shows that of the 17 teacher and classroom related characteristics, 10 were in favour of Katima Mulilo and only 7 were in favour of Rundu. The teachers in Katima Mulilo were better qualified, frequently received professional

advice from their school principals, had more classroom resources including class library books, had regular meetings with parents, and regularly tested their learners. The majority of the teachers in Katima Mulilo also had housing. The teachers in Rundu had more years of English teaching experience, and more in-service courses in addition to having more tables and chairs, English dictionaries, classroom cupboards and chalkboards than teachers have in Katima Mulilo.

What takes place at the classroom level is to a large extent influenced by the general conditions in the school, such as the number of learners and teachers, the type of school buildings, the resources available, general discipline and the leadership role of the school head. I have selected 16 of the key SACMEQ I school and school head characteristics and the results of the analysis are presented in Table 4.1(c).

Table 4.1(c) Mean values for selected school/school head characteristics

School/school head characteristics	**Katima Mulilo**	**Rundu**
Selected indicators	Mean	Mean
Learner: teacher ratio	**24.7**	25.3
Availability of school head's office	1.45	**1.53**
Availability of school library	**1.50**	1.26
Number of books in school library	**257**	170
Learners allowed to borrow books from library	**2.50**	1.79
School head years of academic education	10.75	**11.47**
School head years teacher training	**2.3**	2.2
School head years of experience	8.15	**9.42**
Problem of teacher absenteeism	1.90	**1.89**
Problem of teacher laziness	**1.70**	1.79
Availability of type writer	**1.50**	1.42
Availability of duplicator	**1.60**	1.32
Availability of piped water	1.45	**1.47**
Total number of school resources	**7.10**	7.00
Number of permanent classrooms	6.45	**10.70**
Condition of school building	2.16	**2.53**

Table 4.1(c) shows that on average, the school related characteristics such as learner: teacher ratio, availability of specific school resources such as type writer, duplicator, school library, number of books, learners being allowed to borrow books from the library, school head's professional training and the total number of school resources available were all more favourable in Katima Mulilo. Katima Mulilo schools had more library books and more learners were allowed to borrow books from the school library than in Rundu. However Rundu schools had more permanent classrooms, school head offices and piped water than schools in Katima Mulilo.

The results presented in Tables 4.1(a), 4.1(b) and 4.1(c) show that of the 53 factors analysed, 35 of them or 66% give an indication of favourable conditions in Katima Mulilo, and only 18 factors or 34% represent favourable conditions in Rundu. *It is on the basis of what these indicators show in each region that I make the claim that generally, the pedagogical conditions that were investigated under the SACMEQ I project in Namibia, were more favourable in Katima Mulilo than in Rundu.* This has been established by comparing the mean values of what the indicators show in Katima Mulilo and what they show in Rundu. Apart from comparing means in order to show the differences between the conditions in the two regions, another way of showing the differences between the two regions is by calculating the percentages of what the indicators show in each region. I have calculated the percentages to provide more evidence to substantiate the claim that the teaching/learning conditions were more favourable in Katima Mulilo.

It has already been mentioned that the SACMEQ 1 project was based on 66 indicators for measuring teaching and learning conditions in Namibia. In an attempt to answer the second question raised in this chapter, that is, what were the existing conditions under which the test scores were achieved in each region? I have only selected 38 indicators from three out of the five categories in the conceptual model developed by Hua, and for which data was collected for the SACMEQ I project. The three categories that form the basis of this analysis are

the family environment, learner characteristics and the school environment. For the purpose of this analysis I have selected 14 indicators from the family environment, 7 from learner characteristics and 17 from the school environment, to make up the total of 38 indicators. In the analysis of these indicators I shall refer where necessary to linkages with elements from the other two main categories of indicators mentioned by Hua, namely the social and community environments. For each of the selected indicators, I give an exposition of its claimed relevance to the project, an indication of the type of questions that were put across to respondents and how the respondents were expected to answer them. The results of the responses from learners, teachers and school heads have been summarised and presented in tables. Each table shows the results for each indicator in percentages or means for Katima Mulilo and Rundu, for comparative purposes.

The data from Katima Mulilo and Rundu which are analysed in this chapter represent a subset of the data from the SACMEQ I national sample. This subset consists of 679 learners comprising 348 learners from 20 schools in Katima Mulilo and 331 learners from 18 schools in Rundu. As I indicated in 4.2, the interpretation of the results relating to teachers, principals and schools that are presented in this chapter should be understood in terms of the learner being the unit of analysis.

4.3.1 Learner Family Environment and Personal Characteristics

Under this category the variables used by the SACMEQ I project are those related to the measure of what Hua refers to as the Social Economic Status (SES) of the family. The elements relating to the learner's family environment specifically examined under SACMEQ 1 among others are: Parents' level of education; Someone helping with homework; Someone making sure that homework is done; Someone asking learner to read; Number of books and other reading materials in the home; Frequency of reading at home; Frequency of homework; Extra lessons arranged by parents; Frequency of speaking English outside school or at home;

Frequency of meals, and possessions in the home. The learner's personal characteristics include age, gender, and physical development in terms of weight and height, absenteeism and grade repetition. All these are analysed in the sections that follow, starting with the family background or home environment characteristics.

- **Parents' Level of Education**

It has been argued in many studies (Lockheed, Fuller and Nyirongo, 1989, Carron and Chau, 1996, and to some extent Maja, 1997) that the home environment has a very strong effect on learning. Walberg and Paik (2000:7), presenting findings from the International Bureau of Education (IBE/UNESCO), and the International Academy of Education (IAE) argue that one of the main reasons why the influence of parents is so strong is that, from early childhood up to the age of 18 years, children spend almost 92% of their time under the influence of their parents. Only less than 10 percent of the time is spent under the influence of the school. They found that parents' level of education, especially the education of the mother, has a marked influence on the achievement of the child at school. Their claims resonate with those of Maja (1997), who found that parents who have higher levels of academic and professional qualifications do not only become role models for their children, but they are better able to help their children with schoolwork. Under the SACMEQ I project, learners were asked to indicate the highest level of education completed by their father/male guardian or mother/female guardian. The options coded 1 - 6 were as follows: (1) "Did not go to school," (2) "Completed some primary school," (3) "Completed all primary," (4) "Completed some secondary school," (5) "Completed all secondary school," and (6) "Completed post secondary." In the results that have been presented in Table 4.2(a) and 4.2(b), I have combined options 2 and 3 (lower and upper primary) into one – primary school, as well as options 4 and 5 (some and all secondary schooling) into one column. The last column of the two tables indicates the actual number of learners who provided information on their mothers' and fathers' levels of education. For Rundu, there were 255 learners who provided information about

their mothers' education and 76 learners either did not provide the information or did not have a mother. In the case of fathers, only 235 learners provided information while 96 either did not know their fathers' education or did not have a father.

Table 4.2(a) Percentages of mothers per region by level of education

Region		No School	Primary School	Secondary School	Tertiary	Number
		Row %	Row %	Row %	Row %	100%
Katima Mulilo	Mothers	17	38	34	11	269
Rundu	Mothers	25	45	26	4	255

Table 4.2(b) Percentages of fathers per region by level of education

Region		No School	Primary School	Secondary School	Tertiary	Number
		Row %	Row %	Row %	Row %	100%
Katima Mulilo	Fathers	12	25	39	24	269
Rundu	Fathers	23	38	29	9	235

Table 4.2(a) shows that 17% of the mothers in Katima Mulilo and 25% of the mothers in Rundu have never been to school. If these mothers do not know how to read and write in English, the language in which their children are taught at school, their ability to help their children with homework in that language will be non existent. Moreover, mothers in Katima Mulilo have significantly higher levels of tertiary education compared to mothers in Rundu.

Table 4.2(b) shows that there were more fathers in Rundu, who have never been to school compared to Katima Mulilo. These fathers may not be in a position to help

their children with schoolwork even if they may have the desire to do so. In addition, 24% of the fathers in Katima Mulilo had tertiary education compared to only 9% in Rundu. The two tables show larger percentages of mothers and fathers in Katima Mulilo who have tertiary or post secondary education, which gives an indication that generally parents in Katima Mulilo have more education than parents in Rundu.

- **Frequency of homework**

When teachers give learners homework to do on a regular basis and correct it, learners will be encouraged to do extra work at home. Learners who get homework and do it, even if it is not marked, learn more than learners who do not do any homework at all (Caillods and Postlethwaite, 1997:18). If the teacher marks the homework and goes through the questions individually with each learner, to help them see their mistakes and how to improve upon them, then learners will learn even much more (Walberg and Paik, 2000:9). Learners were therefore asked to indicate how often or regularly they get homework from their teachers. The options for were: (1) "I do not get homework;" (2) "Once or twice per month;" (3) "Once or twice per week;" and (4) "Most days of the week".

Table 4.3 Percentages of learner frequency of getting homework

Region	No Homework	1-2 per month	1-2 per week	Most days of the week	Number
	Row %	Row %	Row %	Row %	100%
Katima Mulilo	2	19	31	49	348
Rundu	0	7	25	69	331

Table 4.3 shows that there were significant differences in the frequency of homework in Katima Mulilo and in Rundu. On one hand, about 50% of learners in Katima Mulilo received homework on most days of the week compared to almost 70 % in Rundu. The regularity of homework in Rundu may help explain partly, why learners in this region performed well. On the other hand, given the importance of homework, it is worrying to note that almost 20% of the learners in

Katima Mulilo get homework only once or twice per month, while another 2% of the learners did not even receive any homework at all. This may also partly help to explain why the learners in Katima Mulilo did not perform well. These aspects will be further explored in relation to the other factors that are discussed in chapter 5, in order to help explain the differences in learner achievement.

- **Someone Helping with Homework**

Basing their argument on over a dozen studies on the effect of homework on learner achievement, Walberg and Paik (2000:9), argue that children who are given regular homework, which is regularly corrected by their teachers, improve their performance at school. This is enhanced if learners have educated parents who are able to help them with their school homework. Learners were therefore asked "how often does someone outside your school usually help you with your homework?" The answer had three options: (1) "Never", (2) "Sometimes", (3) "most of the time." The results from the two regions have been presented in Table 4.4.

Table 4.4 Percentages of learners getting help with homework

Region	Never Row %	Sometimes Row %	Most of the times Row %	Number 100%
Katima Mulilo	25	56	19	348
Rundu	54	36	10	331

Table 4.4 shows that while 19% of learners in Katima Mulilo reported that they get help with homework most of the time and 56% get help sometimes, more than half or 54% of the learners in Rundu reported that they never get any help with homework compared to 25% in Katima Mulilo. The information presented in table 4.4 can be correlated with the information presented earlier on, in table 4.3. Table 4.3 shows that 69% of the learners in Rundu received homework on most days of the week, but table 4.4 shows that 54 % of the learners never get any assistance with homework at all. So while it is good that a large number of

learners in Rundu are able to get homework it is unfortunate that more than half of them do not get assistance with homework from their parents. Ironically, the learners in Katima Mulilo who receive less homework, have more of their parents willing to help them with homework than in Rundu. According to Walberg and Paik (2000:9), homework is like a three-legged pot. It requires a teacher to assign and mark it, a parent to help and see to it that it is done and the learner to do it. If one of the legs is broken the pot will not be able to stand properly. Therefore the frequency of getting homework, receiving assistance with homework and someone making sure that the homework is done, are inseparably linked.

- **Someone making sure that homework is done**

Schools sometimes request parents/guardians to help their children with homework or to see to it that homework is not only done but also that it is done well, by appending their signature in the child's book. In this way, parents become accountable for their children's homework and the children become accountable to both their parents and their teachers for the homework. When parents have to see to it that homework is done, it actually gets done and this will ultimately improve learner achievement. Learners were therefore asked, "how often does someone outside the school make sure that you have done your homework?" The options were: (1) "I do not get any homework", (2) "Never", (3) "Sometimes", and (4) "Most of the time." The results are presented in Table 4.5.

Table 4.5 Percentages of learners for whom someone makes sure that homework is done

Region	No Homework	Never	Sometimes	Most of the times	Number
	Row %	Row %	Row %	Row %	100%
Katima Mulilo	2	17	57	24	348
Rundu	0	21	50	29	331

Table 4.5 shows that the two regions have a rather similar pattern regarding the incidence of someone making sure that homework is done. Nevertheless, 21% of the learners in Rundu reported that no one at home, ever makes sure that they do

their homework, while almost 30% reported that someone makes sure that they have done their homework most of the time.

- **Parents sending learners for extra lessons after school**

Calloids and Postlethwaite (1989) reported that increasing the instructional time was one way in which learner achievement may be improved. This is so because according to Maja (1997) a longer instructional time increases the time which learners spend on specific learning tasks and so it helps them to learn and improve their performance. Extra lessons given after school, increase the contact time between the teacher, the learner and the subject matter, and may lead to improved learner achievement. It was acknowledged that some parents send their children to extra lessons in school subjects after normal classes in all the SACMEQ member countries, including Namibia. To find out the magnitude of this phenomenon learners were asked to state whether they took extra lessons in school subjects after school hours. Learners were required to answer "No" or "Yes".

Table 4.6 Percentages of learners taking extra lessons after school hours

Region	No	Yes	Number
	Row %	Row %	100%
Katima Mulilo	40	60	348
Rundu	80	20	331

Table 4.6 shows that 60% of the learners in Katima Mulilo had extra lessons in school subjects after school hours but 80% of the learners in Rundu did not have any extra lessons. This is a big difference in favour of Katima Mulilo and a good reason why learner performance in Katima Mulilo should have been better than in Rundu.

- **Number of Books and other Reading Materials at Home**

The availability of books and other reading materials in the home, which the learner has access to, increases the chances of the learner being able to read or study from printed material (Caillods and Postlethwaite, 1989:7). More reading materials at home will supplement whatever reading materials are available at school and thus enhance a learner's achievement. Of course the mere availability of reading material is no guarantee that learners will in fact read, but availability is at least a necessary although not sufficient condition. In this regard, learners were asked to indicate how many books were available in the place where they stay during the school week. The range of options was as follows: (1) "No books," (2) "1-10 books," (3)" 11-50 books," (4) "51-100 books," (5) "101-200 books," and (6) "201 or more books." There were no learners who indicated having more that 50 books in their homes in both regions, and so the summary table given below shows 11-50 books as the highest. The responses are reported in Table 4.7.

Table 4.7 Percentages of learners by number of books at home

Region	No Books	1 – 10 Books	11 – 50 Books	Number
	Row %	Row %	Row %	100%
Katima Mulilo	28	55	17	348
Rundu	40	48	12	331

Table 4.7 indicates that generally there were very few books in the homes of learners in both regions, however, 40% of the learners in Rundu do not have any books and other reading materials in their homes at all, compared to 28% in Katima Mulilo. As mentioned earlier in this section, the lack of reading materials in the home is a deficiency that can have a negative impact on literacy.

- **Allowed to take library books home**

If the school has a school library or class libraries and learners are allowed to borrow books, which they can take home to read, then this will compensate for the lack of books and other reading materials in the homes of learners. When learners

borrow books from the library, they will have an opportunity to read at home in addition to the work done at school. In this way chances of improving their reading skills and language proficiency will be increased. Learners were asked if they were allowed to borrow books from the school library, which they could take home. The optional answers were: (1) "There are no library books at school", (2) "No", and (3) "Yes". The results have been presented in table 4.8.

Table 4.8 Percentages of learners allowed to take library books home

Region	No library books	No	Yes	Number
	Row %	Row %	Row %	100%
Katima Mulilo	18	31	51	348
Rundu	43	46	11	331

Table 4.8 shows that 43% of the learners in Rundu did not have library books, which is a handicap given that it has been reported in table 4.7 that 40% of the learners in the same region did not have books and other reading materials in their homes. Worse still, 46% of the learners who have library books in Rundu are not allowed to borrow them. This means that almost 90% of the learners in Rundu have no opportunity to read at home from printed material. This is a serious disadvantage for the learners in Rundu, which can affect their English proficiency. It is therefore baffling how these learners performed better than learners in Katima Mulilo, where there were more reading materials at home and where 51% of the learners were allowed to borrow books from the library.

- **Frequency of Reading at Home**

The frequency of reading at home is closely related to the availability of books at home and the possibility of learners borrowing books from the school library, which they can read at home. It has been argued that if learners do not have a chance to read or study from printed materials the development of their reading and writing skills will be negatively affected (Caillods and Postlethwaite, 1997:7). Therefore when children have enough books and other reading materials at school

and/or at home, and they are able to read them, chances are that their reading skills will improve and they will perform better in reading comprehension tests than those who do not read at home. Learners were therefore asked to indicate "how often does someone outside your school ask you to read for him/her?" The idea behind this question was to measure home assistance with reading. When parents ask their children to read for them, this will not only enable the parents to correct the reading mistakes/problems of their children, but it will also motivate the children to improve their reading. The options were: (1) "Never", (2) "Sometimes", and (3) "Most of the time". A summary of the results is presented in Table 4.9.

Table 4.9 Percentages of learners by frequency of reading at home

	Never	**Sometimes**	**Most times**	Number
Region	Row %	Row%	Row %	100%
Katima Mulilo	29	71	-	348
Rundu	42	58	-	331

Table 4.9 shows that the percentages of learners who do not read at home in both regions correspond to the percentages of learners who do not have any books at home as reported earlier in table 4.7. In relating the two tables together, it can be seen that there are more learners who have books at home in Katima Mulilo and who read these books more often than in Rundu. The 42% of learners in Rundu, who have no opportunity to read a book at home puts the region at a disadvantage in comparison to Katima Mulilo where 71% of the learners reported that at least they read at home sometimes.

- **Frequency of Speaking English Outside School**

Learners of any given language would improve their proficiency in that language and gain confidence in speaking it when they have more opportunities to read it, to listen to it, to write and to practice speaking it on a regular basis (MBEC/NIED, 1998:10-12). The policy states in its motivation that regular use of English at

school and outside school has been found to improve proficiency. Under SACMEQ I the question put to learners was, "do you speak English outside school?" A "Yes" or "No" answer would have been inappropriate for the purposes of the study, because the aim was to measure the regularity or frequency of learners speaking English outside school or at home and not just whether or not they speak English outside school. Learners were therefore, required to choose one of the following four options: (1) "Never", (2) "Sometimes", (3) "Often", and (4) "All the time." The results have been presented in table 4.10.

Table 4.10 Percentages of learners by frequency of speaking English outside school

Region	Never	Sometimes	Often	All the times	Number
	Row %	Row %	Row %	Row %	100%
Katima Mulilo	43	41	3	13	348
Rundu	42	51	5	2	331

It is worth noting that 13% of the learners in Katima Mulilo reported that they speak English at home all the time compared to 2% in Rundu. It might be possible that there were some learners in Katima Mulilo whose home language could have been English, because they reported that they spoke English outside school all the times. If so, even the more reason to anticipate better scores from Katima Mulilo. But this was not the case.

- **Regular Meals**

Carron and Chau (1996:53), argue that the health and nutrition of learners has an effect on their learning. Healthy children who receive regular meals have a better chance of concentration and understanding their school work and learn better than under nourished, weak and hungry children. Under this variable the question was, "how often do you normally eat each of the following meals?" The meals were breakfast, lunch and supper. Only breakfast is reported here on the assumption that even if all meals are important for the nutrition of the child, at least breakfast

every morning is necessary for the learner's concentration at school. The options in answer to the frequency of breakfast were: (1) "Not at all," (2) "1 or 2 days per week", (3) "3 or 4 days per week", and (4) "Everyday of the week." The results have been presented in table 4.11.

Table 4.11 Percentages of learners by frequency of breakfast

	Not at All	**1–2 Per Week**	**3-4 Per Week**	**Everyday**	Number
Region	Row %	Row %	Row %	Row %	100%
Katima Mulilo	25	15	11	49	344
Rundu	18	20	11	51	323

Table 4.11 shows slight differences between the two regions regarding the frequency of learners having breakfast. There is a significant percentage of learners in both regions, who do not have breakfast at all - in Katima Mulilo this entails 25% of all learners, while 51% of the learners in Rundu have breakfast everyday compared to 49% in Katima Mulilo. In both regions 40% of all learners either have no breakfast or have it only once or twice a week. This is a disturbing finding, and indicative of general lack of proper nutrition in both regions.

- **Total Number of Possessions in the Home**

The total number of possession in the home is one of the indicators used in assessing the social economic status (SES) of the learner's family. Learners were asked to indicate how many items they had in their homes of a list of 14 items which included Daily Newspaper, Weekly or Monthly Magazine, Radio, TV, VCR, Cassette Player, Telephone, Refrigerator, Car, Motorcycle, Bicycle, Electricity, Piped Water, and Table to write on. The results are summarised in Table 4.12

Table 4.12 Percentages of learners by number of listed possessions at home

Region	None	1-3 Items	4-6	7-9	10 –12	Number
	Row%	Row %	Row %	Row %	Row %	100%
Katima Mulilo	6	43	35	12	4	348
Rundu	7	37	36	13	7	331

Table 4.12 shows that both regions seem to reflect a similar pattern of distribution, which is indicative of general poverty levels. About 80% of all learners in both regions had no more than 6 out of the listed 14 items.

- **Learner possession of a radio in the home**

It has already been mentioned in the section dealing with the frequency of speaking English outside school that language proficiency can be improved when among other things learners are able to *listen* to it and practice speaking it regularly. I have therefore isolated the radio from other possessions in the home firstly, because the radio provides the medium through which learners can be able to listen to the national radio programmes that are broadcast in English. Of course, like with books, the possession of a radio is no guarantee of learners actually listening to broadcasts in English, but like books, it is a necessary condition. Secondly, given the general poverty levels in the two regions that have been presented in table 4.12, a radio is one item that communities in the remote parts of Namibia are likely to have for listening to news, public announcements and for entertainment. Radio batteries are also readily available in these areas and more affordable than electricity. In the SACMEQ I study, learners were asked to indicate the availability of a radio in their homes by answering "No" or "Yes." A summary of the answers is presented in table 4.13.

Table 4.13 Percentages of learner possession of a Radio in the home

Region	No Row %	Yes Row %	Number 100%
Katima Mulilo	15	85	348
Rundu	17	83	331

Table 4.13 shows a similar pattern in the possession of a radio in the homes of learners in both Katima Mulilo and Rundu, even if the situation is slightly better Katima Mulilo where slightly more families had a radio.

- **Learner possession of a table to write on at home**

Apart from the radio, books and other reading materials in the home, the other possession in the home that can be of benefit to the learner is a table. If the learner is expected to regularly do homework that may require reading and writing then the use of a table for writing on would be more convenient. On the list of possessions in the home, learners were asked to state whether they had a table for writing on or not by indication "No" or "Yes". The answers provided by learners in Katima Mulilo and Rundu have been summarised and presented in table 4.14.

Table 4.14 Percentages of learner possession of a table to write on at home

Region	No Row %	Yes Row %	Number 100%
Katima Mulilo	22	78	348
Rundu	25	75	331

Table 4.14 shows only slight differences in the possession of a writing table between the two regions. However table 4.14 also shows that about 25% of learners in both regions have no table to write on at home. This implies that these learners may experience some difficulties when they are given homework that involves reading and writing.

- **Learner personal characteristics**

The individual learner's learning process is influenced by the individual's personal characteristics such as age, gender, health, ability and motivation to learn. These characteristics of individual differences are formed in different ways. The individual differences may be in existence even before the child enters school, and during the schooling process some of these factors may be influenced by other factors within and outside the school environment. In the SACMEQ I study, learners were asked to indicate their age, sex, days of absence from school in the month preceding the month of data collection, the number of times they have repeated a Grade since starting school and whether or not they were repeating Grade 6. Data collectors also measured the height and weight of learners, which can be analysed in relation to age and regular meals to have an indication whether there was a relationship between a poor nutrition, low weight, stunted growth and learner achievement. The results have been presented in table 14.15.

Table 4.15 Means and percentages of some learner personal characteristics

Region	**Age** *(Months)*	**Gender** *(female)*	**Weight** *(Kg)*	**Height** *(cm)*	**Days absent**	**Repetition since Gde 1**	**Repetition in Grade 6**
	Mean	%	Mean	Mean	Mean	%	%
Katima Mulilo	166.5	42	38	149.62	1.1	50	18
Rundu	186.5	44	44	157.81	2.53	55	12

Table 4.15 shows the age of the Grade 6 learners which has been presented in months in order to be more accurate in calculating the age of learners up to the month of data collection. If all learners had entered Grade 1 at the official age of entry and there had been no Grade-repetition, then the expected average age of learners would have been 150 months. Learners start Grade 1 in January if they are 6 years old or will turn 6 years by 31 January of the year of commencing Grade 1. The figure of 150 months was derived by adding 6 years of study to 6.5 years (the average age of entry). The table shows that even if the average age of learners in both regions was higher than the expected age, the learners in Rundu were on

average, older than learners in Katima Mulilo by 20 months or almost two years. This is a significant difference even if the influence of age on learner achievement cannot be established from the reviewed research literature. I reported earlier in this chapter that 25% of the learners in Katima Mulilo do not have any breakfast at all and that generally learners in Rundu have more regular breakfast, than learners in Katima Mulilo. However, the fact that learners in Rundu have more weight and tend to be taller than learners in Katima Mulilo may not necessarily be due to nutrition only but due to age differences as well. Learners in Rundu were generally older, and therefore taller and weighed more compared to learners in Katima Mulilo.

The learners in Rundu were on average absent from school for 2.5 days in the month preceding data collection. This could relatively be quite a lot of days for the whole year. When learners are regularly absent from school, they do not only miss out on schoolwork but their performance may be affected as well. In both regions, more than 66 % of the learners had either repeated a Grade since starting school in Grade 1 or were repeating Grade 6. Though the reasons for repetition are not known, regular repetition may be a result of difficult circumstances for the learner, which may have an effect on achievement. There were also more boys than girls in all the Grade 6 classes in both regions.

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4.2.2 The School Environment

For the purposes of this thesis the school environment includes three main categories. These are:

- Teachers and classroom characteristics;
- School principal characteristics; and,
- General school characteristics.

(a) Teachers and classroom related characteristics

Under this category, I will report on some of the variables used by the SACMEQ I project. These are: Teacher sex, years of academic qualification, total number of

years of professional teacher training qualifications, total number of classroom resources and their living conditions. Variables relating more specifically to teaching are: frequency of giving homework, testing learners, the provision of English Readers/Textbooks, the total number of available basic school resources and the condition of the school buildings.

- **Teacher Gender**

Maja (1997:12) argues that at the primary school level, female teachers tend to develop a bond with learners more easily than male teachers. This bond has an influence on teacher-learner interaction, which has a positive influence on learning. Also according to Fuller, Hua and Snyder Jr (1994) female learners tend to be more comfortable with, and learn better when a female teacher than a male teacher teaches them. In particular, female learners tend to perform better when a female teacher teaches them because they do not only easily relate to a female teacher, but the female teacher provides a role model (Fuller, Hua and Snyder Jr, 1994: 349-51). So the sex of the teacher and learners were variables used in SACMEQ 1. The results have been presented in table 4.16.

Table 4.16

Percentage of teachers and learners in Rundu and Katima Mulilo by gender

Region	Teacher gender			Learner gender		
	Female	Male		Girls	Boys	
	Row %	Row %	100%	Row %	Row %	100%
Katima Mulilo	71	29	296	42	58	348
Rundu	05	95	331	44	56	330

Table 4.16 shows that 71% of the learners in Katima Mulilo were taught by female teachers compared to an insignificant 5% in Rundu, where 95% of the learners were taught by male teachers. There might be some social and cultural factors influencing these variations in teacher gender in the two regions. It has

already been reported earlier in this chapter that there were more boys than girls in schools in the two regions. In the analysis to be made in chapter 5 the variations in teachers gender will be brought under close scrutiny to get some indication whether or not teacher gender has an effect on learner achievement.

- **Total number of years of the Teachers' Academic Qualification**

As already mentioned in chapter 1, Caillods and Postlethwaite (1989:3) argue that teachers are a very important element in the teaching/learning process because they are at times the only agent for transmission of knowledge in schools in many developing countries. Given the relatively low level of academic qualifications among teachers in many developing countries, coupled with a large percentage of untrained teachers, raising the level of general education among teachers in Namibia is imperative, in addition to formal training (Caillods and Postlethwaite, 1989:4). In Namibia, the desired academic qualification for primary school teachers is Grade 12. Before independence there were a number of people in the tribal homelands or "reserves" who became teachers at different levels of academic education such as Standard 4 (Grade 6), Standard 6 (Grade 8), Standard 8 (Grade 10) and Standard 10 (Grade 12). In other words, in some of the ethnic education authorities, any one could become a primary teacher after leaving school at any level between Grade 6 and 12 with or without any teacher training. By the time of the SACMEQ I project in 1995, Namibia still had a number of such teachers who had less than Grade 12. In order to capture these differences teachers were asked to indicate the total number of years of school education that they have completed. After Grade 12 a person may pursue studies other than teacher training up to a 4 years degree and later become a teacher without teacher training. This category of teachers would have 13+ years, academic education. Teachers were therefore asked to indicate the highest level of academic education that they have attained according to the categories indicated in table 4.17.

Table.4.17 Percentage of Teachers by Total Years of Academic Education

Region	9 Years	10 Years	11 Years	12 Years	13 Years +
	Row %	Row %	Row %	Row %	Row %
Katima Mulilo	6	29	6	47	12
Rundu	10	35	5	50	-

At least 12% of the teachers in Katima Mulilo had more than 12 years of academic education while in Rundu there were no teachers who reported having reached that level. Also, 45 percent of teachers in Rundu had only 10 years or less of academic education, whereas in Katima Mulilo only 35 percent fall in this category.

- **Total Number of years of Teachers' Professional Qualification**

Caillods and Postlethwaite (1989) observe that there is a debate on the need to have teachers who are subject knowledgeable as opposed to teachers who have basic skills only or teachers who know only a little more than the learners need learn. This is echoed by Carron and Chau (1996) in the findings discussed in chapter 1, that qualifications are important but in the final analysis it is the teacher's teaching style which matters the most. The advocates of knowledgeable teachers argue that teachers should not only have a high level of general education but they should have professional training and a very good knowledge of the subject matter of the subject they are expected to teach. This requires a number of years of teacher training. So the total number of years of the teacher's professional training gives some indication of the teacher's acquisition of the necessary teaching skills and some indication that the teacher could be well grounded in the subject matter of the teaching subject. Teachers were therefore asked to indicate the number of years of teacher training they had received, with the following options: (1) "No training", (2) "Less than one year training", (3) "A total equivalent of one year training", (4) "Two years training", and (5) "3 years or more."

Table 4.18
Percentage of Teachers by Total Years of Professional Teacher Training

Region	No Training	>Year	1 Year	2 Years	3 Years +
	Row %	Row %	Row %	Row %	
Katima Mulilo	6	18	-	76	-
Rundu	45	33	5	17	-

Table 4.18 shows that 76% of the teachers in Katima Mulilo were qualified teachers with 2 years of professional teacher training qualification as opposed to only 17% in Rundu. Also, in Rundu 78% of teachers had no training or less than 1 year of training whereas in Katima Mulilo only 24% of teachers fall in this category. Generally there were more qualified teachers in Katima Mulilo in comparison to Rundu.

- **Total years of English teaching experience**

According to Caillods and Postlethwaite (1989) qualified teachers who have many years of teaching experience develop stronger instructional and class management skills. Such teachers do not only know the subject matter of the subject they are teaching very well, but they are able to devise different ways of managing the class and teaching specific lessons. One of the questions teachers were asked in the SACMEQ study was to indicate the number of years of experience in teaching English. Table 4.19 gives the mean number of years of English teaching experience for Grade 6 learners in Katima Mulilo and Rundu.

Table 4.19 Teacher mean years of English teaching experience

Region	Mean years of English teaching experience	Standard Deviation
Katima Mulilo	2.56	1.23
Rundu	2.95	1.05

Table 4.19 shows that generally all the teachers in both regions did not have many years of English teaching experience. This is mainly due to the fact that English became a compulsory subject in all government primary schools only after

independence in 1990. However, it is surprising that teachers in Rundu on average, have slightly more years of experience than teachers in Katima Mulilo where English was already a teaching subject even before independence. This finding will be further analysed later on in this chapter and further discussed in chapter 5 to determine to what extent teacher experience may have contributed to the higher learner scores in Rundu.

- **In-service courses attended**

In-service training courses are important in sharpening teachers' teaching methodologies and skills, given the new educational ethos that accompanied Namibia's education reforms after 1990. It was therefore fitting to find out how many in-service training courses the Grade 6 teachers of English had undergone. The question specifically required the teacher to indicate the total number of in-service courses he/she has had in their entire teaching career.

Table 4.20 Teacher mean number of In-service courses attended

Region	**Mean number of in-service courses**	Standard Deviation
Katima Mulilo	2.24	2.42
Rundu	2.83	3.68

The table shows that teachers in both regions had not attended many in-service training courses, even if teachers in Rundu seem to have an edge over their Katima Mulilo counterparts.

- **Frequency of principal's advice**

The principal is a key figure in the general management of the school and in providing instructional leadership and motivation to teachers as well as learners. The principal is expected to interact with teachers, and offer professional advice to teachers when and where necessary as part of his/her leadership responsibilities. Teachers were asked to report on the frequency of advice received from the

principal and the options in the questionnaire were: (1) "Never", (2) "Sometimes", and (3) Often. The results have been presented in table 4.21.

Table 4.21 Teacher frequency of receiving advice from principal

	Never	Sometimes	Often	Number
Region	Row %	Row %	Row %	100%
Katima Mulilo	18	35	47	296
Rundu	20	55	25	331

The table shows that nearly 20% of the learners in Katima Mulilo and 20 % of the learners in Rundu were in classes taught by teachers who never received any professional advice from the principal concerning their teaching. However the teachers of 47% of the learners in Katima Mulilo as opposed to 25% in Rundu reported that they often get advice from the principal. In Rundu, teachers who received advice from their principals sometimes, taught 55% of the learners.

- **Frequency of testing learners**

When learners are given tests on a regular basis, they may become familiar with tests, the type of questions regularly asked and how they are asked. They may become skilful in answering test questions. However, test-answering skills are not the same as subject knowledge. Learners need a combination of both. Regular tests could also be beneficial to learners if the teacher uses the tests to monitor learner acquisition of relevant skills and competencies. In this way the teacher is able to adapt, or improve upon his/her teaching or introduce remedial measures. Teachers were asked how often they give their pupils written tests in reading? Teachers had to choose one of the following answers: (1) "No test;" (2) "Once per year;" (3)"Once per term;" (4) "Two or three times per term;" (5) "Two or three times per month;" (6) "Once or more times per week." Since there were no responses to the options "no test" and "once per year", the following table only lists 4 options.

Table 4.22 Frequency of Testing Learners

Region	1 per term	2-3 per term	2-3 per month	1 + per week
	Row %	Row %	Row %	Row %
Katima Mulilo	0	18	23	59
Rundu	10	25	25	40

Table 4.22 shows very large differences on both sides of the scale. Whereas over one third of all learners in Rundu only get tested 1 to 3 times per term, only 18% of learners in Katima Mulilo fall in this category. On the other end of the scale, a substantially higher proportion (about 60%) of learners in Katima Mulilo get tested once or more per week.

- **The Provision/Use of English Readers or Text books**

Caillods and Postlethwaite (1989) refer to the 'World Bank report (1986*b*),' which found that textbooks are a vital classroom resource. In situations where books and other reading materials are not available in the learner's home the availability and use of English readers or textbooks at school would help improve teaching/learning, leading to improved learner achievement. This is even much better if each learner has a textbook of their own which they do not have to share in class. Better even, if they can carry home their book to read and to do their homework. Learners were therefore required to indicate how readers/English textbooks were used in class during reading lessons, by choosing one of the following options: "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 share a reader/English textbook with one pupil", "I use a reader/English textbook by myself." The results are reported in Table 4.23.

Table 4.23 Use of English Reader/Textbook

Region	No T/book	Only teacher has	Share with 2+	Share with 1 learner	Use T/book by myself
	Row %	Row %	Row %	Row %	Row %
Katima Mulilo	2	7	6	23	62
Rundu	1	1	49	9	40

The Table shows that only 6% of the learners in Katima Mulilo shared a textbook with 2 or more other learners, while in Rundu nearly half (49%) of the learners shared a textbook with 2 or more other learners and 9% shared with 1 other learner only. The 9% of learners who shared with one other learner could be from one or two well-resourced schools only while the rest of the schools in the region had a shortage of textbooks. However, 85% of the learners in Katima Mulilo either shared a textbook with 1 learner only or used a textbook alone, which implies that learners in Katima Mulilo had more textbooks at their disposal. In Rundu another 49% of the learners either shared a textbook with 1 learner or had one for their own use.

- **Books in the class library**

It was assumed by the designers of the SACMEQ I project that if learners did not have a school library, they might have at least a class library, book box or a "book corner," in the Namibian context. Teachers were asked to indicate how many books they had in the classroom library, excluding magazines and newspapers. Teachers were requested to count the number of books in their classroom libraries and indicate the total number.

Table 4.24 Teacher Mean number of books in classroom library

Region	No of book in classroom library	Standard Deviation
Katima Mulilo	59.50	92.17
Rundu	34.15	72.85

The table shows that both regions had very few books in their classroom libraries but the mean number of books in Rundu was lower than in Katima Mulilo, implying that classroom libraries in Katima Mulilo generally have more books than classroom libraries in Rundu. However the big standard deviation in each regions indicates that there were huge variations in the distribution of classroom library books in each region. So another analysis was necessary to find out how many classrooms had libraries and how many did not, which revealed that the majority of the classrooms in the two regions did not have classroom libraries at all as presented in table 4.25.

- **Provision of classroom library**

Teachers were asked to indicate whether or not they had a classroom library or a book corner, among other classroom teaching resources. The teachers were required to indicate the availability of a classroom library with either "No" or "Yes". The results have been presented in table 4.25.

Table 4.25 Teacher provision of classroom library

	No	Yes	Number
Region	Row %	Row %	100%
Katima Mulilo	59	41	296
Rundu	75	25	331

Table 4.25 shows almost 60% of the Grade 6 classrooms in Katima Mulilo and 75% in Rundu did not have classroom libraries. Katima Mulilo was notably better off with 41% of the learners having classroom libraries compared to Rundu where only 25% of the learners had classroom libraries. This is a serious deficiency since most of the schools in the two regions did not have school libraries as well.

- **Total number of classroom resources available to the teacher**

Caillods and Postlethwaite (1989:6) found that in a number of developing countries some teachers do not have what they consider necessary teaching aids such as chalkboard, textbooks or access to a library. They also found that some classrooms do not have adequate lighting, ventilation and furniture. This is most certainly the case in the Namibian context. In the rural areas there are still some classes being held under in the shade of a tree; stick and grass thatched classrooms without chairs and desks, or classrooms made of corrugated iron sheets, which have poor ventilation and are often very hot during the summer months (EMIS, 2001:83). Caillods and Postlethwaite (1989:6-7) argue that although not all of these factors may have a direct influence on the quality of the teaching process, they do influence the degree of commitment and motivation of teachers and, therefore have some bearing on the quality of education, and by implication on learner achievement. Reporting the results of studies conducted in a number of developing countries, Carron and Chau (1996:238) argue, among other things, that "the motivation of the teacher" and his "teaching style" are crucial in influencing learner achievement. The total number of resources available to the teacher in his/her classroom could enhance teacher motivation, which in turn may influence learner achievement. Teachers were asked to indicate which of the following 14 items were available in their classrooms or teaching areas: a usable chalkboard, chalk, wall chart, map of the country, map of Africa, a world map, cupboard, bookshelves, classroom library, teacher's table, teacher's chair, English dictionary, Atlas, and water tap. No single school in the two regions had all the 14 items, so the largest figures reported in table 4.26 are 10-13.

Table 4.26 Teacher Total Number of Classroom Resources

Region	Nothing	1-3	4-6	7-9	10-13
	Row %	Row %	Row %	Row %	Row %
Katima Mulilo	6	6	18	34	36
Rundu	0	20	15	30	35

The table shows that 6% of the learners in Katima Mulilo were in schools that did not have any of the resources at all. It is extremely difficult for teachers to teach effectively without a single basic resource such as chalk, a chalkboard, a dictionary, a chair to sit on and a table. Table 4.26 gives figures of the classroom resources only but does not specify the type of resources constituted in the figures. It is therefore necessary to see how teachers responded to some of the specific basic resources such as chalkboard, a teacher's chair and a table since these are basic classroom resources for the teacher.

- **Teacher provision of a chalk board**

A chalkboard is one of the oldest basic resource and teaching aid for the teacher. In some rural parts of Namibia, most of the open-air classrooms have at least a portable chalkboard. Among the classroom resources that teachers were asked to indicate availability was the chalkboard. Teachers were required to indicate this with either "No" or "Yes", and the results are presented in table 4.27.

Table 4.27 Teacher percentages of provision of a chalkboard.

Region	No	Yes	Number
	Row %	Row %	100%
Katima Mulilo	6	94	296
Rundu	0	100	331

The table shows that 6% of the learners Katima Mulilo were in schools or were taught by teachers who did not have a chalkboard whereas all the teachers in Rundu had a chalkboard in their classes.

- **Teacher's Chair and Table**

The other basic resources for the teacher apart from a chalkboard to write on, are the availability of a chair to sit on and a table on which the teacher can put his/her teaching materials or learners' books for marking. Again, teachers were requested to indicate "No" or "Yes", in regard to the availability of these resources. The results have been presented in Tables 4.28(a) and 4.28(b).

Table 4.28(a) The provision of a teacher's Chair

	No	**Yes**	Number
Region	Row %	Row %	100%
Katima Mulilo	53	47	296
Rundu	25	75	331

Table 4.28(b) The provision of a teacher's Table

	No	**Yes**	Number
Region	Row %	Row %	100%
Katima Mulilo	53	47	296
Rundu	20	80	331

The two tables show that, only 47% of the learners in Katima Mulilo were in classes taught by teachers who had both a chair and table, and teachers of the remaining 53% learners did not have a chair or a table in their classrooms. In Rundu, teachers who had a chair taught 75% of the learners and teachers who had a table taught 80%. This means that teachers who had both a chair and a table taught at least 75% of the learners in Rundu. The inadequacy of classroom furniture for teachers in Katima Mulilo can have a negative influence on the motivation and morale of teachers in the region.

- **Teacher Frequency of meeting with parents**

The education of the child is a shared responsibility between the school and parents. For this reason regular meetings between teachers and the parents of the learners they teach create a supportive environment that would have an influence on learner achievement. Teachers were asked to indicate how often they usually meet with the parents of the learners whom they teach, to discuss the progress of the learners. The options were: (1) "Never", (2) "Once per year", (3) "Once per term", (4) "Once per month or more".

Table 4.29 Frequency of teacher meetings with parents

Region	Never	1-per year	1-per term	1 per month +	Number
	Row %	Row %	Row %	Row %	100%
Katima Mulilo	29	06	41	24	296
Rundu	40	05	30	25	331

Table 4.29 shows a rather similar trend in both regions. Both regions have higher percentages of learners whose teachers do not have meetings with parents to discuss the progress of their children. However, teachers who never meet with the parents of the children they teach taught 40% of the learners in Rundu. This figure is rather too high and a cause for concern since one of the goals of education in Namibia is to promote the democratic participation of all stakeholders including parents, in various activities of the school.

- **Teachers' living conditions/Accommodation**

In Namibia, teachers' living conditions play a part in enhancing their motivation. The Ministry of Education has problem in allocating qualified teachers to rural schools due to lack of decent accommodation. Caillods and Postlethwaite (1989:5-6) report that in some rural areas of many developing countries teachers don't have decent accommodation and sometimes have to walk long distances to their schools which in some cases has led to increased teacher absenteeism or low

work effort '(ILO, 1987:101).' The report points out that in some Latin American and African countries some teachers were more pre-occupied with other activities to make money instead of teaching. Whenever possible, teachers have taken up other jobs. In towns and cities, teachers open up small-scale businesses to supplement their incomes. In rural areas, they spend more time on their farming plots. Given their long working days teachers prepare less and less for classes, and fail to mark learners' homework or are simply absent and the quality of education suffers (Caillods and Postlethwaite, 1989:5). Teachers were therefore asked to rate the condition of their living accommodation as (1)" Generally in a poor state," (2) "Some parts require major repairs," (3)"Some parts require minor repairs" or (4)"Generally in good condition." The summary of the results presented in the table 4.30, combines "minor repairs" with "major repairs" to have 3 options only.

Table 4.30 Condition of Teachers' Living Accommodation

Region	**In Poor State**	**Requires Repairs**	**In Good Condition**	Number
	Row %	Row %	Row %	100%
Katima Mulilo	44	25	31	278
Rundu	63	27	10	314

This table shows that although 44% of the learners in Katima Mulilo were taught by teachers, whose accommodation was in a poor state, at least 31% of the learners had teachers whose living accommodation was in good condition. This may point to a possible higher level of teacher satisfaction in Katima Mulilo compared to Rundu where 63% of the learners were taught by teachers whose accommodation was in a poor state.

(b) School head and school related characteristics

- **The Availability of Relevant School Resources**

It has been argued by several authors, such as Carron and Chau, Caillods and Postlethwaite and Maja, that the availability of the relevant resources in the school, which promote efficient administration and facilitate teaching/learning, has an influence on learner achievement. Under SACMEQ I, twenty-six variables relating to school resources were used. These are: school library, school hall, teacher/staff room, office for school head, office for school secretary, store room, first aid kit, sports area, play ground, piped water, other sources of water, electricity, telephone, fax machine, school garden, type writer, duplicator, radio, tape recorder, overhead projector, TV set, film projector, video cassette recorder, photocopier, computer and cafeteria/tuck shop or eating facilities. School heads were asked to indicate which of these resources were available in their schools. A larger figure represents more of the above mentioned resources and a smaller figure represents fewer resources. The results have been presented in table 4.31.

Table 4.31 Total Number of School Resources

Region	1-2 items	4-6 items	7-9 items	10-12 items	13+ items	Number
	Row %	Row %	Row %	Row %	Row %	100%
Katima Mulilo	5	35	40	20	-	348
Rundu	16	26	37	21	-	314

Although it seems as though all the schools in the two regions were under-resourced (none had more than half the listed resources), the table shows that at least 16% of the learners in Rundu were in schools that were at the least resourced end of the scale compared to only 5% in Katima Mulilo.

- **Total Number of Permanent Classrooms**

School heads were asked to indicate the number of permanent classrooms, temporary classrooms and open air teaching areas available in their schools. In addition they were asked to state the general condition of the school buildings. The northern regions of Namibia that have very large learner numbers, have always complained about the shortage of permanent classroom to replace temporary structures. Educational officials in Rundu and the two Ondangwas have argued that good classrooms of a permanent structure create a good, comfortable and safe teaching/learning environment, as opposed to classroom made from corrugated iron sheets, mud and stick classrooms or open-air classrooms (MBEC, 1996-9). The school heads were asked to indicate the total number of permanent classrooms available in their school.

Table 4.32 Total Number of Permanent Classrooms

Region	No classroom	1-3	4-6	7-9	10-12	Number
	Row %	Row %	Row %	Row %	Row %	100%
Katima Mulilo	10	15	30	20	25	348
Rundu	0	0	21	22	57	314

Table 4.32 indicates that 10% of the learners in Katima Mulilo were in schools that did not have permanent classrooms made of bricks and cement. This means that these schools used "traditional structures", made of sticks, mud and grass thatched roofs, which are common in the region. Some of the traditional classrooms are small, and it is not possible to fix a chalkboard or to hang up posters to the walls. This situation can have an effect on the learning process and learner achievement. In contrast, 57% of the learners in Rundu were in schools that had 10 to 12 permanent classrooms.

Summary and Conclusions

The main differences in the existing conditions of schooling in Katima Mulilo and Rundu that have been analysed in this chapter are based on the selected 14 family background indicators, 7 learner characteristics indicators and 17 school environment indicators, comprising some teacher/classroom characteristics and school/school head characteristics. These are the indicators of the main conditions that were investigated under the SACMEQ I project in Namibia. The indicators show significant differences in the conditions relating to learners' homes and family background as well as their schools in both Katima Mulilo and Rundu at the time of the SACMEQ I survey. On the basis of the analysis presented here it is possible to make the following deductions:

- Generally, parents in Katima Mulilo have more years of education, reaching up to the secondary school level while parents in Rundu have fewer years of education and mostly at the primary school level.
- Learners in Katima Mulilo come from homes that have more books; they receive regular assistance with their homework; they regularly read at home; and speak English outside school more often than learners in Rundu.
- At the teacher and school level factors, Katima Mulilo had more educated and a lot more qualified teachers than Rundu. The schools had more textbooks and teachers gave learners written tests in English much more frequently.
- Learners in Rundu on the other hand, have more regular breakfast, come from homes that have slightly more possessions, and get homework much more frequently than learners in Katima Mulilo.
- Learners in Rundu had more permanent classrooms than their counterparts in Katima Mulilo.
- It is also interesting to note that nearly all the teachers in Rundu were male (95%) but the majority of the teachers in Katima Mulilo were female.

Overall, the teaching and learning conditions were more favourable in Katima Mulilo than in Rundu. Therefore, based on what these factors show, and in conformity with the theoretical predictions discussed in chapter 1, learners in Katima Mulilo were generally, expected to achieve better results than Rundu. However, the opposite was the case and this has become an intellectual puzzle in the Namibian context. Why did Katima Mulilo, endowed with more favourable educational resources than its neighbouring region, Rundu, produce poor results contrary to predictions based on current theories? One of the first steps in attempting to tackle this puzzle systematically is to move to a second level of analysis to examine statistically the relationships between the indicators and the learner test scores.

4.4 Statistically significant indicators

4.4.1 Single factor relationship with learner achievement

In the previous section evidence generated from the analysis of the SACMEQ I data has shown that there were substantial differences in some of the existing conditions of schooling in Katima Mulilo and in Rundu. Do all the existing conditions in Katima Mulilo and Rundu have an effect on the English achievement? I tackle this question by firstly breaking it down into the following smaller questions:

- Does the father and mother's level of education have an effect on English achievement?
- Is there any relationship between regular breakfast and English achievement?
- Do the number of books and other possessions available in the learner's home have an effect on English achievement?
- Is there any relationship between the frequency of homework and English achievement?
- Is there any relationship between home assistance with homework and English achievement?

- What is the relationship between the frequency of reading at home and English achievement?
- What is the relationship between the frequency of speaking English outside school and English achievement?
- Is there any relationship between the use of textbooks and regular testing of learners with English achievement?
- Is there any relationship between school resources and classroom resources with English achievement?
- Do teacher qualifications have an effect on English achievement?
- Does teacher gender have any influence on English achievement?
- Is there any relationship between permanent classrooms and English achievement?
- Is there any relationship between teacher accommodation and English achievement?

The relationship between each single variable and the learner scores in each region was examined by conducting bivariate correlational analysis. The purpose of this type of analysis is three-fold: Firstly, to establish whether there is a significant relationship between a single variable and learner scores in each region by examining the p-value. Secondly to examine the nature or the "direction" of the relationship, that is, whether it is positive or negative relationship. Thirdly, to show the strength of the relationship by examining the correlation coefficient (r coefficient). The level of statistical significance (p-value) used is 0.05. This means that the risk of making an error was set at 5% to have a confidence level of 95%. Therefore, a p-value of less than .05 implies that the relationship is statistically significant and where the p-value is more or bigger than .05, the interpretation is that there is still a relationship but this relationship is not statistically significant. The relationships of the single variables to learner scores using the Pearson correlation coefficient are presented in Table 4.33. The variables, whose relationships to learner scores are statistically significant, appear in bold.

Table 4.33. Individual factor relationship with learner achievement

Indicators	**Katima Mulilo**		**Rundu**	
	r-coefficient	p-value	r-coefficient	p-value
Mother's Education	.069	.026	.174**	**.005**
Father's Education	.058	.344	.148*	**.023**
Help with homework	.028	.603	.021	.706
Number of books at home	-.001	.983	-.026	.631
Reading at home	.022	.686	.103	.062
Speaking English/home	-.082	.125	.195**	**.000**
Frequency of breakfast	.040	.456	-.003	.952
Possessions in the home	.032	.554	.171**	**.002**
Teacher academic edu.	.060	.308	.062	.0261
Teacher professional tr.	.073	.211	-.064	.245
Classroom resources	-.115*	**.048**	.061	.270
Frequency of homework	-.066	.219	.101	.068
Frequency of learner tests	-.014	.809	.147**	**.007**
Use of textbooks	.014	.789	-.071	.199
Total school resources	.121*	**.024**	.050	.379
Permanent classrooms	.155**	**.004**	.121*	**.031**
Teacher accommodation	.144*	**.016**	.011	.852

*. Correlation is significant at the 0.05 level (2-tailed)

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

Table 4.33 portrays some of the paradoxes:

- While all the indicators show a relationship with learner scores in each region, there are differences in the type of indicators that show statistically significant relationships in each region.

- Father's level of education, the number of possessions in the home, frequency of speaking English at home, frequent testing of learners are very strongly associated with learner scores in Rundu and this association

is statistically significant, but the same variables do not have any statistical significance in Katima Mulilo.

- On the other hand, school resources and teacher living accommodation have a strong relationship with learner scores in Katima Mulilo and this relationship is statistically significant.

- Only the availability of permanent classrooms has a statistically significant relationship with learner scores in both regions even if it is much stronger in Katima Mulilo.

- One paradox is that the number of books and other reading materials available in the home has a negative relationship with learner scores in both regions, even if this is not statistically significant. Nevertheless it is still a paradox that more books in the home could lead to low achievement when research literature points to the contrary.

- The availability of classroom resources, the frequency of giving learners homework and regular written tests have all got a negative relationship with learner scores in Katima Mulilo, with classroom resources in particular, having a statistically significant negative relationship with learner scores. This is another paradox in the case of Katima Mulilo because it implies that the availability of more classroom resources, frequent homework, and regular tests in Katima Mulilo are related to poor learner performance.

- In Rundu on the other hand, regular breakfast, teacher qualifications and the provision of English textbooks have a negative relationship with learner scores. How can regular breakfast, improved teacher training and the provision of more textbooks lead to poor performance of learners?

It is a paradox that some of the key indicators used in the SACMEQ I study either did not seem to measure what they were expected to measure or measured what they were expected to measure differently in Katima Mulilo from what they measured in Rundu. These paradoxes highlight the essence of the main question that this thesis attempts to answer. *What can explain the poor performance of learners in Katima Mulilo in English compared to Rundu, given that current theories appear to fail to adequately explain it?* The current theories on which the SACMEQ I project was based cannot indeed adequately explain these paradoxes and hence my attempt to search for answers in chapter 5.

The single factors presented in Table 4.33 have a relationship with learner achievement in the two regions but only a few of these factors showed a statistically significant relationship. The possible intervening factors that may have influence on these relationships are discussed in chapter 5. Suffice it for the time being to simply state that even if there is a relationship between these variables and learner scores it does not imply that one causes the other. This is not a causal relationship. There are many other factors that have to be taken into account, which may have an influence on the relationship. The factors presented in this section have shown a relationship with learner scores, but in most of the cases this relationship is not statistically significant and in a few cases this relationship is a negative one. Since it cannot be assumed that this is a simple direct causal relationship, there may be several other factors.

However, my investigation of the influence of multiple factors and their relationship to learner achievement was abandoned because I found that it did not substantially change the pattern of what the indicators showed in each region. Also, the combination of various indicators did not yield new relationships that were statistically significant. Therefore it is only the relationship between teacher gender, learner gender and learner achievement that has been reported in table 4.34. This is because of the big differences in the gender composition of teachers

in the two regions and the differences in the scores of boys and girls between the two regions.

Table 4.34 Relationship between teacher gender learner gender and learner mean scores in Katima Mulilo and Rundu

Gender	Katima Mulilo		Rundu	
	Percentage	Mean scores	Percentage	Mean scores
Learners				
Boys	58%	16.35	56%	19.90
Girls	42%	16.91	44%	17.58
Teachers				
Male	29%	16.43	95%	19.13
Female	71%	16.64	05%	14.19

Table 4.34 shows that the percentages of the number of boys and girls in the two regions were almost similar. However there were differences in the mean scores of boys and girls *within* each region and differences in the mean scores of boys and girls *between* the two regions. Firstly, there was not much difference between the mean scores of boys, 16.35 and the mean score of girls (16.91) in Katima Mulilo. However, there was a difference in mean scores of boys (19.90) and girls (17.58) in Rundu. Secondly, it can also be seen that the mean scores of boys and girls in Katima Mulilo were lower than mean scores of boys and girls in Rundu. Thirdly, 71% of the learners in Katima Mulilo were taught by female teachers, while 95% of the learners in Rundu were in classes taught by male teachers. So while Katima Mulilo had more female teachers than male teachers, Rundu was dominated by male teachers. In Katima Mulilo, boys who were taught by male teachers performed slightly better (16.43), but learners taught by female teachers in Rundu obtained an average score of 14.19 which was far below the regional average score of 18.9, while the learners taught by male teachers scored above the

regional average of 18.9. Therefore, there seem to be a relationship between the gender of teachers and learner scores, but this relationship is not necessarily a causal one.

Conclusion

In this chapter I explored the analysis of the distribution of learner test scores in Katima Mulilo and Rundu, the existing conditions under which the scores were obtained and the relationship between single variables and learner test scores. This analysis is based on only three of the 5 learning environments identified by Hua. The three learning environments, which formed part of the SACMEQ I project, were the family characteristics, learner attributes and school characteristics. SACMEQ I did not address the other learning environments such as the social environment and the community environment. To the four research questions stated on page 108, my conclusions based on the results are that:

- The SACMEQ I project provided valuable baseline data on inputs to primary schools in Namibia such as school resources and facilities, as well as classroom teaching materials and other resources.

- The maginitude of the inequities in the allocation of educational resources resources between educational regions and between schools in the same regions was highlighted, showing that in spite of concerted efforts that had been made after independence to redress the situation, the colonial inequities were still in existence after five years. Rundu educational region was the most disadvantaged in the sense that apart from having the largest number of unqualified teachers, the region also had few permanent classrooms and lacked in a number of school/classroom resources.

- There were huge disparities in the levels of reading achievement among regions and within regions, with a strong positive relationship

between well-resourced schools and higher achievement in all the regions except for Katima Mulilo. The low performance of learners in Katima Mulilo inspite of favourable conditions compared to Rundu was in contradiction with theoretical predictions. The project could account for this distunjure.

- Arising from the above-mentioned disjuncture, the question on which educational inputs to schools had the most impact on Grade 6 reading achievement could not be answered convincingly, especially in the case of Katima Mulilo and Rundu.

The analysis made in this chapter has highlighted the paradoxes emerging from working with the type of educational indicators which were investigated under the SACMEQ I project in Namibia. The next chapter takes into account the conceptual model of educational indicators and learner achievement that has been discussed in the first chapter. It takes into account the socio-historical contextualisation of the development of education in Namibia that is made in the second chapter as well as the aspects of SACMEQ I that have been analysed in this chapter. It then attempts to analyse these with the findings from the qualitative fieldwork that I conducted in the two regions. My analysis of the new findings in chapter 5 provides evidence in support of the claim made in this thesis firstly, that here is no automatic relationship between educational indicators and learner achievement and secondly, that there is a need to develop educational indicators that are more applicable in the Namibian context and which other developing countries may be able to learn from.

CHAPTER 5

Field Work Report on Four Schools in Katima Mulilo and Rundu

Introduction

I reviewed research on the relationship between pedagogical conditions and learner achievement in the first chapter, using examples from developed as well as developing countries. These examples indicate some contradictions in the results obtained under different contexts, and thus provide the initial setting for the investigation of the broad spectrum of the conditions of teaching and learning in the Namibian context addressed in the second chapter. The third chapter outlines the origins of SACMEQ and the rationale for Namibia's participation in the first SACMEQ project. The chapter highlights some of the main teaching and learning conditions that were investigated under the project, and the results obtained. This is followed in chapter 4 by a further analysis of the existing SACMEQ data, focussing on the relationship between learner test scores and the existing conditions under which the scores were obtained in Katima Mulilo and Rundu. The analysis of the Namibian SACMEQ I data highlights the disjuncture in the assumed relationship between pedagogical conditions and learner achievement.

Owing to the disjuncture in the assumed relationship between conditions of teaching and learning on one hand, and learner achievement on the other hand, evidenced in the SACMEQ I data, I thought that fieldwork was necessary to further explore the possibility of some missing links in this intellectual puzzle. I conducted qualitative fieldwork in the two regions from 12 March to 6 April 2001. An investigation of all the educational indicators discussed in the literature reviewed in chapter 1, and of all the indicators used under SACMEQ I as discussed in chapter four, and how they relate to learner achievement in Katima Mulilo and Rundu, would have been the ideal thing to do. However, this would have been a mammoth task requiring more time, more human, material, financial and other resources that are beyond the scope of this thesis. Due to limited financial resources, the fieldwork focused mainly on the possible link between

information collected through interviews and various documents, in addition to the observable characteristics of the school environment, classroom environment, teacher characteristics, learner characteristics and some characteristics of the local communities, where the schools were situated. Some of the factors I observed coincide with the SACMEQ I indicators. However, while the SACMEQ I project used close-ended questions only, I built on this by using observations and open-ended questions. In this way I was able to see and probe how the various factors impacted on one another, and interacted dynamically over a period of four weeks whereas SACMEQ data was a once off investigation of single, static indicators. The fieldwork was therefore conducted in an attempt to answer the following questions:

- What are the observable characteristics of the Grade 6-classroom environment in the high performance and the low performance schools in Katima Mulilo and Rundu?
- What are the observable characteristics of the Grade 6 English teachers?
- What are the observable characteristics of the Grade 6 learners?
- What are the observable characteristics of the local communities in which the schools are located?
- Are there other characteristics that are likely to have an influence on learner achievement in the two regions that were not investigated under the SACMEQ I project?

My reason for selecting these areas was based on Hua's 5 main categories, that is,

- The school environment (including classroom environment and teacher characteristics);
- Learner's own attributes;
- The social and community environments.

Since it ~~would~~ have been too difficult for me to do justice to investigating factors in the "family environment" I left it out, except where parents, as interviewed

members of the school board, contributed information, and where learners interviewed gave information about their home circumstances.

5.1 Selection of the schools and methodology of data collection

The selection of schools to be visited for data collection was done by ranking the original SACMEQ 1 sample of twenty schools in each region from the highest to the lowest scoring school. Each list was divided into three strata made up of the top 5 high performance schools, the middle ten schools and the bottom five low performance schools. There were only slight differences in learner scores in the middle stratum and so no school was selected from this stratum since the main focus of the investigation was to examine the characteristics of the high and low performance schools only. Only one school was selected from the top and from the bottom strata, representing the high and the low performance schools in each region, making up a total of two schools from each region. The two schools selected in Katima Mulilo were visited from 12 to 23 March 2001 and the other two schools selected from Rundu were visited from 26 March to 6 April 2001. Each school was visited for five consecutive days.

Data was collected through observations of at least three Grade 6 English lessons at each school, the inspection of classrooms, English textbooks and exercise books, Grade 6 class registers and the overall characteristics of the school environment. Structured interviews were conducted with four school heads, four Grade 6 teachers of English, six school board members, four regional office staff and twenty-six Grade 6 learners from four schools. A series of open-ended questions were used in order to obtain as much information as possible on factors that fall under my four main categories and to allow for follow-up questions. Some of the information obtained from one group of respondents was verified with another group of respondents for triangulation purposes. The names of the selected schools, English teachers, Grade 6 learners, regional office staff and parents/school board members who were interviewed remain anonymous and where necessary, only code names are used.

In order to maintain the anonymity of the schools visited in the two regions, the following codes are used:

- High Performance School from Katima Mulilo = Katima HPS
- Low Performance School from Katima Mulilo = Katima LPS
- High Performance School from Rundu = Rundu HPS
- Low Performance School from Rundu = Rundu LPS

I used relevant information from books/documents, newspaper articles and annual education reports from the two regions both before and after the fieldwork.

5.2 Characteristics Of The High Performance and Low Performance Schools In Katima Mulilo Region (Katima HPS and Katima LPS)

The data collected through the fieldwork structured interviews, observations and inspection of several documents in Katima Mulilo is presented and discussed below according to the questions posed on pages 173-4. These factors relate to some characteristics of the school environment, classroom environment, Grade 6 teachers, Grade 6 learners and the local community. I shall present my findings on each of the two schools in the region, and then compare my findings of differences and similarities between the High Performance School (HPS) and Low Performance School (LPS) *within* each region. Finally, I shall compare the differences and similarities *between* the two regions and from this offer some explanation of the outcomes.

5.2.1 School Environment

(a) The Katima High Performance School (HPS) Environment

The high performance school in Katima Mulilo (Katima HPS), is situated about 3 km from the Katima Mulilo town centre, less than a kilometre from the main tarred road, and adjacent to a senior secondary school. Catholic missionaries established the school in 1944 as part of the work of their mission station, which included a church and hospital. Many changes have taken place since then and the school is now a government school although the Catholic church still owns the buildings and carries out maintenance work. The school has most of the facilities

that can generally be found in urban schools in Namibia. Therefore it may be classified as an urban or peri-urban school by its location and by the services and facilities available to it as will be discussed later.

The Katima HPS school grounds cover an area of about 20,000 square meters, surrounded by a wire fence. The school has seven permanent classrooms, two of which were not in use. One classroom is used as a school library, but has very few books, most of them old. Learners and teachers are able to borrow books from the library. The school has a staff room and an office for the principal, in addition to piped water, electricity, a telephone and flush toilets, which were out of order at the time of the visit. There are 323 learners and 15 teachers, all reportedly having professional teaching qualifications.

The school timetable indicates that school starts at 07.00hours and ends at 12.50hours with a 30 minutes break between 9.40hours and 10.10hours. Some learners arrive at the school as early as 06.30hours and when the first bell rings at 06.45hours learners start lining up according to their classes. When the second bell rings at 06.55hrs, learners begin marching to their respective classrooms in lines. There are 7 lessons or periods per day and each period lasts 40 minutes making up a total of 4 hours and 40 minutes of teacher-learner contact time per day. By international standards, the 4.6 hours of teacher/learner classroom interaction per day that learners at this school have is not enough, and this may have an influence on the amount of learning and learner achievement. The school timetable also indicated that Grades 4 to 7 have "Manual work" and "Sports" on Mondays and Wednesdays respectively, from 14.30hours to 16.00hours. Only Grades 6 and 7 have "Study time" during the same hours on Tuesdays and Thursdays. Again, 3 hours of "study time" per week may not be enough for learners who have limited opportunities to study at home due to demand of household chores, the lack of electricity, and lack of assistance with homework.

(b) The Katima Low Performance School (LPS) Environment

The Katima low performance school (Katima LPS) is situated about 125 kilometres away from Katima Mulilo town. It can be reached by tarred road for the first 100 kilometres from Katima Mulilo and then branching off on a gravel road for the remaining 25 kilometres. The local community comprising of poor peasants built the school on voluntary basis in 1974 to cater for the needs of their own children. The school was built from materials obtained directly from the natural environment such as soil, wood poles, sticks, bark fibre ropes and grass. Government assistance came much later and the school is now registered as a government school. However, the school still lacks some of the services and facilities that could be found at the high performing school.

The school spreads over an area of about 40,000 square metres. It has three "traditional classroom" blocks comprising ten classrooms in addition to ten "traditional houses" for teachers built by parents. The "traditional" structures in this part of Namibia are made of "wood poles, sticks and mud walls" with stick/grass thatched roofs. These types of structures have a limited life span and some of the sticks, bark fibre and grass have to be replaced after a number of years. Because there is no boundary fence around the school premises and because the traditional classrooms do not have doors, goats and other livestock usually take refuge in the classrooms whenever they were not in use, to shelter from rain or the hot sun during the day. This causes further damage to classroom walls. Apart from the traditional structures, the school has one modern permanent classroom block with two classrooms for Grades 1 and 2 in addition to a storeroom, which was used as the principal's office. There was no staff room for teachers. There were two new classroom blocks consisting of four classrooms, which were still under construction. The school has 300 learners in Grades 1 to 10, and eleven permanent teachers who were all said to be professionally qualified.

The school does not have electricity, telephone or toilets but has a borehole, which was not working at the time of the visit. New toilets were however, under construction as part of the new classroom construction project. Solar panels were recently installed to provide electricity and Grades 7 to 10 are now able to come to school for evening study from 19.00hours to 21.00hours. There is no school library but the school principal reported that there is a "cupboard with some books, and teachers were allowed to borrow books but learners were not allowed to borrow books." School starts at 07.00hours with the singing of the national anthem. According to a members of the school board, the previous school principal had been "chased away from the school by learners and parents 1999" for sexually abusing a schoolgirl. According to the board members acts of indiscipline on the part of the previous principal and some learners, had strained the relationship between the school and parents.

5.2.2 Grade 6 Classroom Environment

(a) The Katima High Performance School Classroom Environment

The high performing school has 48 learners in the grade six class comprising 24 girls and 24 boys. There are enough desks and chairs for learners, which were arranged into groups. The walls of the classroom were bare, and the floor was rather untidy. The classroom is not cleaned on a daily basis. The learners were generally well behaved but they were rather shy or afraid to speak up. Grade 6 learners take the following nine subjects with the number of periods per week for each subject given in brackets: Mathematics (8), English (6), Natural Science (5), Social Studies (5), Silozi (6), Elementary Agriculture (2), Religious Education (2), Basic Information Science (1), and Art (1). Each lesson or period takes 40 minutes. This means that per week, learners have a total number of 4 hours (6 periods x 40 minutes) of studying English at school. The class uses "NAMPEP," one of the textbooks recommended by NIED, but the class has only 18 copies, which are shared among 48 learners.

(b) The Katima Low Performance School Classroom Environment

One of the traditional classroom blocks at the low performing school in Katima Mulilo has three classrooms. One of these classrooms is used by the Grade 6 class. The classroom was dilapidated and the walls in some parts had collapsed. The thatched roof was old, damaged by weather and had been badly destroyed by termites leaving wide-open spaces in some parts allowing rain to fall through. As the visit to the school took place during the rain season, it was observed that whenever it rained, learners in the Grade 6 class would usually cramp themselves together into the dry parts of the classroom to avoid being soaked by the rain that seeped through the "hole" in the roof. The walls of these classrooms are bare, as it is difficult to hang up charts or posters on such walls. All the classes have adequate chairs and desks. Small portable chalkboards are used in the traditional structured classroom since it is not possible to fix a standard chalkboard in such classrooms because of the nature of the walls. There are only 14 copies of the NAMPEP textbook for the 33 learners in the class. The number of English teaching periods per week and duration is the same as in the high performance school.

5.2.3 Grade 6 English Teachers

(a) The Katima High Performance School Grade 6 English Teacher

The Grade 6 teacher of English at this school has a grade 12 level of education and a two year Education Certificate for Primary (ECP) teaching. She has 14 years of English teaching experience, and is currently studying for a BETD (INSET). She does not receive any professional assistance with her teaching except for some rare meetings with the subject head. She has learners in her class who cannot read and write in English. She blames this on the Ministry of Education's policy of "automatic promotion" where learners move on to a higher grade even if they did not acquire all the necessary competencies for the lower grade.

The English lesson:

Learners in this class permanently sit in groups of 4 with their desks brought together in a form of a circle. There was no introduction or a preview for the lesson. After greeting the class the teacher immediately began asking questions. (Perhaps this was her type of introduction to the lesson)

TEACHER: "What type of crops do your parents grow?"

LEARNERS: "Maize! Potatoes! Millet! Oats!"

TEACHER: "Do you grow them?" (meaning "do your parents really grow all these types of crops?", after realising that some of the crops mentioned by the learners are not grown in the Caprivi region)

LEARNERS: (No response)

LEARNER 1 "Sugar cane!"

TEACHER: "Do your parents grow sugar cane?" (pause)

TEACHER: "Now open up your books on page 102" (NAMPEP Grade 6 reader)

"What do you see there?"

LEARNER 2 "Map of Africa!"

TEACHER: "Yes!" (Teacher then writes "Farming" on the chalkboard as the topic for the lesson. Below the topic she writes the names of 6 African countries – Nigeria, South Africa, Zimbabwe, Mali, Ethiopia and Morocco)

TEACHER: "Show me where Nigeria is? Show me where ...(names different countries) ... is?" (the teacher walks around the class asking different learners to show her by pointing with a finger where each of the 6 countries was located on the map)

"Show me where South Africa is?" (learner points with a finger)

"Good!, Why is it called South Africa?"

LEARNER 3: "It is a country"

TEACHER: "What do you think about his answer." (some learners murmur)

LEARNER 4 "It is found in the south part of Africa." (The teacher continues to ask) "What colour is Mali? ... Ethiopia? ... Morocco?" (she goes

on to ask different learners to say in what part of Africa these countries are situated, before changing to talk about first farmers)

TEACHER: "Remember last time we talked about the first farmers. Where did they live?"

LEARNER 5 "Bukalo!" (name of a place about 60 km from the school)

OTHERS "Zambia!" "Zimbabwe!"

TEACHER: "No, in Iran" (then continues) "Who are nomads?" (followed by some wild answers from learners) "Nomads are people who move from place to place for food for their animals."

The teacher again asked, "What did they use these animals for?" learners seemed to take too long to come up with answers and so the teacher told them that the "animals were used for farming."

TEACHER: "Open your books on page 43. Look at the two pie charts. Which country is producing more millet and maize? Look and agree on the answer." (This was a group exercise but the task was not really demanding and did not require much group discussion. Besides there was only one book for a group of 4 learners who took turns in looking at the pie charts. While learners were doing the group exercise the teacher wrote the homework on the chalkboard; "Write a paragraph about maize production and millet production." End of the lesson.

The teacher did not seem to be adequately prepared for the lesson. The aim or purpose of the lesson was not very clear as the teacher shifted from one aspect to another. The tasks given were not mentally stimulating and most of the learners looked bored. The permanent sitting arrangement was not suited for the lesson as some learners had to turn backwards to look at the teacher or the chalkboard. This problem was compounded by the shortage of textbooks. There were too many questions directed from the teacher to the learners and no single question from learners to the teacher or from learner to learner. This is not compatible with the

practice of "learner centred education," which the teacher believed she was practising by keeping learners in permanent groups.

(b) The Katima Low Performance School Grade 6 English Teacher

The Grade 6 English teacher completed grade 12 and has 7 years teaching experience after graduating with a National Education Certificate (NEC) from Ongwediva College of Education. She uses the NAMPEP teachers' guide and a few NAMPEP textbooks, which learners in her class have to share. She also has one copy of another textbook called "English Made Easy," which she uses for reference purposes.

The English lesson:

The lesson began with the teacher greeting the class and then she wrote the date and the topic on the chalkboard. The topic was "Reading Cards." Learners were seated with their desks grouped together into groups of 3 and 4. The teacher then distributed "reading cards" to each learner. Each card had a different story but the teacher asked one learner from "group 1" to read her story aloud while the rest listened. The title of the story was "Sam Nujoma on Independence." The teacher followed the story from her own book. Other learners listened to the story or simply continued reading from their own cards instead. It was not clear why each learner was given a reading card with different stories but yet they all had to listen to one person reading another story at the same time. The teacher would stop the reader from time to time and correct her pronunciation of some of the words and wrote them on the chalkboard for all to see. For example, "lives" was wrongfully pronounced by the learner as "lefes," "suffered" was pronounced as "safuredi," and "exile" was pronounced as "ekisil". Other words were "allowed," "sworn", and "during". Two learners from the same group took turns in reading the same story. The teacher also read the story aloud and afterwards she asked learners to use the dictionary to find out the meaning of some phrases such as "democratic elections." The work was handicapped by the fact that only one group had a dictionary. The teacher then proceeded to explain the story and asked learners

whether they have ever voted for a football captain or a class leader. While it may be possible for all learners to vote for their class leader, voting for a football captain may be confined to boys only because girls in this area do not normally play football. This is an example of unconscious gender bias on the part of the teacher. The teacher spent some time explaining the voting process and counting of ballot papers to determine the winner. The teacher then asked each learner to write a single sentence, which they liked most, from the story they had listened to, and that marked the end of the lesson.

5.2.4 Grade 6 Learners

(a) `The Katima High Performance School Grade 6 Learners

According to the school admission policy of the Ministry of Basic Education Sport and Culture, the appropriate age for a learner to start school in Grade 1 is six years. So the appropriate age for Grade 6 learners is supposed to be 11 to 12 years, but this class has ten learners aged between 15 and 17 years. Most of the learners wear school uniform but there are some, who according to the teacher "could not afford to buy school uniforms". Some of the learners do not have shoes. The majority of the learners in the school are Subiya speaking but they are taught in Silozi and English. English could therefore be regarded as a third language for the Grade 6 learners.

Short interviews were conducted with seven learners at this school. The purpose of the interviews was to assess the learner's ability to engage in a simple conversation in English, while giving information about things they were expected to be familiar with – themselves, their families, their school work and why they either performed well or not so well. The English teacher helped in the selection of two learners considered to be weak performers in English and two others considered to be good performers, in addition to three "over age" learners. The over age category was included because it was important to find out why some learners who were old enough to be at senior secondary school were still in Grade 6 and did not usually perform well. The ages of the over age learners selected for

the interview were verified using the class attendance register. Given below is a summary of the interviews:

- Weak Performer Number 1

  This learner is a girl of 14 years old and an orphan. Both of her parents had passed away. She lives with her grandmother together with nine other children. Her grandmother buys and sells dry fish for a living. The girl usually "helps grandmother to sell fish especially on weekends" when she does not go to school. She normally goes to school without breakfast. English and Silozi are her favourite subjects even if she does not do well in both.

- Weak Performer Number 2

  This boy, aged 16 years old, lives with his mother only because his father passed away. The family has "problems with food, and usually gets food from the mother's sister." This learner had real difficulties in understanding simple questions in English even if these were repeated several times. He also had problems in expressing himself apart from "yes" and "no".

- Weak Performer Number 3

  This girl is 15 years old and lives with her parents who also sell second hand clothes at the open-air market. She always helps her parents with household chores after school and so she has no time to study at home.

- Weak Performer Number 4

  This is a girl aged 15 years, who also lived with her grandmother because her mother had passed away and the father lives in another town. She usually does not have breakfast and on weekends she helps her grandmother in tilling the land for food crops.

- Weak Performer Number 5

  A 14 years old boy who lives with his father and mother. His parents make a living by selling second hand and other goods. His home is near the school and so he goes home to eat something at break time even if he does not usually have breakfast.

- Weak Performer Number 6

  This girl is 14 years and lives with her father only as her mother passed away. She lives far away from the school and has to get up very early in the morning to walk to school without breakfast. She only has meals after school.

From the six examples of weak performing learners given above, it can be noted that only two learners lived with both parents. The others had the following characteristics:

- Two lived with single parents
- Two lived with grandmothers
- Four did not have breakfast,
- Three helped out with household chores after school.

These factors no doubt have an influence on learner performance but the same factors may also affect different learners in different ways as reported in the following example:

- Good Performer Number 1

  One of the well performing learners is an 11 year-old girl who lives with her grandmother. She cooks and washes dishes at home after school but she usually goes to school without breakfast. She likes school very much and so in spite of her home circumstances, her schoolwork is still good. This means that the learner's own abilities, motivation and hard work may still produce good results regardless of negative home circumstances.

- Top Performer

  The best performer in the class however is a 15 year-old boy who has a physical disability and was brought to a Home for Children with disabilities in Katima Mulilo (run by a Church) from the Kavango region. His father passed away and his mother lives in the Kavango. He was never sent to school at the right age because of his disability. When a Catholic nun persuaded his family to allow him to come to the centre, he was nine years old. He was able to do grades 1 to 5 in three years, because he was so exceptionally good that teachers had to "promote him to the next grade after every 5 months." He has breakfast of bread and tea every morning, and has bread to eat at school during break time. In addition to the study time provided for on the school timetable he does extra work or "studies on his own at the children's home from 18.30hrs to 20.00hrs from Monday to Thursday." His favourite subjects are Maths and English. Can the combination of good nutrition and study time help explain why this boy performed better than everyone else in nearly all the school subjects?

The common aspects about the two well performing learners are that they were both interested in school and in learning. They demonstrated an intrinsic motivation to learn through their own efforts in spite of the odds. In the case of the handicapped learner, the personal attributes referred to above were complemented by the good care, and nutrition he received from the catholic church as well as the one and half hours of extra study which he had every day.

(b) The Katima Low Performance School Grade 6 Learners

The Grade 6 class has 33 learners but only 28 were present on the day of the visit to the school. There are five boys and four girls aged between 15 and 17 respectively, some of whom were supposed to be interviewed, but only three boys and two girls were present, and out of these two boys and one girl were interviewed. An observed trend at this school and the other school in this region

is that generally, over age learners tend to be frequently absent from school and more likely to be weak performers compared to other learners.

- Weak Performer 1

  Aged 17, this learner is one of the over age boys. He is often absent from school and does not know how to read and write in English. He was not sick but he looked pale and weak with dry lips. He showed signs of malnutrition and so his regular absenteeism could be due to hunger or illness. It was very difficult to have a conversation with him in English.

- Weak Performer 2

  This learner is a 17 years old boy who had started school at another school and went up to Grade 7, before transferring to the current school. Because of his weak academic performance, he could not be kept in grade 7. He was placed in Grade 6 and he is still not able to cope with the work. He appears to have some kind of mental retardation or emotional problems. However, the principal reported that the in rural environments like this one, learners who had learning disorders did not get any specialised assistance.

- High Performer 1

  One of the high performers is a 12 years old girl who has no a father and mother. When asked about her family background at the beginning of the interview, she just broke down and began sobbing uncontrollably and so the interview had to end prematurely. Upon inquiry later, the class teacher reported that the girl has had several deaths within her family over the past two years. She had lost everybody that was dear and close to her without much time in between for her to recover from the shock. She first lost her mother about two years ago, followed by her father a year later. She moved in

to live with her eldest brother who also passed away the previous month. She now lives with an uncle who is a teacher at the school.

- High Performer 2
  Another girl aged 12 years lives with her father who is a teacher at the school. The mother had passed away.

- High Performer 3
  This is a 10 years old girl whose mother is a teacher at this school and the father is a principal at another school. Due to the absence of pre-primary schooling in this area the girl used to accompany her parents to school at age 5 and soon she was able to do grade 1 work and the parents decided to let her continue with formal schooling.

The high performers in this case were all young and they came from homes that value education, because their parents/guardian were teachers who lived at the school in traditional houses for teachers that were constructed by parents.

Finally, the majority of the learners in this school were either Mafwe or Mbukushu speaking but they had to learn Silozi and English. This means that they did not only have to learn two languages, but they were disadvantaged in the sense that they used one language at home, used Silozi (the lingua franca of the region) at school and outside school, and had to learn English with very little chance of using it in this remote rural community. The Caprivi region is believed to have had a longer history of English usage. In chapter 4, I have reported that more learners in Katima Mulilo than in Rundu had reported having radios in their homes and using English outside school more often. However a remote rural school, in a poverty-stricken area such as this one was an exception. The teacher reported that there were some learners who "did not know how to read and write in English." During the interviews with learners, there were some of them who could not engage in a simple conversation in English because they could neither

understand nor speak English. According to the teacher, some of these learners simply kept quiet whenever they were asked to read.

The poverty of many households in this area could be seen in the appearance of the learners, most of whom wore tattered clothes and did not wear shoes. The school authorities did not prescribe any school uniforms because they knew that most of the parents would not be able to afford to buy uniforms for their children. The school was benefiting from the government "school feeding programme", which provided a mid-morning meal for learners consisting of maize meal porridge. The school principal reported that learner attendance of school had improved tremendously since the introduction of the school-feeding programme.

5.2.5 Community Environment

(a) The Katima High Performance School Community

Most of the parents of this school live in the nearby villages on the edges of Katima Mulilo town. Some of them are peasant farmers, a few of them have formal employment in Katima Mulilo town and a good number of them are petty traders selling all sorts of merchandise at the market in town or at their homes. The school had newly elected school board members, some of whom were not sure of their functions. The chairperson of the board was once a learner at the school during the 1960s and so he identifies himself with the school. Parents are expected to pay a school development fund of N$10.00 for Grades 1 to 4 and N$15.00 for Grades 4 to 7. They usually attend meetings when called and they receive their children's school reports every term. According to the school board chairman and teachers, most of the parents were able to read and write in either Silozi or English and so it was possible for them to help their children with schoolwork at home. This is in line with the SACMEQ findings on the level of parents' education in Katima Mulilo.

(b) The Katima Low Performance School Community

The long distance from facilities such as the clinic, shops, post office, tarred road and other facilities indicates that this is a poor rural community. The poverty of the people was manifested in the type of households and the appearance of the learners. Even if the majority of the people were said to be peasant farmers growing maize and millet, there was very little evidence of farming. A number of people were said to have engaged in and benefited from petty cross border trading prior to the intensified civil war in Angola and increased banditry activities of the National Union for the Total Liberation of Angola (UNITA) in the area, which is close to the Namibia, Angola and Zambia borders. However, the arrival of Namibia defence and security forces in the area to maintain law order and security had disrupted much of this illegal cross border trading which had provided livelihood for some of the people in this area.

Before independence the community built the mud and thatch classroom as well as teachers' houses. The parents and other community members used to do a lot of this voluntary work for the school because there was little assistance from the colonial government. Because of constant droughts in the years after independence, the Ministry of Agriculture Water and Rural Development introduced the "Food for Work" programme to help alleviate hunger and poverty in the drought stricken areas. The programme entails that villagers voluntarily participate in government initiated projects, such as construction work, in exchange for food. One effect of this on the community is that people are now no longer prepared to offer voluntary labour without compensation. Parents are now reluctant to provide free labour to the school as they had done in the past even if doing so would be to the benefit of their own children. The school board secretary reported that many parents in this area were "illiterate".

Table 5.1 A Summary of the Characteristics of the two Schools in Katima Mulilo

	Katima HPS	Katima LPS
School Environment	• Urban government school, 3 km from Katima town centre • Buildings belong to church • 7 modern permanent classrooms, library, staff room, principal's office, broken flush toilets, piped water, electricity and telephone • 323 learners and 15 teachers • All teachers have teaching qualifications and are near to the "Teachers' Resource Centre" where they can prepare their lessons and borrow materials. • Grades 6 and 7 learners have 1 ½ hrs of study time after school, twice a week • School has a wire fence all around it • Learners have 4 hour of English learning per week	• Rural government school,125 km from Katima town • Community built traditional classroom buildings, modern permanent classrooms still under construction • No library, no staff room, no principal's office, no standard chalkboard, only a small portable chalkboard • 310 learners and 11 teachers - all qualified • Grades 1 to 10 • Community built 10 traditional houses for teachers • Water from bore hole but broken down • Solar energy recently installed • Resource centre is far away • Learners get food under the "school feeding programme" due to hunger in the area • Previous principal was forced to leave this school by parent and learners for allegedly sexual harassment of a school girl • Goats and other livestock wander around the school and mess up the traditional classrooms when not in use • Learners have 4 hour of English learning per week
Grade 6 Classroom Environment	• No maps, charts and pictures on the classroom walls • Learners do not seem relaxed and appear bored • Learners sit permanently around desks that are grouped together in groups of 5 or 6 • Learners sit in groups according to teacher's understanding of learner centred education • Learners share textbooks due to shortage	• Very difficult to put any thing on the walls • Classroom is not a modern learning environment • Classroom roof almost collapsing • Rain seeps into classroom • Poor light in the classroom • Learners sit in groups according to teacher's understanding of learner centred education and group work • Learners share textbooks

Grade 6 Teacher Characteristics	• Female teacher with 16 years teaching experience • Trained to teach all primary subjects • Grade 12 plus Education Certificate for Primary (ECP) • Can teach all primary subjects • Makes learners sit in groups • Lesson not well prepared • Teacher is not enthusiastic • Teacher feels that the policy of automatic promotion elevates learners who have not acquired the necessary competencies at a certain grade level to the next one	• Female teacher with 7 years teaching experience • Trained to teach senior primary English • Grade 12 National Education Certificate (NEC) • Teacher has wall charts but it is difficult to hang them in this class • Teacher is not very enthusiastic • Teacher blames automatic promotion for poor performance of learners
Grade 6 Learner Characteristics	• 48 learners but 3 absent • Learners share 18 textbooks • Girls perform better than boys • Some learners cannot read and write • English is a "third language" • Few over age learners	• 33 Learners but 5 absent • Half of the learners in the class do not wear school uniform • Learners are not very enthusiastic • Some learners "drop out from school for some months" before they come back • English is a "third language" • More over age learners.
Community Characteristics	• Majority of parent are "self employed" (traders) • Parents pay N$15 for school fund • Hospital is nearby	• Poor peasants with very little evidence of crop cultivation • Government introduced the "food for work programme" due to hunger in this area • School fund is N$15 but some parents are not able to pay • Parental involvement has declined • Nearest clinic is 10 km away

Pertinent differences in conditions between the two schools in Katima Mulilo

There were marked differences in the conditions between the High Performance School and the Low Performance School in Katima Mulio, which may not only have an impact on the teaching and learning process but on outcomes as well. The following were the pertinent differences:

- The HPS is a full phase primary school - Grades 1 to 7. It is situated in an urban area and close to most of the basic services. It has permanent classroom buildings with a staff room, principal's office and a library.

It has most of the facilities such as a typewriter, telephone, electricity, and piped water. Most of the parents are either workers or petty traders.

- The LPS is a "Combined School" catering for Grades 1 to 10. It is a rural school situated 125 kilometres away from Katima Mulilo town and thus divorced form basic services available only in an urban setting. Parents before Namibia's independence in 1990, built the classrooms and teachers' houses using traditional materials. There was no standard chalkboard in the traditional classroom. The teacher used a small portable chalkboard instead. Termites had eaten up the grass-thatched roof, leaving some parts completely bare and rain easily seeped in, forcing learners to squeeze themselves around the dry patches. Due to drought and in order to minimise the effects of starvation the government was providing learners with a meal per day under the school-feeding programme. The parents were mainly poor peasants.

- Through my observation, I find that the pertinent differences were mainly located in the community environment, with some differences in available resources in the school environment. However, the teacher characteristics were remarkably similar between the two schools.

5.3 Characteristics of the High Performance and Low Performance Schools in Rundu Region (Rundu HPS and Rundu LPS)

The data collected through the fieldwork interviews, observations and inspection of several documents in Rundu is presented and discussed below according to questions posed on pages 173-4. In this section I have presented my findings on each of the two schools in Rundu and compared the differences and similarities between the High Performance School and the Low Performance School within the region. This is a prelude to the comparisons of the schools in the two regions that is made in section 5.5.

5.3.1 School Environment

(a) The Rundu High Performance School (HPS) Environment

The Rundu High Performance School (Rundu HPS), situated about 5km from the town centre, is a government school, which was opened in 1984 in the densely populated informal settlement area on the periphery of Rundu town centre. According to the school principal, the school was established to cater for the growing population to partly "reduce overcrowding at one of the town's main primary schools at the time." The school has modern permanent buildings with 23 classrooms (one new classroom block comprising three classrooms was still under construction), with a staff room, secretary's office and principal's office. There is no boundary fence around the school which spreads over an area of about 15 000 square metres. The school does not have a library but it has piped water, electricity, telephone and fax machine. Some books are kept in a storeroom and both teachers and learners can borrow these books. The school has pit latrines for staff and learners. The "openings" of the pits are about 40 cm wide and it was reported that this was not safe for the little first grade learners, some of whom were "afraid to use the pit latrines for fear of falling into the pit and so opted to use other means."

The school has 1,224 learners in Grades 1 to 7 with 35 teachers. The school operates a double shift system where Grades 3, 4 and 5 have classes starting at

06.50hours in the morning to 12.00hours. Grades 1, 2, 6 and 7 have classes in the afternoon. The afternoon classes start at 12.15hours and end at 16.40hours, for Grades 1 and 2 while Grades 6 and 7 classes end at 17.15hours. Grade 6 learners have 4 hour of English lessons per week. One set of teachers taught in the morning session and another set of teachers taught in the afternoon session. The Grade 6 classes observed were in the afternoon session. The learners looked well groomed and energetic because they had the whole morning to prepare themselves, to eat and to get to school. Besides, the weather was at its best in this region during the month of March as opposed to the hot summer months.

Learners wear school uniforms and the majority of them walk to the school from nearby homes. Late coming and absenteeism are not a problem at this school. The school makes follow-ups on learners who are absent from school and always insists that parents should explain the reasons for their children's absence from school. (During the time of the visit to the school, one mother came to the principal's office to explain that her child was absent from school due to illness. She brought along with her, the child's medical card as proof). Where parents do not report the reasons for a child's absence from school for a number of days, a teacher will visit the parent's home after working hours to find out why. The deputy principal observed that this approach has greatly improved school attendance by learners because most of the parents now see to it that their children attend school regularly to avoid "embarrassment" by a teacher's visit.

The school holds meetings with parents once every term. Parents are able to discuss the performance of their children with teachers and receive the children's school reports. For the year under review the school had planned more (5) meetings with parents in order to discuss the development needs of the school such as the on-going classroom construction through the "Nkarapamwe project." Therefore, good leadership at the school, good teamwork spirit among teachers and their genuine interest in the learners they teach has won the support and co-

operation of parents. It is therefore possible that all things being equal, this school can achieve its main objective of improving learner performance.

(b) The Rundu Low Performance School (LPS) Environment

The Rundu Low Performance School (Rundu LPS) is a government school situated about 90 kilometres away from Rundu town. It is located about 15 kilometres away from the main tarred road and about 5 kilometres away from the Kavango River that forms the boundary between Namibia and Angola. The school was established in 1967 as a lower primary school and later became an upper primary school offering Grades 5 to 7 classes. Two lower primary schools (Grades 1-4) act as feeder schools to this one. One of the feeder schools is located some three kilometres way from Rundu LPS while the other one is some 20 kilometres away. The school has a total enrolment of 184 learners with five male teachers and only one female teacher, who happens to be married to one of the male teachers.

The school has only one modern permanent classroom block with five classrooms. One of the classrooms is used as a staff room and the principal uses one corner of the staff room for his office. The school is rather isolated, as there are no other buildings or villages within about 2km radius of its vicinity. The school grounds cover a cleared area of about 3000 square metres without a boundary fence but surrounded by bushes and cultivated land. There is no school library (except for a cupboard with some books), no electricity, no toilets and no telephone. The school gets its water from a borehole. Some learners walk for about 8 to 10 kilometres every day from their homes to school. This is one reason for the high prevalence of late coming at this school. On all the days that the school was visited some learners often arrived at school as late as 08.15 hours although classes were officially supposed to start at 07.20 hours. Other learners stayed with relatives in some villages near the school during the week to be able to get to school on time and then go back to their parents only on weekends. Absenteeism was identified as another major problem in this school. The school principal and

the Grade 6 English teacher reported that out of the total school population of 184 learners, on some days as many as 60 learners could be absent, and in a class of 50 learners, about 20 could be absent in a single day. Even if learners have 4 hours of English lessons per week, regular late-coming to school and regular prolonged periods of learner absenteeism means that in reality, many learners have only few hours of English instruction per week.

The following were cited as some of the main reasons for learner absenteeism:

- Some parents do not show much interest in the education of their children. Some learners go to school on empty stomachs and do not get food when they come back from school, so they sometimes opt to stay at home to have a meal.

- Some parents tell their children that they will not be given food if they don't do any work, that is, help look after cattle and/or their siblings. The common excuses learners give for being absent from school are "I was sick," which includes absence due to hunger or "I was sent by my father," which usually means "sent" to look after animals or taking siblings to a clinic usually far way from home. Culturally it is considered an act of gross indiscipline for a child to refuse to be sent by parents or guardians.

It may be argued that a combination of all the above mentioned factors could have a negative influence on learner attendance and thus on learning outcomes.

5.3.2 Grade 6 Classroom Environment

(a) The Rundu High Performance School Classroom Environment

There were four Grade 6 classes comprising 113 learners. Out of this number, 76 learners were aged between 14 and 19 years when the expected age for Grade 6 is 12. Most of the over-age learners that were interviewed at this school and all the other schools had at least one or more of the following four common problems: They either started school very late, they had dropped out of school for sometime

before enrolling again, they were extremely slow learners due to some handicap or they had difficult home circumstances. The Grade 6 class that I observed at this school has 29 learners. All learners have chairs and desks and sit in rows instead of groups. The English Textbook/Reader in use at this school is the "New Day-by-Day English Course, Standard 4 Reader" and each learner has a textbook to himself/herself, which they take home and are able to use to do their homework. Most learners attend classes regularly. The teacher reported that there were some learners who could not read and write. He attributed this to "lack of reading materials in the home, lack of remedial work at school" and the Ministry of Basic Education's policy of "automatic promotion." The policy of the Ministry states that in order to bring about internal efficiency of the educational system, learners at the primary school level who do not reach the minimum competencies/requirements for promotion to the next grade shall be allowed to repeat a grade only once at each phase. That is, once at the lower primary phase and once at the upper primary phase. A process of continuous assessment in each promotional subject is used to determine the extent to which learners master the necessary competencies needed for promotion to the next Grade. Teachers do not only have to see to it that their learners have acquired the basic competencies, but they are also encouraged to employ remedial measures to help weak learners. However, this teacher reported that some teachers fail to help all their learners to acquire the basic competencies and do not offer remedial teaching. Some teachers compensate for their own inability to teach and to offer remedial lessons by awarding generous marks to learners to be promoted to the next Grade. As a result, learners are annually "promoted" from a lower Grade to a higher one, until they reach Grade 6, without mastering some of the basic competencies such as reading.

(b) The Rundu Low Performance School Classroom Environment

The class has enough chairs and desks for all the learners who sit in rows instead of the commonly misapplied ("learner-centred") groups. The main textbook used for English was the "New day by day English course for standard 4." In 1996, a

year after SACMEQ 1 the Grade 6 class then had "10 textbooks only, which had to be shared among 60 learners." The teacher sometimes had to take a whole period to write a class exercise from the book on the chalkboard. Because there were not enough funds for textbooks, the English teacher devised a strategy to acquire more textbooks in smaller quantities every year. The school ordered10 more books in 1999 and in 2001 respectively, to make up the current total number of 30 books that are shared among the 59 learners in the Grade 6 class. There are no charts, pictures or any other educational aids on the walls of the class.

5.3.3 Grade 6 English Teachers

(a) The Rundu High Performance School Grade 6 English Teacher

The Rundu HPS English teacher is male aged 32 and has six years teaching experience. He obtained the National Education Certificate (NEC) at Rundu College after completing grade 12 at a senior secondary school in Katima Mulilo. He was at the time of the visit to the school studying for a diploma in education with the South African Azalia College. He seems to have a very good relationship with his learners. He speaks fluent English and teaches English to all four Grade 6 classes at this school. However the lesson observation was done in one class only, due to difficulties encountered on the school timetable.

English lesson at Rundu HPS

The learners in this class sat in rows and two learners share a desk. Each had a textbook and the lesson went as follows:

The teacher greeted learners and proceeded to ask them questions about the previous lesson.

TEACHER: "Yesterday we had a listening story about a man. What was the name of the man?"

(Several hands go up for the answer and the teachers points at one learner for the answer)

TEACHER: "what happened to the donkey?"

(Again, nearly all the hands go up. Many learners put their hands up each time the teacher asked a question. Learners seemed very relaxed and eager to participate)

The teacher asked several learners to narrate the full story, and most of them gave it a try, but finally one learner was able to narrate much of the story after having listened to the other learners and putting all the bits and pieces together. Some learners had problems with pronunciations. For example, "thief" was pronounced "sief" or "fief".

Teacher then wrote the date on the chalkboard and proceeded to write an exercise Starting with this example:

1. "What would you do if you had an apple?"

"If I had ..... I would ....."

Answer – "If I had an apple I would eat it."

Teacher read the question, answered it aloud and asked one learner to do the same.

LEARNER 1: "If I had an apple I would eat." (first learner did not get it right)

LEARNER 2: "If I had an apple I would eat it" (second learner was right)

The teacher then asked all the learners to read the correct answer aloud after him.

TEACHER: "Repeat it again!" (correct way is "say it again" or just "repeat")

TEACHER: "What would you do if you had a lot of money?"

TEACHER: "If I had a lot of money I would buy a car"

The teacher then asked learners to work in pairs and continue to ask the question and give answers loudly for the attention of the entire class. One learner would ask a question and the other learner next to him/her provided the answer. Instead of saying "What would you ..." most of the learners were saying, "What will you ..." Others said "If I have ..... I will ....." instead of "If I had ..... I would." The teacher gave learners some exercises to do for homework and the lesson came to an end.

(b) The Rundu Low Performance School Grade 6 English Teacher

The English teacher is a male person whose level of academic qualifications was grade 12. He had six years teaching experience without any formal teaching qualification, but had enrolled for the BETD INSET programme. The main textbook he uses is the "New Day by Day English Course for standard 4".

English lesson at Rundu LPS

The lesson started on time. The teacher greeted learners and wrote the topic for the day on the chalkboard, which read, "Present Continuous Tense." He asked for some one to read the topic and many hands went up. He made very good use of the chalkboard, which he divided, into two parts. He used one part of the chalkboard for examples and the other part for explanatory notes. He explained what present continuous tense is. His explanation was clear and the tasks to be performed by learners were clearly explained.

TEACHER: (while writing on the board asks learners), "What I am doing?" (correct way is "what am I doing?")

LEARNER: "Are you writing"

TEACHER: (Explains that he is) "busy doing a task and so the verb 'write' should end with …ing". He then gives some more examples and exercises.

TEACHER: (Question) "Make a sentence that this is being done now."
My brother (to do) homework. (Many hands go up)

LEARNER 1: "My brother is do homework."

TEACHER: "Once you use <u>is</u> ….the verb must be followed by …<u>ing</u>"

LEARNER 2: "My brother to doing homework." (wrong)

LEARNER3: "My brother is doing homework." (correct answer)

The teacher was very friendly and polite to learners. He solicited answers from all learners, and thanked learners who gave wrong answers for "trying." Learners participated in the lesson freely and confidently whether they had the right answer or the wrong one. Teacher called upon learners who did not put up their hands to answer a question or to give it a try. After a few more examples the teacher asked

learners to take out their exercise books to copy down the homework, which he wrote on the chalkboard at the end of the lesson. The teacher had to write the homework on the chalkboard for learners to copy in their exercise books because there were not enough textbooks for each learner to take home.

5.3.4 Grade 6 Learners

(a) The Rundu High Performance School Grade 6 Learners

There are 29 learners in this Grade 6 B class, with 18 girls and 11 boys. Out of the 18 girls 9 are aged between 14 and 17 years. The oldest boy in this class is 19 years old, and 7 other boys are aged between 14 and 18 years old. All the learners wear school uniform. The English teacher helped identify 4 learners in his class who were top performers and 4 weak performers. I conducted interviews with these learners to find out more about them, their families, their schoolwork and why they performed well or not so well. The interviews were conducted individually and in the absence of the teacher. All the 4 weak performers were interviewed, but it was very difficult to get these learners to say anything and so the interviews took longer than expected. For this reason, only 2 of the top performers were interviewed. The results are presented below:

- Weak performer number 1

  This is a girl, aged 16 years. She only started school at the age of 10 because her mother had passed away before she could start school and her father took her to live with her grandmother in a remote village, where there was no school. She does not like school very much, even if she doesn't know why. This learner may be a weak performer in English as reported by the teacher partly because of her difficult family circumstances, which might have an influence on her attitude towards school.

- Weak performer number 2

  This is a boy of 18 years. He had started school in Angola at the right age and went up to Grade 5. He was forced to leave for Namibia in 1996 with his parents because of the civil war between the United National Movement for the Total Independence of Angola (UNITA) and the Angolan government. In Namibia, he was placed in Grade 3 because he "did not know how to speak English." Even then he did not pass and was made to repeat Grade 3. He feels that he is doing much better now and he is more interested in social studies than English. This boy may be a weak performer in English because he studied Portuguese in Angola and not English. This may also have an influence on his interest in social studies as opposed to English.

- Weak performer number 3

  This is a 17 years old boy who started school at the right age but dropped out from school in Grade 3, because there was no one to stay with after his mother's death. His father lives in Otjiwarongo, about 470 kilometres from Rundu. He stayed away from school for two years living for short times with different relatives before starting school again in Grade 4, because he now lives with his uncle, who decided to send him to school again. The unsettled family way of life that this boy has gone through may have an influence on his performance.

- Weak performer number 4

  This is also a 17 years old boy who started school late, because he lived with his parents in a remote village "further inland" where there was no school. His parents lived in this area for farming and keeping cattle. The boy spent the years away from school looking after his father's cattle. Now his father has moved to Rundu where he makes a living by making and selling building bricks. He has other people looking after his animals so his son can go to school.

From the above mentioned examples it may be argued that there are several "family environment" reasons why there are still a considerable number of "over age" learners in some primary schools in Rundu. Most of these over age learners started school late or dropped out of school before enrolling again, and so may not perform well at school due to a variety of reasons such as:

- the death of a parent/guardian,
- family migrations or unstable family life
- long distance from school,
- looking after animals and other family chores,
- lack of interest in some school subjects or school in general,
- studying English, as a foreign language which even the teachers have not fully mastered.

The two top performers in this class were a boy and a girl, both aged 13 years. The girl lives with her father only as her mother is studying in the United Kingdom. The girls favourite school subject is English. The boy lives with both of his parents. His father is a "businessman" while his mother does not have a full time job. The boy has attended school in different places in the past due to his parents' constant movement. His favourite subjects are Mathematics and English, which he speaks fluently.

(b) The Rundu Low Performance School Grade 6 Learners

There are 59 learners in the Grade 6 class, comprising 27 girls and 32 boys, whose ages vary significantly. There are 10 girls and 11 boys aged between 15 and 18 years when the ideal average age for Grade 6 learners is 12 years. According to the teacher, there were six learners in the class who "did not know how to read and write - even copying what was written on the chalkboard was a problem." Learners "never use English outside the class." They prefer to speak their own language even during the English lesson. Whenever the teacher insists that they speak English only during the English lesson, some of them do not to participate at all.

Many of the learners speak RuGiriku and Shambyu and some of them speak Ru Nyemba. Giriku is the local language taught at school but it is in the process of being revised and is to be replaced by Rumanyo, the original dialect that is a mixture of Shambyu and Giriku. Some of the learners therefore, learn English as a third language. A learner may speak Ru Nyemba with the parents at home, speak Giriku with friends and neighbours and learn English at school, but never use it. Since it has been argued that learners improve their language proficiency if they speak it regulary outside school, then learners who are taught in a third language, which they hardly use outside the classroom, would be disadvantaged.

Late coming and absenteeism are common problems at this school and the Grade 6 class is no exception. In the Grade 6 class, 17 learners out of the 59 had been absent from school for periods ranging from 5 to 22 days. So the learners selected for interviews included regular absentees. The purpose was to investigate the reasons for absenteeism and to examine whether this problem had an influence on the performance of the learners concerned. Only the regular absentees who were present were interviewed. It turned out that the regular absentees were also over age and were the weakest performers.

- Regular Absentee Number 1

  This is an 18 years aged boy who lives with his grandmother because both of his parents had passed away. The class register indicated that this boy has been absent at different times for a total number of 15 days out of the 40 school days from 12 January to 27 March 2001. He reported that his regular absenteeism from school was due to "hunger" as his elderly grandmother struggles to get food. The teacher confirmed that "during the dry season, some learners don't come to school or leave school earlier to go home because of hunger." He looked pale and under nourished, with dry lips even if the time was only mid morning. He does not have breakfast at all and the other meals are irregular. When he misses several meals he feels weak and

sick and cannot walk to school. He is a very weak performer and could neither speak nor understand English. He just said "Yes" to everything and so another learner acted as the translator during the interview.

- Regular Absentee Number 2

  Another 18 year old boy who lives with his parents and had been absent for a total number of 19 days reported that his regular absenteeism was due to his often being "drunk" with some traditional beer called "Mundevere," which he often drank with his father. He is a weak performer who could not have a conversation in English and so translation was needed for the interview.

- Regular Absentee Number 3

  This learner is a boy, aged 17 years and lives with his mother only because the father had passed away. He has been absent from school for a total number of 18 days because he sometimes has to take care of his uncle's cattle. His school performance is weak.

- Regular Absentee Number 4

  This boy is 16 years old and lives with both of his parents. He has been absent from school for a total number of 18 days. He reported that he does not have breakfast in the morning and had been absent from school due to illness, but he does not come to school sometimes because he has to look after his grandmother's cattle.

- Regular Absentee Number 5

  This is a 17 years old boy who lives with his grandmother because his mother passed away. He has a father who lives in Windhoek, some 700 kilometres away from Rundu, and does not visit or give any kind of support. He has been absent from school for 21 days. He

sometimes does not come to school because of hunger and because he has to walk a long distance.

- Regular Absentee Number 6

  This is a girl of 17 years old, who lives with both parents. She does not come to school sometimes because of hunger. She has been absent for a total number of 16 days. She does not perform well in her schoolwork.

- Top Performer

  The top performer in the class is a 12 years old girl, who lives with her grand parents because her father and mother are working in South Africa. She has been absent from school for 5 days only since the beginning of the term because she had been sick. She is fluent in English and acted as the translator for the other learners who do not understand English.

Out of the six over age Grade 6 learners interviewed at this school, three of them showed signs of under nourishment and retarded growth and two could not have a conversation in simple English (one of their classmates had to translate for them). Three learners lived with their grandmothers; one because both parents died, another because his mother died and the father lives in Windhoek and another, because the parents live in South Africa. Two learners lived with their mothers only because their fathers had passed away.

If one third of learners in this class are frequently absent from school and because they have no opportunity to learn/study at home, they would end up missing a lot of the class work covered by the teacher. If learners don't learn most of the work they are expected to cover in a particular Grade, they may not do well in their schoolwork. The common reasons given for frequent absenteeism are:

- Hunger due to lack of food

- Looking after cattle and other family chores
- Poor grandparents
- Illness
- in one instance alcohol abuse

Therefore there are many family environmental factors that may have a negative influence on learning and learning outcomes.

5.3.5 Community Environment

(a) The Rundu High Performance School Community

Most of the people who live here in this urban setting, had migrated from their villages in search for employment. Others had been forced by the colonial South African forces to move away from their villages along the banks of the Kavango River, which forms the border with Angola, to settle around this place which is further away from the river for security purposes. Some of the people are workers while others are self-employed, buying and selling different types of merchandise. The majority of them usually go back to their villages in the countryside to till the land during the rainy season. Parents are expected to pay N$60.00 for school development fees which had to be paid in three instalments of N$20.00 per term. Some parents pay, while others do not. Some parents who are not able to pay cash contribute to the construction of classrooms through the "Nkarapamwe" project. The majority of the parents who attend parents meetings called by the school are women. According to one of the female school board members, some men do not attend these meetings because "they are lazy." Some men live far away from their families because of work, while others simply do not take responsibility for their children once they divorce and marry another woman. Women who have children outside wedlock usually have to raise the children by themselves as they often get little support from the fathers. "When a father has married another woman, it is often difficult for a woman to go to him to ask him to go to school to attend to his children's school meetings." Even if some parents do not attend all the school meetings, they sometimes make arrangements with neighbours or relatives who have children at the same school to stand-in for them.

(b) The Rundu Low Performance School Community

The community is made up of peasant farmers. Parents attend meetings at school when called by teachers. The majority of the parents who attend such meeting were usually women. Most of the parents who participate actively in the discussions were also women. The school board has three women and two men. The chairperson of the school board was a woman. It was reported that "perhaps men did not consider such meetings important because some of them did not have good reasons for not attending other than beer drinking." Two school board members felt that some parents did not seem to care much about the education of their children and this could partly contribute to the truancy of some children.

Table 5.2 A Summary of the Characteristics of the two Schools in Rundu

	Rundu HPS	Rundu LPS
School Environment	• Urban Government school. • 5 km from RunduTown • Total of 1,224 learners. • Grades 1 to 7. • 35 teachers. • Double shift school. • Modern permanent classrooms • Electricity, telephone, fax, water, pit latrines available. • Teachers live near the school. • Good teamwork spirit among teachers. • Enthusiastic teachers. • Regular parent/teacher meetings. • Teachers visit absent learners' homes. • Learners walk short distance to school • Learners have 4 hours of English lessons per week	• Rural Government school • 90 km from Rundu town • Total of 184 learners • Grades 5,6 and 7 only • 6 teachers • Learners come from two lower primary schools • Modern permanent classrooms • Isolated school with no electricity, no telephone, no toilets, no school library • Teachers live far way from school. • Teachers do not regularly meet with parents • Teachers are less enthusiastic • Some learners walk about 10 km to get to school • Learner absenteeism is a serious problem • Many learners have less than 4 hours of English lessons per week due to regular/prolonged absenteeism
Grade 6 Classroom Environment	• Newly renovated and clean modern classroom • No charts, maps or pictures on the walls • 29 learners • Enough desks and chairs • Learners sit in rows • Main textbook in use is the "Day-by-Day English Course Standard 4 Reader" • Each learner has a textbook which they are allowed to take home • Good class attendance	• Modern classroom • No charts, maps, pictures or other decorations on the walls • 60 learners, all have chairs but share desks. • Learners sit in rows • Uses "Day-by-Day English Course Standard 4 Reader" • Many learners are often absent from school or come late. • Textbooks are not enough and learners are not allowed to take them home.
Grade 6 Teacher Characteristics	• 32 years old male with 6 years experience • Grade 12 plus National Education Cert. (NEC) • Currently studying for a Diploma with Azalia College of South Africa • Has good relation with learners and manages the classroom well • Gets professional support	• 27 years old male with 6 years experience • Grade 12 with no teacher training • Doing BETD in-service • Well prepared for lesson • Presents lesson in a systematic way and makes good use of textbooks and chalkboard • Very friendly and polite to learners. • Thanks learners who give wrong

	from other English teachers in the school • Energetic enthusiastic in his teaching	answers for "trying." • Solicits answers from all learners including those who do not put up their hands. • Energetic, enthusiastic and highly motivated teacher who seems to enjoy his work
Grade 6 Learner Characteristics	• 18 girls and 11 boys • About two thirds of the learners are aged 14-19 • Most of these learners had family related problems • Good class attendance • Many learners are enthusiastic. They seem to enjoy the lesson and sometimes laugh at their own answers	• 27 girls and 33 boys • About one third of the learners are aged between 14-18. • Learner absenteeism is a big problem in this class. • Reasons for absenteeism and late coming include long walking distance to school, hunger and/or looking after cattle • 6 learners did not know how to read and write • Majority of learners are enthusiastic and actively participate in the class by putting up their hands to answer questions
Community Characteristics	• Most of the parents are workers or petty traders • Parents support school development plans • Parents pay N$60.00 per year school funds. • Parents contribute voluntary labour for classroom construction • More women than men attend P/T meetings	• Parents are mostly poor peasant community with little interest in the school • Parents do not pay school fund and do not contribute any form of voluntary labour • More women attend parent/teacher meetings than men and the chairperson of the school board is a woman

Pertinent differences in conditions between the two schools in Rundu

The table outlines many factors, which show similarities as well as differences in the conditions in the two schools in Rundu. The following are the pertinent differences between the two schools:

- The HPS in Rundu is a very big full phase primary school situated with win the urban area. It is near to most of the urban basic services and it has basic facilities such as principal's office, staff room, telephone and typewriter. All the teachers are qualified. The principal, his deputy and the heads of department have a formidable management team that works very well with teachers, learners and parents. Both teachers and learners do not travel long distances to come to school. There are

regular meetings between parents and teachers. Parents contribute money towards the school development fund while others offer free labour for classroom construction.

- The LPS is a relatively small senior primary school that is fed by learners from a number of small lower primary schools. It is situated about 90 kilometres from town. The principal is an old man with low qualifications, and could not express himself in English. The young teacher of English acts as his translator. Both teachers and learners travel long distances of up to 10 kilometres to come to school. Hunger and frequent learner absenteeism are big problems. The parents are poor peasants who cannot fail to pay school development fees.

The differences highlighted above have an effect on teaching and learning, which in the end may have influence on learning outcomes.

5.4 A Comparative Analysis of the Four Schools in Katima Mulilo and Rundu

After having looked at the main differences between the high performing and low performing schools *within* each region, I am now going to compare conditions *between* the regions in order to ascertain whether there are some pertinent factors that might account for differences in learner scores and especially for the better performance, on average, of learners in Rundu.

A comparative summary of the high performing school in Katima Mulilo and the high performing school in Rundu is presented in table 5.3. The summary shows that the main differences between the two high performing schools were that the teacher at the Katima Mulilo HPS, did not show enthusiasm and interest in her teaching and did not have regular meetings with parents. The school did not have a development plan and does not make follow up on learners who are absent from school for prolonged periods.

Table 5.3 Comparative analysis of Katima Mulilo HPS and Rundu HPS

	Katima HPS	Rundu HPS
School Environment	• Urban government school • Fairly well resourced • Irregular teacher parent meetings • Teachers have low morale • Teachers do not make follow ups on absent learners • No school development plans • Learners have 4 hours of English lessons per week	• Urban government school. • Well resourced • Regular teacher/parent meetings • Motivated teachers • Teachers visit homes of absent learners • School has development plans • Learners have 4 hours of English lessons per week
Grade 6 Classroom Environment	• Old and untidy classroom • Few textbooks • Learner class attendance not so good. • Uses "NAMPEP" textbooks	• Newly renovated, painted and clean classroom • More textbooks which they are allowed to take home • Good learner class attendance • Uses "Day by Day" textbook
Grade 6 Teacher Characteristics	• Qualified teacher but does not relate well to learners • Lesson presentation not good • Little use of chalkboard	• Qualified teacher and relates well to learners • Good lesson presentation and makes good use of the chalkboard
Grade 6 Learner Characteristics	• Class attendance not so good • Learners look bored and less enthusiastic • A good number of learners live with grandparents. • Some learners did not know how to read and write	• Good class attendance • Learners participate in the lesson enthusiastically • Many learners live with their parents • A number of over age learners
Community Characteristics	• Many parents are traders • Parents show little interest in school • Parents pay only N$15 per year. • Parents do not contribute in terms of labour	• Many parents are workers or traders • Parents show interest in their children's schooling • Parents pay N$60 per year for school fund. • Other parents offer labour for classroom construction

In contrast, the Rundu HPS teacher showed more enthusiasm, was friendlier to learners, and presented lessons very well, with a good use of the chalkboard. The learners enthusiastically participated in his lessons.

The results of the comparative summary of the low performing school in each of the two regions is presented in table 5.4.

Table 5.4 A comparative analysis of Katima Mulilo LPS and Rundu LPS

	Katima Mulilo LPS	Rundu LPS
School Environment	• Remote rural school • Grades 1- 10 • Dilapidated traditional classroom without doors • Livestock wander into classroom when not in use • Grade 6 learners have 4 hours of English lessons per week but classes often disrrupted by rain	• Rural school • Grades 5-7 only • Modern classrooms • Most of the Grade 6 learners have less than 4 hours of English lessons per week due to absenteeism
Grade 6 Classroom Environment	• Rain seeps into classroom • Small portable chalkboard • Poor light • Few textbooks • It is not possible to put any aids on the stick and mud walls • Learners sit in groups	• Big chalkboard • Allows in good light • More textbooks • No charts, maps, posters and other educational aids on the wall • Learners sit in rows
Grade 6 Teacher Characteristics*	• Trained female teacher • Less motivated • Lives at the school in a traditional house built by the community • Teacher rarely meets with parents	• Untrained male teacher • Highly motivated • Lives far away from the school • Teacher rarely meets with parents
Grade 6 Learner Characteristics	• 33 learners • Most learners come from nearby villages • Learner absenteeism is not a major problem • Hungry learners attend school because of the "School feeding " programme	• 60 learners • Some learners walk 10 km to school • Learner late coming and absenteeism are major problems • Some learners do not come to school because of hunger • No "school feeding" programme. • More over age learners
Community Characteristics	• Poor peasant community • Little parental involvement • Parents are no longer willing to provide voluntary labour to the school because of the "Food for Work" programme	• Poor peasant community • Very little parental involvement in school

*My findings on teacher characteristics corroborate Carron and Chau's findings in Mexico (p. 46)

The two low performance schools in the two regions differ from each other in the following: The Katima Mulilo LPS has old dilapidated "traditional classroom", while the Rundu LPS has modern permanent classrooms. A female qualified

teacher, who lacked motivation and was rather authoritarian in her approach to teaching, teaches the Katima Mulilo LPS Grade 6 class. Learners did not actively participate in her lessons. Poverty and hunger are problems at this school but, learners are provided with meals through the school-feeding programme. Apart from those who had their own houses, most of the teachers live (at school) in traditional type of houses built by parents. In contrast, a male untrained teacher who lives far away from the school teaches the Rundu LPS Grade 6 class. He is highly motivated and presents his lessons in a lively way while soliciting participation from learners. Most of the learners at the Rundu LPS walk long distances to get to school. Hunger and absenteeism are serious problems at this school.

5.5 Drawing together the threads of educational indicators

There are many aspects and problems relating to the school environment, Grade 6 classroom environment, Grade 6 English teachers, Grade 6 learners and the local parent community of the area where the schools were situated. Some of these aspects relate to the educational indicators discussed in chapter one and to some of the indicators applied to the SACMEQ project. There were some aspects that were common to all the four schools in the two regions. There were also other aspects that were common only to the high performance schools and some aspects that were common only to the low performance schools in each region. However, there are also some aspects that are either peculiar to each region only or to each individual school only in each region. Therefore a search within and beyond these indicators should yield a more nuanced conception of these aspects in the context of the two regions and Katima Mulilo educational region in particular

5.5.1 Some aspects common to all the four schools in the two regions

Over age learners

More than 25% of learners in all the four schools were aged between 14 and 19, when the appropriate age of learners at the Grade 6 level should be 11 or 12 years. These overage learners were usually associated with a number of problems such as

having started school late, having dropped out of school for sometime due to family problems, hunger or looking after cattle. A large proportion live with a single parent while others are orphans who live with grandmothers or other relatives. The overage learners are also mostly the weak performers in the class. Some of them were not able to read or write in English.

"Automatic Promotion"

All the teachers from the four schools expressed their dissatisfaction with the Ministry's policy of "automatic promotion". In their views the learners who were not able to read and write in English had been promoted from lower grades without acquiring the necessary basic competencies. The Ministry of Education Permanent Secretary's circular number FORM ED 10/2001 among other things states that:

> Normally all learners will progress through grades 1 - 9 without repetition. Only in cases where the class teacher/teaching teams in consultation with the principal are absolutely convinced that the learner would definitely not benefit from progressing to the next grade, should a leaner be held back and receive compensatory teaching towards promotion the next year (Circular no. FORM 10/2001:2).

The policy means that repetition will only be allowed in exceptional cases and where this was applicable, there would be remedial or "compensatory teaching" to enable the learner to acquire the desired competencies. Therefore, according to a senior education officer from NIED, the policy does not entail "automatic promotion" per se but it is supposed to be a "semi automatic promotion" in the sense that it is based on some criteria. However compensatory teaching does not take place in the schools visited. Rather, the teachers put the blame on the learners or on the other teachers who taught the learners in previous years. Teachers blamed the previous lower Grade teacher and did not want to do "someone else's job" or to do "extra work", by providing remedial teaching. As a result there is no compensatory teaching that is taking place, thus in essence pushing the learners who have not acquired the necessary competencies further backwards, contrary to the expectations of the Ministry. The policy further states that:

> No learner shall in total repeat more than once at the lower primary level, i.e. Grades 1-4. A learner who is not promoted for the second time must be transferred to the next grade. Similarly, no learner shall in total repeat more than once at the upper primary level, i.e. Grades 5-7. A learner who is not promoted for the second time must be transferred to the next Grade (Circular no. FORM 10/2001:2).

This implies that in the absence of compensatory teaching, it is possible for a learner to be promoted from Grade 1 to 7 without acquiring the basic competencies at all these levels. This may help explain why there are a number of learners in Grade 6 who do not know how to read, write or speak English. Besides, the policy further states that "a learner who has reached the age of 16 years and is still in the primary phase, must be transferred to the next grade at the end of a year." In other words, any learner who is aged 16 has no chance to repeat a Grade at the primary phase even if he/she has not acquired the basic competencies. However, the fieldwork findings showed that there were still many over age learners at primary school level, especially in rural areas.

Classroom settings

All the four classrooms that were visited had bare walls without any educational aids such as maps, pictures, charts and possibly a display of the learners' own work. These classrooms portray a dull environment that does not stimulate a learning spirit and/or a conducive learning atmosphere.

5.5.2 Some aspects common to the high performance schools in both regions

The high performance schools in both regions are urban schools, which have all the basic facilities and services such as modern classroom buildings, telephones, electricity and piped water. They all have qualified teachers and the parent community is mainly composed of working parents or traders. There was more parental involvement in the affairs of the school such as payment of school funds and attendance of parent-teacher meetings and construction of classrooms.

5.5.3 Some aspects common to the low performance schools in both regions

The low performance schools in both regions are small rural schools that do not have all the facilities and services available to the high performance schools. They are schools that serve poor peasant communities. Parental involvement in the education of their children and the development of the schools is low. At the Katima Mulilo LPS parents are not willing to continue with the pre-independence spirit of offering voluntary service to the school such as the construction of traditional classrooms and teacher houses. They now opt to be paid either in cash or in kind under the food for work programme. Some of the parents cannot pay school funds. Poverty and hunger were apparent in the appearance of the learners. These learners did not wear school uniforms because most of the parents cannot afford to buy school uniforms in addition to ordinary clothes. So learners wore the same clothes at home and at school. The school-feeding programme is sometimes sporadic and learners get no food for some time. Besides the food does not provide a balanced diet. Some of the overage learners do not only appear to have stunted growth, but their skins looked pale and their lips were dry due to hunger. These learners do not usually have breakfast and they eat a meal only after coming back from school in the afternoon. Absenteeism is also rampant and seems to be caused by a combination of hunger and other family problems

5.5.4 Some Aspects Peculiar to the Two Schools in Katima Mulilo

Type and Availability of Textbooks

The schools in Katima Mulilo do not have adequate textbooks and sometimes three learners have to share one textbook. It should be noted that only two schools were visited in each region. The average percentage of learner textbooks for the whole region that were reported under SACMEQ I may have concealed the real situation in some schools. Besides, much may have happened between the time the SACMEQ data was collected in 1995 and my visit to schools in the region in 2000. The only English textbook or "Reader" that is in use at the Katima Mulilo schools is the "NAMPEP Year Six Learner's Book" whereas schools in Rundu use the "Day-by-Day English Course Standard 4 Reader". Both types of textbooks are

among the list of books recommended to schools by NIED. The use of different types of English textbooks, the shortage of numbers available and the ineffective use of these textbooks may have an influence on learner achievement but there are also other intervening variables and one of these is the teacher factor.

The Teaching Ability of the Teacher

Although all the teachers in Katima Mulilo are professionally qualified the teachers who were observed at the two schools seem to have a lackadaisical approach to their teaching. They created an impression that they either do not know their subject matter well or do not prepare their lessons well as discussed earlier on in this chapter. Further, they did not seem to be interested in what they were doing. They did not show much enthusiasm in their teaching and as a result learners appeared to be bored during the lessons as opposed to the lively classes in Rundu. The English end of term question papers, which they set did not test multiple literacy competencies such as reading for comprehension, but simple location or identification of single words only.

The Teacher's Organisation of the Classroom.

In as much as there is no compensatory teaching in all the schools, the two teachers at the two schools in Katima Mulilo had their own understanding of "Learner Centred Education". One way in which they understood learner centred education was to have 5 to 6 learners group their desks together to form a rough circle. The learners then sit in these positions as a permanent sitting arrangement and organisation of the class. It was observed that some learners sat in the class with their back to the chalkboard and the teacher. Each time that the teacher wrote something on the chalkboard they had to turn their heads back and forth to read and/or to copy from the chalkboard. This sitting arrangement may probably be best suited for specific group tasks, but to have this approach as a permanent sitting arrangement in a classroom could be counterproductive and inappropriate.

Changes in the Attitudes of the Community

The low performance school in Katima Mulilo was first established as a community school before Namibia's independence in 1990. Parents and community members organised themselves to build the traditional classrooms and teachers houses. This was a good community spirit, and selfless service, which characterised the unity and solidarity of the people in their resolve to be self-reliant. However this spirit seems to have disappeared. The traditional classrooms that were built by the people on a voluntary basis are now dilapidated and need repair by the community. However, the principal reported that parents are no longer willing to offer voluntary service without pay. The Ministry of Agriculture, Water and Rural Development introduced the "Food for Work Programme" in hunger and drought stricken areas of the country in order to alleviate starvation caused by persistent drought and hunger. According to this programme, community members are recruited to work on government projects such as road construction, building schools or clinics in exchange for food. Because the low performance school is now a government school, some community members have been employed to work on the construction of new classrooms at the school, under the food for work programme. As a result, community members now feel that they can only renovate the traditional classrooms in exchange for either food or money from the government, but definitely not for free anymore even if the beneficiaries are their own children. Therefore, a new culture of working only for something in return seems to be replacing the pre-independence spirit of service and sacrifice.

5.6 Historical, socio-political and economic context of the Katima Mulilo education region

Namibia is divided into 7 educational regions and 13 political regions. Apart from the Katima Mulilo and Rundu educational regions, which form the Caprivi and Kavango political regions respectively, each of the other educational regions stretches over 2 or 3 political regions. Plans are under way to decentralise the administration of school education from the existing 7 educational regions to the 13 political regions, inline with the implementation of the government policy of decentralisation.

Table 5.5 Existing education regions and future education regions in Namibia

Existing educational region	Political regions/future education regions
1. Katima Mulilo	1. Caprivi
2. Khorixas	2. Erongo 3. Kunene
3. Keetmanshoop	4. Hardap 5. Karas
4. Ondangwa East	6. Ohangwena 7. Oshikoto
5. Ondangwa West	8. Omusati 9. Oshana
6. Rundu	10. Kavango
7. Windhoek	11. Khomas 12. Omaheke 13. Otjozondjupa

5.6.1 Historical Background

In this section, the term "Katima Mulilo educational region" or "Caprivi Region," will be used interchangeably because they refer to one and the same region. For the purpose of this analysis western Caprivi generally refers to the area along the Mashi River or the area West and South West of Katima Mulilo town. This area is inhabited by the Mafwe, Mbukushu, Mayeyi a few Khoe and the Totela.

Eastern Caprivi refers to the area East and South East of Katima Mulilo town. This area is inhabited mainly by the Subiya .

The Caprivi Strip, which comprises the Katima Mulilo education region, was named after Count Georg Von Caprivi, who succeeded Bismarck as the imperial chancellor of Germany in 1890. It is a narrow strip of land, stretching about 450 km long and 30 to 60 km wide on averages. It was created from what was then British territory as part of the Anglo-German Helgoland-Zanzibar Treaty of 1890 (Fisch, 1999:7). This strip was created because the Germans in South West Africa wanted to have access to the Zambezi River as a means of communication with their other colony in East Africa. Prior to this, the Caprivi region had been for over 100 years part of the Barotse empire, but the demarcation of colonial boundaries cut across the indigenous people who were closely related in terms of language and way of life.

The land between the Kavango river at Divundu and the Mashi river in western Caprivi, which is made up of a game park was inhabited only by Khoe-san hunter gatherers because it is very dry with little surface water. During the struggle for Namibian independence, this area was a heavily militarised zone. After the outbreak of the civil war in Angola in 1976, thousands of Khoe, who used to reside in South-East Angola, fled to the western Caprivi. According to Fisch (1999:5-6), many of the Khoe joined the South African Defence Force (SADF), and participated in the fight against the People's Liberation Army of Namibia (PLAN), the fighting wing of SWAPO, prior to independence. Fisch reports that because they feared possible repercussion from SWAPO after independence, the Khoe accepted an offer by the South African government to be resettled on a farm near Kimberly in South Africa, where they still live (Fisch, 1999:6). There might have been other motives because the fighters of the former South West Africa Territorial Force (SWATF) from other ethnic groups who also fought against SWAPO were after independence incorporated into the new Namibia Defence

Force (NDF) in conformity with the SWAPO government's policy of national reconciliation.

The Germans did not develop the area during the period of their rule, partly due to the long distance and communication problems between Windhoek and the area, even if by 1909 they had set up a "Residence" at "Schuckmannsburg." Communication problems between the Caprivi and Windhoek continued even under South African administration form 1920 onwards. Fisch (1999:14), observes that administrative responsibility of Caprivi changed hands several times. Different parts of the Caprivi were at different times administered from Bechuanaland (Botswana), Kavangoland and the Department for Native Affairs (later the Department of Bantu Administration and Development) in Pretoria and during these periods English speaking administration officials were sent to the Caprivi. Up to the end of German rule after the First World War, there were no government schools in the area just like other parts of the country as well. The few missionary schools that were available were allowed to teach up to the fifth year of schooling (standard 3). However, people from Caprivi were able to further their education in Zambia or Zimbabwe. Fisch (1999:14), argues that it is for this reason that the level of school education in the Caprivi region today is relatively high in comparison with the rest of Namibia. Ironically the SACMEQ I data, the annual national Grade 10 and 12 examination results, between 1996 and 2000 as well as the results of the English Language Teacher Development Project (ELTDP, 1999)'s survey on English proficiency of teachers have shown that this is not the case.

5.6.2 Ethnic and Political Conflicts

The main ethnic groups in Caprivi, which maintained their chieftainship during the colonial era from the 1890s up to 1990 were the Mafwe and Subiya. There has been continued rivalry between the two groups over territorial boundaries and the struggle for power. This rivalry intensified in the years after independence and has had an important influence on party-political developments. According to

Fisch, the Mafwe remained loyal supporters of the Democratic Turnhalle Alliance (DTA), while many Subiya had changed sides to SWAPO - as the Constituent Assembly elections of 1989 clearly showed. Consecutive elections have shown that SWAPO has been gaining ground in the region. This rivalry and power struggle seems to have permeated all spheres of social life including education. "Schools repeatedly had to be closed down because Mafwe protested against the appointment of Subiya teachers in their territory" (Fisch, 1999:29). Tensions heightened when the Mayeyi who had been subordinates to the chiefs of the Mafwe for more than 120 years began to agitate for autonomy and eventually elected their own chief. Violent clashes in which "secondary schools pupils took part," ensued. The Mayeyi actions seemed to be in line with the Traditional Authorities Act 17 of 1995, which gave the right to every traditional community to have their own traditional authority (Fisch, 1999:34). The recognition of the new Mayeyi chief by the government under the new law, further infuriated the Mafwe and a section of the Mayeyi, who had been opposed to the installation. Fisch, (1999:34) reports that in the midst of the protests that followed, a Yeyi teacher was shot in his car near Linyanti. Efforts by top government official to reconcile the warring parties did not bear any fruit. The Mafwe chief accused the government of manipulation and disregard for his traditional authority, and of appointing/promoting only officials from the ruling party in schools and other government offices in the Caprivi. The Mafwe traditional authority opposed the appointment of two Subiyas as School Inspectors with jurisdiction over schools in the Mafwe area (Fisch, 1999:25).

Other political developments in the region led to the emergency of a secret secessionist movement, which culminated in an attempt to secede the Caprivi from the rest of Namibia by military means, in 1999. The attack on government institutions in Katima Mulilo town, was quickly curtailed by government defence and security staff. Many people lost their lives and over a thousand people fled into neighbouring Botswana, among them some teachers and some learners.

Much cannot be said about the secessionist movement because a number of people are still appearing in courts of law on treason charges.

5.6.3 Socio-economic factors

Meanwhile the Caprivi region with a population of 79,852 is one of the least developed regions of Namibia economically. Independence has brought about some developments in infrastructure such as the construction of the Trans-Caprivi highway which links up Zambia, Zimbabwe and Botswana to the Namibian port of Walvis Bay and promotes Tourism in the region. However, the region lacks big scale industries and the majority of the people live a life of peasantry. According to the preliminary report of the 2001 Namibia Population and Housing Census the Caprivi region is the only region that registered a decline in population growth from 90 422 in 1991 down to 79 852 in 2001 (NPC, 2002:14). The region has also experienced a decline of -2.2% in the total enrolment of learners in schools, from 26 635 in 1995 down to 23 277 in 2001 (MBESC, 2001*b*:46). The Ministry's annual education statistics also show that the Caprivi region has the lowest average learner: teacher ratio of 21:1. Even if one of the reasons for the apparent decrease in the population of the Caprivi was a change in the geographical boundary of the region, the Minister of Health and Social Services reported in the national parliament that a survey conducted at all main hospitals in the country found that Katima Mulilo had an HIV prevalence of 43% of pregnant women tested (Hamata, 2002:1). So the decline in population could be partly due to a combination of factors such as high mortality rate, which has reduced the national life expectancy from 58.8 years in 1995 to 43 years in 2000, coupled with declining fertility due to AIDS as well as migrations or general socio-economic conditions (MBESC, 2003:1).

The historical, social, cultural, ethnic and political kaleidoscope of the Caprivi region and the conflicts emanating there from have a major influence on the way of life, beliefs, behaviour and attitudes of the people, including teachers and learners. So great has been the influence of these environmental factors that they

have not only affected education and school dynamics in the region, but I want to argue, school outcomes as well.

5.6.4 Orphaned Learners

According to a report by Maletsky (2001:3), "the number of orphans registered with Catholic AIDS Action has increased by more than 3,000 in the last five months. In one homestead in the Caprivi Region, a grandmother now takes care of 15 grandchildren after AIDS killed four of her five children." The report quoting Andrea Rass, Catholic AIDS Action representative in the Caprivi reported that there were 1, 330 orphans after registration was conducted in only 3 of the 6 constituencies in the Caprivi.

Out of the 14 learners that were interviewed at the two schools in Katima Mulilo, it was found that only 6 learners live with both parents. Of the remaining 8 learners, 4 live with a single parent, 3 live with grandmothers and 1 lives with an uncle, all due to deaths in their families, though the cause of death was not established. Interviews with learners evoked great emotions and a girl who had lost both her parents and an elder brother within a period of 3 years broke down and wept. So the deaths that have occurred in the families of so many young people could leave traumatic scars. The emotional instability arising out of the loss of parental love, care and support coupled with the other factors mentioned in earlier chapters could have an influence on the way these learners learn, and the results they achieve.

5.6.5 Some Reasons for Poor Performance in Katima Mulilo

There are various reasons that have been given for the apparent poor performance of learners in Katima Mulilo despite favourable indicators. According to a report by Hausiku (2002:14), Albert Liswaniso, Namibia National Teachers' Union (NANTU) chairman for the Caprivi argues that " ... all stakeholders are to blame for the poor performance of pupils in the Caprivi Region". Addressing more than 100 teachers mainly from rural schools in the region, at a meeting held in Katima

Mulilo, the NANTU chairman accused the regional education office for failing to address problems affecting education in the region for a number of years. The teachers in the region complained about " ... random transferring, housing schemes, expatriate teachers, lack of teaching and learning materials as well as the shortage of teachers in the schools" (Hausiku, 2002:14). With a learner: teacher ratio of 21:1, the region experienced a rather artificial shortage of teachers especially at the secondary school level where specialised teachers to teach Mathematics and Science, were not enough. The teachers also complained about " ... the practice of nepotism, favouritism and tribalism." According to the article, teachers in the region were particularly angered by an alleged memorandum from the office of the Ministry's Permanent Secretary, which " ... stipulated that teachers who teach in rural areas but had bought houses in town, should have their subsidies suspended, because they do not stay in those houses" (Hausiku, 2002:14). The article however, reports that the regional office refuted most of the teachers' allegations. Nevertheless, when teachers are dissatisfied with their conditions of work and the type of support that they get from their supervisors, their morale would be low. They might show less commitment to their work, which ultimately will have an influence not only on the teaching process but on learner outcomes as well. I want to add that my observation of teacher morale certainly bore this out. Teachers were unenthusiastic and unprepared for their lessons.

In another report by Sasa (2002:3) Ben Muleko, the NANTU Regional Secretary General for the Caprivi, argues that one reason for the poor grade 10 results for 2001, was that some teachers were assigned to teach Grades that they were not qualified for. He further argues that the "incorrect placement of teachers" in subjects they did not specialise in was a cause for concern. This was a problem, which was not peculiar to Katima Mulilo alone, but it was common to the other northern regions as well. The Regional Director of Education agrees that there are many reasons for the apparent poor performance of learners in the region but in his view the main problems were poor management and lack of discipline in

schools coupled with lack of support for teachers from the inspectors and subject advisors. He further argued that some of the principals were also failing to deal decisively with discipline problems such as absenteeism among teachers (Sasa, 2002:3). My fieldwork findings through observations and interviews indicate that ethnicity, political affiliations and the spectre of secessionism were partly responsible for a sense of suspicion and mistrust among education staff in the region. These factors have resulted into weaknesses in management at different levels starting from the school to the regional office. Some individuals always viewed whatever action was taken against them from their own ethnic or political point of view. Some managers were reluctant to make difficult decisions or to take action for fear of being misunderstood or being labelled. It was therefore convenient for them to often shift the blame to someone else. Teachers blame the regional office, the regional office blames school principals and teachers. However the Regional Director was humble enough to admit that some of the School Inspectors and Advisory Teachers who ultimately resort under his office were not doing their job. In the process of trying to apportion blame instead of tackling it head on, it is the learners who in the end will suffer.

5.6.6 Some reasons for good performance in Rundu

Even if Rundu experienced insecurity at the hight of the civil war in Angola, the region did not have internal ethnic and political conflicts on the scale of the conflicts in Katima Mulilo. This provides conducive conditions for educational officials and teachers to concentrate on their work. The teachers at the two schools in Rundu demonstrated commitment, creativity and enthusiasm in their teaching, even if the teacher at the low performance school did not have professional teaching qualifications. At the high performance school, the school principal and his deputy showed competence and great commitment and innovation in their work. These attributes enabled the principal to have very good working relations with teachers, learners, parents and the community.

Conclusion

Looking beyond educational indicators

Various educational research paradigms have evolved over the last century in developed countries like the USA and Western Europe. The various paradigms have lead to the emergence of different models of educational research. One such model is the use of a set of educational indicators to measure pedagogical conditions and to use these conditions to predict learner achievement. Starting from the 1970s up to the 1990s a number of research projects have been carried out in several developing countries in Africa, Asia and Latin America, by researchers from developed countries. These researchers have mostly used the same research models that have been developed in their own countries and that have been found to work well there. One model that has been commonly applied involves the use of a set of key educational indicators representing educational inputs that are regarded as the determinants of learning outcomes. These key indicators have included specific elements of learner family background characteristics, for example, parents' level of education, income, possessions in the home and assistance with homework. The school characteristics have included specific elements such as teacher qualifications, classroom buildings, classroom resources, textbooks as well as the frequency of testing and frequency of homework.

The attainment of national independence in 1990 enabled the Namibian people for the first time to shape their own education system based on their own values and history, informed by international experience to achieve the goals of access, equity, quality and democracy. The Ministry of Education introduced new educational reforms in order to redress the neglect of the past. New curricula were introduced, as well as new approaches to teaching and learning, such as learner centred education and continuous assessment. Teachers had to be trained and new schools had to be built and supplied with different types of teaching and learning materials. Between 1990 and 1995 the government made a huge financial

investment in education by spending an average of about 25% of its annual recurrent budget on education. The SACMEQ I study which took place 5 years after independence was meant to provide information on the conditions of schooling in Namibian primary schools because the government had a constitutional obligation to provide free primary education. In order to fulfil its mandate, the Ministry of Education needed baseline information for inputs to schools in order to guide policy and planning aimed at achieving equity and improving the quality of education. The information collected was based on key educational indicators, which were judged to be essential and suitable for measuring the existing conditions in learners' homes, the characteristics of their teachers, school heads, schools and classrooms. These conditions or inputs into schools were regarded as the determinants of learner achievement, and in order to establish the link between these conditions and learner achievement a standardised English language comprehension test was administered to Grade 6 learners.

The results showed that generally learners in schools where conditions were judged to be more favourable achieved higher scores than learners in schools where conditions were judged to be less favourable. This prediction was in conformity with the dominant theories about the relationship between pedagogical conditions and learner achievement. However the research could not explain why learners in Rundu obtained higher scores than learners in Katima Mulilo, given that the conditions in Rundu were judged to be less favourable. Therefore the objectives of this thesis were:

- To investigate the disjuncture between the general predictions based on existing theories of effective conditions for learner achievement and actual learner achievement.

- To analyse existing theories listing factors influencing learner achievement and investigate whether there are significant omissions that contribute to learner achievement.

- To analyse SACMEQ I data by examining the nature of the relationship between pedagogical conditions and learner achievement in Katima Mulilo and Rundu to provide evidence to substantiate my claim that there is no automatic causal relationship between the conditions and learner achievement.

- To provide a more environment sensitive understanding of the dynamic relationship between pedagogical conditions and learner achievement by identifying the underlying assumptions of this relationship and provide possible reasons influencing learner achievement in Katima Mulilo.

The main question that this research set to answer is:

- What explains the poor performance of Katima Mulilo in English compared to Rundu, given that the current theories appear to fail to adequately explain it?

A related question is:

- What is the nature of the relationship between pedagogical conditions and learner achievement given that actual findings contradict theoretical prediction?

In attempting to meet the objectives of this study, I have critically reviewed selected key literature on the relationship between pedagogical conditions and learner achievement. I have argued that no single set of indicators (however many indicators may have been chosen), is applicable to all contexts at all times. I have argued that different factors have different influences on learner achievement at different times under different contexts as well as different influences on learner achievement at the same time under the same conditions. I have highlighted the contextual differences between developed and developing countries as well as

differences between rural and urban contexts within one and the same country. In pursuance of the objectives of this thesis I proceeded as follows:

- On the basis of the statistical analysis of the SACMEQ I data, I have established that the conditions investigated under SACMEQ I were favourable to Katima Mulilo when compared to Rundu.

- I have highlighted the disjuncture between the theoretical predictions based on the conception of the relationship between key indicators of pedagogical conditions and actual learner achievement as a linear relationship that is discrete and static.

- I have provided a historical contextualisation of the development of education in Namibia and argued that the content of some of the key indicators applied in the SACMEQ I project failed to capture the subtle nuances of environmental factors and human interactions in Katima Mulilo and Rundu. The project did not take into account other intervening variables such as the social, cultural economic and political factors under which schools operate and obtain the kind of results that they obtain.

- I have argued that there is no automatic, causal and static relationship between indicators and achievement. The relationship between the two is contigent and dynamic, with reciprocal influences between indicators. Based on my fieldwork, I have provided more pertinent environment-bound indicators that are more suitable for understanding learner achievement in Katima Mulilo and Rundu.

Summary of findings

In response to my research question, I arrive at the following conclusions:

- One of the main differences between the schools observed in Katima Mulilo and in Rundu was the attitude of the teachers. The teachers observed in Katima Mulilo, though trained and qualified to teach, did not show creativity and enthusiasm in their teaching. They were more authoritarian in their teaching and in their interaction with learners. This could partly be due to the aristocratic traditions and culture of the people in the region, which emphasises respect for authority. Learners were expected to show respect to their teachers, and there is nothing wrong with respect *per se*. However, in the context of the two schools observed in Katima Mulilo, learner respect for their teachers manifested itself in the form of timidness or fear, which did not create a proper atmosphere for learning. Therefore, based on my fieldwork, my perception of teacher practices underscored the importance of teachers' attitudes in encouraging or discouraging learner achievement.

- The two teachers in Katima Mulilo had a wrong interpretation of learner-centred education. Learners were made to permanently sit in groups even if they did not have group tasks to perform. As a result, some learners sat in class with their backs to the chalkboard. This was rather inconvenient because they had to turn their heads around each time the teacher wrote something on the chalkboard, and did not have eye contact with the teacher most of the time.

- On the contrary, the observed teachers in Rundu looked more prepared for the lessons. They were very confident and showed a lot of enthusiasm and motivated their learners to be more active in the lessons. The principal of the Rundu HPS and teachers showed great creativity and commitment to their work by motivating learners to

attend school regularly. They made follow-ups on learners who were absent from school for a number of days without a reason. They had regular meetings with parents and encouraged them to see to it that their children attended school every day.

- My findings in a way echo the findings of Carron and Chau, Caillods and Postlethwaite as well as Maja's findings that in as much as physical inputs to schools play an influence on learner achievement it is the human factors relating to the interactions between parents, the school principal, teachers and learners that are crucial in the teaching learning process and subsequently influence on learner achievement as well. In other words, the teacher's subject knowledge, type of textbooks used, classroom organisation, motivation, and teaching style have a greater influence on learner achievement as shown by my fieldwork in Katima Mulilo and Rundu.

- The large number of orphans, learners who lived with either single parent only or with grandmothers was a problem in Katima Mulilo. Learners from households headed by grandparents experienced problems with food because in most cases the grandparents were not able to provide enough. With Namibia being listed as the fifth country in the world with the highest rate of HIV/AIDS infection and with 43% of all pregnant mothers tested in the Caprivi being HIV positive, there is likely to be more HIV/AIDS related deaths and increasing number of orphans. These new social and health problems are likely to have a negative influence on learners and the results they obtain at school.

- Poverty, hunger, and long walking distances to school contributed to frequent learner absenteeism. When learners come to school on empty stomachs, their concentration span will be affected, and they will not learn much. When learners are absent from school most of the time

they miss out on school work and end up not doing well, dropping out or continuing to the next Grade without acquiring the necessary competencies. The failure by some Grade 6 learners in the two regions to read and write in English can partly be attributed to the inability of some learners to attend classes regulary and inability to engage with the subject matter and the learning process.

- The management and administration of education at all levels in the Katima Mulilo region is hampered by suspicions and mistrusts among some of the staff members due to ethnicity, political affiliations and fear of witchcraft. Therefore, social and political factors as well as traditional beliefs have an influence on the development of education in the region.

Deductions from the findings

(a) Some omissions in current theories

The disjuncture in the relationship between the pedagogical conditions investigated under the SACMEQ I project and the actual learner achievement in Katima Mulilo and Rundu was firstly due to the narrow application of the classical indicators. The actual contents of the indicators used were only partially suitable because they failed to capture the dynamics of reciprocal influences between variables. Secondly, the application of the indicators overlooked the influence of pertinent environmentally sensitive human behaviour and interactions by focusing mainly on the quantification of human and material inputs to schools. Thirdly, SACMEQ I did not use factors relating to the social environment such as wealth distribution, income/poverty levels, disease, mortality rates, infrastructure, ethnicity, political tranformations, impact of educational reforms/new teaching approches and the population's perception of and commitment to education. However, my fieldwork findings in Katima Mulilo and Rundu, indicate that these factors play a significant role. Thus strengthening my argument that:

- There is more to learner achievement than what narrow notions of the classical educational indicators are able to show.
- The set of indicators used and their content has to be adaptable to given local conditions in order to measure more accurately what is intended to be measured and arrive at realistic conclusions.
- There is no automatic causal relationship between indicators and achievement, but rather a complex, contigent and dynamic relationship that is influenced by subtle human and environmental factors.

(b) My conception of some pertinent indicators

Based on my fieldwork, my research suggests three categories of indicators which I have classified using Hua's terminology, as the *school environment*, *family enviroment* and *community environment*, with some pertinent indicators listed under each category.

School environment

The pertinent indicators falling under this category are:

- *Teacher enthusiasm/teaching style and use of appropriate methods*
- *Teacher preparedness and subject knowledge* - While the teacher's classroom practices are crucial, the findings based on my field work in Katima Mulilo are that the external factors such as cultural beliefs, ethnicity, political conflicts, mistrust and suspicions, undermine teacher practices and incentives. In Rundu however, internal micro dynamics in human interactions supported and incentivised teachers.
- *Effective and efficient school management* - such as the innovative idea of school authorities making follow-ups on absentees at one of the schools in Rundu.
- *Regular meetings with parents* - This includes meetings with parents to discuss learner performance and school attendance. It also includes involving parents in school development planning and in the

implementation of plans, such as the classroom construction project at one of the schools in Rundu.

- *Full lesson attendance by learners* - This is crucial because specific time is usually allocated for learning each subject/lesson. Learners who are often absent from school do not only have less learning hours per week, but they miss out on schoolwork covered by the teacher in their absence.

Family environment

- *Stable, healthy and well provided family life* - My fieldwork findings indicate that the death of parents/guardians, extreme poverty and hunger have an influence on the emotional, health and nutritional well being of a learner which can have a negative influence on achievement.

Community environment

- *Trust among community members*
- *Ethnic homogeneity (or at least lack of tensions)*
- *Political cohesion*
- *Cultural traditions and beliefs*

These four factors are related in that the absence of ethnic tensions and political conflicts augured well for educational development in Rundu, whereas tribalism compounded by political cleavages in Katima Mulilo had a negative influence on educational administration and teacher motivation which can affect learner achievement. Some traditions and cultural beliefs can either support or hamper individual achievement. For example, the fear of witchcraft in Katima Mulilo prevents some education officials and some school principals from taking disciplinary measures against erring officials and teachers.

(c) Similarities and differences between my indicators and the dominant indicators in current theory

The three categories of indicators discussed in this section can be found in different research literature and are embedded in current theory. However, it is the conception of teaching and learning as well as the content or elements falling under these categories that are different. Firstly, current theories look at school environmental factors mainly in terms of the size of the school, type of buildings, condition of buildings, teacher gender/age, teacher qualifications, teacher: learner ratio, different types of school resources/facilities, as well as the frequency of tests and homework. Their conception of family environmental factors focus mainly on parental education, possessions in the home, assistance with homework, number of siblings and household chores. The community environment is often restricted to the location of the school, on the basis of the rural-urban continuum. Secondly, existing theories tend to look at the above-mentioned and other indicators as static, separate variables and thus fail to capture the dynamics of reciprocal influences between variables. Thirdly, these indicators relate to what Maja refers to as formal access only, which is a "one side of the coin" way of looking at learner achievement.

While acknowledging the importance of the above-mentioned factors, my indicators provide an adapted notion of school, family and community environmental factors that go beyond the physical or material inputs to schools. My indicators focus on the dynamics of human behaviour, attitudes and the reciprocal interaction that occurs between the various elements for teaching and learning to occur. Using Maja's terminilogy, the current system of educational indicators focuses on elements of formal access indicators while *my indicators go beyond these indicators by focusing on elements of epistemological access which has a greater influence on learner achievement.* In this way, I hope my conception of epistemological access indicators make a contribution to existing theory and to the work with educational indicators. The type of indicators I am

advancing requires a shift in conception. It entails different approaches in the design of research projects and in the methodologies of data collection.

Existing theories of educational indicators focus on measuring the quantity of the specific indicator. This, of course is convenient for statistical analysis and comparisons and enables researchers to form a broad picture of the state of educational conditions and learner achievement. However, as my fieldwork has highlighted, of pertinent considerations are issues of quality. It is therefore not enough just to ask "how many lessons" or "how many years of qualifications" or "how many books", but also to ask, what is the quality of the teaching that takes place during the lesson?, What is the quality of training teachers have had, and what kind of books are available? Once one asks these questions about quality, it makes it difficult to formulate quality indicators that can be quantified. How can the enthusiasm and commitment of a teacher be expressed in numbers? How can the quality of a stimulating book be expressed in percentage? My argument is not that quantifiable indicators are not appropriate. Instead, I come to the conclusion that they are important, but they illuminate only part of the situation, tell only half the story. In order to develop a more nuanced and accurate understanding of educational conditions, qualitative indicators must also be used. But since indicators of quality are difficult to quantify, specialised pedagogical personnel and different assessment tools such as observations and interviews are needed. Further the indicators of quantity and quality are in a dynamic relationship of which the researcher must be constantly cognisant.

The indicators I have provided are based on the conception that variables can be ranked broadly into crucial contribution to learner outcomes with a focus on the teachers' actual classroom practices and the instructional supportive role of the school principal. Variables are in ever dynamic reciprocally influencing processes. My fieldwork findings in Katima Mulilo show that external factors undermine teachers' practices and incentives, whereas in Rundu, internal micro dynamics in human interactions supported and incentivised teachers.

Implications of the findings

My findings call for a new approach to the understanding of the relationship between educational indicators and learner achievement which has implications for future studies on learner achievement in Namibia, for future SACMEQ projects and for the work of the Ministry of basic Education Sport and Cultre.

Implications for studies on learner achievement

My findings have implications for efforts aimed at maximising learner outcomes, in Katima Mulilo, Rundu and the other historically disadvantaged educational regions of northern Namibia. There is no easy solution to the problem of low achievement by learners in these regions. However linear interventions focusing mainly on a selected number of material inputs to schools such as classrooms and textbooks only, may not yield the desired results. Education officials, School Inspectors, Advisory Teachers and designers/providers of in-service teacher training programmes have to be aware of the dynamics between variables, such as the dynamics of the influence of external macro variables on teachers and learners, as well as the influence of micro dynamics within the school and in the classroom.

Implications for the Ministry of Basic Education, Sport and Culture

The SACMEQ I project provided the baseline data on basic inputs to schools and an understanding of conditions of schooling in primary schools in Namibia. It highlighted the disparities inherited from the colonial era in terms of both inputs to schools and learning outcomes. These data are important for planning and policy development in pursuance of the Ministry of Education's goal of achieving equitable distribution of educational resources. However improving learner achievement in the low performance regions of northern Namibia in order to achieve equitable learning outcomes is still far from reality. To overcome this problem requires new approaches, a different understanding of the relationship between learner achievement and the dynamics of the factors that make gains in learner achievement a reality.

Implications for future SACMEQ work

Future SACMEQ studies should consider the use of an expanded notion of some of the classical indicators that are suitable to the Namibian situation as already started in SACMEQ II, in order to ensure that the indicators used are actually measuring what they are intended to measure. The SACMEQ studies in Namibia are not only useful for policy and planning purposes, but they highlight important problem areas within the education system that need to be addressed with further research. Regional education Inspectorate staff, Advisory Teachers and the in-service teacher training unit at NIED should conduct different types of in-depth action research, aimed at working closely with school principals, teachers and local communities to reveal more environmentally sensitive nuances that would otherwise be unknown.

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