PARENTS' SOCIO-ECONOMIC CHARACTERISTICS AND STUDENTS' ACADEMIC PERFORMANCE IN THE KENYA CERTIFICATE OF SECONDARY EDUCATION: THE CASE OF KALAMA DIVISION, MACHAKOS DISTRICT

By

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DECLARATION

I, Pauline M. Wambua, do hereby declare that this project paper is my original work and it has never been submitted to any other institution for academic examination

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This project paper has been submitted for examination with our approval as university supervisors.

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DEDICATION

To my mum Agnes Wambua, brother Charles, sisters Joyce and Jenifer, my son Tony, my best friend Denilson, and to my late dad James W. Sila, in his memory.

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ABSTRACT

The study investigated the relationship between parents' socio-economic characteristics and students' academic performance in Kenya Certificate of Secondary Education in Kalama Division, Machakos district. It covered students who sat for KCSE between 2000 and 2010. The study had five objectives. These were: to investigate the parents' socio-economic characteristics in Kalama division; to document the characteristics of secondary school students in Kalama division; to determine whether parent's socio-economic characteristics influences student's academic performance in KCSE; to investigate whether parental support to child's education differs on the basis of parent's socio-economic characteristics; and lastly to investigate whether student's academic performance in KCSE differs by the level of parental support to child's education.

The review of the literature focused on the role of parents in their children's education; and the influence of parents' socio-economic characteristics on students' academic performance. It provided guidelines and laid the background of the study. However, there was no consensus from literature on the kind of relationship that exists between parents' socio-economic and students' academic performance. The study used an ex-post facto research design, and questionnaires and interview guides were used to collect data. Quantitative data were computed and analysed using the statistical package for Social Science (SPSS) while qualitative data were analysed using word tables, and presented in figures and tables.

The study found that parents' level of education correlates with academic performance of students in KCSE. It also found that income and family size influence academic performance while family structure and parents' occupation do not. Parents with higher levels of education were found to have higher levels of family income, provided more support to their children's education, and had higher expectations on their children's education. In turn, these led to better academic performance of their children. In addition, the level of parental support to child's education differed by family income with parents who had higher income supporting their children more than those with low income. However, parental support did not differ by parents' age, family structure and occupation.

Based on the findings, the study recommends that parents should improve their education levels through adult education programmes. Second, school administration and other stakeholders through Parents-Teachers Association (PTA) and local meetings (barazas) should sensitize parents on their role in their children's education so that they don't put the

blame entirely on teachers when their children don't perform well in school. Third, parents need to be informed that they can contribute to the education of their children through their support of child's school activities at home and being actively involved in children's school life. Finally, for further research, the study should be replicated on a larger scale either in Kalama or any other area in Kenya and beyond in order to draw wider policy implications from it.

CHAPTER ONE: INTRODUCTION

1.0 General Introduction

For many years in Kenya, examinations have been accepted as an important aspect of the education system. Every year, Kenyan students sit for the Kenya Certificate of Secondary education (KCSE) which is done at the end of fourth year of secondary education. Over the years, differences have been observed in the performance of pupils in KCSE examination. Examination results are one of the means of judging students' academic performance, and the academic performance may partly determine the benefits that accrue to students from education (Wamai, 1991). Although students may be of comparable abilities, learn in the same environment and follow the same syllabus, their academic performance still vary. There are many factors that may influence students' academic performance. This study focuses on one possible factor, that is, parents' socio-economic characteristics. This study investigates whether parents' socio-economic characteristics influenced students' academic performance in the Kenya Certificate of secondary Education (KCSE) in Kalama division, Machakos District. To achieve this objective, a household survey was carried out whereby households with students who had sat for KCSE between 2000 and 2010 were indentified through snowball sampling technique and a parent or guardian interviewed. The rationale for using snowball sampling to select the participants was due to the reason that there was no documented information on households with students who had done KCSE between 2000 and 2010 in the division and the researcher relied on community knowledge to locate them.

This report is organised in five parts. The introduction section covers the study background, the problem statement, the research questions and objectives, the hypotheses, the significance of the study, and the scope and limitations of the study. The literature review, the theoretical and conceptual framework are covered in the second section. The third section focuses on the methodology that was used in the study while the fourth section presents the findings of the specific research questions. The final section provides summary to the study, conclusions, and general recommendations.

1.1 Background of the Study

Education is an investment whose returns are highly valued throughout the world. As Mugambi (2006:2) observes, "education is an important catalyst for national development as it enhances the development of appropriate knowledge, skills and attitudes; and imparts values which enhance integrity and expertise of production." In addition, it prepares

individuals to play an active role in the life of the nation. According to Sifuna (1980), education is seen as a solution to all problems of development since it is regarded as a critical factor in the alleviation of individual ignorance, fear and in helping a country to move from a traditional to a modern life. It has the potential to foster the knowledge, values and skills necessary for productive activity; and is an important input in the development process (Kitavi, 2005; Sifuna, 1980).

The benefits of investing in education accrue to the individual receiving the education, his/her family and to the society. These benefits can be realized during or after schooling. The individual gains include reduced poverty due to higher lifetime earnings and lower levels of unemployment; greater job satisfaction; increased capabilities and opportunities in life; empowering and strengthening an individual; and improved health care and nutrition which may translate to longevity (Riddell, 2004; Sana, 2010; Kitavi, 2005). The benefits of parent's education to a child include lower levels of child abuse and neglect; improved health care and nutrition; lower criminal activities in children; more family investments in children; and provision of school reading materials to the child which may translate to better performance in schools (Riddell, 2004:13).

One's education may also contribute to other people's welfare in the society. For instance, one's education promotes the economic growth of a country through individual's tax contributions; increasing productivity and creativity; and improving entrepreneurship and technological advances (Sana, 2010; Riddell, 2004). Secondly, higher parental education is associated with lower fertility, through increased efficiency of contraception, as well as by increasing the age of both marriage and first pregnancy. The resulting lower population growth is positive for economic growth (Kodrzycki, 2002:112).

Secondary education is crucial for economic growth. A regional study of Africa by the World Bank (2002) discusses how secondary education can contribute to economic growth of a country. The study observes that, first, secondary education can provide countries with the skills and knowledge needed for economic growth, increasing further reading and training of professionals such as scientists, technicians and entrepreneurs. Secondly, it helps to socialize young people since this age group has the largest potential for changing its behaviour, secondary education can be important in fostering positive social and civic values. Third, it yields considerable private returns by offering young people the chance to acquire attitudes and skills that are unlikely to be developed at primary grades. This in turn enables them to

develop job-oriented skills, participate fully in society and take control of their own lives and continue learning.

Some of the objectives of secondary education in Kenya according to MoEST/KIE (2003) are to provide the learner with an opportunity to develop the ability to acquire, develop critical thinking and ability to make rational judgement; acquire knowledge skills and attitudes for the development of oneself and the nation; build a firm foundation for further education and training; identify individual talents and develop them; and enable the learner to choose with confidence and cope with vocational education after school. In an effort to achieve these objectives, the ministry of education in Kenya provides maximum support to education by providing financial and material resources for teacher training programmes, teachers' salaries, supervision and inspection of schools among other activities to ensure that school environment is appropriate for teaching and learning. The ministry also organises for curriculum review to ensure that education is focused towards the dynamic social and economic needs of the country (MoEST/KIE, 2003).

One of the means of judging student's academic performance is through examination results. Examinations in Kenya date from the colonial period. Since independence in 1963, Kenya public examinations have undergone transformation and are regarded with a lot of reverence. In 1967, Kenya, together with Uganda and Tanzania formed the East African Community. The three countries adopted a single system of education, the 7-4-2-3, which consisted of 7 years of primary education, 4 years of secondary education, 2 years of high school and minimum of 3 years of university education. At secondary level, students sat for the East African Certificate of Education (EACE) examination. With the collapse of the East African Community in 1977, Kenya continued with the same system of Education but changed the examination names from their regional identity to a national identity. The East African Certificate of Education (EACE) became the Kenya Certificate of Education (KCE). In 1985, after the introduction of the 8-4-4 system of education (which adopted eight years of primary education, 4 years of secondary education and 4 years of university education), the KCE became the Kenya Certificate of Secondary Education (KCSE).

As Wamai (1991) argues, examination results are taken as a valid measure of pupil's educational achievement and that Kenya regards examination as a trustworthy instrument for categorizing students into groups of achievers and none achievers. The same view is supported by Muola (2010) who argues that in Kenya, student's academic performance is a

key aspect of education since examination has been used as a basis of judging student's ability and as a means of selection for educational advancement. This may therefore imply that student's academic performance in terms of the mean score at different levels partly determines his/her benefits from education. Academic performance in Kenya Certificate of Secondary Education (KCSE) may determine the destiny of a secondary school graduate. For instance, it determines the course one can study at the tertiary level. Therefore, failure in KCSE might mean that future opportunities for proceeding with education and eventually landing in good jobs are minimised while passing could open many avenues for future advancement in education, careers and other opportunities.

The secondary cycle is an important level of education as it is the transition stage, during which youth of ages 14 to 18 years are prepared to join high school education and thereafter, the world of work. In Kenya, student's academic performance is measured using the KCSE examination. Candidates are graded from the highest grade (A) to the lowest grade (E) on a twelve (12) point scale. Most courses offered at the tertiary institutions of learning, especially the universities, require at least that a candidate scores a mean grade of C+ which is equivalent of seven (7) points. C+ grade is considered as an indicator that a student has the capacity to advance to the next level of educational ladder. The main worry however is that many students attain scores lower than C+ and schools in Kalama division in Machakos district have not been an exception (see appendix II).

In Kenya, several studies have been carried out to investigate the factors that influence academic performance of learners. Researchers explaining this phenomenon propose the factors responsible for variation in academic performance to include teaching and learning resources; family background; discipline in school; school administration; teacher's academic qualification; learning environment; and the frequency and adequacy of schools' inspection team, among others (Kivuva 2004; Kitavi 2005; Njuguna 2004; Mugambi 2006). In addition to these studies, it is useful to understand the relationship between parents' socio-economic characteristics and students' academic performance in KCSE. This will be the key objective of the study which will be carried out in Kalama division in Machakos District. It will assume that parents to children have varied socio-economic characteristics that may influence performance differently.

1.2 Problem statement

The empirical literature on achievement consistently shows that parent's socio-economic characteristics are important in predicting children's academic performance (Davis-Kean, 2005; Eccles and Davis-Kean, 2005; Olanike, 2010; Hanafi, 2008). However, this relationship is somewhat mixed. There is no consensus on the kind of relationship that exists between parents' socio-economic and academic performance. For instance, high level of parent's education may lead to high student's academic performance, but there are other cases whereby the parents have high level of education and their children perform poorly or parents have low levels of education and the children perform well. High income may enable a parent access the necessary resources for child's education which may translate to good academic performance, while in other cases these resources do not help the student perform well in school. Parental support to child's education may or may not translate to high student's academic performance. Smaller family size is linked with higher academic achievement (Eamon, 2005) but there are instances where some students from large families perform well in school.

Most of these studies on influence of socio-economic characteristics on academic performance were carried outside Kenya and it is not clear if the findings would apply in a local setting in Kenya. In addition, most studies on academic performance in Kenya investigate the general factors that influence academic performance and not much has been done on the influence of parents' socio-economic characteristics. Due to lack of consensus from the literature on how parents' socio-economic characteristics influence academic performance of students and that not much has been done on the same in Kenya, this study carried out an empirical investigation on the matter. Kalama division of Machakos district was chosen for the task.

1.3 Research Questions

Overall Question

What is the relationship between parents' socio-economic characteristics and students' academic performance in KCSE in Kalama division, Machakos District?

Specific Questions

i. What are the parents' socio-economic characteristics in Kalama division?

ii. What are the characteristics of secondary school students in Kalama division?

iii. To what extent is student's academic performance in KCSE related to parent's socio-economic characteristics?

iv. To what extent do parents support their children in secondary school and does support differ on the basis of parent's socio economic characteristics?

v. Does a student's academic performance in KCSE differ by the level of parental support to his or her education?

1.4 Research Objectives

Overall Objective

To examine the kind of relationship that exists between parent's socio-economic characteristics and students' academic performance in KCSE in Kalama division, Machakos District.

Specific Objective

i. To investigate the parents' socio-economic characteristics in Kalama division.

ii. To document the characteristics of secondary school students in Kalama division.

iii. To determine whether parents' socio-economic characteristics influence student's academic performance in KCSE.

iv. To investigate whether parental support to a child's education differs on the basis of a parent's socio economic characteristics.

v. To investigate whether a student's academic performance in KCSE differs by the level of parental support to his or her education.

1.5 Hypotheses

The study hypothesised that;

i. Parent's level of education has a significant influence on student's academic performance in KCSE.

ii. Family structure has a significant influence on student's academic performance in KCSE.

iii. Family monthly income has a significant on influence student's academic

performance in KCSE.

iv. Parent's occupation has a significant influence on student's academic performance in KCSE.

v. Parent's support on a child's education has significant influence on student's academic performance in KCSE.

vi. Family size has a significant influence student's on academic performance in KCSE.

1.6 Significance of the study

The finding from this may be useful in the following ways. First, the research will provide an understanding on whether parent's socio-economic characteristics influences academic performance in KCSE in Kalama division. It will further help parents understand the ways in which their socio-economic characteristics contribute to academic performance of their children and therefore enable them take the necessary actions in relation to the findings. Second, the findings could provide a springboard for further research into the area of academic performance in Kalama division and Kenya in general. Third, the research may invoke the need to carry out similar research in other parts of the country. Finally, the findings on how parents' socio-economic characteristics influence academic performance of students may serve as a useful feedback to educational policy makers, curriculum developers, implementers and other policy makers.

1.7 Scope and Limitations of the Study

This study was undertaken in Kalama division of Machakos District in Kenya and therefore the findings should be generalised to other parts of the country with caution. Due to financial and time constraints, the sample was limited to households with students who had sat for KCSE between 2000 and 2010 which were selected using snowball sampling technique. The findings may therefore not apply to students who sat for KCSE prior to 2000 or after 2010. The academic data for the students was collected from parents or guardians who were a secondary source and the study assumed that they gave the correct data.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This section reviews relevant literature. It reviews literature on parent's role in their children's education, and the influence of parent's socio-economic characteristics on academic performance of students. The socio-economic characteristics discussed are family structure, parents' education, income, occupation, parental expectations on child's education, family size, and parental support to child's education. The first sub-section on parent's role in their children's education reviews literature on how parents can get involved in child's education and its importance. The other sub-sections review literature on how parent's socio-economic characteristics might influence child's academic performance. This section also contains the conceptual framework of the study.

2.1 Parents' Role in Their Children's Education

Parents are expected to play a critical role in their children's education. Parents' role in their children's learning evolves as the children grow although parents' attitudes about education can inspire their children and show them how to take charge of their own educational journey (Barr, 1997). According to Willms and Ho (1996), parental involvement declines with age since children who are beginning to mature have a growing need to develop a sense of self and independence that is separate from their families. They argue that as children grow older, they begin to weigh choices and consequences, make more decisions of their own, learn from their mistakes and establish their own set of values to guide their own decisions and actions. In addition parents' roles also go through a changing process as well in order to allow for their children's self identity.

Parental involvement in children's education makes a positive difference in pupil's academic achievement (DCSF, 2008; Ramey and Ramey, 2004). Redding (1996:20) defines parental involvement as "an all encompassing term that includes everything from the parent's child-rearing practices at home to the parent's participation in events held in school." Therefore, parents can play an active role in child's education through being involved in the life of the school or in support of individual child at home on school activities. Parents can get involved in the life of the child's school through different ways. First, it can be through participation where parents respond to teacher's requests and

participate in school sponsored activities. Second, it can be through sponsoring programs and helping in classroom in which parents contribute time and other resources directly to benefit the classroom and the school. Another way can be through participating in school governance in elective or in appointed roles (Ramey and Ramey, 2004).

Parents can be involved in child school activities at home by building a good home foundation for education. This can be achieved by: providing children with a quiet area to study and do homework at home; encouraging school progress; maintaining consistent communication with children's teachers to ensure what parents are doing at school supports school work; providing necessary learning materials; setting time for and assisting in homework; expressing high but realistic expectations for their children's achievement; and monitoring out of school activities (Livingstone, 2011; Michigan department of education, 2002).

According to Barr (1997), parents should not discontinue teaching their children when they reach school age but they should become co-teachers, providing teachers with valuable information about their children that can shape instructional methods in the classroom. Parents play another role in their children's education by choosing the right school for the child (Livingstone, 2011). The type of school a child attends can influence educational outcomes (Consindie and Zappala, 2002). This can operate among other ways through variation in the quality and quantity of teachers. For instance, if teachers hold low expectations on students, it may lower the expectations the students and their parents hold.

Student's achievement improves when parents play an active role in children's education. Students are likely to be motivated to achieve higher grades, to have better behaviour and social skills, and continue their education to higher level when parents are actively engaged in supporting their success in school (Redding, 1996). However, parental involvement can be hindered by work commitment, demands of other children or parents' lack of basic numeracy skills (DCSF, 2008).

2.2 Family Structure and Academic Performance

The family is the first socialising agent a child comes into contact with and has great influence on moral, physical and cognitive development (Alawonde and Salami, 2000).The family structure ideally provides security and stability that is necessary for children. Each family structure has its strengths and weaknesses and it's these strengths and weaknesses that lead to differing outcomes in children's adjustment (Thiessen, 1997).

Breakdown in the family structure (when one or both parents are not there), may have tremendous impact on a child and their ability to function ordinarily or achieve academically (Ledbetter and Leonce, 2010). This breakdown in family structure may lead to single parent households, grandparent headed household, and child headed household or even children being taken care of by members of the extended family. The break-up of a family, regardless of the causes, brings new interactions between parents and children as well as new parental roles within the household. Resources at home, such as time and income, as well as the mental well-being of parents could be affected and, in turn, influence child development (Feinstein *et al.*, 2004).

Most studies on single parenting and academic performance of their children found that children from single parents have poor scores than those where both mother and father are present (Thiessen, 1997; Alawonde and Salami, 2000; Downey 1984 in Ledbetter and Leonce, 2010). Single parenting is a situation in which one of the two individual involved in the conception of the child is responsible for upbringing of the child (Alawonde and Salami, 2000). Fadaye (1985) quoted by Alawonde and Salami (2000) observed that, both parents have a role to play in child's education. He argued that, the father's role is to provide the necessary tools for the educational advancement while the mother is supposed to supplement the father's efforts.

When the father is absent and the mother is not privileged enough to cater for all the basic needs as well as supervise the performance of the child, the child may not perform well. The same thing occurs when the mother is absent and the father is not privileged enough. The poor performance may be due to the reason that the single parent has so much work and family responsibilities that require time, attention and money. With limited finances, time and availability, single parents are less likely to provide adequate support a child needs to perform to the best of their ability. These may in turn result to poor academic performance

on part of the child (Alawonde and Salami, 2000; Ledbetter and Leonce, 2010).

However, single parent household may not have as wide spread and adverse effects as it is publicised. For instance, Thiessen (1997) quoted Herzeg and Saudia (1973) who reviewed literature associated with studying the effects of father absence on children's academic achievement. The results from the studies indicated that single parenting had very little effect on academic achievement, especially when social economic status and cultural background were controlled in a control group. Cashion (1982) in Thiessen (1997) also found that single parented children had equal intellectual development as intact families when controlling socio-economic status.

Children in grandparent maintained families are more likely to live in poverty which can create barriers to accessing needed social services than children in intact families (Family trends, 2004; Casper and Bryson, 1998 in Moyi, 2004). Grand parenting may occur due to death of parents' parental abandonment, divorce, never-married mother especially teen mothers, parental imprisonment, drug addiction or mental illness (Strutton and Leddick, 2005). Moyi (2004) quoted Solomon and Max (1995) who found that, children raised solely by grandparents performed better across several dimensions including academic criteria than did those who were raised by a single parent. However the academic dimension referred to in the study was 'school adjustment' and dealt more with psychological and social aspects of school readiness and coping than with academic achievement.

Family trends (2004) found that, grandchildren who were raised by grandparents performed at the same level as those from two parent families. However, spending a lot of time with poorly educated grandparents was associated with low levels of academic performance (Moyi, 2004).Therefore other variables like education level, socio-economic status, ability of the student, and educational aspiration of the student better explain differences in academic performance than family structure (Thiessen, 1997). The same views are supported by Machin (1998) in Consindie and Zappala (2002) who argues that the influence of family structure has been found to be weakly associated with educational attainment after controlling other variables. In relation to this, the study investigated the influence of family structure on students' academic performance.

2.3 Parental Education on Academic Performance of Students

In this study, parent's level of education is the highest level of education attained by parents during schooling which can be tertiary, secondary, primary or never gone to school. From literature, the influence of parental education on academic performance is mixed as discussed in this sub-section. This section discusses ways in which parental education may or may not influence the academic performance for their children.

Pupils from families where parents have less education tend to systematically perform poorly than pupils whose parents have more education (Onzima, 2010). Parent's level of education may influence student's academic performance in the following ways. First, Eccles and Davis-Kean (2005) in their paper based on a talk at the conference for research on the wider benefits of learning on September 2004, argue that parents may learn something during schooling that will influence the way in which they interact with their children around learning activities at home. The parents' achievement may motivate these students to work hard, and in the long run their academic performance improves. For instance, parents who are well educated or professional may provide their children with a favourable environment to encourage or motivate them to develop similar interest and perform well in their parent's subject areas (Ozurumba *et al.*, 2007; Keith *et al.* 1987).

Second, Level of education influences parent's knowledge, beliefs, values and goals about childrearing, so that a variety of parental behaviours are directly related to children's school performance. In addition, these parents are more likely to believe strongly in their abilities to help their children learn. Therefore, students whose parents have higher levels of education may have regard for learning, and they may use more effective learning strategies than children of parents with lower levels of education (Gale group Inc., 2010).

In other instances, as Nelson (2009) argues, parents who did not find as much success and positive reinforcement in their own schooling may naturally withdraw from further academic challenges. On the other hand, parents who have achieved higher education are more likely to foster persistence and skills in their children to navigate pathways to success by praising and rewarding their child's budding abilities.

Fourth, parents who have advanced degrees may value education more (Nelson, 2009). Those who attained higher grades in college are more likely to pursue graduate and doctoral degrees. Their past achievements may become a benchmark for their children to follow as

parents' past pursuits in education may augment structural factors on intergenerational behaviours. Whether the parent's grade is tied to intelligence or disciplined study or both, these traits and behaviours may be passed down to their children. Higher achieving parents foster those things that are important in their children and prioritize academic success. In contrast, those who graduated with a minimal degree generally do not have the financial means or aspirations to raise higher-achieving students. In addition, college-educated parents are typically more aware of the long-term benefits of acquiring a college degree, and thus they share this information with their children.

The higher the degree the parents have obtained, the greater the support the student will have from their parents to complete a similar academic goal. Parents who have not attended college, on the other hand, tend to have less direct knowledge of the economic and social benefits of a postsecondary education. Thus, some of these parents may prefer that their children work rather than attend college. Students whose parents never attended college are sometimes faced with a difficult choice between fulfilling family expectations or obligations and pursuing of a degree (Nelson, 2009; Onzima, 2010).

Another way through which parental education may influence students' academic performance is by influencing students' study habits. For instance, it is likely that parents who achieved the goal of an advanced degree tend to encourage disciplined study habits in their children. Children of parents who did not pursue higher education are less likely to have frequent observational learning opportunities to develop dedicated study habits (Nelson, 2009). The study habits may in turn influence academic performance.

Mothers and fathers may influence academic performance differently. Okumu (2008) in a study of Socioeconomic Determinants of Primary School Dropout found that high academic attainment of a mother and father significantly reduces chances of primary school drop out for both boys and girls in rural and urban areas. He observed that, for a mother, this phenomenon could be attributed to the fact that educated mothers reduce the time spent doing household chores while increasing the time spent with their children than their uneducated counterparts. Also educated mothers are more effective in helping their children in academic work. In doing so, they are also able to monitor and supervise their children's academic progress.

For fathers it's attributed to the fact that educated fathers are also interested in their children thus, they would be willing to spend more time in helping their children in academic problems. Educated fathers are as well aware of the possible returns to their children and they are more likely to have access to information and social networks necessary for their children to engage into relatively human capital intensive activities yielding high returns to education (Kassim and Muraina, 2011; Onzima, 2010).

However, parental education may not always influence the academic performance of students. For instance, in USA, Sewell and Shah (1968) carried out a study on parents' education and children's educational aspirations and achievements using a large randomly selected cohort of Wisconsin high school seniors who were followed for a seven year period. The evidence indicated that, parents who are dissatisfied with their own achievement may encourage their children to take school seriously, thus motivating their children to perform well in school. Similar views are shared by Newson and Barns (1977) in Keith *et al.* 1987 who observed that, lower class parent express ambitions to their children in terms of their own dissatisfaction by offering themselves as models to be avoided.

Second, the same study by Sewell and Shah (1968) found that, those students who were dissatisfied with their living standards and desire to get solutions to the problems they faced, they were motivated to high academic performance. Third, as Keith *et al.* (1987) argued parents' own educational experience may limit their understanding of what schools are trying to achieve and thus limit the extent to which parents are able to follow what their children are doing irrespective of how they want to encourage their children with school work.

2.4 Income and Academic Performance

Income is a very important determinant of child development. It affects outcomes through deprivation of those material needs which aid educational success, for example a learning environment with adequate housing, books, clothing and educational games (Feinstein *et al.*, 2004). Empirical studies have found the effects of income on children's attainment to be substantial but importantly non-linear (Gregg & Machin, 2000). Those children who always live in poverty face the highest risk of school under-attainments.

Parents with high level of education have greater access to a wide variety of economic and social resources (family structure, home environment, parent-child interaction) that can be drawn from to help their children succeed in school (Gale Group Inc., 2010; Keith *et al.*,

1987). Using a survey research. Olanike (2010) carried out a study on the effects of parental education on school outcomes in Nigeria using a sample of 260 students, teachers and parents from six randomly selected secondary schools in 2009. The findings suggested that educated parents who may often fall into high or middle socio-economic class families may show concern over their children's poor performance at school either by teaching them in those subjects which they have performed poorly or they appoint lesson teacher to coach them. He further observed that, non-educated parents who most likely fall into the low socio-economic families, even if worried over their children's poor performance at school they are not always able to coach their children as themselves have little or no education and they may not have the financial capacity to hire lesson teacher for their children (Olanike, 2010).

These views are supported by Ozurumba *et al.* (2007) using a sample of 250 students carried out a study on parent's education and student's performance in educational statistics at federal capital territory Abuja, Nigeria. Their study found that education level of parents has a positive influence on academic performance of their children since educated parents provide reading facilities at home and pay extra fees to teachers to teach their children at home where parents have no time. In addition, these parents are in a better position to offer assistance to their children in solving their educational problems.

Machin *et al.* (2002) observed that, low income has an independent effect on children's outcomes after controlling for key aspects of family background and child ability. They argued that, this influence may occur through reduced investments in educational development outside the school (i.e. resources for high quality childcare, after school coaching, educational materials in the home, money for trips to zoos, days out, holidays etc.). Later on, the low income influence educational progress as poorer parents may lack the resources to fund their children through further and higher education.

Another way in which parental income influences students' academic performance is by affecting the quality of primary and secondary schooling, thereby affecting students' performance in these lower grades and hence their achievement in and expectations for post-secondary schooling (Mayer, 2002). Parental income may also affect parents' expectations for their children. If parents think they cannot afford to send their children to college they may discourage these aspirations.

Both parents' education and family income determines where family can live and the types of jobs the parents are likely to have. Family income and residence may influence the types of schools and the neighbourhood opportunities and risks to which their children will be exposed to. These school and neighbourhood characteristics directly influence the children's educational achievement through the kind of learning opportunities they afford for their children and the kind of risks that the children must cope with as they grow (Eccles and Davis-kean,2005). Similarly, Machin *et al.* (2004) argued that, purchase of housing in a good neighbourhood that leads to a better peer group or access to a better school. Gibbons and Machin (2001) quoted by Machin *et al.* (2004) observed that, parents seem prepared to pay a lot more for housing located near to better achieving primary schools.

Another mechanism is that financial problems increase family conflict and parental stress levels. This in turn reduces the ability to engage in parenting which is effective in helping children do well at school (Machin *et al.*, 2004)

2.5 Occupation and Academic Performance

According to Chevalier *et al.* (2005), occupational status is more closely related to the economic resources available in a family. The economic resources influence educational attainment of the offspring by constraining the possibilities of families with insufficient economic resources. Eccles and Davis-Kean (2005) observed that, the type of jobs parents have may influence the values and goals parents have for their children. They quote Kohn (1969) who argue that "parents in working class are more likely to value obedience and less likely to value intellectual curiosity than parents in professional jobs. These parents are also less likely to model the importance of intellectual activities at home." These characteristics in turn are not likely to facilitate high levels of intellectual curiosity and educational engagement in children.

Similarly, Muola (2010) using an ex-post facto research design on a sample of 235 standard eight pupils in Machakos district carried out a study on the relationship between academic achievement and home environment. The findings also suggest that, high level of parent's education which most often goes with high occupational status means that the parent will be able to provide necessary learning facilities and assist child with school work.

2.6 Parental Expectations and Academic Performance

Parents' influence on their children extends to the kinds of expectations they have for their child's school achievement. Research has shown that parental expectations for children's academic achievement outweigh other measures of parental involvement, such as attending school events, in their association with educational outcomes (Lippman *et al.*, 2008).

Parents' expectations may influence child outcomes through multiple pathways. Parental expectations are more likely to affect their children when parent-child relationships are characterized by closeness and warmth. Parent expectations directly affect the amount of parent-child communication about school. In addition, families with high educational aspirations for their children tend to provide more out-of-school learning opportunities for them. Students who reported their parents expected them to attend college had better attendance and more positive attitudes toward school, according to one study. Parental expectations also affect the child's own aspirations and expectations; for instance, studies suggest that parents' expectations for their children's academic attainment have a moderate to strong influence on students' own goals for postsecondary education (Lippman *et al.*, 2008; Yazedjian *et al.*, 2009)

Parents of high-achieving students may set higher standards for their children's educational activities than parents of low-achieving students. Davis-Kean carried out a study on the influence of parent education and family income on child achievement in USA using a sample of 868 8-12 year-olds guided by family process and socialization models of achievement in 2005. The findings suggested that, educated parents are thought to have higher expectations for their children's education which predict greater educational attainment for their children (Davis-Kean, 2005). Similar findings are shared by Olanike (2010) who found that, academic aspiration of school children is positively related to the standings of their children as children may tend to imitate their parents and so imitate and aspire to be as highly educated as their parents.

Parents' expectations for their child's future are related to his or her current performance in school. Parents who are more involved in their children's lives as measured by the number of activities shared are more likely to hold higher expectations for their child's education. Visiting a library together, attending a concert or play, visiting an art gallery, museum, or historical site, or going together to a zoo or aquarium are some of the activities parents and

children might share (Lippman *et al.*, 2008).

According to Eccles and Davis-Kean (2005), parents' perceptions of their children's academic abilities may predict children's own confidence in their abilities. Attitude is one of the key aspects of motivation and parents have great influence on the attitudes of their children (Morrish, 1978; Lewis, 1981 in Keith *et al.*, 1987). This influence may be through the types of stimulation the parents provide and the examples of their own behaviour displayed to children. The type of education which parents themselves have had is likely to influence their attitudes towards education and may affect their aspirations for their children (Keith *et al.*, 1987). As Morrish (1978) observed, a parent who shows complete disregard for education negatively affects children's educational progress.

Despite their educational level, parents might still hold high expectations for their children's academic achievement. In fact, Arellano and Padilla (1996) quoted by Yazedjian *et al.* (2009) found that, Hispanic parents with limited education supported and encouraged their children's academic success. Interestingly, Walker and Satterwhite (2002) also quoted by Yazedjian *et al.* (2009), found a negative correlation between parental expectations and grades among White college students. That is, students who indicated higher expectations from their parents had lower grades than did students who reported lower parental expectations.

2.7 Parental Support and Academic Performance

From literature, parental support and encouragement plays a significant role in determining children's educational achievement. Parental support is the financial and non-financial materials and opportunities which a parent provides to the child for his/her education. The indicators include: the reading and writing materials bought; amount of fees paid in school; and whether a parent attended school meetings, checked child's performance at the end of the term, hired a private tutor for the child, provide fuel for studying at home, assisted a child with class work or discussed child's progress in school with the teachers. According to Schiller *et al.* (2002) quoted by Dimbisso (2009), parents who have more education are in a better position to provide their children with the academic and social support better for education success when compared to less educated parents.

For instance, higher levels of education may enhance parents' ability of becoming involved in their children's education and also enable parents to acquire and model social skills and problem solving strategies conducive to their children's school success (Gale group Inc.,

2010). Those results possibly reflect the ability of parents to support the pupils' school work, and likely interactions of literate parents with their children in school related or literacy nurturing activities as well as their ability to support their children with home work or help with difficult home work questions. These include ability of literate parents to support pupils with home and school work, monitoring and supervision of children's school work and access to information and social networks necessary for their children's success in life.

Parental education was positively related to parent-teacher contact. The more educated the parent, the greater was their involvement in their child's education. A lack of extended personal educational experience has, argues Kohl *et al.*, rendered some parents lacking in relevant skills or appropriate conception of 'parents as co-educator' (Desforges and Abouchaar, 2003).

Smart (1992) in Ozurumba *et al.* (2007) in his study concluded that, in most homes, parents' educational level correlate with the academic performance of their children. He argued that more educated parents are more likely to give their children practice in their school subjects at home, go to school to find out their progress report and assignment records. The same views are supported by Good and Brophy (1997) who argued that educated parents usually show more interest in their children's academic performance, choose subjects, meet and collaborate with administrators to ensure their children are serious with studies.

Single parent status may negatively affect parental involvement at school, the teacher's perception of the parent and the quality of the parent-teacher relationship. Notably, single parents seem to focus their energies in the home. Since these parents' effort is not present in the school, they run the risk of teachers' negative perceptions. However, as McBride and Mills (1993) in Ramey and Ramey (2004) observed, the mother's influence on her child may be different from father's influence as there is clear difference on how mothers and father treat their children. For instance, Desforges and Abouchaar (2003) quote Grolnick and Slowiaczek (1994) who found that mothers were more involved than fathers in their children's schooling. It is to this regard that this study investigated whether parental support to child's education differs by gender of the parent in Kalama division, Machakos district.

Children who are encouraged in their studies by parents are more likely to do better in tests. An indication of parental encouragement is seen when parents give high priority to the provision of good facilities for quiet study and homework (Keith *et al.*, 1987). Children do

best in school when parents provide predictable boundaries for children's lives, encourage productive use of time, and provide learning experiences as a regular part of family life (Redding, 1996). This is more likely to occur if parents themselves have attended a high school, and realize what is required of the child, and have a practical insight into the part which they themselves need to play.

2.8 Family Size and Academic Performance

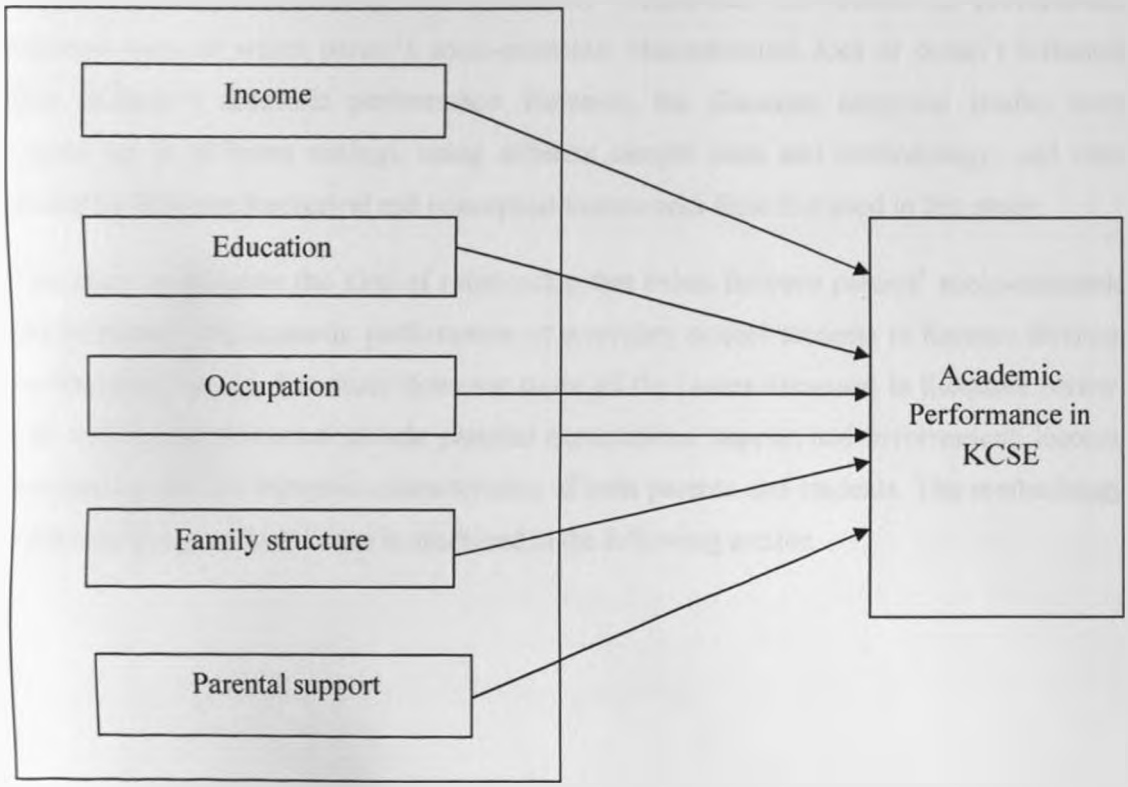
Evidence on the raw negative relationship between parental education and family size is robust (Feinstein *et al.*, 2004). From theory, there are four interrelated pathways by which education may affect family size, mainly via effects on parents' choices regarding the number of children. First, parents with high education may place a higher valuation of child attainment relative to child quantity which may limit family size in order to maximize children attainments (Joshi, 2000). Secondly, education may increase the opportunity cost of employment and so induces a substitution between fertility and employment (Hobcraft and Kiernan, 1999. Thirdly, education may reduce childbearing time (Dale & Egerton, 1997) and, fourthly, lead to better understanding of contraception and so enable the achievement of desired family size (Blackwell & Bynner, 2002).

Due to resource constraints at the household level, some economic models predict that the greater the size of the family the lower the future educational attainments and earnings for children since every additional child receives relatively fewer parental resources. This, however, may be offset somewhat by the positive externalities that exist from older children for their younger siblings. Empirical evidence from the US and the UK suggests that, children from small families tend to achieve higher educational qualifications than those children raised in large families (Feinstein *et al.*, 2004).

2.9 Conceptual Framework

The conceptual framework below indicates the main dimensions to be studied and the presumed relationship among them.

Parents' Socio-economic Characteristics



Source: Author's conceptualization

Although student's academic performance is influenced by various factors, this model uses only parent's socio-economic characteristics namely: income, occupation, education, family structure and parental support to child's education. Each of the socio-economic characteristic may influence the student's academic performance in KCSE as seen in the student's mean score either individually or collectively.

2.10 Summary of Literature Review

This section has reviewed the relevant literature on parents' socio-economic characteristics and students' academic performance. From the discussion, there is some insight on the kind of relationship that may exist between parents' socio-economic characteristic and students' academic performance although the relationship is uncertain. The section has provided the different ways in which parent's socio-economic characteristics does or doesn't influence their children's academic performance. However, the discussed empirical studies were carried out in different settings, using different sample sizes and methodology, and were guided by different theoretical and conceptual frameworks from that used in this study.

This study investigates the kind of relationship that exists between parents' socio-economic characteristics and academic performance of secondary school students in Kalama division, in Machakos district. The study does not cover all the issues discussed in literature review. The main issues addressed include parental expectations, support and involvement, income, occupation; and demographic characteristics of both parents and students. The methodology used to investigate these issues is described in the following section.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This section contains the methodology used during the study for data collection and analysis. The section begins by discussing the overall research design and then the specific issues of the design.

3.1 Research Design

The study used qualitative and quantitative techniques conducted through *ex-post facto* research design. Kerlinger (1986) defines ex-post facto research design as a systematic empirical inquiry in which scientists do not have direct control of independent variables because they cannot be inherently manipulated. It examines whether one or more pre-existing conditions could possibly have caused subsequent differences in groups or subjects (Esham, 2010). The design was used to investigate if parent's socio-economic characteristics led to differing performance in KCSE. It was suitable for the study since it involved studying conditions that had already occurred: the dependent variable (KCSE performance) had already occurred while parents' socio-economic characteristics as factors influencing academic performance in KCSE could not be manipulated.

The study involved a household survey of selected parents or guardians to the secondary school students who had sat for their KCSE between 2000 and 2010 in Kalama division. All the eight sub-locations in the division were included in the study and snowball sampling technique was used to indentify households with a student who had sat for KCSE between 2000 and 2010 and the parent or guardian to the student interviewed.

In addition to the primary sources, secondary sources of data were also be utilised in the study. This information was collected from both published and unpublished materials and formed part of the literature review.

3.2 Study Site

The study was carried out in Kalama division of Machakos district which is one of the districts that form Eastern province in Kenya. Machakos district borders Nairobi city and Kangundo district of the Northwest, Mwala district to the East, Kajiado district to the West and Makueni district to the South. The district covers an area of 1985.5 square kilometres most of which is semi-arid. It is subdivided into four administrative divisions Kathiani, Central, Athi River and Kalama. The division has four locations: Lumbwa, Kalama, Kyangala and Kola; and eight sub-locations: Muumandu, Kiitini, Nziuni, Kakuyuni, Kyangala, Kinoi, Katanga, and Iiuni.

According to 2009 population census, the division had a population of 42,834 consisting of 20,197 males and 22,637 females; and an average population density of 146 people per square kilometre. There were 9,535 households as at 2009 (RoK, 2010). Agricultural production is the main economic activity although much of the crop is used for subsistence production with limited horticultural production for commercial purposes. Although the administrative units have changed to Counties, this study used Machakos district instead of Machakos County since data was collected from the previous administrative units. The rationale of picking Kalama division was based on the researcher's knowledge of the area and the local language.

3.3 Unit of Analysis and Sampling

The target population was the parents or guardians to students who had sat for their KCSE between 2000 and 2010, and the unit of analysis was the households with a student who had sat for KCSE between the same periods. All the eight sub locations in the division were included in the study. According to 2009 population census, there were 9,535 households in Kalama division. However, the households with a student who had done KCSE between 2000 and 2010 were selected through snowball sampling technique.

Snowball sampling is a type of purposive sampling where existing study objects recruit future objects from their acquaintances (Faran, 2007). It is designed to identify people with particular knowledge, skills or characteristics. Snowball sampling uses community knowledge to find people with specific range of characteristics that has been determined by the researcher as useful (Taylor-Powell, 1998). In this technique, the researcher begins by

identifying someone who meets the criteria for inclusion in the study, then asks them to recommend other members of that population whom they happen to know and who also meet the criteria (Babbie, 2010). This process continues until a target sample size has been reached or until additional data collected yield no new information (Taylor-Powell, 1998). The term "snowball sampling" reflects an analogy to a snowball increasing in size as it rolls downhill.

The method is useful when there are no population lists or subjects are hard to locate. Snowball sampling helps identify stakeholders unknown to the researcher. However, the method has limitations. First, the method hardly leads to representative samples as the researcher is not able to represent the population well (Faran, 2007). The researcher has no idea of the true distribution of the population and of the sample. Second, the researcher has little control over the sampling method. The subjects that the researcher can obtain rely mainly on the previous subjects that were observed. Third, the method introduces sampling bias since initial subjects tend to nominate people that they know well. Due this, it is highly possible that the subjects share the same traits and characteristics. The rationale for using snowball sampling to select the participants was due to the reason that there was no documented information on households with students who had done KCSE between 2000 and 2010 in the division and the researcher relied on community knowledge to locate them.

In each of the eight sub-locations in the division, 10 households with a student who had done KCSE between 2000 and 2010 were selected through snowball sampling and a parent or guardian interviewed. Therefore, the study had a sample of 80 respondents to whom the survey questionnaire was administered.

3.4 Data Sources and Data Collection Methods

The study used both primary and secondary data sources. The primary data was collected from the field through questionnaires and interview guides, structured on the basis of various themes from the research questions. The study had a questionnaire for parents/guardians which contained both open ended and structured questions. The data collected included: socio-economic and demographic characteristics of parents and students; parental expectations to child's education; parental support in children's education; and home and school environment in relation to academic performance. For most students' academic data (for 52 students) was collected from mothers, for 22 students from their fathers, for 5 students from their grandmothers, and for only 1 student from the sister (see Table 3.1)

Table 3.1: Source of Students' Academic Data

Source of students' academic data	Number	percentage
Mother	52	65%
Father	22	27.5%
Grandmother	5	6.25%
Sister	1	1.25%
Total	80	100%

Source: Field Research, 2011

Secondary data on parents' role in children's education, family structure and academic performance, and parents' socio-economic characteristics and academic performance was obtained from published and unpublished data. This provided the basis of existing literature gap and provided relevant literature on what had been done. They included books, statistics from government departments, magazines, journals, reports and thesis.

3.5 Data Analysis

Data analysis involved regular reviewing and summarising of information provided by participants. Statistical Package for Social Sciences (SPSS) was used for analysis of quantitative data. Frequency tables, charts and graphs were used to present the demographic characteristics of parents and secondary school students in Kalama division.

Several statistical tests were used to analyse the quantitative data. To test differences between groups, the tests used were Independent-samples t-test, One-way between-groups Analysis of Variance (ANOVA), Mann-Whitney U test or Kruskal-Wallis test. Independent-samples t-test was used to compare values of a continuous variable between two different groups, and in case of ordinal data Mann-Whitney U-test was used. To compare values of a continuous variable between three or more different groups One-way between-groups ANOVA was used, and in case of an ordinal data Kruskal-Wallis test was used.

To test the kind of relationship that existed between two variables, Pearson Product-moment Correlation or Spearman's Rank Order Correlation was used. For continuous variables, Pearson Product-moment Correlation was used while Spearman's Rank Order Correlation was used for ordinal data. To test the relationship between two categorical variables, Chi-Square test was used. A summary of analysis used for each research question is provided in Table 3.2.

Table 3.2: Summary of Analysis Used for Each Research Question

Objective	Analysis
To investigate the parents' socio-economic characteristics in Kalama division	Descriptive statistics (mean, mode, median, crosstabs)
To document the characteristics of secondary school students in Kalama division.	Descriptive statistics (mean, mode, median, crosstabs), Independent samples t-test
To determine whether parents' socio-economic characteristics influence student's academic performance in KCSE	One-way ANOVA, Independent samples t-test, Mann-Whitney U test, Chi square, Pearson product-moment correlation, Spearman's rank order correlation
To investigate whether parental support to child's education differs on the basis of parent's socio economic characteristics	Kruskal-Wallis test, Mann-Whitney U test
To investigate whether student's academic performance in KCSE differs by the level of parental support to child's education	Kruskal-Wallis test

Qualitative data analysed using word tables. The qualitative data was first formatted into data tables, coded, sorted and then analysed according to various thematic issues. These thematic issues were based on the research questions.

Using the methodology outlined here, the researcher collected and analysed data. This resulted in a set of findings which are presented in the next chapter.

CHAPTER FOUR: PARENTS' SOCIO-ECONOMIC CHARACTERISTICS AND STUDENTS' ACADEMIC PERFORMANCE

4.1 Introduction

This chapter presents findings of the study on parents' socio-economic characteristics and students' academic performance in KCSE in Kalama division, Machakos district. The findings are reported in four sections. The students' academic performance in KCSE is presented in section one, while the relationship between parents' socio-economic characteristics and students' academic performance in KCSE is presented in section two. Students' characteristics are presented in section three, while other factors other than parents, socio-economic characteristics, and whether or not these factors influenced academic performance in KCSE are presented in section four. These factors are parental expectations on child's education, responsibilities assigned to students while at home, and students' study habits. Tables and charts are used to illustrate the findings.

4.2 Students' Academic Performance in KCSE

The academic performance of the 80 students was poor, as a large number of students (78.3 percent or 61) scored below grade C+ which is the minimum mark for students to qualify for university education in Kenya. The final score of the students is presented in Table 4.1. Most of the students (23.8 percent or 19) scored grade C, and the second largest category was of students who scored grade D+ (22.5 percent or 18). The next was of students who scored grade D (15 percent or 12), grade C- (10 percent or 8 students), and grade B (7.5 percent or 6 students). Students who scored grades C+ and B- were equal in number (6.3 percent or 5 students), grade A- (2.5 percent or 2) and only 1 student scored grade B+.

The academic performance of the sampled students was not different from the general academic performance of other students in KCSE in Kalama division which over the years has been poor. This can be observed in appendix I, which shows the mean score of secondary schools in Kalama division in KCSE from 2006 to 2010. On average, the division's examination performance is far from the mean grade of C+ (mean score of 7 points) which is required for students to be admitted to universities. This means that, those who attained the grade C+ and above were so few that they could not influence the divisions mean score positively (see appendix II). For instance in the year 2010, only 100 out of 742 attained at least the mean grade of C+ to qualify for university education.

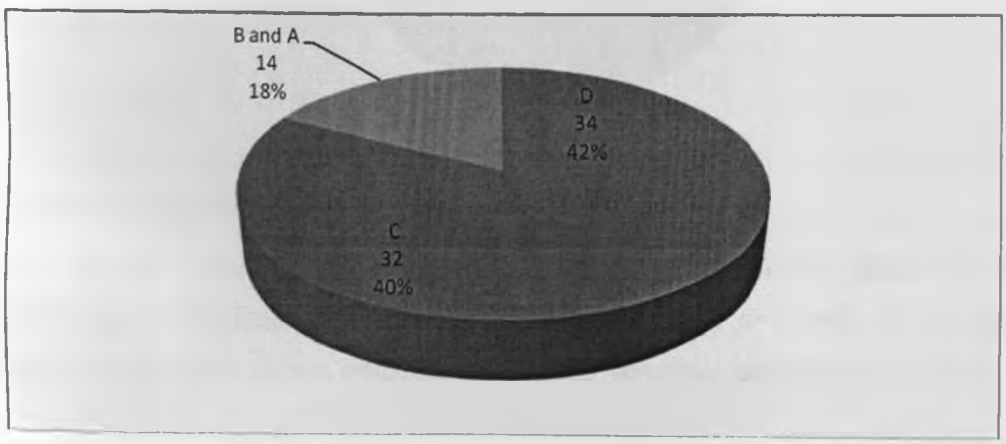
Table 4.1: Distribution of Students' Grades in KCSE

Grade in KCSE	Total	%
C	19	23.8
D+	18	22.5
D	12	15
C-	8	10
B	6	7.5
C+	5	7.5
B-	5	6.3
D-	4	5.0
A-	2	2.5
B+	1	1.3
Total	80	100

Source: Field Research, 2011

Students' academic performance in KCSE was grouped into three categories: D, C, and B and A, in order to reduce the number of empty cases in the crosstabs. The D category consisted D-, D, and D+ grades; C category consisted of C-, C, and C+ grades; while B and A category consisted of B-, B, B+ and A- grades. The rationale of grouping all B and A grades together was due to the reason that, those who scored above B+ were only two students. After grouping, the majority of the students (42.5 percent or 34 students) of the total sample had scored grade D, 40 percent or 32 students had grade C, while 17.5 percent or 14 students had a grade B or A (see Figure 4.1).

Figure 4.1: Grouped Students' Academic Performance in KCSE



Source: Field Research, 2011

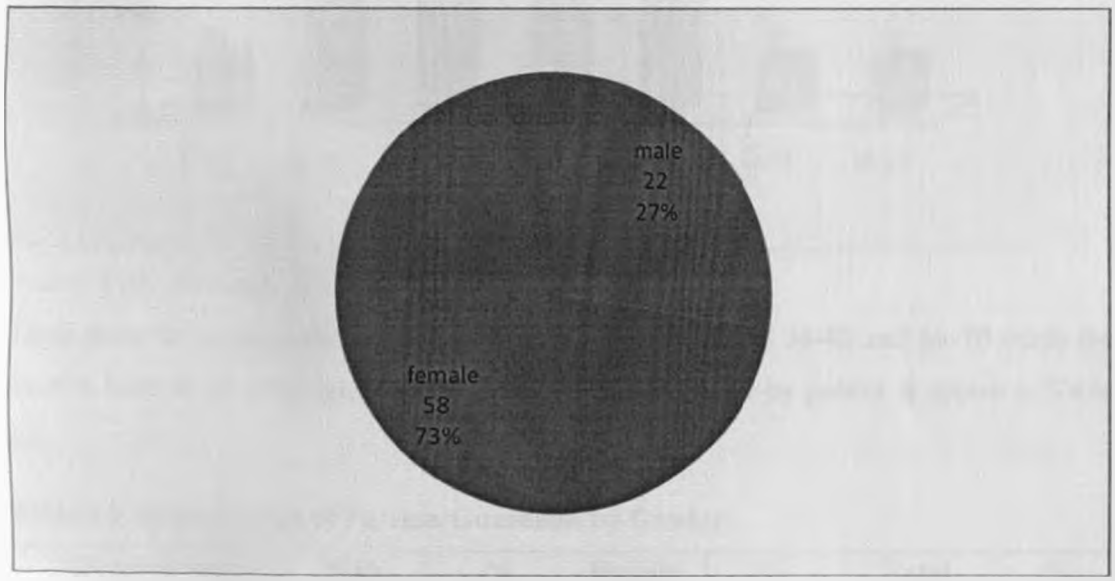
4.3 Parents' Socio-economic Characteristics and Students' Academic Performance in KCSE

This section reports the findings on the relationship between parents' socio-economic characteristics and students' academic performance in KCSE in Kalama division. The parents' socio-economic characteristics discussed here are gender, age, family structure (marital status), family size, education, income, occupation and parental support. The descriptive statistics of each socio-economic characteristic are first discussed.

4.3.1 Gender

Out of the 80 parents/guardians, 27.5 percent of the sample or 22 of them were male while 72.5 percent or 58 were female. The high proportion of women is due to the fact that in most families women were the ones at home during the time when data was collected (see Figure 4.2).

Figure 4.2: Gender of the Parents/Guardians



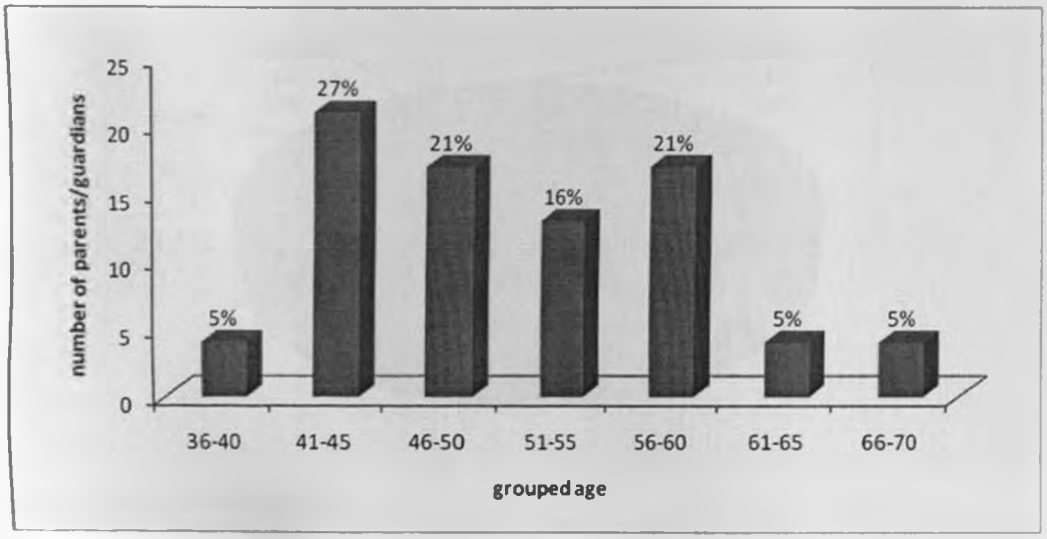
Source: Field Research, 2011

The students' academic performance in KCSE did not differ by gender of the parent according to Chi-square test (Chi-square = 1.634, df = 2, p= 0.442). This suggested that gender of the parent did not influence the students' academic performance in KCSE.

4.3.2 Age

The age of the parents/ guardians ranged between 36 and 70 years. The mean age was 50.51 years and a mode of 44 years. Most of the respondents were aged between 41-45 years and comprised 27 percent or 21 of the total sample; these were followed by respondents of ages 46-50 and 56-60, with each comprising 21 percent or 17 of the sample. Those aged 51-55 years were 16 percent or 13 of the sample, while respondents of ages 36-40, 61-65 and 66-67 each comprised 5 percent or 4 of the sample (see Figure 4.3).

Figure 4.3: Grouped Age of the Parents/Guardians



Source: Field Research, 2011

There were no males in the sample within the age brackets of 36-40 and 66-70 while the females were in all other age brackets. The distribution of age by gender is shown in Table 4.2.

Table 4.2: Grouped Age of Parents/Guardians by Gender

Grouped age	Male	%	Female	%	Total	%
41-45	2	9.1	19	32.8	21	26.3
46-50	6	27.2	11	19	17	21.2
56-60	8	36.4	9	15.5	17	21.2
51-55	5	22.7	8	13.8	13	16.3
36-40	0	0	4	6.9	4	5
61-65	1	4.6	3	5.1	4	5
66-67	0	0	4	6.9	4	5
Total	22	100	58	100	80	100

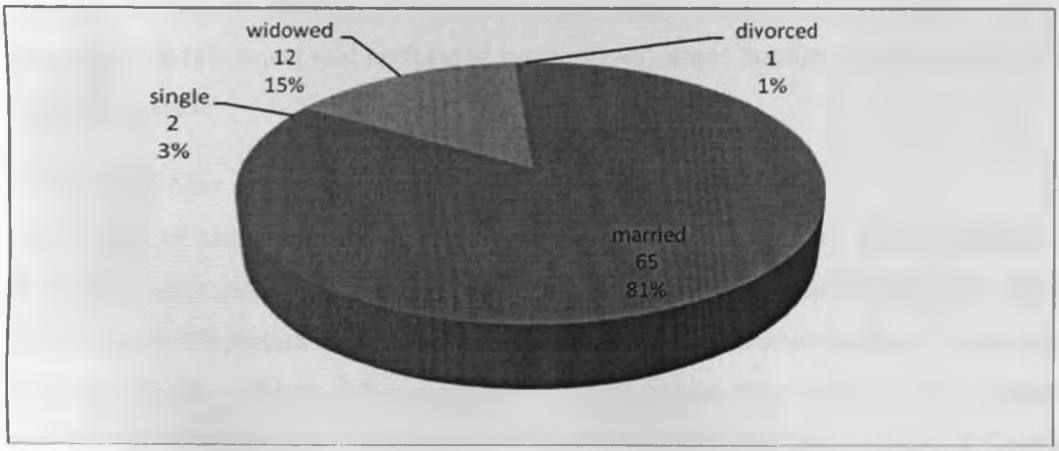
Source: Field Research, 2011

Chi-square test suggested that parents' age did not influence students' academic performance in KCSE (Chi-square = 4.362, df = 12, p = 0.976).

4.3.3 Marital Status / Family structure

Most of the respondents were married (81 percent or 65). About 15 percent or 12 respondents were widowed while 3 percent or 2 respondents were single, and only 1 percent or 1 respondent was divorced at the time of data collection. This information is presented in Figure 4.4.

Figure 4.4: Marital Status of Parents/Guardians



Source: Field Research, 2011

This implies that, 81 percent or 65 students were in two-parent families meaning that their parents or guardians were married, while 19 percent or 15 students were in single-parent families whom parents or guardians were either single, windowed, or divorced. The study also compared academic performance of students from two-parent families with that of students from single-parent families. Mann-Whitney U test suggested that, there was no statistically significant difference in students' KCSE academic performance in two-parent and single-parent families (z= -1.727, p= 0.084).

For students who were in two-parent families, most of them (46.2 percent or 30) scored grade D, 40 percent or 26 students scored grade C, and 13.8 percent or 9 students scored either grade B or A. For students who were in single-parent families, 26.7 percent or 4 students scored grade D, 40 percent or 6 students scored grade C, and 33.3 percent or 5 students scored either grade B or A. This implied that family structure did not influence academic performance of students in Kalama division.

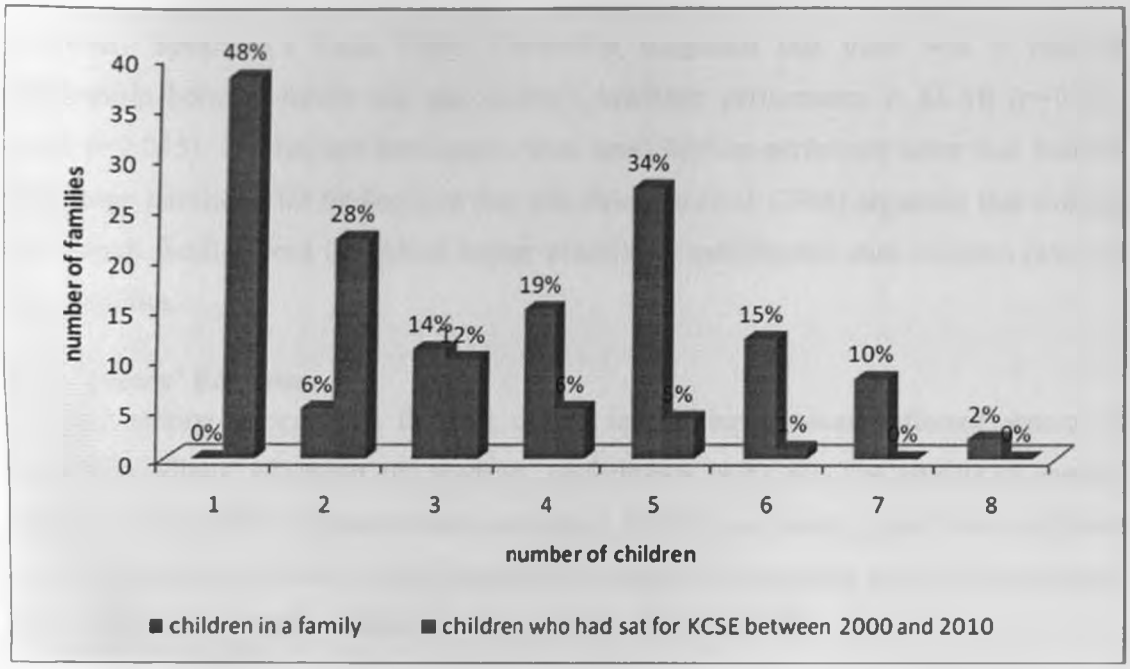
These findings contradicted most studies on single parenting and academic performance [Thiessen (1997), Alawonde and Salami (2000), and Downey (1984 in Ledbetter and Leonce (2010)] which had found that, children from single parents had poorer scores than those where both mother and father were present. These authors had argued that, the poor performance may be due to the reason that the single parent has so much work and family responsibilities that require time, attention and money. With limited finances, time and availability, single parents are less likely to provide adequate support a child needs to perform to the best of their ability. These may in turn result to poor academic performance on part of the child. However, the findings were similar to Herzeg and Saudia (1973) and Cashion (1982) in Thiessen (1997) who found that, single-parented children had equal intellectual development and performed same as two parent families when controlling socio-economic status.

4.3.4 Family Size

The number of children in the 80 families sampled ranged between 2 and 8 children, with a mean of 5 and a mode of 5 children. A larger proportion of the sample had five children in their families (34 percent or 27), 19 percent or 15 families had four children, 15 percent or 12 families had six children, 14 percent or 11 families had three children, 10 percent or 8 families had seven children, 6 percent or 5 families had two children, and only 2.5 percent or 2 of the sampled households had 8 children.

Since the study was interested in students who had sat for KCSE between 2000 and 2010, this was also computed. In these families, the number of children who had done KCSE between 2000 and 2010 ranged between 1 and 6 children. Most families (48 percent or 38 of the sample) had one child who had done KCSE within this period, 28 percent or 22 families had two, 12 percent or 10 families had three, 6 percent or 5 families had four children, 5 percent or 4 families had five children, and only 1 percent or 1 family of the total sample had six children who had done KCSE between 2000 and 2010 (see Figure 4.5).

Figure 4.5: Number of Children in a Family and Number of Children who had sat for KCSE between 2000 and 2010 in a Family



Source: Field Research, 2011

The relationship between the family size and the number of children who had sat for KCSE between 2000 and 2010 was investigated using Pearson product moment correlation. There was a medium, positive relationship between the two variables ($r= 0.427$, $n= 80$ $p<0.0005$). This suggested that large families were associated with large number of students who had completed KCSE between 2000 and 2010. However, during data collection it was noted that some families had large families but those who sat for KCSE were few either because they had sat for KCSE prior to 2000, they had not yet done their KCSE exam or they had dropped out of school.

Family structure was further compared with family size and the number of children who had done KCSE in families. In this case, family structure was whether it was a two parent family or single parent family. An independent samples t-test suggested that that there was a statistically significant difference between the family sizes of two-parent families ($M=5$, $SD=1.36$) and single parent families [$M=3.8$ $SD=1.37$; $t(78) = 3.079$, $p= 0.003$] as at the time of data collection, with two-parent families having larger family sizes. However, the same test suggested that, there was no significant difference between the number of children who had done KSCE between 2000 and 2010 in two parent families ($M= 2.06$, $SD= 1.29$) and

single parent families [M= 1.6, SD= 0.91; t (78) = 1.314, p= 0.193] at the time of data collection.

However, Spearman's Rank Order Correlation suggested that there was a negative relationship between family size and student's academic performance in KCSE (r=-0.225, n=80, p=0.045). This implied that students from small families performed better than students from large families. This finding is in line with Feinstein *et al.* (2004) argument that children from small families tend to achieve higher educational qualification than children raised in large families.

4.3.5 Parents' Education

This sub-section presents the findings on the relationship between different aspects of parents'/guardians' education and students' performance in KCSE. The aspects of parents' education discussed are highest level of education, whether secondary school was completed or not, the number of years of formal schooling, and grade in secondary school. Each of these aspects is compared with students' academic performance in KCSE.

4.3.5.1 Parents' Level of Education

Most of the parents/guardians in the sampled families exhibited low levels of education (See Table 4.3).

Table 4.3: Highest Level of Education of Parents/guardians by Gender

Highest level of education	Female	%	Male	%	Total	%
Primary education	33	56.9	6	27.3	39	48.8
Post-secondary education	12	20.7	13	59.1	25	31.2
Secondary education	13	22.4	3	13.6	16	20
Total	58	100	58	100	80	100

Source: Field Research, 2011

As presented in Table 4.3, a large proportion of the respondents (48.8 percent or 39) had at most primary education, this was followed by those who had post-secondary education (31.2 percent or 25 respondents), while those who had secondary education were 20 percent or 16 respondents. Mann-Whitney U test suggested that there was a significant difference in education levels of male and female respondents (z= -3.094, p= 0.002). Although the men sampled were less than women, more men had higher levels of education than women. For instance, as presented in Table 4.3, larger proportion of women (56.9 percent or 33) had at

most primary education while larger proportion of men (59.1 percent or 13) had post secondary education. However, the only respondent who had university education was a woman. Most respondents (96.2 percent or 77) stated that they had not attained the highest level of education they wanted to attain while only 3.8 percent or 3 had attained.

Spearman's Rank Order Correlation was conducted to examine the relation between parents'/guardians' level of education and students' academic performance. The test revealed that there was a weak positive relationship between the two variables (r= 0.168, n=80, p= 0.135). This suggested that, the higher the level of education of the parents the higher the students grades in KCSE and vice versa (See Table 4.4).

Table 4.4: Grade of the Students and Parents'/Guardians' Level of Education

Grade in KCSE of the child		Highest level of education of the respondents						
		Primary level		Secondary level		Post-secondary education		Total
			Column%		Column%		Column%	
D	Freq.	17	43.6	10	62.4	7	28	34
	Row%	50%		29.4%		20.6%		100%
C	Freq.	18	46.2	3	18.8	11	44	32
	Row%	56.2%		9.4%		34.4%		100%
B and A	Freq	4	10.3	3	18.8	7	28	14
	Row%	28.6%		21.4%		50%		100%
Total		**39**	**100**	**16**	**100**	**25**	**100**	**80**

Source: Field Research, 2011

As presented in Table 4.3, the number of students who scored grade D declined with increase in parents'/guardians' level of education. For the students who scored grade C there were mixed findings in relation to their parents'/guardians' level of education, while the number of students who scored either grade B or A increased with increase in parents'/guardians level of education. This suggested that, students whose parents had at most primary level of education were more likely to score grade D than those students whose parents had secondary or post-secondary education. On the other hand, students whose parents had post-secondary education were more likely to score either grade B or A than those students whose parents had primary and secondary levels of education.

For the parents/ guardians who had primary level of education, 43.6 percent or 17 of their children scored grade D, 46.2 percent or 18 scored grade C, and only a small proportion of their children (10.3 percent or 4) scored grade B. For the parents/guardians who had secondary level of education, a large proportion of their children (62.4 percent or 10) scored grade D, 18.8 percent or 3 scored grade C, and another 18.8 or 3 of them scored grade B. None of the students whose parents had primary or secondary education scored grade A. For the last category of parents who had post-secondary education, 28 percent or 7 of their children scored grade D, 44 percent or 11 scored grade B, and 28 percent or 7 of them scored either grade B or A. The only two students in the sample who scored grade A-, their parents had post-secondary education.

The findings were consistent with most studies on parental education and student's academic performance like Keith *et al.* (1987), Smart (1997) in Ozurumba *et al.* (2007), Ozurumba *et al.* (2007), Onzima (2010) and Olanike (2010). These studies had concluded that in most homes, parents' level of education correlate with the academic performance of their children. For instance, the findings were similar to Keith *et al.* (1987) and Ozurumba *et al.* (2007) argument that, parents who are well educated may provide their children with a favourable environment to encourage or motivate them to develop similar interest and perform well.

Spearman's Rank Order Correlation revealed that for the sampled parents, provision of a quiet place of study for the child to study at home correlated with the level of education of the parent or guardian ($r= 0.430$, $n=80$, $p<0.0005$). This implied that parents or guardians with higher levels of education were more likely to provide a quiet place of study for their children. In turn these students performed better (Spearman's Rank Order Correlation: $r= 0.174$, $n=80$, $p=0.122$).

4.3.5.2 Parents'/Guardians' Completion of Secondary School Education

The category of those who had post-secondary education comprised some respondents who had gone to village polytechnics without going through secondary school level. The respondents and their spouses who had completed secondary school education, all went to school during the 7-4-2-3 education system.[1] Only 31.2 percent or 25 parents/guardians of the total sample had completed secondary schooling while 68.8 percent or 55 of the total sample had not. Chi-square test revealed the proportion of male who had completed

[1] 7-4-2-3 education system refers to Kenya's education structure prior to 1985 comprising seven years of primary education, four of junior secondary, two of senior secondary, and a minimum of three of university.

secondary school was significantly different from the proportion of females who had completed secondary school (Chi square= 9.233, df=1, p=0.002). Out of the 25 who had completed secondary school 52 percent or 13 were male, and 48 percent or 12 were female; while for the 55 who had not completed secondary school 83.6 percent or 46 were female and 16.4 percent or 9 were male.

For the respondents who completed secondary school, 48 percent (5 male and 7 female) of them had scored division 4, another 48 percent (8 male and 4 female) had scored division 3, and only 4 percent or one female had scored division 2. However, all these respondents stated that they did not perform as per their expectations. Some of the reasons they cited for their poor performance included: problems at home which made them not concentrate well in class; being sent home frequently for school fees; being sick during exam period; and inadequate preparations for the exams.

Spearman's rank order correlation revealed that there was a weak positive relationship between whether the parent who had completed secondary school and the grade the student scored in KCSE (r= 0.150, n=80, p=0.184). This suggested that, completion of secondary school by the parent / guardian was to some extent associated with higher grade in KCSE. For instance, for the majority of the 55 parents/guardians who had not completed secondary schooling (47.3 percent or 26), their children scored grade D, for 38.2 percent or 21 parents/guardians their children scored grade C, and for only few of them (14.5 percent or 8) their children scored either grade B or A. On the other hand, for the 25 parents/guardians who had completed secondary school, most of them (44 percent or 11) had their children score grade C, 32 percent or 8 had their children score grade D, and 24 percent or 6 of these parents who had competed secondary school had their children score either grade B or A (See Table 4.5).

Table 4.5: Grade of Students, Completion of Secondary School and Years in Formal Schooling of Parents/Guardians

Grade in KCSE of the student	Aspects of parental education			
	Completed secondary school			
	Yes		No	
	Freq	%	Freq	%
D	8	32%	26	47.3%
C	11	44%	21	38.2%
B and A	6	24%	8	14.5%
Total	25	100%	55	100%

Source: Field Research, 2011

4.3.5.3 Parents' Grade

This section compares the grade the parents or guardians had in secondary school with that of the child, only for the respondent who had completed secondary school. As earlier observed in this chapter, all the respondents who had completed secondary school were from the old (7-4-2-3) education system where the grading was different from the 8-4-4 education system in which the students sat for their KCSE examinations. The 7-4-2-3 education system was graded division 1, division 2, division 3, and division 4, with division 1 being the highest grade and division 4 the lowest grade. The 8-4-4 education system was graded from grade A to grade E on a twelve points scale, with grade A being the highest grade and grade E the lowest grade.

For students who scored grade D, a large proportion (62.5 percent or 5) of their parent/guardians had division 4, and 37.5 percent had division 3. For the students who scored grade C, 41.7 percent or 5 of their parents/guardians had division 4, another 41.7 percent or 5 had division 3, and 9.1 percent or 1 had division 2. For the students who scored either grade B or A, 33.3 percent or 2 of their parents/ guardians had division 4, and 66.7 percent or 4 had division 3 (see Table 4.6).

Table 4.6: Students' Grade in KCSE and Parents'/Guardians' Grade in Secondary School

Students' grade in KCSE		Parents'/guardian's grade at secondary school			
		Division 4	Division 3	Division 2	Total
D	Frequency	5	3	0	8
	Percentage	62.5%	37.5%	0%	100%
C	Frequency	5	5	1	11
	Percentage	45.5%	45.5%	9%	100%
B and A	Frequency	2	4	0	6
	Percentage	33.3%	67.7%	0%	100%
Total		12	12	1	25

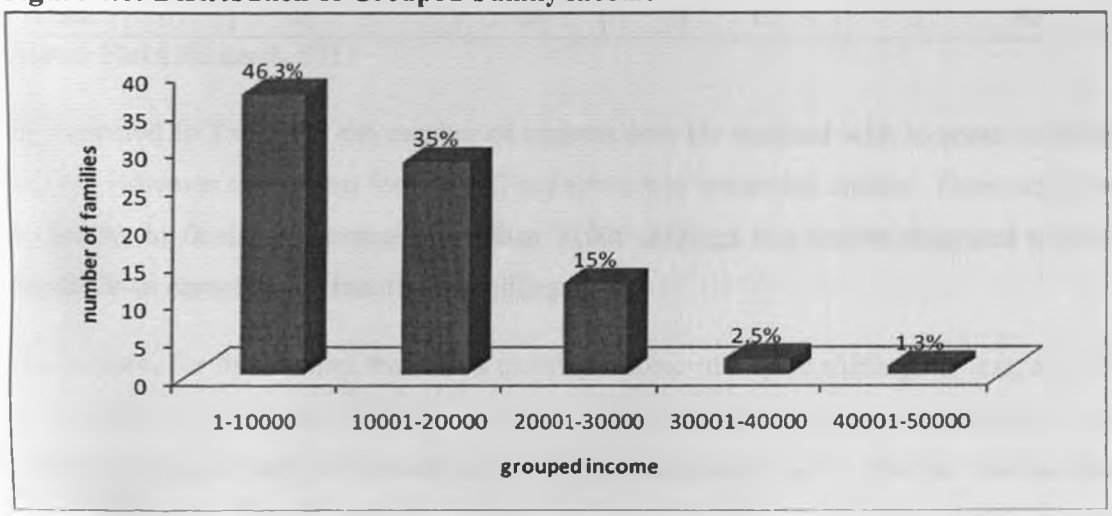
Source: Field Research, 2011

Parents' grade was compared with the students' grade in KCSE using Kruskal-Wallis test. The test suggested that there was no significant difference in academic performance among students of parents who had higher grades and those who had lower grades (Chi square=1.182, df=2, p=0.554). This implied that, parents'/guardians' grade did not influence students' grade in KCSE.

4.3.6 Monthly Family Income

The respondents were requested to state the approximate monthly income of the family. The income of the sampled families ranged from 2,000 and 50,000 Kenya shillings with a mean of 14, 206 and a mode of 10,000 shillings. About 46 percent of the total sample had a family income of below 10,000 shillings per month. 50 percent earned between 10,000 and 30,000 shillings per month, and only 4 percent of the total sample earned above 40,000 shillings per month (See Figure 4.6).

Figure 4.6: Distribution of Grouped Family Income



Source: Field Research, 2011

Students' academic performance in KCSE and their families' monthly income were further compared. Spearman's Rank Order Correlation revealed that there was a small positive relationship between the two variables ($r= 0.182$, $n= 80$, $p= 0.106$). This suggested that students from families with higher levels of family income performed better than students from families with lower levels of income (See Table 4.7).

Table 4.7: Grade of Students and Family Monthly Income

Grade in KCSE of students		Grouped monthly family income in shillings						
		10,000 and below	%	10,001-20,000	%	20,001 and above	%	Total
D	Freq	20	54%	12	43%	2	13%	34
	%	58.8%		35.2%		5.9%		100%
C	Freq	13	35%	9	32%	10	67%	32
	%	40.6%		28.1%		31.3%		100%
B and A	Freq	4	11%	7	25%	3	20%	14
	%	28.6%		50%		21.4%		100%
Total		37		28		15		80

Source: Field Research, 2011

As presented in Table 4.7, the number of students with Ds declined with increase in family income. However the pattern for grade C and above was somewhat unclear. There were few Bs and As in families that earned less than 10,000 shillings in a month compared to those families than earned more than 10,000 shillings.

For instance, for the families that had a monthly income of 10,000 shillings or less, most of their students (54 percent or 20) scored grade D, followed by those who scored grade C (35 percent or 13), and only 11 percent or 4 scored either grade B or A. For the families that earned a monthly income between 10,001 and 20,000 shillings, 43 percent or 12 of their students scored grade D, 32 percent or 9 scored grade C, and 25 percent or 4 scored either grade B or A. In the last category of the families than earned a monthly income above 20,000 shillings, the pattern was somewhat unclear. Thirteen (13) percent or 2 of their students scored grade D, 67 percent or 10 scored grade C, and 20 percent or 3 scored either grade B or A.

The difference in academic performance on the basis of monthly family income could be explained by the reason that, families with higher monthly income were likely to take their children to schools with facilities such as library and laboratory, take them to boarding schools and provincial schools. Using Spearman's Rank Order Correlation, families with higher monthly family income were associated with taking students to boarding schools, provincial schools or schools with facilities like library and laboratory. Each of these factors was in turn associated with better academic performance in KCSE. This suggested that boarding schools, provincial schools, and schools with facilities like library and laboratory

performed better than schools without. In addition, families with higher levels of monthly family income more likely took their children in these schools (See Table 4.8).

Table 4.8: Spearman's Rank Order Correlation on Monthly Family Income, Students' Grade in KCSE and School-related Factors

School-related Factor	Monthly family income - school factors correlation	Students' KCSE grade - academic performance correlation
District/Provincial	r= 0.320, n= 80, p= 0.004	r= 0.069, n= 80, p= 0.541
Day-scholar/Boarder	r= 0.462, n= 80, p<0.0005	r= 0.391, n=80, p<0.0005
Laboratory (no/yes)	r= 0.430, n= 80, p<0.0005	r= 0.195, n=80, p= 0.085
Library (no/yes)	r= 0.401, n= 80, p< 0.0005	r= 0.207,n= 80, p= 0.065

Source: Field Research, 2011

The findings were similar to that of Muola (2010) and Gale group Inc. (2010) who found that, parents with higher education and income chose better schools for their children. In addition, Muola (2010) argues that these parents are in a position to provide the necessary learning facilities which may in turn help improve student's academic performance in school.

4.3.7 Parents' Occupation

The study sought to establish the employment status of the parents/guardians. Most of the respondents sampled (65 percent or 52) had some form of employment while 35 percent or 28 respondents had either retired or were not working at the time of data collection (see Table 4.9).

Table 4.9: Employment Status of the Respondents

Employment status	Frequency	Percentage
Not employed	26	32.5%
Self-employed	26	32.5%
Employed	25	31.3%
Retired	2	2.5%
Both employed and Self-employed	1	1.3%
Total	80	100%

Source: Field research, 2011

As presented in table 4.10, the respondents who were not employed and those who were self-employed were equal in number each comprising 32.5 percent or 26 of the total sample, 31.3 percent or 25 of them were employed, 2.5 percent or 2 of the total sample had retired, while 1.3 percent or 1 was both employed and self employed. A large number of those who were unemployed were female (92.3 percent or 24) compared to only 27.7 percent or 2 male. The majority of these unemployed female respondents were housewives and stated that their spouses or other family members were the ones who were working.

For the self-employed, the majority (66.7 percent or 18) had small businesses, 11 percent or 3 were engaged in peasant farming, 7.4 percent or 2 were tailors, while the remaining 15 percent or 4 were either engaged in taxi business, jua-kali business, had rental houses, or photo studio. A large proportion of those who were self-employed (50 percent or 13) had primary education, 27.8 percent or 8 of them had post-secondary education, while 22.2 percent or 6 had secondary education. On the other hand, for the employed, those who were primary school teachers, employed in other people's businesses or were domestic workers were equal in number with each comprising of 27 percent or 7 of the total number which was employed, 7.5 percent or 2 were Early Childhood Development Education (ECDE) teachers, and the remaining 3 or 11.5 percent were either a pastor, subordinate staff in a school, or a police.

The employment status of the respondents and academic performance of their children was compared using Mann-Whitney U test. The test revealed that there was no significant difference in academic performance of students whose parents/guardians were employed and those whose parents/guardians were not employed ($z= -0.338$, $p= 0.735$) [see Table 4.10].

Table 4.10: Grade of Students and Employment Status of Parents/Guardians

Grade in KCSE of students	Employment status of the parent / guardian				
	With employment		No employment		Total
	Freq	%	Freq	%	
D	22	42.3%	12	42.9%	34
C	18	34.6%	14	50%	32
B and A	12	23.1%	2	7.1%	14
Total	52	100%	28	100%	80

Source: Field Research, 2011

As presented in table 4.10, for the respondents who had some form of employment (employed or self-employed), most of their children (42.3 percent or 22) score grade D, followed by those who scored grade C (34.6 percent or 18), and 23.1 percent or 12 scored either grade B or A. On the other hand, for the respondents who were not employed at the time of data collection, 42.9 percent or 12 of their children scored grade D, 50 percent or 24 scored grade C, and 7.1 percent or 2 scored either grade B or A.

Lack of significant difference between students' academic performance of students to parents or guardians who were employed and those who were not could be explained by the reason that the majority of parents or guardians who were not employed were female, and most of them stated that their spouses or other members of the family were working. This suggested that these other family members provided the income to cater for education needs of the students, and it's their income that had influence on the academic performance of the students.

4.3.8 Parental Support

This study used Redding (1996:20) definition of parental support that "it is an all encompassing term that includes everything from the parent's child-rearing practices at home to the parent's participation in events held in school." It is the financial and non-financial materials, and opportunities which a parent provides to the child for his/ her education. From the findings, irrespective of the level of education, all the respondents were of the opinion that it was important for them to support their children's education. In addition, all respondents supported the view that students' motivation to do well in school also depend on the parents, and that students' learning was not only up to the teacher and the child but also to the parents.

Since parental support was not easy to measure, various indicators were used for parent's support of individual child at home on school activities, and of being involved in the life of the child's school. The indicators for parental support at home on school activities included: checking child's performance at the end of the term; hiring private tutor for the child; providing fuel for studying while at home; assisting the child with class work during holidays; discussing child's school progress with the child; and buying both reading and writing materials. On the other hand, indicators for parental support through being involved in the life of child's school included: discussing child's progress with the teachers; attending

school meetings; participating in school committee and open days; and visiting the child during visiting days.

Each of these indicators was measured using four levels: always, sometimes, rarely, and never. Always indicated a lot of support and never indicated that there was no support. Another indicator of parent being involved in life of child's school was how often the parent/respondent talked to child's teachers in a term. This was measured in four levels: daily, once a week, once a month, and once a term, where daily indicated a lot of involvement and once a term indicated little involvement.

This sub-section presents findings on the kind of relationship that existed between level of parental support and student's academic performance in KCSE. It contains parental support for both school activities at home, and being involved in the life of the school. Kruskal-Wallis test revealed that there was a significant difference in academic performance in the various levels of parental support in some of the indicators, while in others there was no significant difference (see Table 4.11).

The data shows there was a significant difference in academic performance in checking child's performance at the end of the term, hiring private tutor for the child. For these indicators, Spearman's Rank Order Correlation revealed that higher levels of parental support through checking child's performance at the end of the term and hiring private tutor for the child were associated with students who had higher grades in KCSE (see Table 4.11). This suggested that the more the parent/guardian checked child's performance at the end of the term and hired a private tutor for the child, the higher grade the student scored in KCSE.

On the other hand, the data shows there was no significant difference in academic performance were providing fuel for studying while at home, assisting the child with class work during holidays, discussing child's school progress with the child, buying both reading and writing materials, discussing child's progress with the teachers, attending school meetings, participating in school committee and open days, and visiting the child during visiting days (See Table 4.11). This suggested that, Parent's/guardian's support through these indicators did not influence the grade the student scored in KCSE.

Table 4.11: Type of Parental Support and Students' Academic Performance in KCSE

Type of parental support	Statistical test	
	Test of difference (Kruskal-Wallis U Test)	Test of association (Spearman's rank order correlation)
Support of school activities at home		
Check child's performance at the end of the term	Chi square= 6.426, df= 2, p=0.040	r= 0.272, p= 0.015
Hire private tutor for the child	Chi square= 8.190, df= 2, p= 0.017	r= 0.298, p= 0.007
Provide fuel for studying	Chi square= 0.103, df= 1, p=0.748	r= -0.036, p=0.750
Assist child with class work during holidays	Chi square= 2.497, df= 3, p= 0.476	r= 0.008, p= 0.947
Discuss child's progress with the child	Chi square= 0.323, df= 1, p= 0.570	r= 0.064, p= 0.573
Discuss with the child on how to perform well in school	Chi square= 0.835, df= 2, p= 0.361	r= 0.103, p= 0.364
Buy reading materials	Chi square= 3.346, df= 3, p= 0.355	r= 0.097, p= 0.394
Buy writing materials	Chi square= 0.139, df= 1, p= 0.709	r= 0. 042, p= 0.711
Being involved in life of child's school		
Discuss child's progress with the teachers	Chi square= 1.535, df= 2, p= 0.464	r= 0.139, p= 0.218
Attend school meetings	Chi square= 0.868, df= 3, p= 0.833	r= 0.067, p=0.555
Participate in school committee	Chi square= 5.733, df= 3, p= 0.125	r= -0.255, p= 0.022
Participate in school open days	Chi square= 0.500 , df= 2, p= 0.779	r= 0.057, p= 0.618
Visit the student during visiting days	Chi square= 4.309, df= 2, p= 0.116	r= 0.410, p= 0.000
How often they talked to teachers in a term	Chi square= 1.962, df= 2, p= 0.375	r= 0.086, p= 0.449

Source: Field Research, 2011

As expected, parental support had a significant role in determining student's academic performance in KCSE. Surprising however, not all types of parental support to their children's education had an influence on students' academic performance in KCSE.

4.3.9 Explaining Parental Support

It is important to note that parental support is dependent on other factors. These factors lead to parental support or lack of it. The subsections that follow investigate the relationship between the level of parental support and the other parent's socio-economic characteristics. For each of the socio-economic characteristic, the type of parental support is discussed for both the support of school activities at home, and being involved in the life of the school.

4.3.9.1 Parent's Level of Education and Level of Parental Support

The level of education of the respondents (parents/guardians) and their level of support in each of the indicators of parental support at home on school activities was compared using Kruskal-Wallis test of difference. The test revealed that level of parental support in all the indicators differed by level of education of the parent/guardian.

The relationship between the level of education of the parent/guardian and the level of support in all the indicators was further investigated using Spearman's Rank Order Correlation. This test revealed that, in all the indicators, higher levels of parental support were associated with parents/guardians who had higher levels of education. This suggested that generally parents/guardians with higher levels of education supported students more in school activities at home than those with lower levels of education (see Table 4.12).

These findings were in-line with Schiller *et al.* (2002) in Dimbisso (2009) observation that parents who have more education are in a better position to provide their children with the academic and social support for educational success when compared to less educated parents. In addition as Redding (1996) had observed, high level of parental support is likely to occur if parents themselves have attended a high school, and realized what is required of the children, and have a practical insight into the part which themselves need to play.

The level of education of the parents/guardians was also compared with their level of involvement in the child's school life. Kruskal-Wallis test revealed that, in most of the indicators, there was a no statistically significant difference in level of education of the parent/guardian in the various levels of parental support. These indicators were: discussing child's progress with the teachers, attending school meetings, participating in school committees and open days, visiting students in school during visiting days, and how often the parent/guardian talked to child's teachers in a term.

When the relationship of these indicators on parent/guardian involvement in life of child's school and the level of parents'/guardians' education was investigated using Spearman's rank order correlation, there was a weak to medium positive relationship between the two variables. This implied that, higher levels of education were associated with higher levels of involvement in life of child's school but at varying strengths. Although most of these positive relationships were not statistically significant, the test suggested that parents/guardians with higher levels of education were more involved in the life of child's school than those who had lower levels of education (see Table 4.12).

Table 4.12: Level of Education of Parents/Guardians and Type of Parental support

Type of parental support	Statistical test	
	Test of difference (Kruskal-Wallis U Test)	Test of association (Spearman's rank order correlation)
Support of school activities at home		
Check child's performance at the end of the term	Chi square= 6.20, df= 2, p=0.044	r= 0.259, p= 0.020
Hire private tutor for the child	Chi square= 15.005, df= 2, p= 0.001	r= 0.436, p< 0.0005
Provide fuel for studying	Chi square= 4.327, df= 1, p=0.038	r= 0.234, p=0.037
Assist child with class work during holidays	Chi square= 13.276, df= 3, p= 0.004	r= 0.403, p< 0.0005
Discuss child's progress with the child	Chi square= 6.752, df= 1, p= 0.009	r= 0.292, p= 0.009
Discuss with the child on how to perform well in school	Chi square= 6.237, df= 1, p= 0.013	r= 0.281, p= 0.012
Buy reading materials	Chi square= 18.972, df=2, p= 0.000	r= 0.483, p< 0.0005
Buy writing materials	Chi square= 5.023, df= 1, p= 0.025	r= 0. 252, p= 0.025
Being involved in life of child's school		
Discuss child's progress with the teachers	Chi square= 4.331, df= 1, p= 0.115	r= 0.222, p= 0.048
Attend school meetings	Chi square= 1.794, df= 3, p= 0.616	r= 0.024, p=0.830
Participate in school committee	Chi square= 7.683, df= 3, p= 0.053	r= 0.233, p= 0.037
Participate in school open days	Chi square= 0.834, df= 2, p= 0.659	r=0.079, p= 0.485
Visit the student during visiting days	Chi square= 2.176, df= 2, p= 0.337	r= 0.367, p=0.001
How often they talked to teachers in a term	Chi square= 0.036, df= 2, p= 0.982	r= 0.007, p= 0.949

Source: Field Research, 2011

4.3.9.2 Gender of the Parent and Level of Parental Support

It was interesting to find that there was no significant difference in the level of parental support of school activities at home in all the indicators between male and female respondents according to Mann-Whitney U test (see Table 4.13). This meant that, the level of parental support to child's school activities at home did not differ by the gender of the parent. These school activities at home were: checking child's performance at the end of the term; hiring private tutor for the child; providing fuel for studying while at home; assisting the child with class work during holidays; discussing child's school progress with the child; and buying both reading and writing materials.

However, there was a significant difference in level of parental support through involvement in the life of child's school in some indicators between male and female respondents, while in others there was no significant difference. The ones which had a significant difference were: participation in school committees and open days, and how often the parent/guardian child talked to teachers. In these three indicators which had a significant difference, the relationship between gender and the indicators was investigated using Spearman's Rank Order Correlation. Higher participation in school committees was associated with male respondents, while higher participation in open days and higher frequency of talking to teachers were associated with female respondents (See Table 4.13). This implied that more male respondents participated more in open days than female respondents; while more female respondents participated in open days and talked more to child's teachers in a term than male respondents. On the other hand, the ones which had no significant difference were: discussing child's progress with the teachers; attending school meetings; and visiting the student during visiting days. This implied that, the level of support to child's education through involvement in these activities did not differ by the gender of the parent (See Table 4.13). This finding contradicted Grolnick and Slowiaczek (1994) in Desforges and Abouchaar (2003) argument that, mothers are more involved than fathers in their children schooling.

Table 4.13: Gender of the Parent/Guardian and Type of Parental support

Type of parental support	Statistical test	
	Test of difference (Mann-Whitney U test)	Test of association (Spearman's rank order correlation)
Support of school activities at home		
Check child's performance at the end of the term	z= -1.325, p= 0.185	r= -0.149, p= 0.187
Hire private tutor for the child	z= -0.685, p= 0.493	r= 0.077, p= 0.497
Provide fuel for studying	z= -0.209, p= 0.834	r= -0.024, p=0.836
Assist child with class work during holidays	z= -0.452, p= 0.651	r= -0.051, p= 0.654
Discuss child's progress with the child	z= -0.249, p= 0.803	r= -0.028, p= 0.805
Discuss with the child on how to perform well in school	z= -0.411, p= 0.681	r= -0.046, p= 0.640
Buy reading materials	z= -1.376, p= 0.169	r= -0.155, p= 0.170
Buy writing materials	z= -1.413, p= 318	r= -0. 159, p= 0.159
Being involved in life of child's school		
Discuss child's progress with the teachers	z= -1.612, p= 0.107	r= -0.181, p= 0.107
Attend school meetings	z= -1.470, p= 0.142	r= 0.165, p=0.143
Participate in school committee	z= 3.477, p= 0.001	r= -0.391, p< 0.0005
Participate in school open days	z= -2.391, p=0.017	r= 0.269, p= 0.016
Visit the student during visiting days	z= -0.576, p= 0.565	r= 0.065, p=0.568
How often they talked to teachers in a term	z= -2.283, p= 0.022	r= 0.257, p= 0.021

Source: Field Research, 2011

4.3.9.3 Family Income and Level of Parental Support

Kruskal-Wallis test of difference suggested that the level of parental support to child's education differed by family income for some of the indicators while in others it did not (See Table4.14). The level of support differed by family income in hiring a private tutor for the child, providing fuel to study, assisting child with class work during holidays, discussing child's school progress with both the child and teachers, buying reading and writing materials, and visiting the student during visiting days. For each of these indicators, the relation with family income was investigated using Spearman's Rank Order Correlation. The test revealed that there was small to medium positive relationship between family income and the indicators (See Table 4.14). As expected, families with higher income supported their

children more in these ways than the families with low income.

However, the level of support did not differ by family income were checking performance at the end of the term, attending school meetings, participating in school committee, participating in school open days, and how often the parent talked to teachers in a term. This implied that irrespective of the level of family income, the parents/guardians supported their children's education in these ways.

Table 4.14: Family income and Level of Parental support

Type of parental support	Statistical test	
	Test of difference (Kruskal-Wallis U Test)	**Test of association (Spearman's rank order correlation)**
Support of school activities at home		
Check child's performance at the end of the term	Chi square= 0.085, df= 2, p=0.959	r= 0.0090 p= 0.429
Hire private tutor for the child	Chi square= 3.988, df= 2, p= 0.136	r= 0.305, p= 0.006
Provide fuel for studying	Chi square= 8.098, df=2, p= 0.017	r= 0.403, p < 0.0005
Assist child with class work during holidays	Chi square= 5.917, df=2, p=0.052	r= 0.349, p=0.002
Discuss child's progress with the child	Chi square= 5.944, df= 2, p= 0.051	r= 0.318, p= 0.040
Discuss with the child on how to perform well in school	Chi square= 5.568, df= 2, p= 0.062	r= 0.283, p= 0.011
Buy reading materials	Chi square= 20.790, df=2, p< 0.0005	r= 0.551, p< 0.0005
Buy writing materials	Chi square= 6.121, df= 2, p= 0.047	r= 0. 292, p= 0.009
Being involved in life of child's school		
Discuss child's progress with the teachers	Chi square= 11.114, df= 2, p= 0.004	r= 0.335, p= 0.002
Attend school meetings	Chi square= 0.084, df= 2, p= 0.959	r= 0.024, p=0.831
Participate in school committee	Chi square= 1.329, df= 2, p= 0.515	r= 0.155, p= 0.168
Participate in school open days	Chi square= 0.121, df= 2, p= 0.515	r=0.006, p= 0.957
Visit the student during visiting days	Chi square= 9.156, df= 2, p= 0.941	r= 0.383, p< 0.0005
How often they talked to teachers in a term	Chi square= 0.265, df= 2, p= 0.876	r= 0.059, p= 0.602

Source: Field Research, 2011

4.3.9.4 Family Structure and Level of Parental support

Surprisingly, for all the indicators, there was no significant difference on the level of parental support on child's education between single-parent families and two-parent families according to Mann-Whitney U test (See Table 4.15). That is, the level of parental support did not differ by family structure. This suggested that the level of support to child's education for school activities at home and being involved in the life of child's school by single parents was more or less the same as that given by two parents. This finding contradicted with Alawonde and salami (2000) argument that single parents were less likely to provide adequate support a child needs in education. The authors had observed that single parents have more work and responsibilities that require time and attention, limiting the parent's support to child's education.

Table 4.15: Family structure and Level of Parental Support

Type of parental support	Statistical test	
	Test of difference (Mann-Whitney U test)	Test of association (Spearman's rank order correlation)
Support of school activities at home		
Check child's performance at the end of the term	z= -1.043, p= 0.297	r= -0.164, p= 0.147
Hire private tutor for the child	z= -0.392, p= 0.695	r= 0.071, p= 0.532
Provide fuel for studying	z= -1.395, p= 0.163	r= -0.157, p=0.640
Assist child with class work during holidays	z= -0.227, p= 0.821	r= 0.056, p= 0.622
Discuss child's progress with the child	z= -1.423, p= 0.155	r= -0.160, p= 0.156
Discuss with the child on how to perform well in school	z= -1.261, p= 0.207	r= -0.142, p= 0.209
Buy reading materials	z= -0.424, p= 0.672	r= -0.048, p= 0.669
Buy writing materials	z= -0.073, p= 0.941	r= -0. 008, p= 0.942
Being involved in life of child's school		
Discuss child's progress with the teachers	z= -2.027, p= 0.043	r= -0.228, p= 0.042
Attend school meetings	z= -0.330, p= 0.974	r= 0.036, p=0.748
Participate in school committee	z= -1.517, p= 0.129	r= -0.158, p= 0.162
Participate in school open days	z= -0.232, p=0.817	r= -0.008, p= 0.946
Visit the student during visiting days	z= -0.322, p= 0.747	r= 0.010, p=0.930
How often they talked to teachers in a term	z= -0.509, p= 0.611	r= 0.060, p= 0.596

Source: Field Research. 2011

4.3.9.5 Parent's Occupation and Level of Parental Support

Contrary to expectations, Mann-Whitney U test revealed that, for all the indicators, there was no significant difference on the level of parental support on child's education between employed and unemployed parents (See Table 4.16). That is, the level of parental support did not differ by employment status of the parent. This suggested that the level of support to child's education for school activities at home and being involved in the life of child's school by employed parents was more or less the same as that given by unemployed parents.

Table 4.16: Parent's Occupation and level of Parental Support

Type of parental support	Statistical test	
	Test of difference (Mann-Whitney U test)	Test of association (Spearman's rank order correlation)
Support of school activities at home		
Check child's performance at the end of the term	z= --0.317, p=0.751	r= -0.036, p=0.754
Hire private tutor for the child	z= -1.924, p=0.054	r= -0.216, p=0.054
Provide fuel for studying	z= -1.174, p= 0.240	r= -0.132, p=0.243
Assist child with class work during holidays	z= -2.567, p= 0.010	r= -0.289, p= 0.009
Discuss child's progress with the child	z= -0.349, p= 0.727	r= 0.039, p= 729
Discuss with the child on how to perform well in school	z= -0.541, p= 0.589	r= 0.061, p= 0.592
Buy reading materials	z= -2.180, p= 0.029	r= -0.245, p= 0.038
Buy writing materials	z= -1.203, p= 0.229	r= -0. 135, p= 0.231
Being involved in life of child's school		
Discuss child's progress with the teachers	z= -0.524, p= 0.229	r= 0.059, p= 0.604
Attend school meetings	z= -1.710, p= 0.087	r= 0.192, p=0.087
Participate in school committee	z= -0.772, p= 0.440	r= -0.087, p= 0.443
Participate in school open days	z= -1.783, p=0.075	r= 0.201, p= 0.074
Visit the student during visiting days	z= -0.945, p= 0.344	r= 0.106, p=0.348
How often they talked to teachers in a term	z= -0.748, p= 0.454	r= 0.084, p= 0.458

Source: Field Research, 2011

4.3.9.6 Age of the Parent and Level of Parental Support

Interestingly, Kruskal-Wallis test revealed that, for all the indicators, there was no significant difference on the level of parental support on child's education in the different age categories of the parents (See Table 4.17). This implied that the level of parental support did not differ by age of the parents. Therefore the level of support to child's education for school activities at home and being involved in the life of child's school by young parents was more or less the same as that given by middle aged and older parents.

Table 4.17: Age of the Parent and Level of Parental support

Type of parental support	Statistical test	
	Test of difference (Kruskal-Wallis U Test)	Test of association (Spearman's rank order correlation)
Support of school activities at home		
Check child's performance at the end of the term	Chi square= 6.373, df= 6, p=0.3383	r= -0.068, p= 0.549
Hire private tutor for the child	Chi square= 2.882, df= 6, p= 2.824	r= -0.120, p= 0.290
Provide fuel for studying	Chi square= 2.202, df= 6 p=0.900	r= 0.030, p=6.790
Assist child with class work during holidays	Chi square= 4.060, df= 6, p= 0.669	r= -0.044, p= 0.698
Discuss child's progress with the child	Chi square= 4.474, df= 6, p= 0.631	r= 0.109, p= 0.338
Discuss with the child on how to perform well in school	Chi square= 3.579, df= 6, p= 0.733	r= 0.115, p= 0.310
Buy reading materials	Chi square= 6.572, df=6, p= 0.362	r= 0.211, p= 0.061
Buy writing materials	Chi square= 7.667, df= 6, p= 0.264	r= 0.097, p= 0.392
Being involved in life of child's school		
Discuss child's progress with the teachers	Chi square= 9.191, df= 6 p= 0.163	r= -0. 125, p= 0.270
Attend school meetings	Chi square= 8.711, df= 6, p= 0.191	r= -0.078, p= 0.490
Participate in school committee	Chi square= 4.690, df= 6 p= 0.584	r= 0.131, p=0.250
Participate in school open days	Chi square= 4.690, df= 6, p= 0.584	r=0.035, p= 0.759
Visit the student during visiting days	Chi square= 7.257, df= 6, p= 0.296	r= -0.183, p=0.288
How often they talked to teachers in a term	Chi square= 3.827, df= 6, p= 0.337	r= -0.021, p= 0.363

Source: Field Research, 2011

4.3.9.7 Family Size and Level of Parental Support

This section sought to establish if the number of children in a family influence the level of support given to child's education by the parents. It is generally believed that parents/guardians with large families support their children's education less. Contrary to this believe, Kruskal-Wallis test of difference revealed that, for all the indicators, there was no significant difference on the level of parental support on child's education between families with small and those with large families (See Table 4.18). That is, the level of parental support did not differ by family size.

Table 4.18: Family Size and Level of Parental support

Type of parental support	Statistical test	
	Test of difference (Kruskal-Wallis U Test)	Test of association (Spearman's rank order correlation)
Support of school activities at home		
Check child's performance at the end of the term	Chi square= 6.899, df= 6, p=0.330	r= -0.094, p= 0.408
Hire private tutor for the child	Chi square= 3.674, df= 6, p= 0.721	r= -0.089, p= 0.432
Provide fuel for studying	Chi square= 4.214, df= 6 p=0.648	r= 0.112, p=0.322
Assist child with class work during holidays	Chi square= 2.410, df= 6, p= 0.878	r= -0.010, p= 0.931
Discuss child's progress with the child	Chi square= 4.359, df= 6, p= 0.628	r= 0.117, p= 0.299
Discuss with the child on how to perform well in school	Chi square= 5.176, df= 6, p= 0.522	r= 0.082, p= 0.468
Buy reading materials	Chi square= 2.372, df=6, p= 0.883	r= 0.121, p= 0.285
Buy writing materials	Chi square= 7.104, df= 6, p= 0.311	r= 0.015, p= 0.895
Being involved in life of child's school		
Discuss child's progress with the teachers	Chi square= 2.884, df= 6 p= 0.827	r= -0. 002, p= 0.989
Attend school meetings	Chi square= 4.726, df= 6, p= 0.579	r= -0.128, p= 0.258
Participate in school committee	Chi square= 7.425, df= 6 p= 0.283	r= 0.083, p=0.405
Participate in school open days	Chi square= 1.009, df= 6, p= 0.675	r=-0.128, p= 0.257
Visit the student during visiting days	Chi square= 2.176, df= 2, p= 0.337	r= -0.183, p=0.103
How often they talked to teachers in a term	Chi square= 6.826, df= 6, p= 0.337	r= -0.021, p= 0.853

Source: Field Research, 2011

This finding contradicted Feinstein *et al.* (2004) argument that, parents with fewer children support their children more in education. The authors had observed that, if the family is large, every additional child receives fewer parental resources and support in education. This finding in Kalama division could be due to the reason that, parents wanted the best from each and every child irrespective of how many they were in the family. In addition, all the interviewed parents agreed that student's motivation to do well depends not only on the teacher and the student, but also on the parents.

CHAPTER FIVE: STUDENTS AND OTHER FACTORS

5.0 Introduction

Although this study was focused on parents' socio-economic characteristics, the study also discovered other factors also influence students' performance outcomes. This chapter discusses such factors which include students' characteristics, parental expectations on students' education, responsibilities assigned to students at home, and student's study habits at home.

5.1 Students' Characteristics and their Academic Performance in KCSE

The students' characteristics are also important and may influence their academic performance in KCSE. This subsection presents the findings on the characteristics of the sampled students and compares the characteristics the students' academic performance in KCSE. The characteristics discussed are gender, age and education background.

5.1.1 Gender

From the sampled 80 families, 46 had male students and 34 female students for whom academic details were collected. The male students constituted 57.5 percent of the total number of students, while the female students constituted 42.5 percent of the sample.

Mann-Whitney U test was carried out to compare the grades for male and female students. The test revealed that there was no significant difference between the academic performance of the male and female students ($z= -1.601$, $p= 0.109$). This implied that, both boys and girls scored more or less similar grades. This finding was contrary to the national position that, in most cases boys perform better than girls in national exams. The distribution of the academic grades by gender of the students is presented in Table 5.1.

Table 5.1: Distribution of Students' Grades in KCSE by Gender

Grade in KCSE	Male	%	Female	%	Total	%
C	12	26.1	7	20.6	19	23.8
D+	11	23.9	7	20.6	18	22.5
D	9	19.6	3	8.8	12	15
C-	3	6.5	5	14.7	8	10
B	2	4.3	4	11.8	6	7.5
B-	3	6.5	2	5.9	5	6.3
C+	1	2.2	4	11.8	5	7.5
D-	3	6.5	1	2.9	4	5
A-	2	4.3	0	0	2	2.5
B+	0	0	1	2.9	1	1.3
Total	46	100	34	100	80	100

Source: Field Research, 2011

5.1.2 Age

The study collected data on the age of the students both as at the time of data collection and as the time when the student sat for KCSE. During the time of data collection their ages ranged between 19 and 33 years, with a mean of 23.3 and a mode of 23 years, and about 90 percent were aged below 27 years. In Kenya, secondary school education caters for primary school leavers in the 14-17 years of age group (KNBS, 2007). However, most of the students to these parents/guardians (96 percent) were more than 17 years by the time they sat for their KCSE examination. At the time when the students sat for KCSE, their ages ranged between 17 and 23 years, with a mean of 19.5 and a mode of 19 years. During the time students sat for KCSE, most of the students (27 percent or 22 of the total sample) were 19 years, 23.3 percent or 19 students were 18 years, 22.5 percent or 18 students were 20 years, 12.5 percent or 10 students were 21 years, 7.5 percent or 6 students were 22 years, 3.8 percent or 3 students were 17 years, and only 2.5 percent or 2 students of the sample were 23 years. The difference in ages could be due to the reason that some students repeated classes or they were late entrants in the education system.

An independent samples t-test revealed that there was no significant difference between the age of male (M=19.70, SD=1.489) and female students [M=19.21, SD=1.250; t (78) =1.56, p=0.124] during the time they sat for KCSE. The distribution of their ages by gender at the time they sat for exam is presented in Table 5.2.

The age of students when they sat for exams and their academic performance was compared using Spearman's Rank Order Correlation. The test suggested that there was a negative medium relationship between the two variables ($r=-0.404$, $n=80$, $p<0.0005$). This implied that younger students performed better in KCSE than older students.

Table 4.20: Age of the Students the time they sat for KCSE by Gender

Age in years	Male	%	Female	%	Total	%
19	12	26.1	10	29.4	22	27.5
18	10	21.7	9	26.5	19	23.8
20	11	23.9	7	20.6	18	22.5
21	5	10.9	5	14.7	10	12.5
22	5	10.9	1	2.9	6	7.5
17	1	2.2	2	5.9	3	3.8
23	2	4.3	0	0	2	2.5
Total	46	100	34	100	80	100

Source: Field Research, 2011

5.1.3 Education Background

The majority of students were in boarding schools (56.2 percent or 45) while 43.8 percent or 35 students were in day schools. The desire to ensure their children performed well in school was cited as the main reason why the parents/guardians took their children to boarding school. For the parents/guardians who took their children to day schools, most of them stated that, although they wished their children to be in boarding schools, they could not afford the fees paid.

Chi square suggested that, there was no significant difference on whether a student was a day scholar or a boarder in the two-parent families and single-parent families (Chi square= 0.064, df= 1, p=0.81). Implied here was that, family structure was not a determinant factor for whether a student was a day scholar or a boarder. For instance, 43.1 percent or 28 of students from two-parent families were day scholars, and 56.9 percent or 37 students were boarders. On the other hand, 46.7 percent or 7 of students from single-parent families were day scholars, and 53.3 percent or 8 students were boarders.

Large proportion of students sampled (73.8 percent or 59) went to schools in Kalama division while 26.2 percent or 21 students went to schools in other divisions. For these students who went to other divisions, 13 students were in divisions in Machakos County, 7 in Makueni County and 1 in Nairobi County. In addition, most of the students (93.7 percent or 75) were

in public schools compared to 6.3 percent or 5 students who were in private schools.

Academic performance of day scholars and boarders was also compared using Mann-Whitney U test. The test suggested that, there was a statistically significant difference in academic performance between day scholars and boarders (z= -3.476, p= 0.001). For day scholars, 65.7 percent or 23 of them scored grade D, 28.6 percent or 10 students had grade C, and 2.7 percent or 2 students had either grade B or grade A. On the other hand for boarders, 24.4 percent or 11 of these had grade D, 48.9 percent or 22 students had grade C, and 26.7 percent or 12 students had grade B or grade A. These results suggested that, generally, boarders performed better than day scholars. This could be explained by the reason that boarders had more time to study in school; and most of their schools had facilities like library and laboratory.

Academic performance in KCSE of students who went to school in Kalama division was further compared with that of students who went to other divisions. Mann-Whitney U test suggested that there was no statistically significant difference in academic performance between students who went to schools in Kalama division and those who went to other divisions (z= -2.670, p= 0.08) [see Table 5.3].

Table 5.3 Students' Academic Performance in Kalama Division and Other Divisions

Students' grade in KCSE	Division					
	Kalama division		Other divisions		Total	
	Freq	Column%	Freq	Column%	Freq	column%
D	29	49.2	5	23.8	34	42.5
Row %	83.5%		14.7%		100%	
C	24	40.6	8	38.1	32	40
Row %	75%		25%		100%	
B or A	6	10.2	8	38.1	14	17.5
Row %	42.9%		57.1%		100%	
Total	59	100	21	100	80	100
Row %	73.8%		26.3%		100%	

Source: Field Research, 2011

As presented in Table 4.21, a large proportion of students who went to schools in Kalama division (49.2 percent or 29) had grade D, 40.6 percent or 24 students had grade C, and 10.2 percent or 6 students had either grade B or A. On the other hand, for those who went to other divisions, 23.8 percent or 5 students of these had grade D, 38.1 percent or 8 students had grade C, and another 38.1 percent or 8 students had either a grade B or A. However,

the findings suggested that, more students who went to schools in other divisions scored higher grades (grade B and A) than those who went to schools in Kalama division. That is, 42.9 percent of those who went to schools in Kalama division had either grade B or A, compared to 57.1 percent who went to schools in other divisions.

5.2 Other Factors and Academic Performance

This section contains other issues that were investigated and whether or not they influenced students' academic performance in KCSE. They were not part of research questions, but some of these formed part of literature review. These include: Parent's expectations on child's education, responsibilities assigned to students while at home, and students' study habits at home.

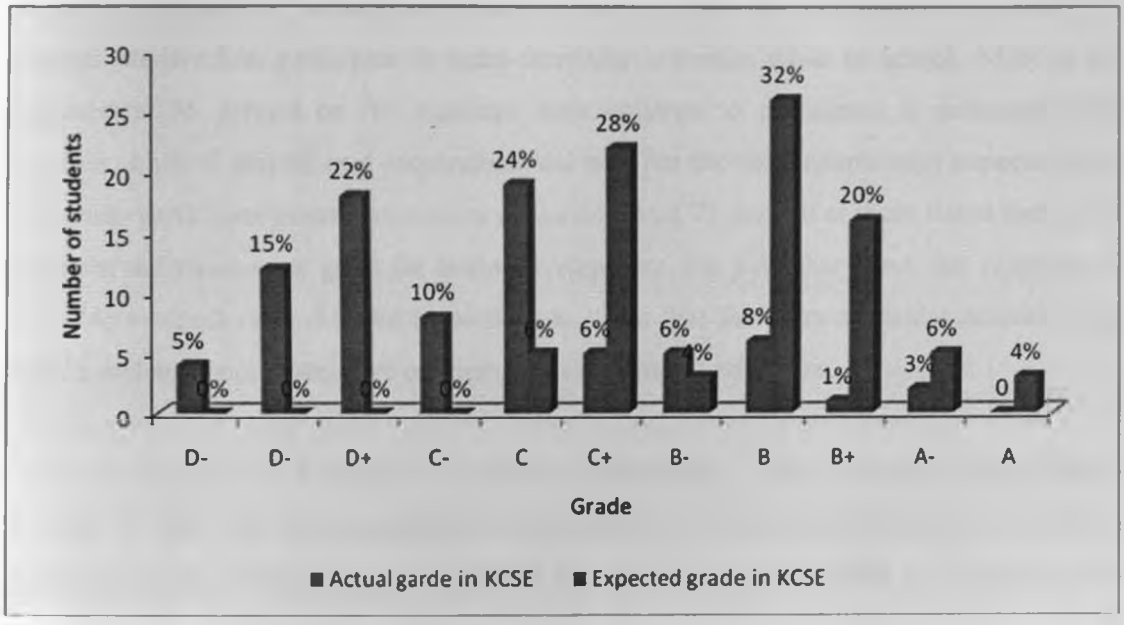
5.2.1 Parent's/Guardian's Expectations on Child's Education

The study used various indicators of parental expectations. These were: whether the child attained the grade the respondent expected him/her to attain; the grade the respondent expected the child to attain; the highest level of education the respondent expected the child to achieve; whether the respondent expected the child to participate in extra-curricular activities; and whether the respondent expected the child to be assigned responsibilities in school. Each of these indicators was compared with students' academic performance in KCSE.

5.2.1.1 Expected Grade and Actual Academic Performance in KCSE

The grades that the respondents had expected their children to score were compared with the children's actual academic performance in KCSE, using Spearman's rank order correlation. There was a strong positive relationship between the two variables ($r= 0.592$, $n= 80$, $p< 0.0005$). This suggested that those students who had been expected by their parents/guardians to score higher grades were associated with higher grades in KCSE. This implied that, the higher the higher the grades the students had been expected to have, the higher their grades were in KCSE. The difference in academic performance on the basis of parents'/guardians' academic expectations could be explained by the reason that, parental expectations might have affected the child's own aspirations and expectations, which in turn led to higher academic performance. The distribution of actual and expected grades is presented is Figure 5.1.

Figure 5.1: Expected grade and Actual Grade in KCSE



Source: Field Research, 2011

As presented in Figure 5.1, none of parents/guardians expected their children to score grade C- and below. Most of them (32 percent or 26) had expected their children to score grade B, followed by those who expected their children to score grade C+ (28 percent or 22), grade B+ (20 percent or 16), and either grade A- or C (6 percent or 5). Only 4 percent or 3 had expected their children to score either grade A or B-.

Although most students did not attain the grade their parents/guardians expected them to score, those students who were expected to score high grades scored higher grades than those expected to score lower grades. For those students whose their parents / guardians had expected them to score grade C, most of them (81.5 percent or 22) scored grade D, 7.4 percent or 2 scored grade C, and 11.1 percent or 3 of these students scored either grade B or A. For those students who were expected to score grade B, the majority of them (62.2 percent or 28) scored grade C, 26.7 percent or 12 of these students scored grade D, and 11.1 percent or 5 of them scored either grade B or A. For the students who had been expected by their parents / guardians to score grade A, 75 percent or 6 of them scored either grade B or A, while 25 percent or 2 of these students scored grade C, and none scored grade D (See Table 4.22). The finding was similar to that of studies by Davis-Kean (2005) and Olanike (2010) who had found that, higher parental expectations for children's education predicted higher educational attainment for their children.

5.2.1.2 Expectations in extra-curricular activities

The other indicator of parental expectations was whether the respondent expected their children (students) to participate in extra-curricular activities while in school. Most of the respondents (95 percent or 76) expected their children to participate in extra-curricular activities, while 5 percent or 4 respondents did not. For the respondents who expected their children to participate in extra-curricular activities, about 72 percent of them stated that extra-curricular activities were good for brain development. On the other hand, the respondents who didn't expect their children to participate stated that the extra-curricular activities can make a student concentrate more on them at the expense of education.

These expectations and students' academic performance were compared using Mann-Whitney U test. The test suggested that there was no significant difference in academic performance on whether or not the student was expected to participate in extra-curricular activities while in school ($z= -0.392$, $p= 0.695$). This implied that, whether or not a student was expected to participate in extra-curricular activities did not influence the grade the student scored. For the students who were expected to participate in extra-curricular activities, 42.1 percent or 32 of them scored grade D, 40.8 percent or 31 scored grade C, and 17.1 percent or 13 of these students scored either grade B, or A. On the other hand, for the students who were not expected to participate in extra-curricular activities, 50 percent or 2 scored grade D, 25 percent or 1 had grade C, and another 25 or 1 student scored either grade B or A (see Table 5.4).

5.2.1.3 Expectations in School Responsibilities

The last indicator for parental expectations was whether the respondent expected the student to be assigned responsibilities while in school. The majority of the respondents (90 percent or 72) expected the students to be assigned responsibilities while in school, while 10 percent or 8 respondents did not. This was also compared with students' academic performance in KCSE. Mann-Whitney U test suggested that there was no significant difference in academic performance in whether in whether or not the student was expected to be assigned responsibilities while in school ($z= -0.611$, $p= 0.541$).

This implied that, whether or not a student was expected to be assigned responsibilities in school did not influence the grade the student scored in KCSE. For those who were expected to be assigned responsibilities, 41.7 percent or 30 of them scored grade D, another 41.7

percent or 30 scored grade C, and 16.7 percent or 12 of these students scored either grade B or A. On the other hand, for students who were not expected to be assigned responsibilities, 50 percent or 4 of them scored grade D, 25 percent or 2 scored grade C, and another 25 percent or 2 of these students scored either grade B or A. These findings on students' academic performance and parental expectations are presented in Table 5.4.

Table 5.4: Grade of Students and Parental Expectations

Grade in KCSE	Parental Expectation Indicators													
	Expected grade						Expected to participate in extra-curricular activities				Expected to be assigned responsibilities			
	C		B		A		Yes		No		Yes		No	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
D	22	81.5	12	26.7	0	0	32	42.1	2	50	30	41.7	4	50
C	2	7.4	28	62.2	2	25	31	40.8	1	25	30	41.7	2	25
B and A	3	11.1	5	11.1	6	25	13	17.1	1	25	12	16.6	2	25
Total	27	100	45	100	8	100	76	100	4	100	72	100	8	100

Source: Field Research, 2011

5.2.2 Responsibilities Assigned to Students at Home

The study also investigated whether responsibilities assigned at home could have influenced student's academic performance in KCSE. The responsibilities investigated were: cooking, looking after animals, fetching water, working in the shamba, collecting firewood, and looking after the young siblings. The frequency at which these responsibilities were assigned was measured in four levels: often, rarely, and not at all, with often indicating that the responsibilities were assigned frequently, and not at all indicating that the responsibilities were not assigned.

Kruskal-Wallis test revealed that there was no significant difference in KCSE academic performance in the different frequencies at which the responsibilities were assigned. Further, the same test revealed that there was no significant difference in the level of education of the

parents/ guardians in the different frequencies at which the responsibilities were assigned to the students. This suggested that neither did level of education of the parent determine the frequency at which the responsibilities were assigned to students nor did the responsibilities assigned to the students influence the grade the students had in KCSE.

5.2.3 Students' Study Habits at Home

The frequency at which students studied while at home was used as an indicator for the students study habits. This frequency was collected in five levels: everyday, few days a week, once a week, few times during the holiday, and not at all, with everyday indicating higher frequency and few times during the holiday indicating the student never studied. There was a significant difference in academic performance in students' academic performance in KCSE in the different frequencies in which the students studied at home during holidays (Kruskal-Wallis Test: chi square= 25.103, df=3, $p< 0.0005$). Further, Spearman's Rank Order Correlation revealed that there was a strong positive relationship between students' KCSE performance and the frequency at which the students studied at home ($r= 0.557$, $p<0.0005$). This suggested that higher grades in KCSE were associated with higher frequencies of study during holidays. This suggested that the more the student had studied during holidays, the higher the grade was in KCSE.

CHAPTER SIX: SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This section contains the summary, conclusion and recommendations from the study. The study aimed to establish the relationship between parents' socio-economic status and students' academic performance in Kalama division, Machakos District. It was motivated by the reasons that, from empirical literature there is no consensus on the kind of relationship that exists between parents' socio-economic status and students' academic performance, and the poor performance of students in Kalama division over the years. The relationship between parents' socio-economic characteristics and students' academic performance was investigated. These socio-economic characteristics were gender, age, family structure, family size, parental education, income, occupation and parental support.

The specific objectives of the study were: to investigate the parents' socio-economic characteristics in Kalama division; to document the characteristics of secondary school students in Kalama division; to determine whether parent's socio-economic characteristics influences student's academic performance in KCSE; to investigate whether parental support to child's education differs on the basis of parent's socio-economic characteristics; and to investigate whether student's academic performance in KCSE differs by the level of parental support to child's education. Eighty students who had done KCSE between 2000 and 2010 were sampled through snowballing technique and their parents or guardians interviewed. Qualitative and quantitative analysis was carried out to achieve the set objectives.

6.1. Summary of the findings

The study found that the majority of the sampled parents or guardians (90 percent) were of the working age (below 60 years) with most of them (61 percent) having large families of five children or more. Most of them were employed (65 percent). Most of the families (81 percent) were two-parent families and only 19 percent were single-parents families. The monthly income of most families was low, as only 18.7 percent of the families earned a monthly income of more than 20,000 shillings, with two-parent families earning more than single-parent families. With regard to education, the parents/guardians had low levels of education as only 31 percent of them had been or completed secondary school education.

The gender and age of the parents/guardians did not influence students' academic performance in KCSE. Parents/guardians with higher levels of education were associated with students who had higher levels of academic performance in KCSE, and vice versa. However, for the parents/guardians who had completed secondary school, their grades were not related to the students' academic performance in KCSE.

Students from families which had higher family income and smaller families performed better than the students from families with lower family income and large families, respectively. However, there was no difference in academic performance between students from two-parent families and those from single-parent families. In addition, there was no difference in academic performance of students whom their parents were employed and those who were not employed. This could be attributed to the reason that there were other members of the family who were working and it's their income that had influence on the academic performance of the students.

There was a significant difference in academic performance in the various levels of parental support in some of the indicators, while in others there was no significant difference. The ones in which there was a significant difference in academic performance were checking child's performance at the end of the term, hiring private tutor for the child. These indicators were associated with students who had higher grades in KCSE. This suggested that the more the parent/guardian checked child's performance at the end of the term and hired a private tutor for the child, the higher grade the student scored in KCSE.

On the other hand, the ones in which there was no significant difference in academic performance were providing fuel for studying while at home, assisting the child with class work during holidays, discussing child's school progress with the child, buying both reading and writing materials, discussing child's progress with the teachers, attending school meetings, participating in school committee and open days, and visiting the child during visiting days This suggested that, Parent's/guardian's support through these indicators did not influence the grade the student scored in KCSE. The level of parental support differed by education, family income and gender of the parent/guardian for some indicators but, for all the indicators, the level of parental support to child's education did not differ by family structure, family size, age and occupation of the parent.

6.2. Conclusions

6.2.1 Conclusion around the Hypotheses

The study was guided by six hypotheses. First, it had hypothesised that parent's level of education has a significant influence on student's academic performance in KCSE. As expected, in Kalama division, parents'/guardians' level of education influenced students' academic performance in KCSE. This finding confirmed most findings from studies on parental education and student's academic performance like studies by Keith *et al.* (1987), Smart (1997) in Ozurumba (2007), Ozurumba *et al.* (2007), Onzima (2010), and Olanike (2010).

Second, the study had hypothesised that family structure has a significance influence on student's academic performance. Contrary to expectations, family structure did not influence student's academic performance in KCSE in Kalama division. These findings contradicted most studies on single parenting and academic performance [Thiessen (1997), Alawonde and Salami (2000), and Downey (1984 in Ledbetter and Leonce (2010)] which had found that, children from single parents had poorer scores than those where both mother and father were present. However, the findings were similar to Herzeg and Saudia (1973) and Cashion (1982) in Thiessen (1997) who found that, single-parented children had equal intellectual development and performed same as two parent families when controlling socio-economic status.

The study had also hypothesised that family size has a significant influence on student's academic performance. As expected, family size had a bearing on students' academic performance in KCSE. This finding is in line with Feinstein *et al.* (2004) argument that children from small families tend to achieve higher educational qualification than children raised in large families.

Parent's occupation was also expected to have a significant influence on student's academic performance in KCSE. Surprisingly, in Kalama division, parent's occupation did not influence student's academic performance in KCSE. This finding could be explained by the reason that the majority of parents or guardians who were not employed were female, and most of them stated that their spouses or other members of the family were working.

Fifth, the study had hypothesised that family monthly income has a significant influence on academic performance in KCSE. As expected, family income had a bearing on student's academic performance in KCSE. The findings were similar to that of Muola (2010) and Gale group Inc. (2010) who found that, parents with income chose better schools for their children which in turn led to better academic performance.

Lastly, the study had hypothesised that parental support has a significant influence on student's academic performance in KCSE. Interestingly, for all the indicators investigated, only checking student's academic performance at the end of the term and hiring private tutor for the student influenced student's academic performance in KCSE in Kalama division.

Although there no hypothesis on students and other factors, the allowed the study to investigate this. It was surprising to note that most students complete their secondary level of education when they are above the expected age of 17 years, younger students perform better than older ones, and students in boarding school perform better than those in day schools. As expected, parents'/guardians' expectations on their children's education and students' study habits influenced academic performance of the students. Surprisingly, responsibilities assigned to students at home did not influence students' academic performance in KCSE.

6.2.2 General Conclusion

The socio-economic development of a household is very important in influencing student's academic performance in examinations. This socio-economic development is a combination of several factors which include education, occupation, income, family structure, and parental support. Students from families with higher socio-economic status are more likely to perform better in exams than the students from families with lower socio-economic status. When the students perform well in exams their upward mobility in the academic ladder is increased and they are in a better position to participate more actively in the development process. This in turn determines the contributions the children make to change the socio-economic development of their household. The socio-economic factors do not have equal influence on academic performance; some have more influence than others. For instance, based on this study, parent's level of education, family income, parental support and family size influenced academic performance while family structure, gender, age, and parent's occupation did not. Therefore families should strive to improve their socio-economic status.

6.3 Recommendations

From this study, and other studies parents' level of education has been found to be a key determinant of student's academic performance. Therefore parents with low level of education should improve their education levels through adult education programmes in order to improve student's academic performance in Kalama division and in Kenya as a whole.

Parents/guardians need to be informed that they can contribute to the education of their children through their support of child's school activities at home and being actively involved in the life of their child's school. They should further be sensitized that it is possible to support their children's education irrespective of their age, family structure, family size, or their occupation. Their support will in turn influence student's academic performance.

The school administration and other stakeholders through Parents-Teachers Association (PTA) and local meetings (barazas) should sensitize parents on their role in their children's education. This will help parents/guardians play an active role in their children's education and also help them not put the blame entirely on teachers when their children don't perform well in school.

Ensuring good student's academic performance is not entirely the role of only the teacher and student. Therefore, all stakeholders: education officers, teachers, parents and students, should actively play their respective roles and work together to improve students' academic performance.

It is worrying to find that most students complete their secondary education when they are older than the expected age of 17 years. In addition, in most cases the young students perform better than the older students. This study therefore recommends that all the stakeholders investigate the course of this worrying trend and take the necessary actions to rectify it. This might help improve students' academic performance in exams.

School administration should consider students' entry behaviour. These students come from different socio-economic backgrounds which shape their academic performance. Further, the students should be sensitized that it is possible for them to perform well in school irrespective of their socio-economic backgrounds.

Lastly, the government should increase bursaries to various secondary schools in Kalama division so as to assist the large number of needy but bright students whose learning is disrupted while they are sent home to collect school fees.

6.4 Implications for Development Studies and Further Research

Education is an important input in the development process. It is a catalyst for individual, family and national development. The benefits of education can be realised during or after schooling. Academic performance as measured through examinations can determine the benefits that accrue from education. This is because academic performance determines whether or not one proceeds to the next level of the academic ladder. Further, the academic performance at secondary level determines the course one can study at tertiary level. However students' academic performance is influenced by various factors parents' socio-economic factors being one of them. It is always important to study these factors and how they influence students' academic performance. This study investigated how parents' socio-economic characteristics influence students' academic performance in KCSE. The findings and the recommendations made from the study will help improve students' academic performance, and make them participate actively in the development process in Kalama division, Kenya and beyond.

For further research, the study makes several recommendations. First, this study was carried out in Kalama division using a small sample and was limited to students who had sat for KCSE between 2000 and 2010. Therefore research should be carried out using a larger sample and a wide range of students either in Kalama or any other area in Kenya and beyond.

The study collected data from parents or guardians only. Therefore a similar study should be carried out this time including students in the sample, to provide more data on their education and role their parents played.

The study investigated the influence of socio-economic status in general and whether they influenced academic performance or not. However, it did not investigate which factors had more influence than others and what influence is explained by each factor. Therefore, research should be carried out this time addressing these issues.

Parental support in this study was measured using indicators based on researcher's assessment and literature. The study did not include all the indicators that explain parental support to their children's education. Therefore research should be carried out including more indicators to measure the influence of parental support.

In addition, the study did not investigate the collective influence of all indicators of parental support to children's education but the individual of each indicator. Therefore research should be carried out to investigate the collective influence of all indicators of parental support to children's education.

The study selected the sample using snowball sampling technique which is based on referral to identify respondents. This sometimes introduces bias and leaves out others from the sample which should have been included. This study recommends a similar study to be carried out using a different methodology to select the sample.

Lastly, it's worth noting that studies on education constitute an important area in development studies. Such dwell on common issues such as role of household, nature of the school or role of teacher in promoting quality education, but all have one thing in common. All address the role of education in developing human resources necessary for development. This study hopes that it addressed this important aspect of the development process.

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APPENDIX I

Mean score of secondary schools in Kalama division in KCSE from 2006 to 2010

Name of school	2006	2007	2008	2009	2010
AIC Nyayo girls	6.2078	5.4789	6.1029	5.253	5.0120
Kitonyini	5.9500	4.8933	5.0833	5.4492	6.0340
Mbuani	4.7838	5.3846	4.8571	4.611	5.0750
Katanga	3.6667	3.0588	3.3333	4.1728	3.6980
Kyandili	4.2466	4.0241	3.8588	4.1728	4.2190
Kyangala	4.6458	3.8269	4.0000	3.8830	4.1976
Iiyuni	4.2692	3.1463	3.0426	3.8095	3.8111
Mbukuni	3.5909	3.0972	2.6550	3.0959	2.6980
Kalama	2.9796	3.8621	3.2750	3.0513	3.2195
Muumandu	2.9714	2.9710	2.6333	2.6849	3.2940
Kikumbo	-	-	-	3.8	3.4460
ABC Kanyongo	-	-	-	-	2.9370
Division	4.4302	3.9843	3.8836	3.9985	3.6866

Source: Kalama Division Education Office

APPENDIX II

Students with C+ and above from 2006 to 2010 KCSE examination in Kalama division

Name of school	2006		2007		2008		2009		2010	
	Entry	Above C+	Entry	Above C+	Entry	Above C+	Entry	Above C+	entry	Above C+
AIC Nyayo girls	77	31	71	19	69	30	84	15	80	11
Kitonyini	60	24	76	13	97	21	69	15	87	34
Mbuani	37	6	39	11	50	8	54	5	53	13
Katanga	15	0	17	1	27	0	29	4	31	2
Kyandili	73	8	83	7	82	6	81	12	73	7
Kyangala	48	7	52	2	71	7	94	12	86	10
Iiyuni	78	11	82	1	97	11	84	8	90	7
Mbukuni	44	1	73	4	61	0	73	2	53	3
Kalama	49	1	30	2	40	1	39	1	41	4
Muumandu	35	0	68	1	91	2	74	0	85	3
Kikumbo	-	-	-	-	-	-	35	5	47	4
ABC Kanyongo	-	-	-	-	-	-	-	-	16	2
Division	516	89	595	61	687	86	716	79	742	100

Source: Kalama division education office

APPENDIX III

Parents' Questionnaire

QUESTIONNAIRE ON THE RELATIONSHIP BETWEEN PARENTS' LEVEL OF EDUCATION AND STUDENTS' ACADEMIC PERFORMANCE IN THE KENYA CERTIFICATE OF SECONDARY EDUCATION IN KALAMA DIVISION, MACHAKOS DISTRICT

My name is Pauline Mbesa Wambua. I am a postgraduate student at the Institute for Development Studies, University of Nairobi. I am conducting a research on the relationship between parents' level of education and students' academic performance in the Kenya Certificate of Secondary Education (KCSE) in Kalama division, Machakos district. The research is targeting parents to the students who sat for KCSE since 2000 in Kalama division. You are among a large group of people selected for this study. The information you will give will be treated in confidence and will only be used for this study and for no other purpose.

Questionnaire number_____ Date_____

Information about the respondent and the household

1. Name of the respondent (*optional*).....

2. Gender

Male	1
Female	2

3. What is your date of birth? .....

4. What is your current marital status?

Married	1
Single parent	2
Windowed	3
Divorced	4
Separated	5
Other (specify)	
.....	
.....	
No answer given	99

5. What is your religion?

None	1
Catholic	2
Protestant	3
Traditional religion	4
Hindu	5
Muslim	6
Other (specify).....	
.....	
.....	
Don't know	88
No answer given	99

6. Which of these things do you own in your family?

		Yes	No	No answer given
A	Radio	1	2	9
B	Television	1	2	9
C	Bicycle	1	2	9
D	Donkey/Ox cart	1	2	9
E	Tractor	1	2	9
F	Motor vehicle	1	2	9
G	Motorcycle	1	2	9
H	Mobile phone	1	2	9

7. Do you own land?

Yes	1
No	2

8. If yes, is it inherited, bought or given?

		Acreage	Title deed	
Inherited	1		Yes	1
			No	2
Bought	2		Yes	1
			No	2
Given	3		Yes	1
			No	2

9. Type of roofing material

Grass thatched	1
Corrugated iron sheets	2
Tiles	3
Other (*specify*).....	
.....	

10. What is the highest level of education you have competed?

No formal schooling	1
Some primary schooling	2
Primary school completed	3
Some secondary schooling	4
Secondary school completed	5
Post-secondary qualification other than university	6
Some university	7
University competed	8
Post-graduate	9
No answer given	99

11. How many years did you take in formal schooling? .....

12. If secondary school completed, what was your grade?(*if secondary school not completed go to16*)

	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
	12	11	10	9	8	7	6	5	4	3	2	1
No answer given												99

13. How many points were these? .....

14. If it was during the 7-4-3-2 education system what was the division?(*if not this system go to 16)*

Division 1	1
Division 2	2
Division 3	3
Division 4	4
No answer given	9

15. How many points were these? .....

16. A) Did you perform as per your expectations?

Yes	1
No	2

B) If yes, what made you achieve your target?

i.....

ii.....

iii.....

iv.....

C) If no, what were the reasons for this?

i. .....

ii. .....

iii. .....

iv. .....

17. A) Do you think you have attained the highest level of education you wanted to attain?

Yes	1
No	2

B) If yes, what made you achieve your dream?

i. .....

ii. .....

iii. .....

iv. .....

C) If no, what are the reasons for this?

i. .....

ii. .....

iii. .....

iv. .....

18. What is the highest level of education your spouse has completed? (*if not married go to 24*)

No formal schooling	1
Some primary schooling	2
Primary school completed	3
Some secondary schooling	4
Secondary school completed	5
Post-secondary qualification other than university	6
Some university	7
University competed	8
Post-graduate	9
Not applicable if single, divorced or widowed	77
No answer given	99

19. How many years did he/she take in formal schooling? .....

20. If he/she completed secondary school, what was the grade?(*if not been to secondary school go to 24*)

	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Points		11	10	9	8	7	6	5	4	3	2	1
Don't know												8
No answer given												9

21. How many points did he/she get? .....

22. If it was during the 7-4-3-2 education system what was the division?(*if not this system go to 24)*

Division 1	1
Division 2	2
Division 3	3
Division 4	4
Don't know	8
No answer given	9

23. How many points were these? .....

24. Are you employed, unemployed, self employed where or both employed and self-employed?

Employed	1
Un employed	2
Self employed	3
Employed and self-employed	4
No answer given	9

25. If employed or self employed, is it in urban or rural area?

Urban	1
Rural	2
Not applicable for not employed	7
No answer given	9

26. If self-employed what do you do?

Livestock keeping	1
Peasant farming	2
Small business	3
Jua-kali business	4
Other (*specify*).....	
.....	
Not applicable if not employed	9

27. If employed what is your occupation?

Primary school teacher	1
Secondary school teacher	2
Employed in other people's business	3
Doctor	5
Nurse	6
Other (*specify*).....	
.....	
Not applicable if not employed	77

No answer given	99

28. Approximately, what is the income from:

Livestock keeping	
Peasant farming	
Small business	
Jua-kali business	
Other (*specify*).....	
.....	
Not applicable if not employed	

29. Approximately, what is the income from:

Primary school teaching	
Secondary school teaching	
Employed in other people's business	
Being a Doctor	
Being a Nurse	
Other (*specify*).....	
.....	
Not applicable if not employed	
No answer given	

30. Approximately, what the family's monthly income .....

31. How many children are there in the family? .....

32. Out of these how many have children who have done their KCSE exam since 2000? .....

33. What was their grade?

Name of the child	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	No answer given
a.	12	11	10	9	8	7	6	5	4	3	2	1	9
b.	12	11	10	9	8	7	6	5	4	3	2	1	9
c.	12	11	10	9	8	7	6	5	4	3	2	1	9
d.	12	11	10	9	8	7	6	5	4	3	2	1	9
e.	12	11	10	9	8	7	6	5	4	3	2	1	9

34. Which year did they sit for KCSE?

Name of the child	Year
a.	
b.	
c.	
d.	
e.	

35. Which schools did they attend?

Name of the child	Name of the school attended
a.	
b.	
c.	
d.	
e.	

36. Were the schools public or private?

Name of the child	Type of school attended	
	Public	private
a.	1	2
b.	1	2
c.	1	2
d.	1	2
e.	1	2

37. If their schools were public, were they national, provincial or district schools?

Name of the child	National school	Provincial school	District school
a.	1	2	3
b.	1	2	3
c.	1	2	3
d.	1	2	3
e.	1	2	3

Information about the specific child

38. Name of the child .....

39. What is your relationship with *(name of the student)*.....

Father	1
Mother	2
Step father	3
Step mother	4
Grand father	5

Grand mother	6
Uncle	7
aunt	8
Foster parent	9
Other (specify).....	
.....	

40. Gender of the student

Male	1
Female	2

41. When was the child born? .....

42. Name of the school attended.....

43. What is the name of the County and the division where your child's school is located?

a)	County	
b)	Division	

44. A) Was the student a day scholar or boarder?

Day scholar	1
Boarder	2

B) If a day scholar give reasons why this was so

i.....

ii.....

iii.....

iv.....

C) If a boarder, give reasons why it was so

i. .....

ii. .....

iii. .....

iv. .....

45. What was his/her grade in KCSE?

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
12	11	10	9	8	7	6	5	4	3	2	1

46. Which year did the student sit for KCSE? .....

School environment

47. Did your child's school have the following?

		Yes	No
A	laboratory	1	2
B	Library	1	2

48. What source of energy did the child use for studying in the school?

Electricity	1
Solar energy	2
Generator	3
Gas lambs	4
Pressure lambs	5
Other (*specify*).....	
.....	
Not applicable for purely day schools	77
No answer given	99

49. What do you think affected your child's performance?

A) Factors at home

i. .....

ii. .....

iii. .....

iv. .....

B) Factors at school

i. .....

ii. .....

iii. .....

iv. .....

C) Factors in the community

i. .....

ii. .....

iii. .....

iv. .....

50. How often did you talk to teachers in a term?

Daily	1
Once a week	2
Once a month	3
Once a term	4

51. What did you talk about?

i.....

ii.....

iii.....

iv.....

Please to tell me the extent to which you agree with the following statements in relation to your child's teachers

	Strongly agree	Agree	Disagree	Strongly disagree	No answer given
52. I felt comfortable talking to teachers	1	2	3	4	9
53. The teachers were knowledgeable	1	2	3	4	
54. I felt that teachers listened to my suggestions	1	2	3	4	9
55. I found it helpful to talk to teachers	1	2	3	4	9

56. What do you expect from your child's teachers?

i.....

ii.....

iii.....

iv.....

Please tell me how satisfied you are with the following about your child's school

	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied	No answer given
57. Academic standards at your child's school	1	2	3	4	9
58. Availability of text books	1	2	3	4	9
59. Order and discipline at your child's school	1	2	3	4	9
60. Homework given during holidays	1	2	3	4	9

61. There were few or no A's in your child's school, what do you think is the reason for such performance?

i. .....
ii. .....
iii. .....
iv. .....

62. What do you think can be done to improve the school's academic performance?

i. .....
ii. .....
iii. .....

63. What do you think can be done at your home to improve performance?

i.....

ii.....

iii.....

iv.....

64. What do you think can be done in your community to improve performance?

i. .....

ii. .....

iii. .....

iv. .....

Parental expectations

65. Did the child attain the grade you expected him/her to attain?

Yes	1
No	2

66. Which grade did you expect your child to have?

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
12	11	10	9	8	7	6	5	4	3	2	1

67. What level of education did you expect your child to achieve?

Secondary level	1
Certificate	2
Diploma	3
University	4
Refuse to answer	9

68. A) Did you expect your child to participate in extra-curricular activities?

Yes	1
No	2

B) If yes, give reasons

i.....

ii.....

iii.....

iv.....

C) If no, give reasons

i.....

ii.....

iii.....

69. A) Did you expect your child to be assigned responsibilities in the school?

Yes	1
No	2

B) If yes, give reasons for you answer

i.....

ii.....

iii.....

iv.....

C) If no, give reasons

i. .....

ii. .....

iii. .....

iv. .....

Parental support/ involvement in child' education

How often did you do the following in relation to your child's education?

	Always	Sometimes	Rarely	Never	No answer given
70. Check child's performance at end of the term	1	2	3	4	9
71. Hire private tutor for the child	1	2	3	4	9
72. Provide fuel for studying	1	2	3		9
73. Assist child with class work during holidays	1	2	3	4	9
74. Discuss child's school progress with the child	1	2	3	4	9
75. Discuss with your child on how to perform well in school	1	2	3	4	9
76. Buy reading materials	1	2	3	4	9
77. Buy writing materials	1	2	3	4	9
78. Discuss child's progress with the teachers	1	2	3	4	9
79. Take your child to motivational speakers	1	2	3	4	9
80. Take your child for counselling	1	2	3	4	9

81. What other things did you do in relation to your child's education other than the ones mentioned?

i. .....

ii. .....

iii. .....

iv. .....

Please tell me how often you got involved in the following school activities

	Always	sometimes	Rarely	Never	No answer given
82. Attend school meetings	1	2	3	4	9
83. Participate in a school committee	1	2	3	4	9
84. Participate in school open days	1	2	3	4	9
85. Visit your child during visiting days	1	2	3	4	9

86. In which other ways did you get involved in school activities?

i. .....

ii. .....

iii. .....

iv. .....

Please tell me how much influence you had on your child's secondary school plans on:

	Great	Some	Very little	None	No answer given
87. Subjects chosen	1	2	3	4	9
88. Extracurricular activities	1	2	3	4	9
89. Kind of friends	1	2	3	4	9

90. A) Did you have rules regarding study time at home?

Yes	1
No	2

B) If yes, which rules did you have?

i. .....

ii. .....

iii. .....

iv. .....

C) If yes, why did you have the rules?

i. .....

ii. .....

iii. .....

iv. .....

D) Did you reinforce the rules?

Yes	1
No	2

E) If no, why was this so?

i. .....

ii. .....

iii. .....

iv. .....

91. How often did your child study at home during holidays?

Everyday	1
Few days a week	2
Once a week	3
Few times during holiday	3
Never	4
No answer given	9

92. What do you think was the reason for the above answer?

i.....

ii.....

iii.....

iv.....

93. A) Did your child have a quiet place to study?

Yes	1
No	2

B) If yes, please give details

i. .....

ii. .....

iii. .....

iv. .....

C) If yes, why did you have a quiet place to study?

i. .....

ii. .....

iii. .....

iv. .....

D) If no, why was this so?

i. .....

ii. .....

iii. .....

iv. .....

94. How often did you give the following responsibilities to your child while at home?

		Often	Rarely	Not at all
A	Cook	1	2	3
B	Look after animals	1	2	3
C	Fetch water	1	2	3
D	Work in the shamba	1	2	3
E	Collect fire wood	1	2	3
F	Looking after the young siblings	1	2	3

95. How important would you gauge your support to your child's education?

Very important	1
Important	2
Not important	3
No answer given	9

96. A) Do you think it is important to let teachers know about things that concern your child?

Yes	1
No	2

B) If yes, please give reasons for your answer

i) .....

ii) .....

iii) .....

iv) .....

C) If no, please give reasons for your answer

i) .....

ii) .....

iii) .....

iv) .....

Please tell me the extent to which you agree with the following statements

	Strongly agree	Agree	Disagree	Strongly disagree	No answer given
97. I know how to help my child do well in school	1	2	3	4	9
98. Student's motivation to do well in school depends on the parents	1	2	3	4	9
99. Your child's learning is up to the teacher and the child	1	2	3	4	9

100. How did you finance your child's education?

i.....

ii.....

iii.....

iv.....

101. What challenges did you encounter when educating your child?

i.....

ii.....

iii.....

iv.....

102. What do you think can be done to ensure that parents play an active role in their children's education?

i.....

ii.....

iii.....

iv.....

103. Generally, the academic performance in Kalama division has been poor, what do you think can be done to improve the performance?

i.....

ii.....

iii.....

iv.....