

SECONDARY EDUCATION: A CASE OF VIHIGA DISTRICT

BY

PHYLISTERS DAIZY MATULA

UNIVERSITY OF NAIROBI
EAST AFRICANA COLLECTION

A Project submitted in partial fulfillment for the degree of Master
Education in the University of Nairobi

AUGUST, 2001

NAIROBI KENYA

DECLARATION

This research work is my original work and has not been presented for a degree in any university

Phylisters

Phylisters Daizy Matula

Date: 20-11-2001

This research work has been presented for Examination with my approval as university Supervisor

Lucy W. Kibera

Prof. Lucy W. Kibera

Senior Lecturer

Department of Educational Foundations

Date 20-11-2001

DEPT
FACULTY OF EDUCATION
COLLEGE OF EDUCATION AND EDUCATIONAL
STUDIES
UNIVERSITY OF NAIROBI

ACKNOWLEDGEMENTS

I wish to express my appreciation to all my informants for their selfless cooperation and courtesy without which this study would have not been undertaken successfully.

I express my sincere gratitude to my supervisor Prof(Mrs) Lucy W. Kibera for her guidance and professional advice. Prof. Kibera read through my drafts from the time of proposal to the completion of the project advising on the necessary areas.

Special thanks goes to my parents, Mr. and Mrs Erastus Sechele Matula, who have tirelessly worked for my success not only in education but in life generally. Their continuous moral, material, financial and constant prayer have definitely led to my success in life. May God continue blessing them.

I would also like to sincerely acknowledge the financial assistance from all persons and groups of persons who assisted me. However how small the bursary seemed to be, it was rather too big on my side. Indeed without their help I would have had difficulties in financing my studies.

I am particularly indebted to my brother, Dickson Mboya for agreeing to type my work free of charge. The several copies he made before the final draft would have costed me a lot of money.

I am also indebted to Mr. C.B Lukorito of the Dept. of Meteorology, University of Nairobi for guiding me in the area of data analysis.

Last but not least, is my good friends and colleagues Dorothy N. Kyalo and Mr. D.N. Kihara for the contributions they made towards this study.

To all persons, named and unnamed, I appreciate the contributions and support which they provided for the successful completion of this research work. Please do accept my acknowledgement.

To God be the Glory!

DEDICATION

This work is dedicated to my grandparents who made the past, my parents who make the present and to my would be children who will make the future.

ABSTRACT

This study primarily deals with headteachers' leadership behaviour and students' academic performance at Kenya Certificate of Secondary Education in Vihiga District. The study sought to fulfil four objectives:- to determine headteachers' leadership behaviour as perceived by their teachers in secondary schools; to examine if there is a significant relationship between the headteachers' leadership behaviour and the students' academic performance; to establish if there is a significant difference in performance between schools of different categories, i.e. girls, boys and mixed schools; to determine whether performance at Kenya Certificate of Secondary Education examination varies with the quality of the school.

The study may be of great significance to the following: Educational policy makers, headteachers, teachers, teacher training colleges, Universities and to the resource persons in educational seminars and workshops.

A review of related literature was carried out under the following sub-titles: The concept of leadership, importance of leadership in schools, studies in leadership and leadership behaviour and performance in schools.

The selected design for this study was Ex post Facto. The target population was teachers who gave information about their headteachers in 52 schools in Vihiga District. The research Instrument that was used was a questionnaire which was divided into two parts and which was tested for validity and reliability. Student's t-test, correlation coefficients and the analysis of variance were used in the analysis of the data obtained.

The following were the findings:

- 1) The headteachers were rated significantly higher in initiating structure than in consideration dimension.
- 2) There was a significant relationship between headteachers' leadership behaviour and students' academic performance.
- 3) There was a significant difference in performance between Girls' schools and Mixed schools and also between Boys' schools and Mixed schools but insignificant difference between Girls' schools and Boys' schools.
- 4) There was a significant effect of school quality on students' performance index.

On the basis of the above enumerated findings the following recommendations were made:

- 1) Headteachers to be inserviced to make them aware that a balance between consideration and initiating dimensions is essential for effective leadership hence good performance.
- 2) In Mixed schools, boys and girls to be separated to have more of single sexed schools for improved performance.
- 3) Headteachers to be trained in management skills before being promoted to head any school.

TABLE OF CONTENTS

CHAPTER ONE

THE RESEARCH PROBLEM AND ITS RELATED COMPONENTS

	<u>Page</u>
1.1 Background Information to the study...	1
1.2 Statement of the Problem.....	6
1.3 Purpose of the Study	7
1.4 Objectives of the Study	7
1.5 Study Hypotheses	8
1.6 Significance of the Study	8
1.7 Basic Assumptions	9
1.8 Limitations	9
1.9 Delimitation.....	10
1.10 Definition of Significant Terms	11
1.11 Organization of the rest of the Study	13

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 The Concept of Leadership.....	14
2.2 Importance of Leadership in Schools.....	16
2.3 Studies in Leadership.....	21
2.4 Leadership Behaviour and Performance in Schools ...	29
2.5 Summary of Literature Review.....	32
2.6 Conceptual Frame work	33

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design	35
3.2 Study Area	35
3.3 Target Population and Sampling	36
3.4 Sample and Sampling Technique	36
3.5 Research Instruments.....	38
3.6 Pre-testing Research Instruments	39
3.7 Data Gathering Procedures.....	40
3.8 Data Analysis Techniques.....	41

CHAPTER FOUR

RESULTS AND DISCUSSION

Data Analysis.....	44
The Questionnaire Return – rate	45
The Demographic Data of the Respondents	45
School Type by Student Body.....	50
School Category.....	50
Teachers' Perception of Headteachers' Leadership Behaviour on the LBDQ	50
Performance Index	54
Adequacy of Schools' Resources and Activities that help to Improve Academic Performance	54

Headteachers' and Teachers' Judgment of Schools'	
Performance in Vihiga District	62
Marks of Students Admitted in various Schools in Form 1 ..	63
Administrative Problems Encountered by Headteachers and their Suggestions towards Solving them	64
Teachers' Opinion on whether there is Reason for Improved Leadership and their Suggestions on what can be Done to Improve Headteachers' Leadership Behaviour	67
Teachers' Opinion on whether there is a Relationship Between Headteachers' Leadership Behaviour and Students' Academic Performance at Kenya Certificate of Secondary Education.....	70
Variation of School Performance Index with School Leadership Behaviour (Consideration)	73
Variation of School Performance Index with School Leadership Behaviour (initiating)	74
Variation of School Performance Index with School Leadership Behaviour under both Consideration and Initiating Dimensions.....	75
Variation of School Performance Index with School Quality as viewed by Headteachers	76

Variation of School Performance Index with School Quality as viewed by teachers	77
Variation of School Performance Index with School Quality as viewed by both Headteachers and teachers.....	78
Comparison between Performance indices of Girls and Mixed Schools ...	78
Comparison Between Performance indices of Boys and Mixed Schools	79
Comparison Between Performance indices of Boys and Girls Schools	80

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary	82
5.2 Conclusions	85
5.3 Recommendations.....	88
Suggestions For Future Research	90
References	91

APPENDICES

Appendix I	Location of the District	98
Appendix II	Vihiga District Administrative Boundaries	99
Appendix III	Educational Facilities Distributed by Division and Enrolment	100
Appendix IV	Vihiga District, (K.C.S.E placing among the first 100 Top schools)	101
Appendix V	Performance Index per School (1993 – 1998)	102
Appendix VI	Performance Index for Participating Schools	104
Appendix VII	Possible University Entrants (Vihiga District)	106
Appendix VIII	Mean Score of Vihiga District in Kenya Certificate of Secondary Education between 1992 – 1994	107
Appendix IX	Critical Values of t	108
Appendix X	Determining Sample size of a given Population.....	109
Appendix XI	Performance Index and Leadership Behaviour	110
Appendix XII	Students' Academic Performance in Different	

Categories of Schools	112
Appendix XIII Students' Academic Performance and the Quality of School	113
Appendix XIV Headteachers' Questionnaire	115
Appendix XV Teachers' Questionnaire	120

LIST OF TABLES

TABLE	CONTENT	PAGE
Table 1	Ranking of Schools at Kenya Certificate of Secondary Education in Vihiga District From 1993 – 1998.....	3
Table 2	The Ages and Sex of the Headteachers	45
Table 3	The Ages and Sex of the Teachers	46
Table 4	Academic Qualifications of Headteachers and Teachers	47
Table 5	Headteachers' Administrative Experience	48
Table 6	Teaching Experience of Headteachers	48
Table 7	Teaching Experience of Teachers.	49
Table 8	School type by Student Body.....	50
Table 9	School Category.....	50
Table 10	Percentages of Favourable Responses on Headteachers' LBDQ Initiating Structure and Consideration Dimensions	

	by Teachers	52
Table 11	Percentages of Unfavourable Responses on Headteachers' LBDQ Initiating Structure and Consideration Dimensions by Teachers	53
Table 12	Adequacy of schools' Resources and Activities that help to Improve Academic Performance.	55
Table 13	Headteachers' responses on the adequacy of School resources / activities that help to Improve academic Performance of Students.....	56
Table 14	Teachers' responses on the adequacy of school resources / activities that help to Improve academic performance of Students.....	59
Table 15	Percentages of Schools' Adequacy in Resources / activities as Perceived by Headteachers and Teachers.....	61
Table 16	Frequencies and Percentages of Headteachers' and Teachers' Judgement of Schools' Performance in Vihiga District	62
Table 17	The Marks attained by Students at K.C.P.E. Before Admission to Secondary School in Form 1 ...	63

Table 18	Frequencies and Percentages of Administrative Problems Encountered by Headteachers.....	64
Table 19	Headteachers' Suggestions towards Solutions of their Administrative Problems.....	66
Table 20	Frequencies and Percentages of Teachers' Opinion on whether there is Reason for Improved Leadership	67
Table 21	Teachers' Suggestions on what needs to be done to Improve Leadership	68
Table 22	Frequencies and Percentages of teachers' Opinion on whether there is a Relationship Between Headteachers' Leadership Behaviour and Students' Academic Performance at KCSE.....	70
Table 23	Teachers' Explanation on why they feel there is a Relationship Between Headteachers' Leadership Behaviour and Students' Academic Performance.....	71
Table 24	Variation of School Index with School Leadership Behaviour (consideration)	73
Table 25	Variation of School Performance Index with School	

	Leadership Behaviour (Initiating)	74
Table 26	Variation of School Performance Index with School Leadership Behaviour under of both Consideration & Initiating Dimensions.....	75
Table 27	Variation of School Performance Index with School Quality as viewed by Headteachers.	76
Table 28	Variation of School Performance Index with School Quality as viewed by Teachers.	77
Table 29	Variation of School Performance Index with School Quality as viewed by both Teachers & Headteachers	78
Table 30	Comparison Between Performance Indices of Girls & Mixed Schools	79
Table 31	Comparison Between Performance Indices of Boys & Mixed Schools	80
Table 32	Comparison Between Performance Indices of Boys & Girls Schools	80

LIST OF FIGURES

Figure I	Leadership Continuum.....	26
Figure II	Selected School Factors and their Effects on Students' academic Performance in Kenya Certificate of Secondary Examination.	34

LIST OF ABBREVIATIONS

K.C.S.E	Kenya Certificate of Secondary Education
K.E.S.I	Kenya Education Staff Institute
K.N.E.C	Kenya National Examination Council
T.S.C	Teachers Service Commission

CHAPTER ONE

THE RESEARCH PROBLEM AND ITS RELATED COMPONENTS

1.1 Background Information to the Study

The importance of student achievement can not be over emphasized for there is so much to lose or gain depending on how well or poorly a student performs in school work. In a study conducted by Eshiwani (1983) on the factors influencing student performance in Western Kenya, he underscored the importance of student achievement especially in examinations. He asserted that the Kenya Certificate of Education examination is a very important examination because it is the gate to many avenues leading to either higher education or employment. Those who perform poorly cannot compete effectively for the few opportunities that exist either in higher education or employment. It is for this reason that many parents struggle to pay school fees for their children. Esp(1993) contends that pupils' learning is the main purpose of schools. If students do not perform well in their final examinations then their school is perceived to be non-effective. The effectiveness of any school may be measured by what contributions it has made to improve the learning process of school children; good leadership is an essential component for this effectiveness.

Every year in the month of either February or March when the Kenya Certificate of Secondary Education results are released, there are many articles in the newspapers that either congratulate those that have excelled or express displeasure with those schools that have performed dismally. In particular teachers receive the greatest proportion of the blame in the latter case. In general the results in K.C.S.E have not been good enough for the schools in Vihiga District. Many reasons have been put forward as to why most schools within the district perform poorly. For example while

commenting on the K.C.S.E results of 1998 the Daily Nation Newspaper pointed out that poor staffing, frequent transfers of teachers and lack of relevant equipment are the major causes of poor performance in national examinations (Daily Nation, Monday, April 26, 1999 P.20). Poor results for Kirinyaga District in 1998's K.C.S.E were attributed to indiscipline and laxity among teachers (Daily Nation, Friday, February 26, 1999 P.1). However, more responsibility is placed on the hands of headteachers to ensure that students perform well in their examinations. As Olembo, Wanga and Karugu (1988) explain, the headteacher has overall responsibility in the operation of the school. In this regard in terms of school performance we can say that the headteachers are accountable for the schools performance not only to the students but also to the country as a whole. Commenting on the 1999 Kenya Certificate of Secondary Education results, the Daily Nation (Friday February 25, 2000 p.21) pointed out that the principals of the institutions that do not perform well may have excuses for their failure to measure upto the expectation, but the truth is that they do not manage the institutions well and that they must be held responsible for the poor performance.

Statistics from Kenya National Examination Council (Table I) indicate that for Vihiga District, the number of schools in top 100 schools in K.C.S.E results for the years 1993 – 98 was negligible.

Table I : Ranking of Schools at Kenya Certificate of Secondary Education in Vihiga

District From 1993 - 1998

Year	No. of centers/Schools	No. of schools in top 100 school
1993	55	1
1994	66	1
1995	52	2
1996	58	1
1997	59	2
1998	65	4

Source : Kenya Nation Examinations Council. (KNEC)

The Kenya Certificate of Secondary Education performance for schools in this district has generally been below average compared to other schools nationwide. For instance, Vihiga District University entrants (see appendix VII) has not exceeded 500 students at any one time. The question we put forward in this study is whether the poor performance in this district could be attributable to headteachers' leadership behaviour or are there other contributory factors?

It is not unusual to hear parents, pupils and other interested parties complain about school mismanagement. Williams, Walls, Martin and Berchin. (1974) noted that the common observation made about schools by parents, teachers and scholars alike, is that schools suffer from poor administrative leadership. As Jacobson, Logsdon and Wiegmann (1973) contend, the effectiveness of the school is largely dependent upon the type of leadership the school provides. This is in line with the Ministry of Education, circular 1/99 on the national policy on appointment, deployment and training of

headteachers of schools in Kenya, which states that "a school stands or falls by its head." According to Griffin (1994) many schools have been brought down through inadequate leadership.

Headteacher's duties, responsibilities and problems a decade ago and those of today have little resemblance. Changes in the school curriculum, like with the introduction of the 8-4-4 education system (eight years of Basic or Primary education, four years of Secondary education and four years of University education), in January, 1985 which requires a lot of resources, the extensive parents and community involvement in the maintenance of the schools and the demands laid on the school by all interested parties have a significant effect on leadership behaviour of school headteachers.

It is also clear that where headteachers are at odds with teachers, then the headteacher as well as the teachers may not operate with efficiency in their areas of responsibility. Since the headteacher is generally presumed to be the pivot and focal point of the school, it is expected that he/she should provide good leadership in order to mould the school in accordance with expected goals of education. Two categories of behaviour in which the headteacher can place greater emphasis in fulfilling his/her role as a leader include initiating structure dimensions of leadership behaviour and consideration dimensions of leadership behaviour. Initiating structure involves directing and organizing work, while consideration involves human relations and group maintenance.

Silver (1983) explains that initiating structure refer to the establishment and clarification of roles and interaction patterns within the organization. It refers to those actions whereby leaders define their own roles and let followers know what is expected of them.

It includes such activities as scheduling the work to be done, assigning members of the group particular tasks and establishing standards of performance.

Williams et. al (1974) explain that consideration refers to regard for comfort, well being, status and contribution of followers. For example it is behaviour which is indicative of friendship, mutual trust, respect and warmth in relationship between the leader and members of his staff.

Studies by Hemphill (1955) on leadership behaviour indicate that initiating structure and consideration are fundamental dimensions of leadership behaviour. Effective leadership behaviour is associated with high performance in both dimensions.

When we take the case of headteachers in Vihiga District, the question is, are they rating low in terms of their leadership behaviour on initiating structure and consideration leadership dimension? How are they behaving as leaders and managers of the schools? Are they only emphasizing productivity at the expense of human consideration? Are they emphasizing consideration at the expense of productivity? Have they managed to strike a balance between the two? These practical questions are of concern to us and that is why the researcher undertook to carry out an investigation into secondary school headteachers leadership in Vihiga District in order to establish the effects of leadership behaviour on school performance in K.C.S.E. examination in Vihiga District.

In performance of his/her duties the headteacher has to have concern for the organization and that for the human element in a school set up. As studies indicate those headteachers who are high on both initiating structure and consideration, leadership dimensions are the ones considered to be more effective. They help the

school to attain its goals as well as taking care of the welfare of those working in the organization.

It was with this in mind that the researcher carried out the study on leadership behaviour among headteachers in Vihiga District to establish whether there is a significant relationship between students' academic performance and the headteachers leadership behaviour.

1.2 Statement of the Problem

The Kenya Certificate of Secondary Education results in Vihiga District have generally been poor over the years. This can be observed in appendix V which shows the mean-score for secondary schools in Vihiga District in Kenya Certificate of Secondary Education (K.C.S.E) from 1993 to 1998. From the data presented in appendix VIII, it is evident that a large proportion of students have consistently attained grade D. This is in spite of the fact that a considerable number of schools have appropriate resources such as libraries, laboratories and qualified teachers. The question therefore is, what could be the cause of this poor performance? Could school leadership be a major cause?

Although a few studies have been carried out in Kenya to find out if there exists any significant relationship between school leadership and student performance, such studies have not been conducted in Vihiga district. It has been noticed that performance of students seem to depend on school leadership. Good examples to this effect are Bunyore Girls and Kilingili Secondary School (mixed). A close look at the history of these schools suggests that students' performance has varied with different leadership. This study therefore seeks to examine the relationship between secondary school leadership behaviour and students' performance in Vihiga District.

1.3 Purpose of the Study

The purpose of this study was to find out whether there is any significant relationship between headteachers' leadership behaviour and students' academic performance.

To achieve this, the relationship between the following variables were investigated.

- (i) Different types of leadership behaviour and their effects on academic performance, namely, consideration and initiating dimensions.
- (ii) Type of School (i.e. Girls, Boys & Mixed) and the final academic performance in the K.C.S.E. Examination.
- (iii) Quality of the school and final academic performance in the K.C.S.E Examination.

1.4 Objectives of the Study.

The objectives of this study were:

1. To determine headteachers' leadership behaviour as perceived by the teachers in secondary schools.
2. To examine if there is a significant relationship between the headteachers' leadership behaviour and the students' academic performance.
3. To establish if there is a significant difference in performance between schools of different categories, i.e. Girls, Boys and mixed schools
4. To determine whether performance at Kenya Certificate of Secondary Education Examination varies with the quality of the school.

1.5 Hypotheses

From the foregoing objectives, the following hypotheses were formulated.

- Ho¹ There is no significant effect of headteachers' ability to show concern in terms of initiating structure and consideration on student academic performance.
- Ho² There is no significant relationship between headteachers' leadership behaviour as perceived by the teachers and students' academic performance.
- Ho³ There is no significant difference in performance between schools of different categories.
- Ho⁴ There is no significant relationship between students' academic performance and the quality of school.

1.6 Significance of the Study

The significance of this study cannot be over emphasized in view of the present Kenyan situation. School heads are likely to benefit from this study. For instance, it is hoped that the study will provide a basis for them to be able to re-examine and appraise their leadership behaviour thereby improving on their weaker areas. Consequently, this process will help to improve the overall academic performance of the schools in the study district.

On the other hand, the findings of this study are likely to make teachers to appreciate the role played by a democratic and humanistic type of leadership in the enhancement of school academic performance. Consequently, it is hoped that the study would bring out better ways in which leadership in schools might be applied in order to achieve improved students' academic performance

Finally, the findings of this study are likely to be beneficial in the improvement of the quality of the training programmes in Faculties of Education at the University level and Teacher Training Colleges and other institutions offering management courses such as the Kenya Education Staff Institute (KESI).

1.7 Basic Assumptions

The following assumptions were made during the study.

- (i) The Instruments that were used to measure K.C.S.E. results were valid and reliable.
- (ii) The teachers were capable of describing the headteachers' leadership behaviour without bias.
- (iii) The respondents gave accurate responses to the questionnaires.

1.8 Limitations

This study was faced by the following limitations;

- i) Failure to carry out investigations on factors such as students' personal effort and reading environment. These factors besides leadership behaviour may affect the student academic performance.
- ii) The findings of this study are district specific and may therefore not be generalized to other poorly performing (academically) districts in Kenya where other factors not considered for Vihiga District such as socio-economic and ecological constraints could be dominant factors influencing the level of academic performance.

1.9 Delimitation

The study was concerned with headteachers' leadership behaviour and students' academic performance at Kenya Certificate of Secondary Education in Vihiga District of Western Province of Kenya. Although different leaders such as Board of Governors (B.O.G), Parents Teachers Association (P.T.A) and politicians are involved in running secondary schools, only headteachers were taken into account in this study since they are the implementers of the deliberations of most organs of school management / leadership.

Different categories of schools were considered, such as Boys' schools, Girls' schools and mixed schools. In addition only public schools were taken into consideration. Although there are 75 schools in the district, only 52 schools were used. Public schools that were excluded from the study comprised:

- a) those that were yet to be registered with the Kenya National Examination Council (K.N.E.C.) ; and
- b) those that had taken the K.C.S.E. examination only once or twice since registration with K.N.E.C.

While teachers' assessment of headteachers' leadership behaviour was carried out, no attempt was made to study headteachers self assessment of their leadership behaviour. Headteachers self assessment would have made the study too broad and would introduce subjectivity.

Although an important group in the school environment, students' view were omitted in this study. This is because the researcher felt that there was lesser interaction between

the headteachers and students as compared to the one between teachers and headteachers.

1.10 Definition of Major Terms

Leadership	:	refers to the ability of the headteacher to influence people to willingly follow his/her guidance in order to accomplish group goals.
Leadership behaviour	:	refers to the particular acts in which the headteacher engages in while planning, organizing and controlling a secondary school.
Leadership effectiveness:		Typical indicators of effectiveness include group output, group morale and satisfaction of group members. This study used group output, measured in terms of student achievement in examination scores, as the criteria for leadership effectiveness.
Initiating Structure	:	refer to those actions where Headteachers define their own role and let followers know what is expected of them. It involves activities such as scheduling the work to be done, assigning duties to members and establishing standards of performance.
Head Teacher	:	Refers to the person (male or female) appointed by the Teachers Service Commission to be incharge of administration in a particular secondary school.
Teacher		Any other individual teaching a part from the Headteacher.

Public Secondary School : A post – primary school which is developed, equipped and provided with staff from public funds by the government, parents and communities.

Students' Performance : was measured in terms of their K.S.C.E. grades in the National Examinations offered by the Kenya National Examination council.

Quality of school: was measured in terms of the availability of resources / activities that help to improve schools' performance.

Kenya Certificate of

Secondary Education : Is an examination taken by candidates at the end of four years secondary school course

Kenya National Examination

Council : refers to a body in charge of National examinations such as Kenya Certificate of Primary Education, Kenya Certificate of Secondary Education, Primary Teachers' Colleges examinations, Technical examinations and Business courses examinations.

1.11 Organization of the Rest of the Study

Chapter two contains literature review. The review covers; the concept of leadership, importance of leadership in schools, studies in leadership, leadership behaviour and performance in schools.

Chapter three describes the research methodology that was used. This includes the following: research design, target population, sample and sampling procedures, research instrument, pre-testing the research instruments, Data gathering procedures and data analysis techniques.

Chapter four covers data analysis. This chapter reports and discusses the results of the analysis of data.

Chapter five summarizes the findings of the study and gives conclusions and recommendations to the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 The Concept of Leadership.

Bass (1981) quoting Stogdill, states that leadership is the process of directing and inspiring workers to perform the task – related activities of the group. He further defines leadership as the process of directing and influencing the task related activities of group members.

There are three important implications of the above definition. First, leadership must involve people / followers. By their willingness to accept directions from the leader, group members define the leader's status and make the leadership process possible. Without followers, all the leadership qualities of a manager would be irrelevant.

Second, leadership involves an unequal distribution of power among leaders and group members. Although leaders have authority to direct the leader's activities, some group members will obviously affect those activities in a number of ways.

Third, in addition to being legitimately able to give their followers orders or directions, leaders can influence their followers in a variety of other ways.

Cole (1997) explains that leadership is a vital element in the social relationships of groups at work. Groups need leaders and leaders need followers. He goes further to say that leadership is a concept that many people have written about but few have defined. He suggests the following working definition;

'Leadership is a dynamic process at work in a group whereby one individual over a particular period of time, and in a particular

organizational context, influence the other group members to commit themselves freely to the achievement of group tasks or goals.'

The above definition encompasses several important features of leadership;

- that leadership is a dynamic process, influenced by the changing requirements of the task, the group itself and the individual members. The implication of this is that there is no one best way of leading, and leaders need to be able to exercise a range of behaviour to maintain their role effectively.
- leadership is not necessarily confined to one person but may be shared between members. Usually, an appointed leader for instance, a manager is nominally in charge of a group, but he/she may not always be the leader in practice.

Mintzberg (1993) specifically sees the leader's function as a bona fide managerial role. Whoever exercises influence is the leader. The leader's principal role is to influence the group towards the achievement of group goals. The leader's task is to gain the group's commitment to the goals of the organization.

Okumbe (1998), quoting Katz and Kahn defines leadership as the influential increment over and above mechanical compliance with routine directives of the organization. In this definition, leadership is seen as a process whereby one person influences others to do something of their own volition, neither because it is required nor because of the fear of the consequences of non-compliance. Okumbe goes further to say leadership is thus a process of encouraging and helping others to work enthusiastically toward objectives. He contends that it is the human factor that binds a group together and motivates it towards goals by transforming the group's potentials into reality.

Stogdill (1957) and his group in Ohio State university leadership studies attempted to answer two questions;

1. What does a leader do when he/she is acting as a leader?
2. How does he/she go about what he/she does?

From the above there evolved their tentative definition of leadership as the behaviour of an individual when he is directing the activities of a group towards shared goals.

A much more analytical approach is by Halpin (1969) who considers leadership as consisting of two aspects namely group achievement and group maintenance. He took leadership to comprise of initiating structure and consideration.

From the foregoing definitions, we can see that leadership lacks definite precise meaning and we can conclude that leadership definitions are as many as there are authors. We can also rightly say there are many ways of looking at leadership and many interpretations of its meaning. Leadership might be interpreted in simple terms such as 'getting people to do things willingly or interpreted more specifically as 'the use of authority in decision making'. It may be exercised as an attribute of position, or because of personal knowledge or wisdom.

2.2 Importance of Leadership in Schools

People working in organizations need leaders who can be instrumental in guiding the efforts of groups of workers to the achievement of goals and objectives both of the individuals and the organization. Schools are no exception. Schools, like any other organizations have goals and therefore require effective leaders to achieve these

objectives. Headteachers as managers of schools need to play this role. Their action may not be so dramatic, but the successful performance of the leadership role is essential to the success and performance of any school.

Olembo, Wanga and Karagu (1988), explain that the headteacher is the officially designated heads of a school and has the overall responsibility over it. He/she is responsible and accountable to his/her employer and other agents like the inspectorate; he/she is responsible and accountable to his/ her profession and he/she is expected to demonstrate superior intellectual, moral and mature characteristics in his/her role as the head of the institution. He/she is a model for the staff and pupils to emulate. He/she looks at the welfare of all in the school.

Drucker (1954) considers administrators (managers) in this context; the headteachers who are managers of the school as a 'basic resource', the scarcest resource and perhaps the most precious in an enterprise. In this respect, if we consider this to be so, then we can not be wrong if we say the headteachers are the pivot and focal point of the school.

The kind of leadership they provide has a bearing on school's performance. In the words of Bidwell and Karsada (1975) while the goals of schooling are many and vague, academic attainment of students is clearly among them. Moreover, it is only the output of school that is widely measured. Significance is placed on the schools to make students to perform well and headteachers are expected to shoulder a great deal of that responsibility. The effectiveness of any school must be measured by what contributions it has made to improve the learning of the school children. This may not be achieved where there is poor leadership.

If schools are perfect, fulfilling their missions to the great satisfactions of pupils, parents, school boards and politicians at local and national level, nobody possibly would think about 'more' or 'less' effectiveness. As we have seen in the background of this work, schools in Vihiga District have not been performing well in the National examinations for the last five years. Our main concern is, could it be possible that lack of effectiveness in performance has been caused by poor leadership behaviour of headteachers? School effectiveness in this context needs a definition, because the concept is not altogether clear. Reynolds, Bollen, Creemers, Hopkins, Stoll and Lagerweiji (1996) defines school effectiveness as the extent to which any educational organization as a social system, given certain resources and means, fulfills its objectives without incapacitating its means and resources and without placing undue strain upon its members.

Like other organizations, schools have to produce something. Schools can of course deliver differing things like co-operation with parents and with other schools, and generating good and confident teachers. But in the end, the criteria for effectiveness must be formulated in terms of students' outcomes ultimately which determine the quality of schools and of education in general (Kirby, Stringfield, Teddlie and Wimpelbery, 1992)

Reynolds et. al (1996) point out that a number of the early school effectiveness studies was that a number of factors appeared to be related to effectiveness, such as the five factors mentioned below:

- Strong educational leadership
- High expectations of student achievement
- An emphasis on basic skills
- A safe and orderly climate
- Frequent evaluation of pupil progress.

Among the factors mentioned, i.e. strong educational leadership, high expectations of student achievement, an emphasis on basic skills, a safe and orderly climate and frequent evaluation of pupil progress, is strong educational leadership. Possibly what we can ask ourselves is, does strong educational leadership have a bearing on leadership behaviour of headteacher? Studies carried out by Moltimore, Sammons, Stoll, Lawis and Ecob (1988) based upon fifty randomly selected London primary schools, over a period of four years, whereby the academic and social progress of 2000 children were traced indicate that among the characteristics possessed by the schools was (among others) purposeful leadership of the staff by the headteacher. This occurred where the headteacher understood the school's needs, was actively involved in the school, was good at sharing power with the staff. He or she did not exert total control over teachers but consulted them especially in decision making such as spending, planning and curriculum guidelines.

Among factors mentioned by Teddlie and Springfield (1993) in their programme of four studies, starting in 1980 carried out in the United States (the Louisiana school effectiveness), include a specification of school principal's behaviour that make for school effectiveness. The characteristics that make for effectiveness according to them are mentioned here below:

- Stable, appropriate leadership
- Appropriate organizational structure
- Shared academic leadership with faculty
- Resistant to external change
- Close relationship among administrators
- Good use of academic support staff

Teddlie and Springfield,(1993) further came up with characteristics of unusually effective schools. These are among others outstanding leadership behaviour which involves:

- Vigorous selection and replacement of teachers
- 'Maverick' orientation and buffering
- Frequent, personal monitoring of school activities, and sense making
- High expenditure of time and energy for school improvement actions
- Support for teachers
- Acquisition of resources
- Superior instructional leadership
- Availability and effective utilization of instructional support personnel

From the foregoing the researcher in the current work proposes that, there is a positive correlation between headteachers' leadership behaviour and school performance / effectiveness. Synonymously, we can also propose that leadership effectiveness which may be a product of leadership behaviour, may have a bearing to the outcomes of the school in the context of performance.

Leadership is a vital element in the social relationships of groups at work. Groups need leaders and leaders need followers (Cole, 1997). Every educational institution requires a pattern of administration to propel it efficiently and effectively towards realization of its goals, to maintain and sustain it on an even keel, to steer it through often uncharted problem areas and to keep it energized and prepared to whether challenges of fast changing times (Biggs and Telfer, 1987)

This can only be achieved through effective leadership. As Raven (1991) points out; the managerial or leadership activities of the school headteachers are of little consequence

if they do not further the educational aims of the school. The survival of the school is depended up the quality of administrative services available.

Hills in Srinivasan and Chunnawalla (1987) explain that effective leadership must be able to successfully raise the group to a higher organizational level. Guest, (1987) in the same reference explains further that an effective leader has to perform a dual role in the organization. His/her effectiveness is enhanced when he/she acts as a formal agent of higher management and also an informal leader of the followers. Leadership must facilitate interaction and provide the mechanism of communication. By failing to do the forementioned, then headteachers may be failing in enhancing performance of the schools.

The headteachers as managers of the schools create an environment in which a large number of people work for a common purpose. This the headteacher achieves through scheduling, planning, resource allocation and other actions.

2.3 Studies in Leadership

Silver (1983) indicates that leadership whether it be directed towards nations, armed forces, informal groups or large organizations, has been a topic of deep interest for centuries. Lutherns and Martinko (1970) notes that although leadership has been given more attention through the years, very little is known about it. There is still much disagreements on the factors and circumstances of effective leadership and influence on performance.

The traditional approach to the study of leadership evolved into the search for traits or personal characteristics of effective leadership. Freeman and Stoner (1989), explain that

although research has not yielded a set of traits possessed by effective leaders, it does seem clear that leaders play a critical role in helping groups, organizations or societies achieve their goals. They go further to explain that most people would probably say that effective leaders have certain desirable traits or qualities for example, charisma, foresight, persuasiveness and intensity- Indeed, when we think of heroic leaders, such as Napoleon, Washington, Lincoln, Roosevelt and Churchill, we recognize that such traits were natural to them and necessary for what they accomplished (Stoner and Freeman, 1989). In searching for measurable leadership traits, original researchers took two approaches. They attempted to compare the traits of those who emerged as leaders and those who did not. Secondly, they attempted to compare the traits of effective leaders with those of ineffective leaders.

Most studies on leadership have largely failed to uncover any traits that clearly and consistently distinguish leaders from followers (Robert and Mary, 1979). Attempts to compare the characteristics of effective leaders and ineffective leaders (second category of leadership trait studies) have failed to isolate traits strongly associated with successful leadership. One such study did find that traits such as intelligence, initiative and self – assurance were associated with high managerial levels and performance (Ghisell, 1971). However, this study also found that the single most important factor related to managerial level and performance was the manager's supervisory ability, that is his/her skill in using supervisory methods appropriate to the particular situation. In 1948, Ralph Stogdill a reunion trait theorist reviewed 124 empirical studies on leader attributes and from his review, he concluded that leaders exhibited the following characteristics:

- Capacity : Intelligence, alertness, verbal facility, originality and judgement.
- Achievement: Scholarship, knowledge, athletics and accomplishment.

- **Responsibility:** Dependability, initiative, persistence, aggressiveness, self-confidence, desires to excel.
- **Participation:** Activities, sociability, co-operation, and adaptability humour.
- **Status:** Socio – economic position, popularity.
- **Situation:** Mental level, status, skills, needs and interests of followers, objectives to be achieved (Stogdill, 1948).

Stogdill concluded that a person does not become a leader by virtue of possession of some combination of traits. He also concluded that situational variables evidently influence the leader's behaviour patterns. He pointed out that different groups of workers and different group activities required different types of leaders. His findings shifted the trait theorists research activities on leadership towards establishing how leaders interact with groups under various conditions.

From the foregoing, it is evident that, effective leaders do not seem to have any distinguishing traits or characteristics. Other researchers have tried to isolate the behaviours characteristic of effective leaders. In other words, rather than try to figure out what effective leaders were, researchers tried to determine what effective leaders did, how they delegated tasks, how they communicated with and tried to motivate their followers, how they carried out their tasks and so on. Unlike traits, behaviour can be learned, and so it followed that individuals trained in appropriate leadership behaviour would be able to lead more effectively.

Stoner and Freeman (1989) explain that research showed that, nevertheless, that leadership behaviours appropriate in one situation were not necessarily appropriate in another. They further explain that desirable leadership qualities and behaviours may also change as organization's culture changes.

Despite growing evidence that effective leadership behaviours depend partially on the leader's situation. Some researchers have reached the conclusion that certain management behaviours are in fact more effective than others in a relatively wide variety of circumstances. The researchers focused on two aspects of leadership behaviour:

- Leadership functions
- Leadership styles

UNIVERSITY OF NAIROBI
EAST AFRICANA COLLECTION

The first aspect of the behavioural approach to leadership shifted the focus from the individual leader to the functions that leaders performed within their groups. For the group to operate effectively, the leader has to perform two major functions:

- Task related functions / problem solving and
- Group maintenance functions or social functions.

Task related functions or problems solving functions include suggesting solutions and offering information and opinion. Group maintenance functions include anything that helps the group members operate more smoothly, agreeing or complementing another member, for example or mediating group disagreements. The group maintenance function requires that the individual remain responsive to the ideas and feelings of the other group members. An individual who is able to perform both roles successfully would be an especially effective leader (Stoner and Freeman, 1989).

The second perspective on leadership behaviour focuses on one of the two styles that a leader may use in dealing with the group he/she works with; task oriented style and an

employee oriented style. The task oriented managers closely supervise the group to ensure that the task is performed to their satisfaction. A manager with this leadership style is more concerned with getting the job done than with growth and development of group. On the other hand employee – oriented managers try to motivate rather than to control the group, they encourage group members to perform tasks by allowing them to participate in decision that affect them and by forming friendly, trusting, and respectful relationships with group members.

Schmidt and Tannenbaum in their contingency model, as quoted in Srinivasan and Chumanwalla (1987), in analyzing leadership pattern, concentrated upon;

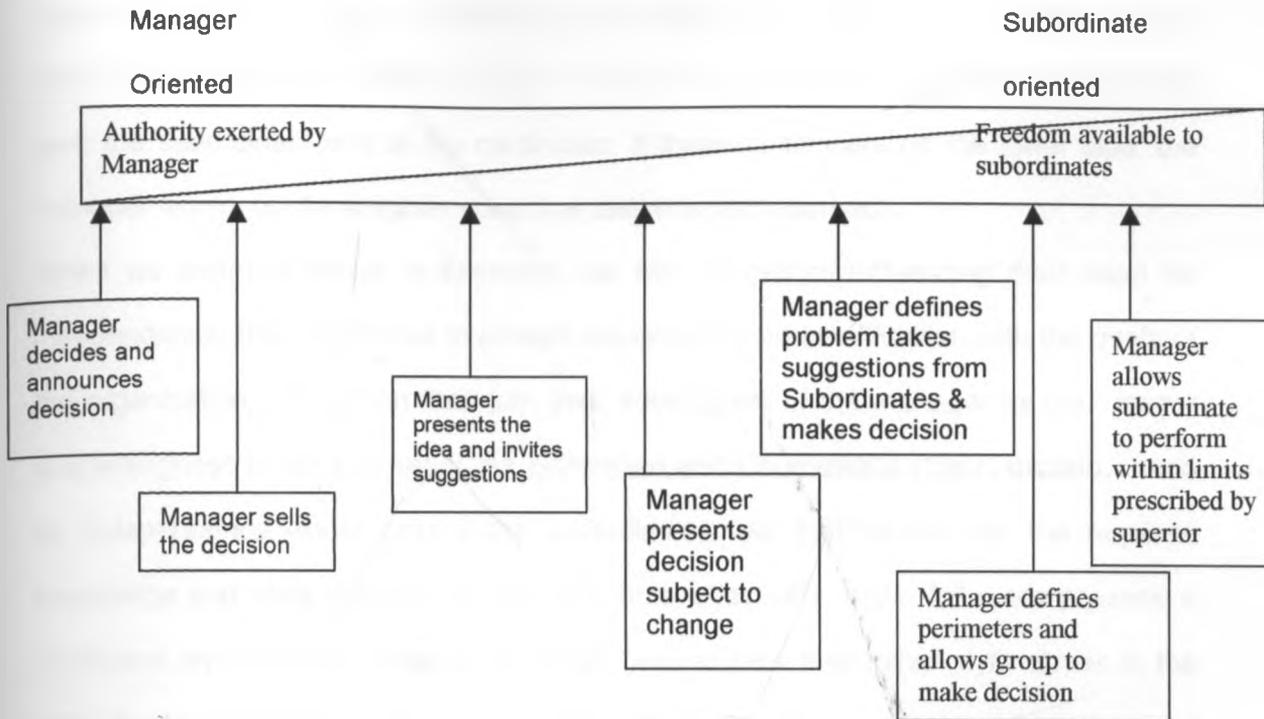
- the forces in the manager.
- the forces in the followers
- The forces in the situation, as determinants in the choice of a leadership style.

Based upon their extensive research findings, they called into question the compartmentalization of leadership styles which according to them only help to increase the dilemma of the 'manager'. In leading, they note that the manager.,

is not sure how to behave; there are times he is torn between exerting 'strong' leadership and 'permissive' leadership.

To grapple with the dilemma they tried to provide a framework and suggested a continuum of leadership patterns that the manager can choose from in relating himself to his followers. Figure 1 presents some of the leadership behaviour patterns associated with leaders.

Fig:1. Leadership Continuum



Adapted: Srinivasan, R, and Chumanwalla S.A. Management, Principles and Practice, Bombay: Himalaya publishing house, p.461.

Each type of leadership pattern is determined by the degree of authority exercised by the manager and the extent to which followers are involved in the decision making process. On one extreme end there are managers who exercise high degree of control while on the other extreme end of the scale we have managers who exercise high degree of participation by the followers.

Under forces in the manager, leadership style adapted by the manager would depend on his/her value system, his/her inclination to lead, the degree of confidence in his/her followers and his/her tolerance for ambiguity. It would also depend on the perception of his/her role, of the group and of his/her own standing in the group. According to them, the confidence he/she has in himself/herself would depend on how

effectively he/she has handled the situation before. If his tolerance to ambiguity would depend on his/her degree of maturity and his/her effectiveness factor. Given that all these are on higher side, the manager may opt for a leadership style which would be near the subordinate end of the continuum. If these factors are on the lower side, the manager would, opt for a tighter control or task oriented approach.

When we examine forces in followers, we look at factors influencing their need for independence, their readiness to accept responsibility an identification with the goals of the organization, interest on their job, their acceptance of the manager as their leader and willingness to work as team. As Srinivasan and Chumawalla (1987) explain, need for independence would arise if the subordinates feel that he/she has the requisite knowledge and skills and hence can contribute effectively. If the followers possess a significant level of these factors, he would tend to take leadership style closer to the subordinate end of the continuum or in other words, would prefer a subordinate oriented leadership pattern.

Schmidt and Tannenbaum in Srinivasan and Chumawalla (1987) go further to explain the factors influenced by the situation are the types of the organization, its corporate philosophy, the collective managerial style, the specific organizational problems and pressures of time and the effectiveness of the total group. If the organization lays emphasis on human relations or if the group exhibits high cohesiveness and has the requisite knowledge and skill to perform on the job, a pattern closer to the requisite knowledge and skill to perform on the job, a pattern closer to the subordinate oriented leadership would emerge. But if these do not exist and if the manager perceives a need for tighter control due to lack of above factors, he would opt for the style closer to the manager-centered.

For them, an effective manager is the one who can perceive and determine what his behaviour should be at a given situation or in a particular situation.

According to Srinivasan and Chumawala (1987) Fielders contingency theory blended the trait and situational theories and suggested the contingency theory. This theory dominated the minds of researchers in the 1970s. Leadership according to this theory is contingent upon the group task situation and the degree to which personality, style and approach of the leader fit the group. Leaders are thus not only possessors of certain traits but are also a consequence of various situational factors. There is a constant interaction between the leader and situation. In the opinion of Fielder, there are three critical dimensions of the situation which affect leadership style:

- Power of position.
- Task structure.
- Leader member relations.

Power of position arises from organizational position. A leader with a clear and considerable power of position can more easily obtain better following than one without such power. Where tasks are clear performance can be exerted and leadership is effective.

Leader member relations determine effectiveness of the Leader. A survey conducted by Warren and Bennis (1959) (the study's objective was to find out what differentiates a 'leader' from a 'good manager') found out that there are four competencies evident to some extent in every individual in the group. They are:

- Management by attention.
- Management by meaning.
- Management by trust
- Management self.

According to Bennis (1959) in management by attention a good leader attracts the interests of followers mainly because of his/her commitment to the job. He/she knows and understands the job and also what he/she wants.

In management by meaning since 'Leaders' know exactly what they are doing, lending a tangible dimension to their ideas, their plan of action is that much easier.

In management by trust, the leader creates an atmosphere of trust through what Bennis (1959) calls a 'Constancy' factor. This constancy factor is inherent in the leader. The followers see him/her as a person who can be relied upon. In other words, they will be able to predict that given a set of situations the leader would behave in exactly the same way.

In management self concept, according to Bennis (1959), the leader knows what his/her strengths are and deploys them effectively. To the leader, failure is only a tool to perform more effectively. The leader learns from his failure.

2.4 Leadership Behaviour and Performance in Schools

Most of researches that have been conducted on consideration dimension indicate that there is a relationship between leadership behaviour and performance. In his rather exhaustive survey on research concerning leadership, Stogdill (1974) explain that when teachers and principals (headteachers) are described high in consideration and initiating structure, their pupils tend to make higher scores on tests of school achievement. Bush Ronn, James and Colin (1983) explain, the initiating structure and consideration leadership behaviour dimensions can be present in behaviour in varying amounts and relationships at different times. A school headteacher may rate high in initiating structure as contrasted to consideration or vice versa. However, as Pigors, Charles and Martin (1994) point out there is a marked relationship between the kind of supervision an employee receives and his/her productivity and satisfaction he/she receives, from work. When the worker feels that his/her boss sees him/her as an instrument of production, as

merely a cog in a machine, he/she is likely to be a poor producer. However, when he/she feels that his/her boss is genuinely interested in his/her well being he/she is more likely to be a higher producer.

Buchanan (1971) expressed his opinion that it is important for leaders in school settings to behave in ways which meet the expectations of others and thus to be predictable. When headteachers are seen by their teachers as having high influence upon the operation of their schools, teachers evaluate the school positively (as truthful, creative and genuine), they are satisfied with the way the headteachers do his/her job and they feel that they too have influence both on the headteachers and on the way the school is run. Such teachers work very hard towards the attainment of school goals thus resulting in improved students' performance.

Beare, Caldwell and Millikan (1994) point out to the significant relationship between leadership and student achievement. In a study of school performance they stated that all the statistics given strong support to the hypotheses that leader behaviour of the principal was significantly related to the productivity of the school. Duke (1987) points out that a school leader's effectiveness is based on how well students achieve. It is the students' output that counts. As long as student performance meets or exceeds expectations, school leaders are presumed to be doing their jobs well. To him, it matters little if their individual behaviour or style vary. Williams et. al (1974) explain the leader behaviour of an elementary school principal is one of the determinants of the ability of a school to attain its stated educational goals. However, the actual behaviour of headteachers in schools shows a wide variation. As Ronn reports in Baron (1972) critical appraisal of the heads' behaviour a popular staff pastime frequently naively implies undimensional continuum from bad to good.

Headteachers' main leadership acts are planning, initiating, managing, delegating, co-ordinating decision making, communicating and evaluating. Any headteacher who is unable to do this may not manage to steer the school well to good performance. The demands and responsibilities placed on headteachers require that there should be enhanced managerial capacities and skills particularly at a time when various forms of accountability and participation as well as employment relations are emerging or being imposed on management. Barraclough (1973) stated that schools were complex organizations and the tasks of an educational administration were correspondingly numerous and intricately. Management style according to him was a major factor in the successful accomplishment of the many tasks required of an educational administrator.

Yukl (1971) explains that, leader behaviour patterns affect situational variables (Subordinate motivation, task – role organization and followers' skills level) that in-turn affect the quality and quantity of followers' performance. To them, there is a positive correlation between leader behaviour and followers' performance.

Silver (1983) reports studies by Kerr which indicate that the more followers depend on the leader to provide valued or needed services, the higher the positive relationship will be between leader behaviour measures and follower satisfaction and performance.

Matula (1986) studied the relationship between performance of grade eleven students as measured by the Pennsylvania Education Quality Assessment Test and the leadership style of high school principals as measured on the Blake – mouton grid. According to him, age, years in education, years as principal had no significant relationship with student outcomes and also that leadership styles of the principal were not significantly related to student performance.

Literature reviewed seems to suggest that leadership behaviour, leader functions, leadership styles and leader group relations are concepts which are a key concern for the school executive. The leader behaviour might well affect not the activities, but the structures and procedures by which the activities are conducted. The school headteacher's leadership behaviour is thus one of the determinants of the ability of a school to attain its stated educational goals.

2.5 Summary of Literature Review

Leadership is one of the most misunderstood terms, while some view it as "getting others to follow" or "getting people to do things willingly", others explain it as ability of a Manager to accomplish group objectives by working with people through people. Headteachers as school managers need to play this role and this has a bearing on school performance.

Various studies have been carried out on leadership and various theories advanced. While others see leaders possessing special attributes (traits) that their followers do not have and which make them effective as leaders, others feel it is the style of leadership be it democratic or autocratic that lead to success in given situations. There are however, those who believe that for success in leadership, it is 'Leadership behaviour' that is paramount.

On the leadership and performance, several studies point to a relationship between leadership behaviour and students' academic performance. It is evident that principals / headteachers who engage in both task and relations oriented behaviour have their students performing better.

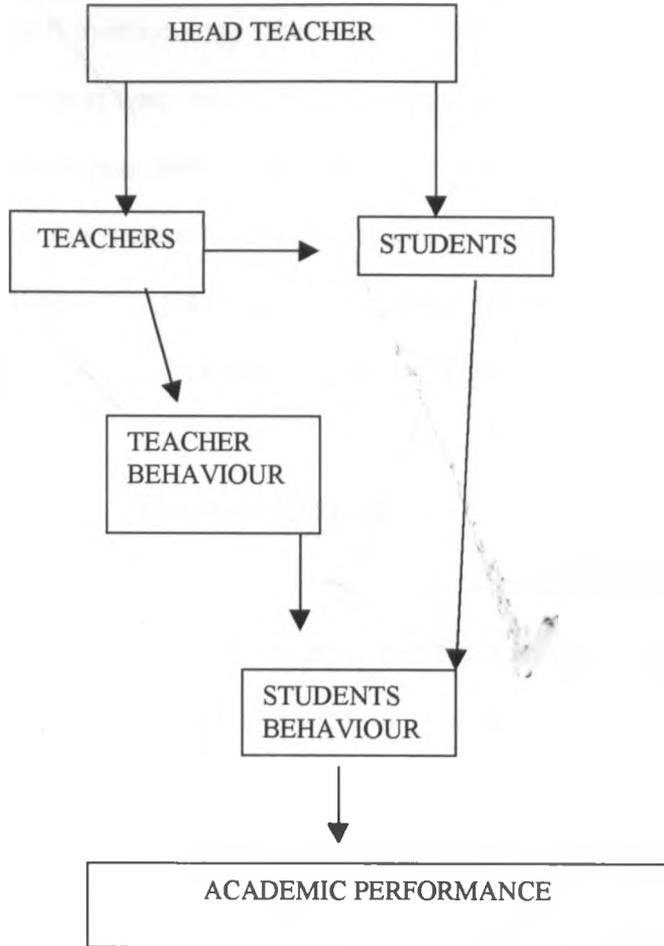
2.6 Conceptual Framework.

The conceptual model in this study is based on the various factors that affect/influence student's performance.

This framework examines the major determinants which have an influence on the students' academic performance. The variables which are found here include students, teachers and headteachers. The headteacher has direct influence on both teachers and students. He/she has their own characteristics such as age, gender, experience as a teacher and an administrator, academic qualifications, needs and the like. Same applies to both teachers and students. Students' characteristics will include gender, sex and environmental factors. While headteachers' behaviour can affect both teachers' and students' behaviour, students' behaviour can also be affected by the teachers' behaviour.

Diagrammatic representation of various school factors and how they impinge on students' performance are contained in Figure 2.

FIGURE 2: SELECTED SCHOOL FACTORS AND THEIR EFFECTS ON PERFORMANCE IN KENYA CERTIFICATE OF SECONDARY EXAMINATION



CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter deals with research methodology. The chapter consists of eight parts. Part one discusses research design that was used. Part two deals with the study area. Part three is concerned with the target population. Part four deals with sample and sampling techniques. Part five discusses the research instrument that was used. Part six presents pre-testing the research instruments. Part seven is concerned with data gathering procedures. Finally, the last part deals with the data analysis techniques.

3.1 Research Design

In this study, the research design that was used is an ex post facto. Cohen and Manion (1986) define an ex post facto research as a method of eliciting possible antecedents of events which have happened and cannot, because of this fact, be engineered or manipulated by the investigator. In this kind of design, the researcher does not have direct control of independent variables as their manifestations have already occurred or are inherently not manipulable. In this study, leadership behaviour and performance of students have already occurred. Observation of a dependent variable was done first and then independent variables in retrospect for their possible relations to and effects on the dependent variables studied.

3.2 Study Area

Vihiga District was carved out of Kakamega District in 1991 and now forms one of the six districts of Western Province. It borders Kakamega District to the north, Nandi District to the east, Kisumu District to the south and Siaya District to the south west. The district is

divided into six administrative divisions namely: Vihiga, Sabatia, Tiriki East, Tiriki West, Emuhaya and Luanda. There are 27 locations and 115 sub-locations. The district has soils which are highly fertile having outstanding carrying capacities suitable for mixed farming. It receives long and reliable rains throughout the year. Its annual rainfall ranges from 1800 mm to 2000 mm. Generally there are two rainy seasons in the area, the long rains expected from March to end in June and the short rains from August to November. January and December are relatively dry months. On the whole, it is a balanced climate that can support learning and education advancement.

3.3 Target Population

According to the Ministry of Education, there were 75 public secondary schools in Vihiga District by the end of 1998, of which 9 were boys schools, 14 girls schools and 52 mixed schools. However, according to the Kenya National Examination Council, six of these schools were yet to register with the council. Three of these schools had done Kenya Certificate of Secondary Education Examination only once since their registration while six of the schools had been operating on an on-and-off type of system. All these schools (15 mixed schools) were not included in this study. During the same period, the Ministry gave the number of teachers as 1289 (inclusive of 75 headteachers). Of this teacher population, 863 were male teachers and 426 female teachers. The population therefore consisted of 60 headteachers each for the 60 public Secondary Schools and 1214 teachers

3.4 Sample and Sampling Technique

To determine the sample size, a table designed by Krejcie and Morgan (1970:608) as quoted in Mulusa 1988 p.86 was used (see appendix X)

According to this table, a sample of 52 cases was selected from a population of 60 public secondary schools and 291 cases from a population of 1214 teachers. On the average, therefore, 6 teachers from each school needed to participate in the survey for this study. This gave rise to a total of 312 participating teachers. To qualify for participation in the said survey, headteachers and teachers needed to have served in their respective stations for more than a year.

Stratified sampling was used to select the schools to be used in the survey. Geographical location was the criteria for stratification. This was done through computation of the ratio of each stratum to the product of the population and sample size. Actual subjects were then selected randomly. The number of schools that were used from each strata based on the above ratio were 8 boys schools, 12 girls schools and 32 mixed schools.

The teachers in each school were selected using simple random sampling. In this type of sampling, each member of a given population was given an equal chance of being chosen in the sample. Names of teachers were written on papers, then folded and placed in the basket. The basket was shaken and one paper picked at a time and then the name on the paper recorded. This was repeated until the number of teachers required was obtained. If a subject recorded was picked again, it was ignored and returned in the basket. Participating schools were chosen in the same way. This method was thought appropriate (as earlier stated) since all eligible subjects were considered to have both equal probability of being chosen and competence to respond to the questions objectively.

3.5 Research Instrument

Data were collected using a questionnaire. The questionnaire instrument was chosen because it saves on time and also the targeted respondents were literate and therefore could use it comfortably. It also allows greater uniformity in the way questions are asked ensuring greater comparability in the process (Mouly, 1978: 189). In addition, the respondents feel free to give frank answers to sensitive questions especially if they are not required to disclose their identity (Mulusa, 1988:114). Two types of questionnaires were used, one for headteachers and the other for teachers. Part A of the headteachers' questionnaire collected data on headteachers' academic background, administrative experience, teaching experience, the type of school they headed and the quality of the school. Part B consists of two structured questions which specifically asked for the problems headteachers experienced in running schools and possible solutions to those problems.

Part A of the teachers' questionnaire collected similar data as part A of the headteachers questionnaire but on teachers. This part also sought to establish the teachers' opinion on the relationship between headteachers' leadership behaviour and students' academic performance at Kenya Certificate of Secondary Education Examination. It also sought teachers' suggestions on ways of improving school leadership. Part two and three of the questionnaire gathered data on headteachers' ability to assign tasks and responsibilities to teachers and also show sensitivity to the followers. The Leader Behaviour Description Questionnaire (LBDQ) was adopted for use to gather information on these dimensions. Respondents were required to indicate their responses by means of a tick (✓) against each item in the initiating structure and consideration dimension on a frequency rating scale of always, often, occasionally, rarely and never which is similar to the Scale by Likert (1971). The author observed that for practical reasons, scores should have

arbitrary weights consisting of consecutive integers, given that the levels of agreement to disagreement have been scored in such a way to consistently reflect positive and negative attitudes.

3.6 Pre-Testing The Research Instruments

The Research Instrument was pre-tested in order to check on its validity and reliability, identify possible problems during the main study and clarify on the instrument and appropriateness of the language. Bell (1993) contends that the purpose of a pilot exercise is to get the bugs out of the instrument so that subjects in the main study do not experience any difficulties in completing it and so that one can carry out a preliminary analysis to see whether the wording and format of questions would present any difficulties when the main data are analyzed.

Moore (1963) contends that validity indicates the degree to which an instrument measures the construct under investigation. In validating the instrument, a pilot study was carried out in 8 schools with 8 headteachers and forty eight teachers filling in the questionnaires. The schools used in the pilot study were chosen randomly from each strata and were omitted in the final study. The researcher personally administered the questionnaires within a day in each school with a view to identifying areas that needed changes in the wording of some items.

Reliability is an essential component in validity. It refers to a test's consistency. Bohmstedt (1970) defines reliability as the degree to which items relate to a test's consistency. The study used Cronbach's coefficient alpha to compute reliability.

According to Crano and Brewer (1973) the coefficient alpha represents the best estimate of full scale reliability.

Reliability coefficient which is interpreted as a regular correlation reflects the extent to which a test is free of error variance and vary between values of 0.00 and 1.00. The closer the value to +1.0, the more consistent a test is and the more it is free of error variance (Borg and Gall, 1983). The reliability of the instrument was found to be 0.91 which meant that the instrument was reliable.

3.7 Data Gathering Procedures

Permission to conduct the study in Vihiga District was granted by the office of the President on receiving a letter of introduction from the Department of Educational Administration and Planning of the University of Nairobi. The researcher then made arrangements to visit the selected schools for introduction and to find out the appropriate time to administer the questionnaire to the respondents.

The questionnaires were distributed to respondents in participating schools and collected back three weeks later by the researcher herself. One headteacher declined to participate in the study while 22 teachers did not return their questionnaires. In cases where some teachers misplaced questionnaires, arrangements were made to have them obtain new questionnaires.

The performance index for the last six years (1993 – 1998) for all the schools in Vihiga District were collected from the Kenya National Examinations Council (KNEC) while data concerning number of schools and teachers in the district was obtained from the Ministry of Education Headquarters (Jogoo House), Nairobi.

3.8 Data Analysis Techniques.

To analyze data on Leader Behaviour Description Questionnaire (LBDQ), the data was first organized into frequency distribution Tables. On both dimensions studied that is; consideration and initiating dimensions, total scores for every teacher were worked out and then total points were added to determine the opinion of every teacher on each dimension. The most favourable response was 75, neutral response was 45 and minimal response was 15. Score in the range of 45 – 75 were rated as favourable responses while scores below 45 were rated as unfavourable responses. Means of the scores which represent both favourable and unfavourable responses on both dimensions as rated by teachers were computed. On the whole, headteachers in Vihiga District were divided into two, those above and those below the mean. This was done by working out the mean scores for all headteachers in Vihiga District. These means were then used for calculating values of standard deviation, correlation coefficients, t-test and the analysis of variance. The mean performance index for each school that was eligible for the study from 1993 to 1998 (see appendix VI) was also worked out. Frequency tables were too constructed for both demographic and all open ended questions.

To determine whether there was significant relationship between the study perimeters as presented in hypotheses Ho^1 , Ho^2 and Ho^4 which postulated that “There is no significant effect of headteachers’ ability to show concern in terms of initiating structure and consideration on student academic performance”, “There is no significant relationship between headteachers’ leadership behaviour as perceived by the teachers and students’ academic performance” and “There is no significant relationship between students’ academic performance and the quality of school” respectively, correlation analysis was performed on the respective data sets. Coefficients of linear correlation from the equation of the form was computed using the formular below.

$$r = \frac{\sum(x - \bar{x})(y - \bar{y})}{\sqrt{\sum(x - \bar{x})^2 \sum(y - \bar{y})^2}} \quad \text{----- (1)}$$

where r is the correlation coefficient

x is the independent variable

\bar{x} is the mean of the independent variable

y is the dependent variable

\bar{y} is the mean of the dependent variable.

To test for the significance of the correlation coefficient, the following test criterion was computed and compared with students' t for $n-2$ degrees of freedom.

$$t = \frac{r}{\sqrt{(1 - r^2)/(n - 2)}} \quad \text{----- (2)}$$

The researcher then proceeded to establish a mathematical relationship between the study parameters by regressing the dependent variable (y) on the independent variable (x) to yield an equation of the form:

$$y = \alpha + \beta x \quad \text{----- (3)}$$

Where α and β are constants independent of the variables x and y .

The researcher also undertook the analysis of variance (ANOVA) of the regression line in equation 3 above.

If the calculated t – statistic was greater than the t – value in the table at 0.05 level of significance then the null hypothesis was rejected and accepted if otherwise.

In testing hypothesis H_0^3 , dealing with differences between performance indices of schools of different categories, the researcher employed the use of the students' t test to compare the mean values of performance indices of the schools. The t – statistic that was used as a test criterion was defined as

$$t = \frac{\bar{y}_1 - \bar{y}_2}{S_{y_1 - y_2}} \text{----- (4)}$$

Where $S_{y_1 - y_2}$ is the standard deviation appropriate to a difference between two random means.

\bar{y}_1 - the mean index of school (1)

\bar{y}_2 – the mean index of school (2)

If the computed t-value was greater than the tabulated t-value at 0.05% significance level then the null hypothesis was rejected and accepted if otherwise.

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter deals with the analysis of data which were collected in 52 schools. The study sought to examine if there was a relationship between the headteachers' leadership behaviour and the students' academic performance. The findings were based on data collected on headteachers' leadership behaviour as measured by Halpin's (1957) LBDQ and the school's academic performance index determined by the KCSE results for the last six years.

The chapter consists of nine parts. Part one examined the questionnaire return rate. Part two contained the information on the demographic data of secondary school headteachers and teachers respectively. Part three showed the responses of Leadership Behaviour Description Questionnaire (LBDQ) of headteachers. Part four dealt with headteachers' and teachers' judgement on the adequacy of schools' resources and activities that help to improve academic performance. Part five dealt with the headteachers' and teachers' judgement of schools' performance in Vihiga District. Part six looked at leadership problems and suggestions towards improving their qualities as identified by the headteachers themselves. Part seven was concerned with teachers' opinion on whether there is reason for improved leadership and their suggestions on what can be done to improve headteachers' behaviour. Part eight presented teachers' opinion and explanation on whether there is a relationship between headteachers' leadership behaviour and students' academic performance at Kenya certificate of Secondary Education Examination. Finally, the last part deals with the four hypotheses.

The Questionnaire Return-Rate.

Out of 52 questionnaires administered on headteachers, 51 were collected back while 1 was not returned. Of 312 administered to teachers, 290 were returned while 22 were not. The questionnaire return-rate was therefore 98.08% and 92.95% for headteachers and teachers respectively.

The Demographic Data of the Respondents

Frequencies and percentages are used to describe the demographic data of headteachers and teachers who participated in this study. Table 2 contains the ages of the headteachers and their sex.

Table 2: The Ages and Sex of the Headteachers

Age in Years		25 - 30	31 - 36	37 - 42	43 - 48	49 - 51	52 & above	Total
SEX	Male N	-	2	2	17	8	1	30
	%	-	3.90	3.90	33.30	15.70	2.00	58.80
	Female N	-	3	2	9	6	1	21
	%	-	5.90	3.90	17.60	11.80	2.00	41.20
Total N		-	5	4	26	14	2	51
%		-	9.80	7.80	51.00	27.50	3.90	100

Data concerning sex of headteachers indicated that the population sample of headteachers (N=51) consisted of 30 (58.80%) males and 21(41.20%) females. Both the blocks of sex are well presented with the percentage of male headteachers slightly higher. This could be explained by the social factor that men preferred to work close to their families which are based in rural settings. It is also expensive for male teachers to keep their families in urban settings

Concerning the age, data collected indicated that the majority of headteachers were between 43 – 48 (51.00%) followed by 49 – 51 (27.50%). 9.80% fell under 31 – 36 and only 3.90% were above 51 while there were no headteachers below the age of 31 as these were new graduates who had not yet attained job groups L and M required of one to be a headteacher. The data indicated that after the age of 48 the number of headteachers continued declining. This could be explained by the fact that the majority of headteachers are promoted to join the public service as Senior Education officers while others retire. Table 3 presents the age of teachers by gender.

Table 3: The Ages and Sex of the Teachers

Age in Years		25 - 30	31 - 36	37 - 42	43 - 48	49 & above	Total
SEX	Male N	33	70	26	36	22	187
	%	11.38	24.10	9.00	12.41	7.60	64.50
	Female N	14	38	27	16	8	103
	%	4.83	13.10	9.30	5.52	2.76	35.50
Total N		47	108	53	52	30	290
%		16.21	37.20	18.30	17.90	10.30	100

Table 3 revealed that 64.5% of teachers were male while 35.5% were female. This could be because most male teachers prefer to work in the rural setting as their house allowance can not pay high house rent in urban centres. The small percentage of female could be because female teachers follow their husbands in urban centres.

Concerning the ages of teachers, there were more teachers between 31 – 36 years of age (37.20%). After this age bracket, the number of teachers declined considerably; 37

– 42 (18.30%), 43 – 48 (17.90%) and 49 and above (10.30%). It is possible that most teachers left the profession for greener pastures after attaining the age of 36 years. Academic qualifications of headteachers and teachers are discussed next.

Table 4: Academic Qualifications of Headteachers and Teachers

Academic Qualification	Headteachers		Teachers	
	N	Percentage	N	Teachers
Certificate	-		2	0.70
S1	8	15.70	43	14.83
Diploma	1	2.00	39	13.45
A.T.S	2	3.90	22	7.60
B.A/B.Sc + PGDE	6	11.80	30	10.34
B.ED	29	56.90	138	47.60
M.A/M.Sc	2	3.90	5	1.70
M.ED	3	5.90	11	3.80
Total	51	100	290	100

Table 4 revealed that the majority of headteachers (56.90%) had Bachelor of Education degree. Very few headteachers had either M.Ed (5.90%) or M.A / M.Sc (3.90%). A reasonable number had S1 (15.70%) and B.A / B.Sc + PGDE (11.80%). 2% and 3.90% had Diploma and A.T.S respectively.

Concerning teachers, the table showed that 47.60% had Bachelor of Education degree. Few had either M.Ed (3.80%) or M.A / M/Sc (1.70%) while a considerable number had S1 (14.83%) and B.A / B.Sc + PGDE (10.34). 13.45% and 7.60% had Diploma and A.T.S respectively.

From the table we note that the majority of both headteachers and teachers are highly qualified. The small number with M.Ed and M.A / M.Sc could be explained by the fact that their employer, the TSC does not give better pay for this level and also provides study leave without pay. This data also revealed that some secondary schools in Vihiga district (0.70%) had teachers who were certificate holders.

Table 5: Headteachers' Administrative Experience

Years		1 - 5	6 - 10	11 - 15	16 - 20	Over 20	Total
SEX	Female N	3	11	1	2	4	21
	%	5.90	21.60	2.00	3.90	7.80	41.20
	Male N	5	10	8	5	2	30
	%	9.80	19.60	15.70	9.80	3.90	58.80
Total N		8	21	9	7	6	51
%		15.70	41.20	17.60	13.70	11.80	100

Table 5 indicated that 15.70% of headteachers had administrative experience of 1 – 5 years. Those with experience of 6 – 10 were 41.20%, 11 – 15' (17.60%), 16 – 20 (13.70%) while those with over 20 years of administrative experience were 11.80%. This is a clear indication that most headteachers had a lot of experience in administration.

Table 6: Teaching Experience of Headteachers

Experience in years	N	Percentage
1 – 5	1	2.00
6 – 10	12	23.50
11 – 15	10	19.60
16 – 20	13	25.50
Over 20	15	29.40
Total	51	100

The results in table 6 revealed that most headteachers had teaching experience of over 20 years (29.40%). Those with teaching experience of between 16 – 20 formed 25.50% and those between 11 – 15 (19.60%). Those between 6 – 10 constituted (23.50%). Headteachers with 1 – 5 years of experience were the least with 2.00%. The data indicated that before one was promoted to head a school he/she needed to have teaching experience of a good number of years.

Table 7: Teaching Experience of Teachers.

Experience in years	N	Percentage
Below 5	55	19.00
5 – 10	121	41.70
11 – 15	63	21.70
15 and above	51	17.60
Total	290	100

From the data presented in Table 7, it is evident that the least frequent experience was 15 and above years (17.60%). Those with 11 – 15 years were 21.70% and those with 5 – 10 years of teaching experience constituted of the majority (41.70%). Teachers with below 5 years of experience were 19.00%. After the experience of 10 years the number declined considerably. This could be (as earlier explained) due to the fact that most experienced teachers left teaching profession for greener pastures.

Table 8: School Type by Student Body

Students	N	Percentage
All Boys	8	15.70
All Girls	12	23.50
Mixed	31	60.80
Total	51	100

Table 8 revealed that most schools in Vihiga District were mixed (60.80%) while girls schools were 12 (23.50%) and boys schools were few (15.70%).

Table 9: School Category

School Category	N	Percentage
Day	23	45.10
Boarding	14	27.50
Day + Boarding	14	27.50
Total	51	100

Data concerning category of schools indicated that the majority of schools, are day (45.10%). Boarding and Day plus partly Boarding schools were equally represented with 27.50% respectively. This could be due to the fact that the majority of the rural schools are poor and that can not afford boarding facilities.

Teachers' Perceptions of Headteachers' Leadership Behaviour on the LBDQ.

This section presented the responses of Leadership Behaviour Description Questionnaire (LBDQ) of headteachers. Leadership behaviour was delineated according to the two integral dimensions of initiating structure and consideration. Each dimension

was subdivided into fifteen items. Each of these items were rated on a five point rating scale of:-

Always	5
Often	4
Occasionally	3
Rarely	2
Never	1

The total points were added to determine the feelings of every teacher on each dimension. The most favourable response was 75, neutral response was 45 and minimal response was 15. This was arrived at by multiplying 15 (the number of total items) by the maximum (5) medium (3) and lowest (1) scores respectively.

From 45 – 75 is favourable response and below 45 is unfavourable response.

Table 10: Percentage of Favourable Responses on Headteachers LBDQ Initiating Structure And Consideration Dimensions by Teachers

Class interval for scores	Favourable responses	
	Initiating structure	Consideration
46 – 50	44	40
51 – 55	40	38
56 – 60	37	29
61 – 65	35	30
66 – 70	53	21
71 – 75	5	2
Totals	214	158
Percentages	73.79	55.17

Table 10 revealed that 73.79% of teachers favoured initiating structure while 55.17% favoured consideration.

Table 11: Percentages of Unfavourable Responses on Headteachers LBDQ Initiating Structure and Consideration Dimensions by Teachers

Class interval for scores	Unfavourable responses	
	Initiating structures	Consideration
10 – 15	7	8
16 – 20	13	14
21 – 25	4	6
26 – 30	6	16
31 – 35	8	17
36 – 40	19	29
41 - 45	19	40
Totals	76	130
Percentages	26.21	44.83

This table revealed that 26.21% teachers had unfavourable responses on initiating structure while 44.83% had unfavourable responses on consideration.

Table 10 and 11 have therefore revealed that headteachers in Vihiga District scored high in initiating structure but moderate in consideration. This finding is in agreement with Njuguna's (1998) and Karanja's (1992) but in disagreement with Mangoka's (1977) and Muchiras (1980) who found out that headteachers scores were high both in initiating structures and consideration.

According to Halpin (1966), effective leadership behaviour is associated with high performance in both dimensions thus it can be concluded that headteachers in Vihiga district are not effective as they have not managed to strike a balance between the two.

Performance Index

The mean performance index for the participating schools was worked out and presented in Appendix VI. The mean was found to be 4.51%. Out of 52 schools only 18 of them had their mean above the mean performance index for all the schools. This shows clearly that the performance of schools in Vihiga district in K.S.C.E examination is poor.

The Next section analyzed students' performance in relation to school resources and academic support activities.

UNIVERSITY OF NAIROBI
EAST AFRICANA COLLECTION

Headteachers' and Teachers' Judgement on the Adequacy of Schools' Resources and Activities that help to Improve Academic Performance.

To determine the adequacy of schools' resources and activities that help to improve academic performance, each activity/resource was assigned some value. The adequacy was also given some value. This was as follows:-

Table 12: Adequacy of Schools' Resources and Activities that help to improve Academic Performance.

School resources/activities	V.Adequate (3)	Adequate (2)	Not adequate (1)	Not Available (0)
Library (1)				
Laboratory (1)				
Teaching aids (1)				
Debating club (1)				
Counseling and guidance programme (1)				
Science club (1)				
Headteachers leadership guidance (1)				
Teachers' commitment (2)				
Students' effort (3)				

The total score was worked out for each school and the total mark indicated (see appendix XIII).

The maximum score was 36 (very adequate)

Average (moderate) score was 24 (adequate)

And the minimum score was 12 (not available)

The score of 36 would mean the school has very adequate resources/activities, 24 – 35 means adequate, 13 – 23 (not adequate) and 12 (not available)

Table 13: Headteachers' responses on the adequacy of school resources activities that help to improve academic performance of students

School resources/activities	Very Adequate (3)	Adequate (2)	Not Adequate (1)	Not Available (0)	Total
Library (1)	N __ % __	N 14 % 27.50	N 26 % 51.00	N 11 % 21.60	N 51 % 100
Laboratory (1)	N __ % __	N 11 % 21.60	N 35 % 68.60	N 5 % 9.80	N 51 % 100
Teaching aids (1)	N __ % __	N 22 % 43.10	N 28 % 54.90	N 1 % 2.00	N 51 % 100
Debating Club (1)	N 3 % 5.90	N 34 % 66.70	N 13 % 25.50	N 1 % 2.00	N 51 % 100
Counseling and guidance programme (1)	N 6 % 11.80	N 34 % 66.70	N 10 % 19.60	N 1 % 2.00	N 51 % 100
Science Club (1)	N 1 % 2.00	N 24 % 47.10	N 20 % 39.20	N 6 % 11.80	N 51 % 100
Headteachers' leadership guidance (1)	N 8 % 15.70	N 41 % 80.40	N 1 % 2.00	N 1 % 2.00	N 51 % 100
Teachers' Commitment (2)	N 2 % 3.90	N 38 % 74.50	N 9 % 17.60	N 2 % 3.90	N 51 % 100
Students' effort (3)	N __ % __	N 16 % 31.40	N 31 % 60.8	N 4 % 7.80	N 51 % 100

The results in Table 13 revealed that none of the schools in Vihiga district had very adequate library facilities. In 14 (27.50%) schools the facilities were adequate while in 26 (51.00%) were not adequate and in 11 (21.60%) schools these facilities were not available.

Other resources / activities were represented as follows:

Laboratory :- None of the schools had very adequate Laboratory. In 11 (21.60%) schools had laboratories were adequate while 68.60% did not have adequate laboratories and 9.80% did not have any available.

Teaching aids:- None of the schools had adequate Teaching aids. In 22 (43.10%) schools, teaching aids were adequate while in 28 (54.90%) schools they were not adequate and in 1 (2.00%) school they were not available.

Debating Club:- In 3 (5.90%) the debating Club activities were very adequate, while in 34 (66.70%) these activities were adequate and in 13 (25.50%) they were not adequate. In 1 (2.00%) school debating club was not available.

Counseling and Guidance Programme:- In 6 (11.80%) schools this programme was very adequate while in 34 (66.70%) schools the programme was adequate and in 10(19.60%) it was not adequate. In 1 (2.00%) school, the programme was not available.

Science Club:- This club was very adequate in 1 (2.00%) school. In 24 (47.10%) schools the club was adequate while in 20 (39.20%) was not adequate and in 6(11.80%) schools it was not available.

Headteachers' leadership guidance:- In 8(15.70%) schools was very adequate, in 14 (80.40) schools was adequate, in 1 (2.00%) school was not adequate and in 1 (2.00) was not available.

Teachers' commitment to their work:- In 2(3.90%) schools, teachers said that they were very committed. In 38 (74.50%) the commitment was adequate while in 9 (17.60%) schools it was not adequate and in 2 (3.90%) there was no teachers' commitment.

Students' effort in school work:- None of the schools had very adequate students' effort in schoolwork. In 16 (31.40%), students' effort was adequate while in 31 (60.80%) schools their effort was not adequate and in 4 (7.80%) schools students put no effort at all in their schools work.

Having looked at the headteachers' responses on the adequacy of resources / activities that help to improve the academic performance of students, attention was focused on the teachers' response. This is contained in Table 14.

Table 14: Teachers' response on the adequacy of the resources / activities that help to improve academic performance of students.

School resources/activities	Very Adequate (3)	Adequate (2)	Not Adequate (1)	Not Available (0)	Total
Library (1)	N 27 % 9.30	N 78 % 26.90	N 130 % 44.80	N 55 % 19	N 290 % 100
Laboratory (1)	N 19 % 6.60	N 73 % 25.20	N 148 % 51.00	N 50 % 17.20	N 290 % 100
Teaching aids (1)	N 18 % 6.20	N 86 % 29.70	N 148 % 51.00	N 38 % 13.10	N 290 % 100
Debating Club (1)	N 19 % 6.60	N 120 % 41.40	N 102 % 35.20	N 49 % 16.90	N 290 % 100
Counseling and guidance programme (1)	N 30 % 10.30	N 161 % 55.50	N 70 % 24.10	N 29 % 10	N 290 % 100
Science Club (1)	N 14 % 4.80	N 119 % 41.00	N 105 % 36.20	N 52 % 18.00	N 290 % 100
Headteachers' leadership guidance (1)	N 41 % 14.10	N 142 % 49	N 95 % 32.80	N 12 % 4.10	N 290 % 100
Teachers' Commitment (2)	N 47 % 16.20	N 151 % 52.10	N 67 % 23.10	N 25 % 8.60	N 290 % 100
Students' effort (3)	N 20 % 6.90	N 103 % 35.50	N 140 % 48.30	N 27 % 9.30	N 290 % 100

The results in the Table 14 revealed the following facts on the teachers' response on the adequacy of the school resources / activities that help to improve academic performance of students.

Library:- 27 (9.30%) of teachers felt that the library facilities in their schools were very adequate while 78 (26.90%) felt that these facilities were

only adequate and 130 (44.80%) felt that they were not adequate. 55 (19%) indicated that these facilities were not available in their schools.

Laboratory:- 19(6.60%) teachers indicated that their schools had very adequate laboratories, 73 (25.20%) revealed that these were adequate, 148 (51.00%) cited them not being adequate and 50 (17.20%) indicated that there were no laboratories in their schools.

Teaching aids:- 18 (6.20%) indicated that the teaching aids in their schools were very adequate, while 86 (29.70%) indicated that they were adequate and 148 (51.00%) indicated that they were not adequate. 38 (13.10%) showed that these did not exist in their schools.

Debating Club:- 19 (6.60%) teachers revealed that this club was very adequate in their schools, 120 (41.40%) indicated that the club was adequate while 102 (35.20%), felt that it was not adequate and 49 (16.90%) revealed that their schools did not have such a club.

Counseling and guidance Programme:-30 (10.30%) teachers indicated that the programme was very adequate in their schools. 160 (55.50%) revealed that this program was adequate while 70 (24.10%) indicated that it was not adequate and 29 (10%) revealed that such a program did not exist in their schools.

Science Club:- Those who indicated the club being very adequate were 14 (4.80%) adequate 119 (41.00%) not adequate 105 (36.20%) and not available were 52 (18.00%) teachers.

Headteachers' leadership guidance:-41 (14.10%) teachers indicated this being very adequate, 142 (49.00%) adequate while 95 (32.80%) not adequate and 12 (4.10%) indicated this as not available.

Teachers' commitment to their work:- Of the total number of teachers, 47 (16.20%) indicated that the commitment was very adequate, 151 (52.10%) indicated the commitment as adequate while those who indicated not adequate and not available were 67 (23.10%) and 25 (8.60%) respectively.

Students' effort in school work:- This revealed the following: - 20 (6.90%) of teachers indicated this as being very adequate, 103 (35.50%) as adequate, 140 (48.30%) as not adequate and 27 (9.30%) as not available.

A close look at both tables (Table 13 and 14), reveal that none of the schools in Vihiga District have very adequate activities / resources. In a considerable number of schools the resources are adequate and in the majority of the schools the resources / activities are not adequate. Some schools do not even have them. This information is contained in Table 15.

Table 15: Percentages of Schools' Adequacy in Resources / Activities as Perceived by Headteachers and Teachers

	Very adequate	adequate	Not adequate	Not available
Headteachers' opinion	N ____ % ____	N 16 % 30.77	N 35 % 67.31	N 1 % 1.92
Teachers' opinion	N ____ % ____	N 19 % 36.54	N 32 % 61.54	N 1 % 1.92
Mean	_____	33.66%	64.43%	1.92%

From the table none of the schools in Vihiga District has very adequate resources/activities. In a considerable number of schools the resources are adequate

(33.66%). In the majority of the schools, (64.43%) the resources / activities are not adequate while only 1.92% does not have any of them available.

Availability of learning resources/activities is one of the determining factor for good performance. In the majority of the schools in Vihiga District, these are not adequate. However, a good proportion of these facilities, (if not all) can be obtained from schools' own initiative. It is unfortunate that some of these facilities e.g. Teachers' commitment to their work can be cited by some headteachers and teachers as not being available.

Table 16: Frequencies and Percentages of Headteachers' and Teachers' Judgement of Schools' Performance in Vihiga District.

Schools' performance Rating	Headteachers		Teachers	
	Frequency	Percentage	Frequency	Percentage
Below Average	18	35.30	95	32.80
Average	33	64.70	180	62.00
Above Average	00	00.00	15	5.20
Totals	51	100	290	100

From Table 16, it was revealed that the majority (64.70%) headteachers and (62.00%) teachers felt that schools' performance in Vihiga District was average. Another 35.30% headteachers and 32.80% teachers felt that the performance was below average. None of the headteachers rated performance above average. However, 5.20% of teachers felt that the performance was above average. These results seem to suggest that there is need for improvement in academic work. Table 17 has presented students' results at Kenya Certificate of Primary Education (KCPE).

Table 17: The Marks Attained by Students at K.C.P.E Before Admission to Secondary School in Form I

Marks Scored	100%	80%	60%	20% and below
Over 500	N _____ % _____	N _____ % _____	N _____ % _____	N 19 % 37.30
499 – 360	N _____ % _____	N 17 % 33.30	N 7 % 13.70	N 25 % 49.00
359 and below	N 2 % 3.90	N 18 % 35.30	N 7 % 13.70	N 19 % 37.30

Results in Table 17 has revealed the following facts:-

- Only 19 schools (37.30%) admitted 20% of students with over 500 marks
- Of 499 – 360 marks, 17 schools (33.30%) admitted 80% of students, 7 schools (13.70%) admitted 60% and 25 schools (49.00%) admitted 20%
- In the category of 359 and below marks, 2 schools (3.90%) admitted 100%, 18 schools (35.30%) admitted 80%, 7 schools (13.70%) admitted 60% and 19 schools (37.30%) admitted 20%.

From the information in Table 17 it was clear that very few students were admitted to Form One with over 500 marks. The majority had less than 500 marks. This low entry mark was cited by some headteachers as one of the problems that may have resulted in poor performance. However, a low entry mark is not a good indicator of the ability of students, there could have been many factors leading to poor performance at Kenya

Primary of Certificate Education Examination. The responses of the problems encountered by headteachers in their administrative work are contained in Table 18.

Table 18: Administrative Problems Encountered by Headteachers.

Administrative Problems	Frequency	Percentage
- Non payment of fees	42	82.40
- Lack of commitment from both teachers and students	40	78.43
- External interference particularly political	36	70.60
- Lack of commitment from students	33	64.71
- Lack of learning facilities	32	62.75
- Inadequacy of teaching staff	30	58.82
- Indiscipline	28	54.90
- Absenteeism of students	26	50.98
- Poor entry mark	24	47.06
- Lack of support from the community	19	37.25
- High drop out rate	15	29.41
- Lack of security	7	13.73
- Lack of teachers houses	2	3.92

Data in Table 18 indicate that the majority of teachers (82.40%) cited non payment of fees as their major problem . This resulted into serious financial problems that led to lack of teaching facilities and resources hence poor performance.

A good number of headteachers also cited lack of commitment from both teachers and students (78.43%) and external interference particularly political (70.60%) as problems.

Even if the teaching resources were available but students and teachers were not committed, the efforts would be in vain. Political interference has also interfered with the smooth running of schools as students occasionally have to miss classes to attend political rallies. This has resulted in teachers not completing the syllabus.

The other significant factors were lack of learning facilities (62.75%), lack of commitment from students (64.71%), inadequacy of teaching staff (58.82%), Indiscipline (54.90%), absenteeism of students (50.98%) and poor entry mark (47.06%). Additional administrative problems cited by the headteachers and worth of mention were lack of support from the community (37.25%), high drop out rate (29.41%), lack of security (13.73%) and lack of teachers' houses (3.92%).

Having looked at the administration problems as identified by headteachers themselves, attention was focused on the solutions they gave.

Table 19: Headteachers' Suggestions towards Solutions of their Administrative Problems.

Suggested solution	Frequency	Percentage
- Provide guidance and counseling to both teachers students	46	90.20
- Sensitize parents on how to raise school fees	43	84.31
- Organize fund – raising activities e.g. harambee	33	64.71
- Have dialogue with stakeholders	28	54.90
- Raise minimum admission to over 350 marks	28	54.90
- TSC to employ and post more teachers	26	50.98
- Identify and request donors to assist	18	35.30
- Bursary funds from the Ministry of Education should cater for needy students at all levels of education.	16	31.40
- Advise politicians to keep off from schools	15	29.41
- Sensitize community members on the importance of Education	10	19.61
- Change system of Education	6	11.76
- Build houses for teachers	2	3.92

Table 19 reveals that the majority of headteachers (90.20%) felt that if guidance and counseling was offered to both teachers and students then a lot of their administrative problems would be solved as these two are the main inputs in contributing to better performance. A good percentage (84.31%) felt that parents should be sensitized on how to raise school fees while a considerable number felt that fund-raising activities should be organized to raise funds (64.71%), there should be dialogue with stakeholders

(54.90%) entry mark to be raised to over 350 marks (54.90%) and TSC to employ and post more teachers (50.98).

Other suggested solutions to their administrative problems included; identifying and requesting donors to assist (35.30%), Bursary funds from the Ministry of Education to be given to all needy students at all levels of education (31.40%), politicians to be advised to keep off from schools (29.41), community members to be sensitized on the importance of education (19.61%) the system of Education to be changed (11.76%) and houses for teachers to be constructed (3.92%).

After analyzing the problems experienced by headteachers, teachers' perceptions on headteachers' leadership behaviour were examined. Results are presented in Table 20.

Table 20: Teachers' Opinion on whether there is Reason for Improved Leadership

Response	Frequency	Percentage
Yes	191	65.90
No	99	34.10
Total	290	100

Of the total number of teachers, 65.90% felt that there is reason for improved leadership behaviour while 34.10% felt leadership behaviour did not require improvement. This is a clear indicator that the teachers felt that headteachers behaviour did not measure to the expected standards and most probably that is why the K.S.C.E performance is not good. Teachers' suggestions on how to improve headteachers' leadership behaviour is presented in Table 21.

Table 21: Teachers' Suggestions on what needs to be done to Improve Headteachers' Leadership Behaviour

Suggestions	Frequency	Percentage
- Proper training in management	87	45.55
- Regular in-service courses for headteachers	85	44.50
- Should attend seminars regularly	76	39.80
- Appointment of Headteachers by the TSC to be on merit	73	38.22
- Allow participation in decision making	66	34.55
- Discipline is necessary	66	34.55
- Delegate responsibilities to staff members	62	32.46
- Avail adequate teaching resources	58	30.37
- Motivate both teachers and students	57	29.84
- Transparency and accountability especially to staff, parents & community	52	27.23
- Firmness in administration	49	25.65
- Parents to assist or improve school through material and moral support	46	24.08
- Combined effort from parents, teachers and students	42	21.99
- Interaction with school community oftenly	40	20.94
- More supervision on duties delegated	38	19.90
- Good relationship with staff and students	33	17.28
- Be a role model	20	10.47
- Headteachers should be honest	17	8.90
- Headteachers to work near their homes	15	7.85
- Headteachers to work away from their homes	10	5.24

Table 21 Continued

- Allow room for competition	3	1.57
- Improve infrastructure	1	0.52

Data on teachers' suggestions on what needs to be done to improve leadership gives a wide variety of suggestions. The majority felt that there should be proper training in management (45.55%) while 44.50% felt there should be regular inservice courses for headteachers.

A considerable number felt headteachers should attend seminars regularly (39.80%), appointment of headteachers by the TSC to be on merit (38.22%), headteachers should allow participation in decision making (34.55%), Discipline is necessary (34.55%), headteachers should delegate responsibilities to staff members (32.46%), headteachers to avail adequate teaching resources (30.37%), headteachers to motivate both teachers and students (29.84%), headteachers to be transparent and accountable especially to staff, parents and community (27.23%), headteachers to be firm (25.65%), parents to assist or improve school through material and moral support (24.08%) and there should be combined effort from parents, teachers and students (21.99%)

Other suggestions cited by teachers and worth of mention were interaction with school community openly (20.94%), more supervision on duties delegated (19.90%), good relationship with staff and students (17.28%), headteachers to be role models (10.47%), headteachers to be honest (8.90%), headteachers to work near their homes (7.85%), headteachers to work away from their homes (5.24%), headteachers to allow room for competition (1.57%) and improve infrastructure (0.52%).

Teachers' opinion on whether there is a Relationship between Headteachers' Leadership Behaviour and Students' Academic Performance at Kenya Certificate of Secondary Education.

Table 22: Teachers' Opinion on whether there is a Relationship Between Headteachers' Leadership Behaviour and Students' Academic Performance at KCSE.

Response	Frequency	Percentage
Yes	250	86.20
No	40	13.80
Totals	290	100

Data in table 22 shows that 86.20% of teachers felt that there is a relationship between headteachers' leadership behaviour and students' academic performance at Kenya Certificate of Secondary Education Examination. Only 13.80% saw no relationship between these two variables.

The teachers who felt the Headteachers leadership and students performance are related gave explanation contained in Table 23.

Table 23: Teachers' Explanation on why they felt there is a Relationship Between Headteachers' Leadership Behaviour and Students' Academic Performance.

Explanation	frequency	Percentage
Good leadership behaviour is an inspiration to followers and therefore promotes good performance	76	31.54
Disciplined headteachers inspire their students to perform well therefore improving performance	67	27.80
Headteachers are role models to be emulated and his/her behaviour must influence both students' and teachers' performance.	35	14.52
Autocratic leadership reduces performance at K.C.S.E.	19	7.88
Closer supervision and coordination by headteachers yield good results	14	5.81
High integrity yields good results	9	3.73
Provision of resources and teaching facilities improve academic performance	8	3.32
Instilling confidence in students leads to good performance	6	2.49
Strictness and consistence produce good results as it instils discipline and academic excellency in students	4	1.66
Headteachers' advice and hard work has shown positive improvement	2	0.83
Change of headteachers has led to different performance	1	0.41
Total	241	100

From the data presented, the majority of teachers (31.54%) felt that good leadership behaviour is an inspiration to followers and therefore promotes good performance. 27.80% felt that if headteachers were disciplined then the students would be inspired to perform well. 14.52% felt that headteachers are role models to be emulated and his/her behaviour must influence both students, and teachers' performance.

Other explanations given by teachers and worth of mention were: Autocratic leadership would reduce performance at K.C.S.E (7.88%), Closer supervision and coordination by headteachers yields good results (5.81%), high integrity yields good results (3.73%) headteachers who provide teaching resources and facilities improves academic performance (3.32%), headteachers who instil confidence in students leads to good performance (2.49%), headteachers who are strict and consistent produce good results as it instils discipline and academic excellency in students (1.66%), headteachers' advice and hard work has shown positive improvement (0.83%) and change of headteachers has led to different performance (0.41%)

Variation Of School Performance Index With School Leadership Behaviour (Consideration)

The correlation coefficient between the school performance index and school leadership behaviour under the consideration dimension was found to be 0.789. Test of significance on this correlation based on the students' t-test at 5% significance level indicated that the degree of association between these parameters was significant. This suggests that school leadership behaviour under consideration dimension strongly influence the outcome of student performance in the KCSE Exams.

From the results of the regression analysis, we note that school leadership behaviour (Consideration) is related to school performance index via the following equation:

$$Y = 0.058x + 1.843 \quad (r^2 = 0.622)$$

Where X is the school leadership behaviour under consideration and Y the school performance index. r^2 indicates the proportion of the variance explained by the equation. This relationship indicates that school performance index increases with increasing level of school leadership behaviour (consideration).

The analysis of variance (ANOVA) results (Table 24) computed Fisher's distribution Table value of greater magnitude than the tabulated F-Value at 0.05% significance level.

Table 24: School Performance Index with School Leadership Behaviour (Consideration)

ANOVA

Source of Variation	df	SS	MS	F
Regression	1	25.197	25.197	82.344
Residual	50	15.300	0.306	
Total	51	40.497		

The analysis in Table 24 implies that the variations in the school leadership behaviour attributes/contributes to variation in school performance index. The outcome of this investigation is therefore not in agreement with the null hypothesis which stated that headteachers' ability to show concern under consideration had no effect on school performance.

Next results are on the effects of Headteachers' leadership behaviour on schools performance (initiating). Results of correlation analysis indicated a strong association

between school performance index and school leadership behaviour under initiating dimension with a correlation coefficient value of $r = 0.748$.

Variation of School Performance Index with School Leadership Behaviour (Initiating)

Table 25: School Performance Index with Leadership Behaviour (Initiating) ANOVA

Source of Variation	df	SS	MS	F
Regression	1	22.655	22.655	63.486
Residual	50	17.842	0.357	
Total	51	40.497		

The equation governing the relationship between school performance index and school leadership behaviour under initiating structure was found to be :

$$Y = 0.0566x + 1.6244 \quad (r^2 = 0.56)$$

Where X is the leadership behaviour under initiating structure and Y is the school performance index. From the equation we observe that school performance index increases with increasing level of school leadership behaviour under initiating structure.

The variance in school performance index as explained by the above regression equation was found to be 56%

The analysis of variance results for the above regression equation (Table 25) indicates a greater value of the computed F statistic as compared with the tabulated F- value, thereby leading us to reject the null hypothesis of zero slope of the regression equation.

We therefore note on the basis of this outcome that there exists a significant relationship between school performance index and headteachers' leadership under initiating structure.

Variation of School Performance Index with School Leadership Behaviour under Both Consideration & Initiating Dimensions

After analyzing initiative and consideration dimensions of leadership separately, computation on both dimensions was carried out. The results in the Table 26 showed a significant correlation coefficient ($r = 0.793$) at the 5% significant level of the students' t-test.

Table 26: School Performance Index with School leadership Behaviour under both Consideration and Initiating Structure.

ANOVA

Source of Variation	df	SS	MS	F
Regression	1	25.450	25.450	84.565
Residual	50	15.047	0.301	
Total	51	40.497		

An overall assessment of the relationship between school performance index and school leadership based on mean score from both consideration and initiating structures was undertaken. The resultant equation for the said relationship was:

$$Y = 0.061x + 1.552 \quad (r^2 = 0.63).$$

Where Y = School performance index and X – school leadership. The variance explained by this regression equation was 63%.

The equation indicates that irrespective of the mode of evaluation of school leadership, school performance index increases with increasing level of school leadership. The analysis of variance (ANOVA) results (Table 26) yields computed F values which are greater than tabulated F – values. This results further confirm the existence of a significant relationship between school leadership and school performance index. The hypothesis of non-significant relationship between headteachers leadership behaviour and school performance index was therefore rejected.

After examining the relationship between the headteachers' leadership behaviour on students' academic performance, attention is focused on school quality on the same.

Variation of school performance index with school quality as viewed by Headteachers.

The results of the correlation analysis in Table 27 gave a correlation coefficient value of 0.42 between the school performance index and school quality as viewed by headteachers. Although this correlation value was found to be statistically significant at the 0.05% significance level of the student t distribution, the degree of association between the study parameters was not strong.

Table 27: Students' Performance and School Quality

ANOVA

Source of Variation	df	SS	MS	F
Regression	1	7.151	7.151	10.722
Residual	50	33.346	0.667	
Total	51	40.497		

The results of the regression analysis of the data for school performance index and school quality as viewed by the headteachers indicated a relationship of the type:

$$Y = 0.087x + 2.815 \quad (r^2 = 0.176)$$

Where Y is the school performance index and X is the school quality. From this equation we observe an increasing trend in school performance index with a corresponding increase in the quality of the school. The variance explained by this regression equation was however small (i.e. 17.6%). This further suggests some weakness of this equation in accounting for the above association. The analysis of variable (Table 24) also gives computed Fishers distribution values of greater magnitude than the tabulated F- values, leading to rejection of the null hypothesis of no statistical relationship between quality of school and school performance index. Therefore from the viewpoint of the headteachers, students' academic performance depends on the quality of the school.

Variation of School Performance Index with School Quality as viewed by the Teachers.

According to the assessment of the teachers on the association between the school performance index and school quality, a significant correlation coefficient of $r = 0.52\%$ was found between the study parameters.

Table 28: Students' Performance and School Quality as viewed by the Teachers.

ANOVA

Source of Variation	df	SS	MS	F
Regression	1	11.214	11.214	19.148
Residual	50	29.283	0.586	
Total	51	40.497		

On the basis of the rating of the quality of schools by teachers, the following equation from the regression analysis was noted:

$$Y = 0.123x + 1.856 \quad (r^2 = 0.28)$$

Where Y is the school performance index and X is the quality of school as viewed by teachers.

The ANOVA results for this equation indicate a significant relationship between the school performance index and quality of school. This is evidenced by greater computed F Values as compared with the tabulated values at the 0.05% significance level of the Fishers' distribution (Table 25). The null hypothesis of non-significant effect of school quality on students' academic performance was therefore rejected. This result indicates that teachers strongly feel that quality of school is crucial in determining students' academic performance.

Table 29: Variation of School Performance Index with School Quality as viewed by both Teachers & Headteachers

ANOVA

Source of Variation	df	SS	MS	F
Regression	1	15.227	15.227	30.127
Residual	50	25.271	0.505	
Total	51	40.498		

Under this, the scores of headteachers and those of teachers were averaged with a view to remove any bias from their responses. A correlation coefficient value of 0.613 was found between school quality and school performance index. The results of the students t-test on this correlation value indicated existence of a significant association between these parameters. The regression equation that resulted governing school performance index and school quality was ;

$$Y = 0.176x + 0.896 (r^2 = 0.38)$$

Where Y is the school performance index and X is the school quality. The variance explained by this regression line improved above the two view treated separately. Here we note that school performance index increases with increasing quality of school. The above equation was found to be significant at the 5% significance level of F-distribution from the analysis of variance results, in which the computed F-value was greater than the tabulated F-value. This led to the rejection of the null hypothesis of non-significant effort of school quality on school performance index.

Comparison between Performance Indices of Girls & Mixed Schools

From the results in Table 30 it is observed that, the value of the computed t-statistic is greater than the t-critical (tabulated) for both one – tail and two-tail analysis at the 5% significant level.

Table 30: Performance Indices of Girls and Mixed Schools.

	<i>Variable 1 (Girls Indices)</i>	<i>Variable 2 (Mixed School Indices)</i>
Mean	5.022	4.498
Variance	1.073	0.455
Observations	10	10
Pearson Correlation	0.757	
df	9	
t Stat	2.414	
t Critical two- tail	2.262	

This information implies that the null hypothesis of non- significant difference between performance indices of Girls and mixed schools is rejected. On the basis of this analysis it is noted that Girls schools (mean index of 5.022) performance is much better than mixed school (mean index of 4.498) in the National Exams. The reasons for the noted difference could be that students in mixed schools spend most of their time establishing opposite sex relationships.

Comparison between Performance Indices of Boys & Mixed Schools

The computed t statistic (or test criterion) as given by Table 31 below is greater than the critical values for both the one-tail and two-tail at the 5% significant level. This result leads us into rejecting our null hypothesis of non significant difference between performance indices of Boys and mixed schools.

Table 31: Performance Indices of Boys and Mixed Schools

	<i>Variable 1 (Boys School)</i>	<i>Variable 2 (Mixed School Indices)</i>
Mean	5.431	4.596
Variance	0.995	0.529
Observations	8	8
Pearson Correlation	0.636	
df	7	
t Stat	3.045	
t Critical two-tail	2.365	

On the basis of this outcome, we note that performance indices of Boys and mixed schools are different. Boys schools gave a higher performance index (5.431) than mixed schools which gave a mean performance index of 4.596. Data on the performance of students in single sexed schools is presented in table 32.

Table 32: Performance Indices of Boy's & Girl's Schools

	<i>Variable 1 (Boys School Indices)</i>	<i>Variable 2 (Girls School Indices)</i>
Mean	5.431	5.268
Variance	0.995	1.024
Observations	8	8
Pearson Correlation (r)	0.874	
df	7	
t Stat	0.913	
t Critical two-tail	2.365	

The value of the test criterion (t statistic) was less than the tabulated t value (t critical) at the 5% and 1% significance levels for both one-and two-tail tests. This leads us into acceptance of the null hypothesis of non-significant difference between the performance indices of Boys and Girls schools. These results therefore indicate that the performance

indices of Boys schools (mean index of 5.431) and the Girls schools (mean index of 5.268) are similar. The small difference between the sets of indices of 0.163 is insignificant and could be ascribed to mere chance but not school category

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The purpose of this study was to determine headteachers' leadership behaviour as perceived by the teachers in secondary schools, to examine if there is a significant relationship between the headteachers' leadership behaviour and the students' academic performance, to establish if there is a significant difference in performance between schools of different categories, i.e. girls, Boys and mixed schools and to determine whether performance at Kenya Certificate of Secondary Education Examination varies with the quality of the School. The information was solicited from Secondary school teachers.

The study also explored the problems encountered by the headteachers and elicited data suggesting how such problems can be solved. In addition, the study explored suggestions on what can be done to improve headteachers' leadership behaviour and teachers' feelings on whether there exists a relationship between headteachers' leadership behaviour and students' academic performance at Kenya Certificate of Secondary Education Examination. In order to investigate these issues, four null hypotheses were formulated as follows:-

- Ho¹ There is no significant effect of headteachers' ability to show concern in terms of initiating structure and consideration on student academic performance.
- Ho² There is no significant relationship between headteachers' leadership behaviour as perceived by the teachers and students' academic performance.

Ho³ There is no significant difference in performance between schools of different categories.

Ho⁴ There is no significant relationship between students' academic performance and the quality of school.

The literature review under subtitles; The concept of leadership, Importance of leadership in schools, studies in leadership and leadership behaviour and performance in schools laid down guidelines for this study.

The research design used was ex post facto and the instrument used to collect data was a questionnaire. Data were collected from 51 secondary school headteachers and 290 teachers. The data collected was analyzed by use of correlation coefficients, student's t-test and analysis of variance.

The following were established after testing the null hypotheses.

Ho¹ There was a significant effect of headteachers' ability to show concern in terms of initiating structure and consideration on student academic performance.

Ho² There was a significant relationship between headteachers' leadership behaviour and students' academic performance.

Ho³ There was a significant difference in performance between Girls' schools and Mixed schools and also between Boys' schools and Mixed schools but insignificant difference between Girls' schools and Boys' schools.

Ho⁴ There was a significant effect of school quality on students' performance index.

The headteachers cited the administrative problems they encountered as:- non payment of fees, lack of commitment from both teachers and students, external interference particularly political, lack of learning facilities, inadequacy of teaching staff, indiscipline,

absenteeism, poor entry mark, lack of support from the community, high drop-out rate, lack of security and lack of teachers' houses. Most of the headteachers solved their problems by guidance and counseling, sensitizing parents on how to raise school fees, organizing fund – raising activities, having dialogue with stakeholders, requesting for more teachers from TSC, identifying and requesting donors to assist, sensitizing community members on the importance of education and building staff houses on the school compounds.

Teachers felt that there is need for improved leadership and felt that poor leadership could be eliminated by, proper training in management, regular in-service for headteachers, headteachers attending seminars regularly, TSC appointing headteachers on merit, participation in decision making, delegation of responsibilities, discipline, motivating both teachers and students, transparency and accountability, firmness in administration, combined effort from parents, teachers and students, interaction with school community more often, availability of teaching resources, supervision of duties delegated, good relationship, headteachers working near their homes, headteachers working away from their homes, allowing room for competition and improving infrastructure.

On the issue of the relationship between headteachers' leadership behaviour and students' academic performance at KCSE, the majority of teachers felt that there is a relationship between the two variables. They explained this as, good leadership behaviour is an inspiration to followers and therefore promotes good performance, disciplined headteachers inspire their students to perform well therefore improving performance, headteachers are role models to be emulated, autocratic leadership reduces performance, closer supervision and coordination by headteachers yield good

results, high integrity yields good results, provision of resources and teaching facilities improves performance, strictness and consistence produce good results, instilling confidence in students leads to good performance, headteachers' advice and hard work has shown positive improvement and change of headteachers has led to difference in performance. The small percentage that felt there was no relationship between the two variables expressed the idea that passing exams is students' own effort, it is not dependent on the quality of headteacher's behaviour. They also felt that good performance requires total commitment of all stakeholders.

5.2 Conclusions

From the study several conclusions were arrived at.

The data revealed that 58.8% of headteachers were male while 41.20% were female leading to a conclusion that Vihiga District has more male headteachers than female. The bulk of headteachers (51%) were in age group 43 – 48. 49 – 51 (27.50%) only 9.8% in age group 31 – 36 and 7.8% in 37 – 42. Only 3.90% headteachers were above 52. This led to the conclusion that older teachers were the ones recruited as headteachers.

Concerning teachers the majority of them were in age group 31 – 36 (37.20%) while the rest of the blocks had 25-30 (16.21%), 37 – 42 (18.30%) and only 10.30% were 49 years and above. On the qualifications, the majority of teachers (47.60%) and headteachers (56.90%) respectively were degree holders. This finding led to the conclusion that Vihiga District has highly qualified teachers. The small number of headteachers (9.80%) and teachers (5.50%) with M.Ed and M.A/M.Sc could be explained by the fact that their employer, the TSC does not give better pay for this level and also provide study leave without pay.

Concerning teaching experience, the majority of the headteachers had teaching experience of over 20 years (29.40%) leading to the conclusion that before one was promoted to be a headteacher, he/she needed to have teaching experience of a good number of years. As regards teachers the majority (41.70%) had teaching experience of 5 – 10 years. This led to the conclusion that Vihiga District has well experienced teachers.

Data on the administrative experience of headteachers indicated that 15.70% had 1 – 5 years experience, 41.20% (6-10) 17.60% (11 – 15), 13.70% (16 – 20) and 11.80% (over 20 years). This led to the conclusion that headteachers in Vihiga District had a lot of administrative experience.

Concerning the type of schools, mixed schools were 60.80% while girls' schools were 23.50% and boys' schools were 15.70%. This led to the conclusion that the majority of schools in Vihiga District are mixed.

On the category of schools 45.10% were day, 27.50% (boarding) and 27.50% (day + boarding). This led to the conclusion that the majority of schools in Vihiga District are day schools. Possibly this could be because most parents are poor and therefore can not afford boarding facilities.

The findings revealed that the headteachers scored high on initiating structures than consideration leading to the conclusion that headteachers in Vihiga District emphasized productivity at the expense of human factor.

Concerning the adequacy of schools' resources and activities that help to improve academic performance, none of the schools in the district had very adequate resources / activities, 33.66% had these resources / activities adequate while in 64.43% of schools the resources / activities were not adequate and 1.92% did not have any of them available. This led to the conclusion that the majority of schools in Vihiga District did not have adequate resources / activities.

According to appendix VI the mean performance index for participating schools was 4.51. Only 18 schools had the means above the mean. The conclusion is that the performance for the majority of the school is below average.

The results of testing hypothesis H_0^1 which stated that "There is no significant effect of headteachers' ability to show concern in terms of initiating structure and consideration on student academic performance" revealed that the headteachers were rated significantly higher in initiating structure than in consideration dimension at 5% level of significance. This led to the conclusion that the majority of the headteachers in Vihiga District have not managed to strike a balance between the two dimensions as they emphasized productivity at the expense of human factor.

UNIVERSITY OF NAIROBI
EAST AFRICANA COLLECTION

H_0^2 which postulated that "There is no significant relationship between headteachers' leadership behaviour as perceived by the teachers and students' academic performance" revealed that there was a significant relationship between headteachers' leadership behaviour and students' academic performance leading to the conclusion that school performance index increases with increasing level of school leadership.

Findings of H_0^3 that stated that “ There is no significant difference in Performance between schools of different categories” revealed that there was a significant difference in performance between Girls’ schools and Mixed schools and also between Boys’ schools and Mixed schools but insignificant difference between Girls’ schools and Boys’ schools. This led to the conclusion that single sexed schools perform better at K.C.S.E. Examination than mixed schools.

The results of testing H_0^4 which stated that “There is no significant relationship between students’ academic performance and the quality of school” revealed that there was a significant effect of school quality on students’ performance index leading to the conclusion that quality of school is crucial in determining students’ academic performance.

5.3 Recommendations

1. Research showed that headteachers in Vihiga District practised a high initiating structure than consideration leadership behaviour. This could be because they are not aware of the impact this would have on the followers. It is recommended that headteachers be inserviced to make them aware that a balance between the two dimensions is essential for effective leadership hence good performance.
2. It is evident from the study that single sexed schools i.e. only Boys and only Girls schools performed better than mixed schools. It is therefore recommended that instead of having mixed schools, boys and girls to be separated to have more of single sexed schools for improved performance

3. Most headteachers have been given leadership without any formal preparation for it. To be effective, headteachers require many more skills than just inborn traits. Attempts should therefore be made to develop individuals to head to their fullest potential through a variety of training techniques. These training techniques should include general management skills such as communication skills, planning and organizational skills, financial skills and evaluative skills.

Suggestions for Future Research

It would be necessary for the following suggestions to be looked into:

- 1) Students' perceptions on headteachers' leadership behaviour could also be sought alongside that of teachers.
- 2) Since only public schools were taken into consideration, a study could be carried out in private schools for comparison purposes.
- 3) A study could also be carried out to compare rural schools and urban schools.
- 4) It would be appropriate to also investigate leadership behaviour exhibited by other leaders involved in the running of schools e.g. Board of Governors, Parents Teachers Association and Politicians in selected good and poor KCSE performing schools.

REFERENCES

Baron, G., (guest Ed.) (1972). London Educational Review. (Vol. 1, Number 3), London : University of London.

Barraclough, T. (1973). "Management Styles", Educational Management Review (series No. 17)pp.12, Oregon University, ERIC DOC ED 074 607.

Bass, B.M.(1981). Stogdill's Handbook of leadership: A survey of theory and research. New York : Free Press.

Beare, H; Brian, J; and Millikan, H.R.(1994). Creating an excellent school – some new management techniques. New York: Routledge

Bell, J. (1993). Doing your Research Project. (2nd ed.) Buckingham: Open University Press.

Bidwell, C.E. and Kasarda, J.D. (1975)."School District Organization and student Achievement," in American Sociological Review. pp.40.

Biggs, J.B., and Telfer, R.(1987). The process of learning (2nd ed). Sydney: Prentice Hall.

Bohmstedt, G.W. (1970) "Reliability and validity Assessment in Attitudes Measurement". In, Summers F.G. (ed) Attitude Measurement. Chicago: Rand McNally and co.

Borg, W.R. and Gall, M.D. (1983). Educational Research: An Introduction, 4th ed. New York, Longman.

Buchanan, P.C. (1971). "Interaction patterns of leaders in public schools." An Occasional Paper. ERIC DOC ED 086 574

Bush, T., Ronn, G., James, C., and Colin, R., (Editors) (1983). Approaches to school Management. New York: Harper and Row Publishers.

Cohen, L. and Manion, L. (1986). Research Methods in Education. (2nd ed.), London: Croom Helm.

Cole, G.A. (1997). Personnel Management. (4th ed). London: Ashford Colour Press.

Crano, W.D. and Brewer, M.B. (1973) Principles of Research in Social Psychology. New York: Mc Graw – Hill Inc.

Drucker, P.F. (1954). The practice of Management. New York: Harper and Row Publishers.

Duke, D.L. (1987). School Leadership and Instructional Improvement. New York: Lane Akers, Inc.

Eshiwani, G.S. (1983). A study on factors influencing performance among primary and secondary pupils of Western Province of Kenya. Nairobi, Kenyatta University, Bureau of Educational Research.

Esp, D.(1993). Competences for school managers. London: clays Ltd, st Ives p/c

Griffin, G. (1994). School Mastery. Nairobi : Lectern Publications Ltd.

Halpin, A.W. (1966). Theory and research in administration. New York: Macmillan.

Halpin , A.W. (1969). "How leaders behave" in F.D., Carver, and J.J. Sergiovanni , (Eds.). Organizational and Human behaviour. New York: MC graw Hill.

Hemphill , J.K. (1955). "Leadership Behaviour Associated with the Administration of college Departments". The Journal of Educational Psychology , 46, No. 7. 385 – 401.

Jacobson, B.P., Logsdon, J.D., and Wiegmann, R.R. (1973). The principalship: New Perspectives. New Jersey: Prentice Hall inc; Englewood Cliffs.

Karanja, G.F.G. (1992). A study of leadership behaviour among primary School headteachers in Nyeri Municipality Nyeri District. An unpublished Masters Thesis, Kenyatta University, Nairobi, Kenya.

Kirby, P.C., Stringfield, S., Teddlie, C. and Wimpelbery, R.(1992) 'School effects on teachers specialization', School Effectiveness and School improvement. pp.46, New York: Free Press.

Likert, R.(1971). "A technique for Measurements and attitudes." In K. Schuessler. Analyzing social data. pp325. Boston: Houghton Mifflin Co.

Lutharns, F. , and Martinko, J. (1970). The practice of supervision and management. Tokyo: Mc graw – Hill Inc.

Matula, M.J. (1986), The relationship between leadership styles of high school Principals and students performance, Dissertation Abstract International. 47/02.P.369, Le High University.

Mangoka, J. (1977). A study of the leadership behaviour in Nairobi and Machakos of Secondary Schools headteachers. Unpublished M.A. thesis, University of Nairobi, Nairobi Kenya.

Ministry of Education.(1999).National Policy on Appointment, Deployment and Training of headteachers of schools in Kenya. Unpublished Document, Nairobi: Kenya.

Mintzberg, H.(1993). The Nature of managerial work. New York: Harper and Row

Moltimore, P; Sammons, P; Stoll, L; Lawis, D and Ecob, R. (1988). School matters: The junior years. New York: Open Book.

Moore, G.W. (1963). Developing and evaluating educational research. Boston: Little Brown co.

Mouly, G.J. (1978). Educational Research. Boston: Allyn and Bacon.

Muchira, F.M (1988). Leadership effectiveness in primary teachers colleges in Kenya: A study of leadership styles, job satisfaction and student achievement. Unpublished Doctoral Dissertation. Dalhouse University, Novascotia, Canada.

Mulusa, T.(1988). Evaluating: Education and community development Programmes. Nairobi: CADE, university of Nairobi and Deutsche stiffund, Fur internationale Entwicklung.

Newspaper(1999).Daily Nation Friday, February 26, Monday April,26 and May,24.

Newspaper (2000) Daily Nation. Friday February, 25

Njuguna, F.W. (1998). A study of Headteachers leadership styles and students' Kenya Certificate of Secondary Examinations, performance in public secondary schools in Nairobi province. Unpublished M.E.D thesis University of Nairobi, Nairobi , Kenya.

Okumbe, J.A. (1998). Educational Management Theory and practice. Nairobi: Nairobi University Press.

Olembo, J.O., Wanga, P.F. and Karagu, N.M. (1988).Management in Education. Nairobi: Kenyatta University Faculty of Education and University of London Institute of Education.

Pigors, p., Charles, m., and Martin, F.(1994). Management of Human Resources.

New York: Mc Graw-Hill Book Company.

Raven, J.(1991) 'The wider goals of education: Beyond the three R's Educational

Forum. SS(4), 34B – 63.

Republic of Kenya. (1997). Vihiga Development Plan. Nairobi: Government

Printer.

Reynolds,D., Bollen, R., Creemers, B., Hopkins, D., Stoll, L., and Lagerweij, N.

(1996) . Making good schools: Linking school effectiveness and school improvements.

London: TJ Press.

Robert, J.H. and Mary L.B.(1979). "Leadership; some Empirical generalizations

and New Research direction" in Bary M. S(ed), Research in organizational behaviour.

Vol. I. pp.19 Greenwich: JA I Press

Roscoe, J.J. (1969). Fundamental Research Statistics for behavioural sciences.

New York: Holt, Rinchart and Winston Inc.

Sergiovanni, T. and Carver, F.D. (1973). The New school Executive : A Theory of

Administration. New York: Dodd, mead and Co.

Silver, P. (1983). Educational Administration: Theoretical Perspectives on

Practice and Research. New York: Harper and Row Publishers.

Srinivasan, R. and Chumawalla, S.A. (1987). Management, principles and practice. Bombay: Himalaya Publishing House.

Stogdill, R.M. (1957). Leadership and Structures of personal Interaction. Columbus, Ohio: The Ohio State University.

Stogdill, R.M. (1974). A handbook of leadership: A survey of theory and research. New York: Macmillan.

Stogdill, R.M. and Coons, A.E. (1957). A leader behaviour: Its description and measurements. Columbus: Ohio State University, Bureau of Business Research.

Stoner, J.A.F and Freeman, R.E. (1989). Management. New Jersey: Englewood Cliffs.

Teddle, C. and Springfield, S. (1986). Administration Research. New York: Free Press.

Walliams, R.C., Walls, C.C., Martin, M.W., and Berchin, A. (1974). Effecting Organizational Renewal in Schools: A Social Systems perspective. New York: McGraw – Hill Book company.

Warren & Bennis. (1959). Leadership Theory and Administrative Behaviour. The problem of Authority, Administrative science. Quaterly IV, NO.3 pp 259.

Yukl, G., (1971) Towards a Behavioural Theory of leadership, organizational and human performance. London: Prescort Press.



KEY

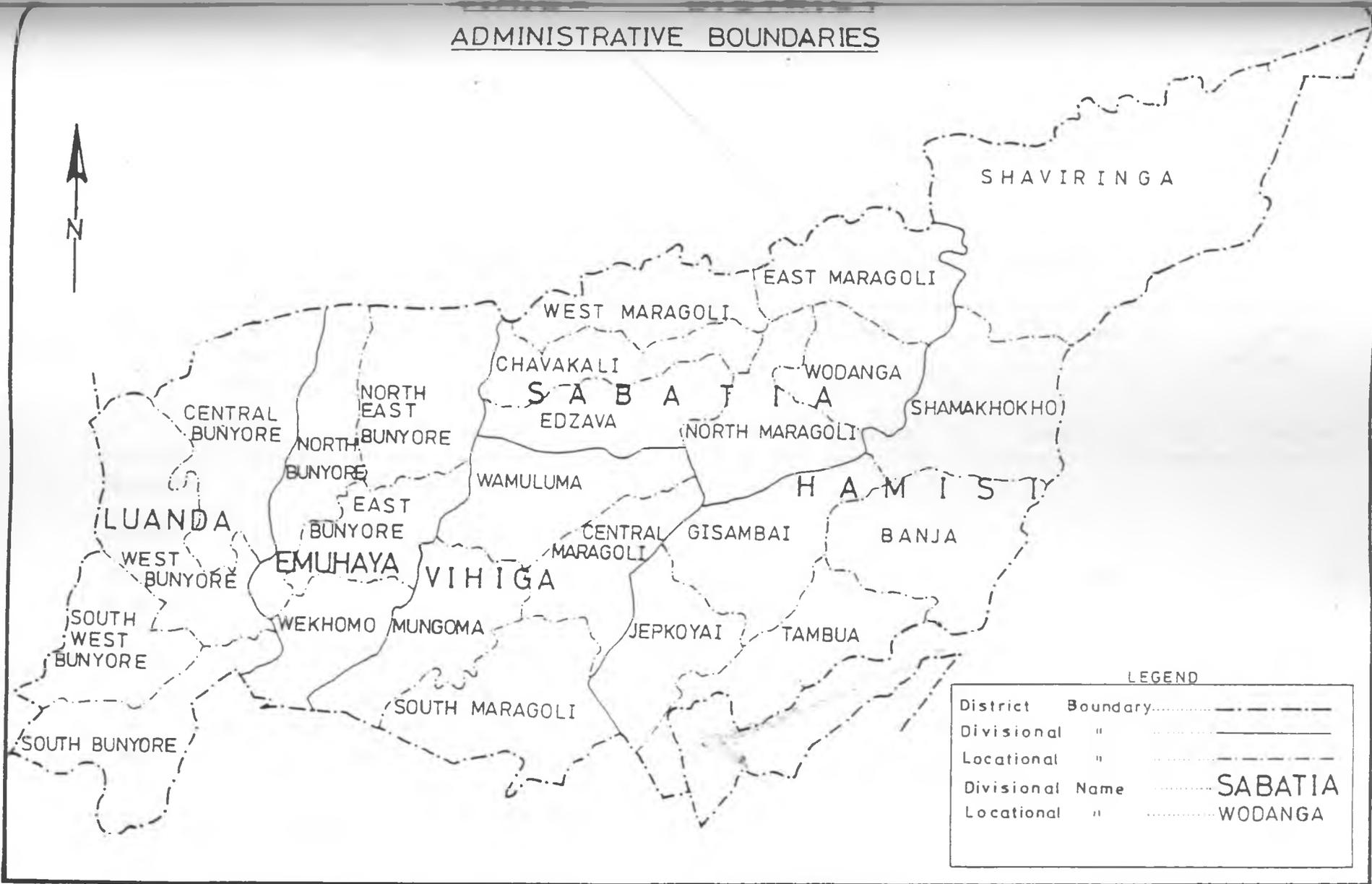
Source : Vihiga District Development Plan (1997 - 2001) P.3



Shaded Part Stands for Vihiga District

ADMINISTRATIVE BOUNDARIES

66



LEGEND	
District Boundary	-----
Divisional "	—————
Locational "
Divisional Name SABATIA
Locational " WODANGA

APPENDIX III

Educational Facilities Distributed by Division and Enrolment

Division	Pre-Primary Schools	Primary Schools		Secondary Schools		Polytechnics		TTC		Technical Colleges	
		No.	Enrolment	No.	Enrolment	No.	Enrolment	No.	Enrolment	No.	Enrolment
Emuhaya	1	47	18983	12	3176	1	42	-	-	-	-
Sabatia	3	90	35209	22	4168	-	-	-	-	-	-
Tiriki (E & W)	2	93	37810	17	3822	2	63	1	600	1	80
Vihiga	1	61	22334	14	2755	2	73	-	-	-	-
Luanda	-	42	22869	9	1766	2	80	-	-	-	-
Total	7	383	137205	74	15687	7	258	1	600	1	80

Source: District Education Office, Mbale 1996.

APPENDIX IV

Vihiga District, (K.C.S.E Placing Among The First 100 Top Schools).

YEAR	No. OF CENTRES/ SCHOOL	No. OF SCHOOLS IN TOP 100 SCHOOLS
1993	55	1
1994	66	1
1995	52	2
1996	58	1
1997	59	2
1998	65	4

Source : Kenya National Examination Council (KNEC)

APPENDIX V

	School Name	Performance index per school (1993 – 1998)						
		1993	1994	1995	1996	1997	1998	Average
1	Bunyore Girls High Sch.	7.5292	6.5644	6.7014	6.6076	7.5383	7.8181	7.1265
2	Kaimosi Girls H.S	6.2429	5.8732	6.4638	6.4248	6.7500	7.2709	6.5043
3	Chavakali H.S	6.1738	6.3493	6.0566	7.0136	8.1677	8.2023	6.9940
4	Nyang'ori Boys H.S	5.9731	6.1206	-	6.2202	6.9284	6.9353	6.4355
5	Kilingili S.S	5.8332	7.0476	6.6665	5.6545	-	5.8750	6.2154
6	Vihiga H.S	5.7985	5.1362	-	5.7287	6.4565	7.2321	6.0704
7	Keveya Girls S.S	5.5598	5.1159	4.7458	4.9477	5.4179	5.9023	5.2820
8	Emusire Boys H.S	5.5412	5.2009	-	4.8955	5.1503	5.6513	5.2878
9	Moi Girls H.S, Vokoli	6.5358	5.5349	5.3854	6.0717	6.6726	6.7712	6.1619
10	Mbale H.S	5.3845	5.4238	4.8740	5.0000	4.9921	4.9785	5.1090
11	Givogi S.S	5.3615	4.6313	4.5998	4.7368	4.2902	4.2297	4.6420
12	Goibei Girls H.S	5.3583	4.9836	4.8273	5.8549	5.2954	5.5332	5.3090
13	Hobunaka S.S	5.1889	4.8708	4.7998	4.0000	4.6562	4.3823	4.6497
14	Mudavadi Girls H.S, Madzuu	5.1608	5.0773	5.0075	5.2268	5.5307	4.7646	5.1280
15	Busali Union S.S	4.9165	4.3447	4.5363	3.9721	4.4165	3.5642	4.2917
16	Musudzu S.S	4.8750	4.3076	3.8208	3.8190	3.8020	3.7382	4.0604
17	Ideleri S.S	4.6999	4.4375	4.2500	4.3225	4.5585	4.3225	4.4318
18	Muhudu S.S	4.6665	4.1499	-	3.2285	3.6569	-	3.9255
19	Maragoli Girls S.S	4.6313	4.2880	4.5000	5.1665	5.3547	5.6293	4.9283
20	Ebunangwe S.S	4.5346	3.9633	4.7939	4.7963	5.0000	5.0769	4.6942
21	Vigina S.S	4.4892	3.8234	4.3486	-	5.0285	6.5629	4.8505
22	Mbihi S.S	4.4284	4.2243	4.2092	3.5651	4.1845	4.5405	4.1920
23	Kaprik S.S	4.4240	4.5454	4.2539	3.5273	4.4443	4.7067	4.3169
24	Senende Boys S.S	4.4157	4.8552	5.0153	5.8331	5.9284	5.9826	5.3384
25	Munzatsi S.S	4.3557	4.5761	4.2563	4.0888	4.2033	4.1274	4.2680
26	Esalwa S.S	4.3540	4.4543	4.5212	5.000	-	4.4343	4.5530
27	Museywa S.S	4.2998	4.1499	-	3.5554	3.7012	3.5937	3.8600
28	Jemovo S.S	4.2666	4.6999	3.8708	3.1665	4.5861	4.3845	4.1624
29	Ibubi S.S	4.2629	3.4482	3.1479	3.5881	3.4855	4.2961	3.7048
30	Wangulu S.S	4.2556	3.9228	4.2727	3.8508	4.1665	3.8391	4.0513
31	Gahumbwa S.S	4.2255	4.0000	3.9365	3.8640	3.9567	3.8486	3.9720
32	Friends S. Kigama	4.2221	4.8190	4.0000	4.6301	4.5275	4.3977	4.4327
33	Kegoye S.S	4.1975	4.3156	3.4018	3.8693	4.1237	4.3955	4.0506
34	Erusui Girls S.S	4.1921	4.1999	3.9343	3.6457	3.5275	4.0000	3.9166
35	Kapsotik S.S	4.1921	3.6094	3.6321	3.4836	4.0998	3.7998	3.8028
36	Igunga Girls H.S	4.1723	3.8371	3.2707	3.3876	4.6450	-	3.8625
37	Ebusakami S.S	4.0517	4.5861	4.2031	-	4.5888	4.5371	4.3934
38	Ebubayi S.S	4.0000	4.0383	4.5236	4.7658	4.3242	3.9819	4.2723
39	Bukulunya S.S	3.9694	4.1611	-	3.3999	2.9484	2.8835	3.4725
40	Chango S.S	3.9284	3.2856	-	3.3999	3.8798	4.4687	3.7925
41	Essaba S.S	3.9243	3.8750	3.9089	3.5832	4.3273	4.0000	3.9365
42	Demesi S.S	3.9128	3.8569	-	-	-	3.0000	3.5899
43	Madira S.S	3.8967	4.0507	4.0000	3.8156	4.3967	5.1052	4.2109
44	Ebwali S.S	3.7673	4.1525	4.6721	4.2832	4.0734	3.8593	4.1350

Appendix V Continued

45	Dr. Maurice Dangana S.S	3.7500	3.5275	3.4721	3.7141	5.3054	4.3999	4.0282
46	Magui S.S	3.7270	4.7368	3.9499	-	-	4.2856	4.1748
47	Givole S.S	3.6264	3.9875	3.8508	3.6831	3.6875	4.0407	3.8127
48	Chamakanga Girls S.S	3.4531	3.7571	4.4543	4.2998	4.1904	4.4072	4.0937
49	Lusengeli S.S	3.3928	4.5712	4.3999	5.3750	4.8999	5.7141	4.7255
50	Ekwanda S.S	3.3750	4.6816	-	4.0332	4.2797	3.5925	3.9924
51	Chandumba S.S	3.3527	4.0832	3.9399	4.1999	4.3110	4.4707	4.0596
52	Vihiga Academy	3.3447	3.9331	-	3.3041	3.3544	3.6398	3.5152
53	Viyalo S.S	3.1999	3.8750	3.2331	3.5170	-	4.4052	3.6460
54	Bugina S.S	3.1850	4.1904	3.5183	3.2399	4.2797	4.3181	3.7886
55	Lunyerere S.S	3.1816	3.2978	3.0332	2.5170	2.7500	-	2.9559
56	Ebuyalu S.S	-	4.6665	-	-	-	2.6362	3.6514
57	Ebusiratsi S.S	-	4.5607	4.3332	-	4.6665	4.6469	4.5518
58	Tigoi Girls H.S	-	4.5302	4.3906	5.0000	5.4399	5.1691	4.9060
59	Chavavo S.S	-	4.1999	4.0302	3.3452	4.6386	5.2412	4.2910
60	Buyangu Girls H.S	-	4.0703	3.4592	4.0815	3.9316	4.3776	3.9840
61	Ebusiloli S.S	-	4.0625	-	4.4543	4.3911	4.0798	4.2469
62	Kivagala S.S	-	3.9443	4.2500	3.9218	4.1960	4.0332	4.0691
63	Kaimosi Mixed	-	3.8886	4.0759	4.2824	4.5891	4.7734	4.3220
64	Kerongo S.S	-	3.7500	3.7824	3.9521	4.6206	-	4.0263
65	Emanyinya	-	3.5000	-	-	3.8146	3.7094	3.6747
66	Gisambai Mixed	-	3.1999	-	-	-	3.6550	3.4275
67	Masana S.S	-	-	-	-	-	4.4760	4.4760
68	Gavundunyi S.S	-	-	-	-	-	3.6229	3.6229
69	Kapsambu	-	-	-	-	-	2.8693	2.8693

Source : Kenya National Examination Council (KNEC)

$$\text{Mean} = \frac{305.2964}{69}$$

$$= 4.4246$$

APPENDIX VI

	School Name	Performance index per school each year						
		1993	1994	1995	1996	1997	1998	Average
1	Bunyore Girls High Sch.	7.5292	6.5644	6.7014	6.6076	7.5383	7.8181	7.1265
2	Chavakali H.S	6.1738	6.3493	6.0566	7.0136	8.1677	8.2023	6.9940
3	Nyang'ori Boys H.S	5.9731	6.1206	-	6.2202	6.9284	6.9353	6.4355
4	Kilingili S.S	5.8332	7.0476	6.6665	5.6545	-	5.8750	6.2154
5	Vihiga H.S	5.7985	5.1362	-	5.7287	6.4565	7.2321	6.0704
6	Keveya Girls S.S	5.5598	5.1159	4.7458	4.9477	5.4179	5.9023	5.2820
7	Emusire Boys H.S	5.5412	5.2009	-	4.8955	5.1503	5.6513	5.2878
8	Moi Girls H.S, Vokoli	6.5358	5.5349	5.3854	6.0717	6.6726	6.7712	6.1619
9	Givogi S.S	5.3615	4.6313	4.5998	4.7368	4.2902	4.2297	4.6420
10	Goibei Girls H.S	5.3583	4.9836	4.8273	5.8549	5.2954	5.5332	5.3090
11	Mudavadi Girls H.S, Madzuu	5.1608	5.0773	5.0075	5.2268	5.5307	4.7646	5.1280
12	Busali Union S.S	4.9165	4.3447	4.5363	3.9721	4.4165	3.5642	4.2917
13	Musudzu S.S	4.8750	4.3076	3.8208	3.8190	3.8020	3.7382	4.0604
14	Muhudu S.S	4.6665	4.1499	-	3.2285	3.6569	-	3.9255
15	Maragoli Girls S.S	4.6313	4.2880	4.5000	5.1665	5.3547	5.6293	4.9283
16	Ebunangwe S.S	4.5346	3.9633	4.7939	4.7963	5.0000	5.0769	4.6942
17	Vigina S.S	4.4892	3.8234	4.3486	-	5.0285	6.5629	4.8505
18	Mbihi S.S	4.4284	4.2243	4.2092	3.5651	4.1845	4.5405	4.1920
19	Kaprik S.S	4.4240	4.5454	4.2539	3.5273	4.4443	4.7067	4.3169
20	Senende Boys S.S	4.4157	4.8552	5.0153	5.8331	5.9284	5.9826	5.3384
21	Munzatsi S.S	4.3557	4.5761	4.2563	4.0888	4.2033	4.1274	4.2680
22	Esalwa S.S	4.3540	4.4543	4.5212	5.000	-	4.4343	4.5530
23	Museywa S.S	4.2998	4.1499	-	3.5554	3.7012	3.5937	3.8600
24	Jemovo S.S	4.2666	4.6999	3.8708	3.1665	4.5861	4.3845	4.1624
25	Ibubi S.S	4.2629	3.4482	3.1479	3.5881	3.4855	4.2961	3.7048
26	Wangulu S.S	4.2556	3.9228	4.2727	3.8508	4.1665	3.8391	4.0513
27	Gahumbwa S.S	4.2255	4.0000	3.9365	3.8640	3.9567	3.8486	3.9720
28	Friends S. Kigama	4.2221	4.8190	4.0000	4.6301	4.5275	4.3977	4.4327
29	Kegoye S.S	4.1975	4.3156	3.4018	3.8693	4.1237	4.3955	4.0506
30	Erusui Girls S.S	4.1921	4.1999	3.9343	3.6457	3.5275	4.0000	3.9166
31	Kapsotik S.S	4.1921	3.6094	3.6321	3.4836	4.0998	3.7998	3.8028
32	Igunga Girls H.S	4.1723	3.8371	3.2707	3.3876	4.6450	-	3.8625
33	Ebusakami S.S	4.0517	4.5861	4.2031	-	4.5888	4.5371	4.3934
34	Ebubayi S.S	4.0000	4.0383	4.5236	4.7658	4.3242	3.9819	4.2723
35	Bukulunya S.S	3.9694	4.1611	-	3.3999	2.9484	2.8835	3.4725
36	Chango S.S	3.9284	3.2856	-	3.3999	3.8798	4.4687	3.7925
37	Essaba S.S	3.9243	3.8750	3.9089	3.5832	4.3273	4.0000	3.9365
38	Madira S.S	3.8967	4.0507	4.0000	3.8156	4.3967	5.1052	4.2109
39	Ebwali S.S	3.7673	4.1525	4.6721	4.2832	4.0734	3.8593	4.1350
40	Dr. Maurice dangana S.S	3.7500	3.5275	3.4721	3.7141	5.3054	4.3999	4.0282
41	Givole S.S	3.6264	3.9875	3.8508	3.6831	3.6875	4.0407	3.8127
42	Chamakanga Girls S.S	3.4531	3.7571	4.4543	4.2998	4.1904	4.4072	4.0937
43	Lusengeli S.S	3.3928	4.5712	4.3999	5.3750	4.8999	5.7141	4.7255
44	Ekwanda S.S	3.3750	4.6816	-	4.0332	4.2797	3.5925	3.9924

Appendix VI Continued

45	Chandumba S.S	3.3527	4.0832	3.9399	4.1999	4.3110	4.4707	4.0596
46	Viyalo S.S	3.1999	3.8750	3.2331	3.5170	-	4.4052	3.6460
47	Bugina S.S	3.1850	4.1804	3.5183	3.2399	4.2797	4.3181	3.7886
48	Lunyerere S.S	3.1816	3.2978	3.0332	2.5170	2.7500	-	2.9559
49	Tigoi Girls H.S	-	4.5302	4.3906	5.0000	5.4399	5.1691	4.9060
50	Chavavo S.S	-	4.1999	4.0302	3.3452	4.6386	5.2412	4.2910
51	Buyangu Girls H.S	-	4.0703	3.4592	4.0815	3.9316	4.3776	3.9840
52	Kivagala S.S	-	3.9443	4.2500	3.9218	4.1960	4.0332	4.0691

Source : Kenya National Examination Council (KNEC)

$$\text{Mean} = \frac{234.4529}{52}$$

$$= 4.51$$

APPENDIX VII

Possible University Entrants .(Vihiga District)

Year	A	A-	B+	B	B-	Totals
1992	-	5	5	29	87	126
1993	-	12	28	85	295	420
1994	-	4	17	52	166	239
1995	1	1	17	53	169	241
1996	-	6	33	102	192	333
1997	1	14	56	138	262	471
GRAND TOTALS						1830

Source : District Education Office – Vihiga

APPENDIX VIII

Mean Score Of Vihiga District In Kenya Certificate Of Secondary Education Between
1992 And 1997

Year	Candidates	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	X	Y	M/S
1992	3770	-	3	5	29	87	223	470	734	955	949	300	7	28	-	4.0
1993	3886	-	12	28	85	295	372	535	815	836	731	221	2	19	-	4.8
1994	4004	-	4	17	52	166	553	624	925	960	695	192	4	24	1	4.4
1995	3943	1	1	17	53	169	287	515	777	997	824	213	3	11	75	4.2
1996	4023	-	6	33	102	192	343	603	764	798	784	366	18	14	0	4.3
1997	4144	1	14	56	138	262	452	614	750	760	716	302	11	17	51	4.9

Source : Vihiga District Education Office

APPENDIX IX

Critical Values Of t

df	Level of significance for a directional (one-tailed) test					
	.10	.05	.025	.01	.005	.0005
	Level of significance for a non-directional (two-tailed) test					
	.20	.10	.05	.02	.01	.001
1	3.078	6.314	12.706	31.821	63.657	636.619
2	1.886	2.920	4.303	6.965	9.925	31.598
3	1.638	2.353	3.182	4.541	5.841	12.941
4	1.533	2.132	2.776	3.747	4.604	8.610
5	1.476	2.015	2.571	3.365	4.032	6.859
6	1.440	1.943	2.447	3.143	3.707	5.959
7	1.415	1.895	2.365	2.998	3.499	5.405
8	1.397	1.860	2.306	2.896	3.355	5.041
9	1.383	1.833	2.262	2.821	3.250	4.781
10	1.372	1.812	2.228	2.764	3.169	4.587
11	1.363	1.796	2.201	2.718	3.106	4.437
12	1.356	1.782	2.179	2.681	3.055	4.318
13	1.350	1.771	2.160	2.650	3.012	4.221
14	1.345	1.761	2.145	2.624	2.977	4.140
15	1.341	1.753	2.131	2.602	2.947	4.073
16	1.337	1.746	2.120	2.583	2.921	4.015
17	1.333	1.740	2.110	2.567	2.898	3.965
18	1.330	1.734	2.101	2.552	2.878	3.922
19	1.328	1.729	2.093	2.539	2.861	3.883
20	1.325	1.725	2.086	2.528	2.845	3.850
21	1.323	1.721	2.080	2.518	2.831	3.819
22	1.321	1.717	2.074	2.508	2.819	3.792
23	1.319	1.714	2.069	2.500	2.807	3.767
24	1.318	1.711	2.064	2.492	2.797	3.745
25	1.316	1.708	2.060	2.485	2.787	3.725
26	1.315	1.706	2.056	2.479	2.779	3.707
27	1.314	1.703	2.052	2.473	2.771	3.690
28	1.313	1.701	2.048	2.467	2.763	3.674
29	1.311	1.699	2.045	2.462	2.756	3.659
30	1.310	1.697	2.042	2.457	2.750	3.646
40	1.303	1.684	2.021	2.423	2.704	3.551
60	1.296	1.671	2.000	2.390	2.660	3.460
120	1.289	1.658	1.980	2.358	2.617	3.373
∞	1.282	1.645	1.960	2.326	2.576	3.291

Source: From Table III of Fisher and Yates, Statistical Tables for Biological, Agricultural and Medical Research, published by Longman Group UK Ltd., London (previously published by Oliver and Boyd Ltd., Edinburgh), with permission of the authors and publishers.

APPENDIX X

Determining Sample Size From A Given Population

N	S	N	S	N	S
10	10	220	140	1,200	291
15	14	230	144	1,300	297
20	19	240	148	1,400	302
25	24	250	152	1,500	306
30	28	260	155	1,600	310
35	32	270	159	1,700	313
40	36	280	162	1,800	317
45	40	290	165	1,900	320
50	44	300	169	2,000	322
55	48	320	175	2,200	327
60	52	340	181	2,400	331
65	56	360	186	2,600	335
70	59	380	191	2,800	338
75	63	400	196	3,000	341
80	66	420	201	3,500	346
85	70	440	205	4,000	351
90	73	460	210	4,500	354
95	76	480	214	5,000	357
100	80	500	217	6,000	361
110	86	550	226	7,000	364
120	92	600	234	8,000	367
130	97	650	242	9,000	368
140	103	700	248	10,000	370
150	108	750	254	15,000	375
160	113	800	260	20,000	377
170	118	850	265	30,000	379
180	123	900	269	40,000	380
190	127	950	274	50,000	381
200	132	1,000	278	50,000	382
210	136	1,000	285	100,000	384

Note:

N is population size

S is sample size

Source Krejcie and Morgan (1970:608) as quoted in Mulusa (1988:86)

APPENDIX XI

Performance Index And Leadership Behaviour

School Performance Index	School leadership behaviour(scores)		
	Initiating structure	consideration	Mean scores
7.1265	67.5	68.5	68
6.994	68	65.2	66.6
6.6345	66.6	63.83	65.22
6.2154	67.7	63	65.35
6.0704	66.2	61.3	63.75
5.282	60.2	62.2	61.2
5.2878	63	63	63
6.1619	65.67	63.4	64.54
4.642	58.2	55.67	56.94
5.309	65.5	58.83	62.17
5.128	64.83	58.5	61.67
4.2917	58.83	53.33	56.08
4.0604	52.5	55.5	54
4.322	59.33	54.83	57.08
4.9283	63.5	55.2	59.35
4.6942	59.8	57	58.4
4.8505	63.2	51	57.1
4.192	60.2	48.5	54.35
5.3384	63	53.2	58.1
4.268	58.83	52.67	55.75
4.553	54.83	49.83	52.33
3.86	50.83	41.5	46.2
4.1624	51.2	48.67	49.94
4.0513	52.2	48.2	50.2
3.972	51	34	42.5
4.4327	47.83	46.2	47.02
3.9166	38.33	34.67	36.5
3.8028	55.5	38.2	46.85
3.8625	58	46	52
4.3934	46.33	40	43.2
4.2723	53.4	48.2	50.8
3.4725	44.33	35.33	39.83
3.7925	35.83	38	36.92
3.9365	47.2	37.5	42.35
4.2109	49.5	44.67	47.09
4.135	45.67	47.2	46.44
4.0282	51.33	46.2	48.77
3.8127	38.33	38.33	38.33
4.0937	39.2	44.33	41.77
4.7255	50.8	35.5	43.15
3.9924	38.67	33	35.84

Appendix XI Continued

4.0596	51.67	32.33	42
3.646	34.83	30	32.42
3.7886	36.25	25.67	30.96
2.9559	21.33	16.5	18.92
4.906	46.33	34.67	40.5
4.291	35.2	32	33.6
3.984	36.2	25	30.6
4.0691	45.75	48.5	47.13
4.3169	39.6	40.5	40.05
3.7048	24.25	26.8	25.53
4.0506	34.6	43	38.8

APPENDIX XII

Students' Academic Performance In Different Categories Of Schools.

Serial No.	Girls Sch. Index	Boy Sch. Index	Mixed Sch. Index
1	7.1265	6.994	6.2154
2	5.282	6.4355	4.642
3	6.1619	6.0704	4.0604
4	5.309	5.2878	4.322
5	5.128	4.6942	4.8502
6	4.2917	4.192	4.268
7	4.9283	5.3384	4.553
8	3.9166	4.4327	3.86
9	3.8625		4.1624
10	4.2109		4.0513
11	4.0937		3.972
12	4.906		4.0506
13			3.8026
14			4.3934
15			4.2723
16			3.4725
17			3.7925
18			3.9365
19			4.135
20			4.0282
21			3.8127
22			4.7255
23			3.9924
24			4.0596
25			3.646
26			3.7886
27			2.9559
28			4.291
29			3.984
30			4.0691
31			4.3169
32			3.7048

APPENDIX XIII

Students' Academic Performance And The Quality Of School

Sch. Performance Index	Quality of school	
	Headteachers	Ass. Teachers
7.1265	25	26
6.994	27	25
6.6345	24	30
6.2154	25	28
6.0704	24	20
5.282	18	26
5.2878	24	24
6.1619	14	28
4.642	20	21
5.309	25	19
5.128	24	26
4.2917	13	20
4.0604	14	18
4.322	25	17
4.9283	27	24
4.6942	12	21
4.8505	16	24
4.192	23	20
5.3384	26	24
4.268	17	18
4.553	19	20
3.86	17	15
4.1624	14	22
4.0513	15	22
3.972	20	17
4.4327	18	19
3.9166	14	16
3.8028	24	20
3.8625	18	18
4.3934	14	24
4.2723	18	20
3.4725	18	19
3.7925	24	21
3.9365	19	23
4.2109	14	25
4.135	24	30
4.0282	20	28
3.8127	19	19
4.0937	12	22
4.7255	18	20
3.9924	18	23
4.0596	26	20
3.646	20	24

Appendix XIII Continued

3.7886	18	25
2.9559	19	12
4.906	24	18
4.291	14	26
3.984	18	19
4.0691	17	20
4.3169	20	21
3.7048	18	19
4.0506	20	24

APPENDIX XIV

HEADTEACHERS' QUESTIONNAIRE ON LEADERSHIP STYLES

This questionnaire is designed to gather general information about yourself and the school you head. The information you provide will be confidential and be used only as important variables to the study. Do not write your name or that of your school.

Kindly provide the correct answer by encircling one of the options provided.

Part A:

1. In which of the following age brackets do you fall?

- a) 25 – 30
- b) 31 – 36
- c) 37 – 42
- d) 43 – 48
- e) 49 – 51
- f) 52 and above

2. Which of the following academic qualifications have you attained?

- a) SI

- b) B.ED
- c) B.A / B.SC with PGDE
- d) M.ED
- e) M.A.
- f) Other - specify _____

3. Indicate your appropriate sex

- a) Male
- b) Female

4. For how long have you been a secondary school head?

- a) 1 – 5 years
- b) 6 – 10 years
- c) 11 – 15 years
- d) 16 – 20 years
- e) Over 20 years

5. State your experience as a classroom teacher?

- a) 1 – 5 years
- b) 6 – 10 years
- c) 11 – 15 years
- d) 16 – 20 years
- e) Over 20 years

6. What type of school do you head?

- a) All boys
- b) All girls
- c) Mixed

7. What is the category of your school?

- a) Day
- b) Boarding
- c) Day and Boarding

8. As a School headteacher what is your judgement of schools' performance in Vihiga?

- a) Below Average
- b) Average
- c) Above Average

9. Listed below are resources and school activities that help to improve academic performance of students. Indicate with (✓) in the relevant column their adequacy in your school.

School resource / activities	Very Adequate	Adequate	Not Adequate	Not Available
Library				
Laboratory				
Teaching Aids				
Debating Club				
Counseling & guidance programme				
Science Club				
Headteachers' leadership guidance				
Teachers' commitment to their work				
Students' effort in school work				

10. Approximately how many (%) students with the marks listed below does your secondary school admit to Form I? Tick (✓) appropriately

#	Students' Marks	100%	80%	60%	20% and below
A	Over 500 marks				
B	499 – 360 marks				
C	359 and below				

Part B:

Kindly answer the following questions in the space provided.

1. As the Head of this institution, what problems do you encounter in carrying out your duties?

2. The above problems are a hindrance to good performance. What solutions can you provide to them?

Thank you for your co-operation and participation.

APPENDIX XV

TEACHERS' QUESTIONNAIRE ON LEADERSHIP STYLES

Dear Sir/Madam,

I would be grateful if you could supply information about yourself and your school. This information is expected to help schools in Vihiga district to improve their academic performance at Kenya Certificate of Secondary Examination. Your responses to the questionnaire will be treated with utmost confidence. You are therefore not to write your name nor that of your school on the questionnaire.

(P.D. MATULA)

Where appropriate, kindly tick (✓) the correct answer or supply the required information

PART I:

1. Which of the following age brackets do you fall into?

- a) 25 – 30
- b) 31 – 36
- c) 37 – 42
- d) 43 – 48
- e) 49 and above

2. Indicate your Sex?

- a) Male
- b) Female

3. Indicate your highest academic qualifications?

- a) SI
- b) B.ED
- c) B.A / B.SC with PGDE
- d) M.ED
- e) M.A.
- f) Other – Specify _____

4. How long is your experience as a secondary school teacher?

- a) Below 5 years
- b) 5 – 10 years
- c) 10 – 15 years
- d) 15 and above

5. What has been the overall academic performance of this school for the last 5 years?

- a) Below average
- b) Average

c) Above Average

6. Listed below are resources and school activities that help to improve academic performance of students. Indicate with (✓) in the relevant column their adequacy in your school.

School resource / activities	Very Adequate	Adequate	Not Adequate	Not Available
Library				
Laboratory				
Teaching Aids				
Debating Club				
Counseling & guidance programme				
Science Club				
Headteachers' leadership guidance				
Teachers' commitment to their work				
Students' effort in school work				

7. Do you think there is reason for improved leadership?

- a) Yes
- b) No

8. If the answer in (a) is Yes, What do you think needs to be done to improve on the headteachers' leadership behaviour?

9. In your opinion, is there a relationship between headteachers' leadership behaviour and students' academic performance at Kenya Certificate of Secondary Education?

a) Yes

b) No

Explain:

Part II

This part consists of statements associated with initiating structure while Part III contains statements related to consideration. Using the scale outlined below indicate with a tick (✓) in the relevant column the extent to which headteachers apply initiating structure and consideration characteristics in their leadership style.

A. INITIATING STRUCTURES

		SCALE				
		Always	Often	Occasionally	Rarely	Never
		5	4	3	2	1
1	He/she makes his/her attitudes clear to the staff.					
2	He/she criticizes poor work.					
3	He/she tries out his ideas with the staff.					
4	He/she maintains definite standards of performance.					
5	He/she encourages the use of uniform procedures.					
6	He/she lets staff members know what is expected of them					
7	He/she sees to it the staff members are working up to capacity.					
8	He/she sees to it that the work of staff members is coordinated.					
9	He/she assigns staff members to particular tasks.					
10	He/she rules with an iron hand.					
11	He/she emphasizes the meeting of deadlines.					
12	He/she asks that staff members follow standard rules and regulations.					
13	He/she works without a schedule.					
14	He/she speaks in a manner not to be questioned.					
15	He/she makes sure that he/she is understood by all members.					

B. CONSIDERATION LEADERSHIP BEHAVIOUR ATTRIBUTES

SCALE

		Always	Often	Occasionally	Rarely	Never
		5	4	3	2	1
1	He/she looks out for the personal welfare of individual staff members.					
2	He/she does little things to make it pleasant to be a member of the staff					
3	He/she does personal favours for staff members.					
4	He/she is easy to understand.					
5	He/she finds time to listen to staff members.					
6	He/she keeps to himself/herself.					
7	He/she refuses to explain his/her action.					
8	He/she is friendly and approachable.					
9	He/she treats all staff members as his/her equals.					
10	He/she acts without consulting the staff.					
11	He/she is willing to make changes.					
12	He/she makes staff members feel at ease when talking to him/her					
13	He/she is slow to accept new ideas.					
14	He/she gets staff approval in important matters before implementing them.					
15	He/she puts suggestions made by the staff into operation.					

Thank you for your cooperation and participation.