AN INVESTIGATION INTO THE FAMILY BASED FACTORS INFLUENCING STUDENTS ACADEMIC PERFORMANCE IN PUBLIC SECONDARY SCHOOLS IN MACHAKOS SUB-COUNTY, MACHAKOS COUNTY

By;

PETER MASAKU MUIYA

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DECLARATION

This research project is my original work and has not been presented for a degree or any other award in any other university. No part of this work should be reproduced without the authors' consent or that of the institution.

Sign …… Date: ……..

Name: Peter Masaku Muiya

E55/SB/0942/2014

This research project has been submitted with our approval as the University supervisors

Sign. ……. Date: ……

Name: Dr. Francis B. Mutua
Lecturer, Department of Educational Communication and Technology, Machakos University

Sign. …… Date: ……

Name: Dr. David M. Mulwa
Lecturer, Department of Educational Management and Curriculum Studies, Machakos University

ABSTRACT

One of the major aspects of the social pillar of the Kenya Vision 2030 is education. Kenya Vision 2030 points out education and training is an instrument to develop Kenya to be a middle-income economy. Family backgrounds have been highlighted as of great important in molding the performance of children in schools worldwide. This study therefore was to investigate the influence of family based factors on the students academic performance in Machakos sub-county, Machakos County. This study focused on the influences of; parental marital status, family financial status, parents' education level and family size on the academic performance of students in Machakos sub-county, Machakos County. The study employed a descriptive research design. The target population under the study was the secondary students in Machakos sub-county, Machakos County. The study used a proportionate stratified random sampling method to settle on the sample size. Data was collected by use of questionnaires and interview schedule for students. The data was analyzed quantitatively and qualitatively and presented using frequencies, regression coefficient and Pearson's coefficient correlation. Statistical Package for Social Sciences was used to aid in generating a summary of results which was represented in a tabular form. The information obtained from the study would be of great importance to parents, school management and the researcher doing research on a similar field.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The United Nations report given by Crais sati, Devi, King, Lansdown, Smith (2007) highlighted education as a basic right and need which is significant in the accomplishment of the second goal of the Millennium Development Goals. This is because good academic performance guarantees skilled and dynamic citizens. In addition, one of the aspects of the social pillar of Kenya Vision 2030 is education. Kenya's Vision 2030 points out education and training as the media that will take Kenya to be a middle-income economy.

Family backgrounds have been of great importantance in shaping the performance of children in schools worldwide. This is because; academic performance is usually as a result of motivation that children get from the people they interact with in their initial stages of life. A study conducted in the United States of America (USA) by Rouse and Barrow (2006) revealed that years of schooling completed and educational achievement of students, varied widely by family backgrounds. Rouse and Barrow (2006) found out that students who came from less disadvantaged families had higher average test scores and were more likely to have never been held back a grade as compared to students from the more disadvantaged families. However, they highlighted that it was not clear to reflect the causal effect of family backgrounds on the child's educational achievement which creates a gap that this study sought to fill by finding out the influence of family backgrounds on the students' academic performance.

Further McIntosh (2008) in his study concluded that in Canada, children who came from low income households, having divorced or separated parents, would actually perform better than

average scores if they came from homes that had positive attitudes and that strongly supported their children. This was supported by another study on Children and Youth in Canada that was carried out by Ryan and Deci (2003) who reported that there was a significant effect of family background variables, parental support, and teacher support on a child's educational achievement.

The relationship between parental resources on the academic performance of children has received a great deal of attention in the economic literature in African Countries. For instance, Guo and Harris (2000) observed that in Ghana and South Africa states, students' performance in school was strongly associated with their parents' educational attainments. The strong correlation between parental income and student's scholarly achievements is one of the major findings in the literature on the determinants of children's attainments. However, the fact that children of parents with high levels of schooling or income perform better than those from less advantageous family backgrounds does not necessarily imply that the former exert relatively more effort. Consequently, the significance of education attainments and academic performance are related in most African countries. This is because, how well an individual performs in primary and secondary school largely determines the individual's final post-secondary educational destination (Charles, 2003).

In East Africa for instance, parents try to influence the activities that relate to their children's schooling performance, make investments of time and money in their children, and serve as their role models and set objectives and priorities for them to follow (Venkatesh, 1999). In Kenyan situation, financial constrains, education level of the parent and the marital status of the parents are the key determinant of student motivation to study. A study by Pamela and Kean (2010) stated that those students whose parents had a tertiary level of education performed, significantly better in tests of science, reading and mathematical ability than those whose parents had only basic

schooling. Thus, across these three disciplines, the average grades achieved by students with well-educated parents ranged from 7% higher than those achieved by students with relatively poorly educated parents in developing countries to 45% higher in most developed countries. This therefore, shows that parents' education has some influences on the students' beliefs and behaviors, leading to positive outcomes for children and youth. A study conducted by Kamar (2008) revealed that parents of moderate to high income and educational background held beliefs and expectations that were closer than those of low-income families to the actual performance of their children. Low-income families instead had high expectations and performance beliefs that did not correlate well with their children's actual school performance.

Recent studies of Kenya populations indicated that children from two-parent homes performed better than children from single-parent homes on a variety of social indicators. For instance, Ferej, Ooko & Kitainge (2011) found that in most regions within Kenya, children living with one parent were less likely to be in school at age 17 than their two-parent counterparts. This was also found by Mather (2010). In another study by Kamar (2008) showed that a significant positive relationship was found between father presence and self-esteem. In addition, father-present youths also exhibited stronger scholastic achievement and more stable peer relations. Another recent study by Yara and Otieno (2010) found that living in a single-parent home was a significant risk factor for violent behavior in Nyanza, Rift Valley and North Eastern children. For given levels of ability, student effort as determined by family background is one of the most important input factors for the production of education, and different from other inputs like teacher quality, school autonomy, or class size (Yara & Otieno, 2010).

However, relationship between family background in the academic performance has received only limited attention both on theoretical and empirical grounds. One of the few works in the theoretical literature that takes into account family background, is in a research paper Ng'ang'a, and Nyongesa (2012) wrote. They compared a standard grading system to a competitive grading system in terms of the level of student effort each family was able to motivate, and showed that the family system's relative advantage depended crucially on the nature of the family background distorting academic achievement. He further showed that when leisure is a normal good and students are given monetary rewards by their parents unrelated to their academic performance they become less diligent. Ng'ang'a and Nyongesa (2012) however focused on the motivation that families provide to students in terms of monetary rewards. This therefore creates a gap on other ways that family background influences the performance of students. There is also need for empirical study from a Kenyan situation, to assess whether the findings in Canada and USA can be generalized in Kenya hence creating the gap that this study sought to fill.

1.2 Statement of the problem

Poor academic performance of students has been of great concern to educationists, guidance and counselors in particular (McCelland, Morrison & Holmes, 2000). Despite all guidance programs and counseling strategies mounted in schools to improve the students' academic performances, poor performances are still recorded yearly in Kenya and it has become necessary to find out the cause of such poor performance. Machakos county does not have the leading schools in Kenya due to poor performing students (Ministry of Education, 2013). This background creates a need to study on the relationship between family background on the academic performance of secondary students in Machakos county using a case of Machakos sub-county, Machakos County.

The Kenya Certificate of Secondary Education (KCSE) is the main examination that is administered to Form four students and it involves taking written and practical examinations in at least seven subjects. Each subject usually has two exam papers commonly referred to as paper 1 and paper 2. Usually for the sciences, paper 1 is the theory exam while paper 2 is the practical exam. For the language exam, paper 1 is the grammar and essay exam while paper 2 is the literature exam. Each exam lasts 2 to 4 hours. Each subject has 12 possible points for a possible total of 84 points. The scores are described based on the average score in all 7 subjects. This means that a student with an average score of 12 points in the 7 subjects is said to have the highest grade which is denoted as A in the KCSE examination (Kamba, 2010).

Research conducted by scholars on academic performance has consistently shown that family background is important in predicting children's educational achievement (Duncan, Dowsett, Claessens, Magnuson, Huston, Klebnov & Japel, 2007). However, the mechanisms for understanding this relationship have not been well studied. This is because, in general, family process models such as those developed by Yeung, Linver and Brooks-Gunn (2002) have examined how parenting behaviors, such as the structure of the home environment influence children's achievement outcomes. Others have focused on specific behaviors such as harsh parenting, nurturing, and warmth. Hence, there has been less work on how factors like parental beliefs, education level and marital status influence students' motivation and achievement outcomes. Further, the studies that do exist generally examine young children in low-income or at-risk populations and focus on income related variables as the moderator variables and family stress as a mediator to achievement outcomes. In addition, none of the scholars has focused on Machakos sub-county, Machakos County in Kenya.

Further, Rouse and Barroe (2006) in their study revealed that parental socio-economic status had a causal effect on children's educational outcomes, however, they stated that the current studies could not identify precisely how parents' education and income changes affected educational achievement of the students. This therefore creates a gap to find out how parents' education and income changes had a relationship on educational achievement of the students, as well as provide empirical evidence of the same. It is therefore based on this background that this study investigated the influence of family background on academic performance of students in Machakos Sub-County, Machakos County.

1.3 The Purpose of the Study

The purpose of the study was to investigate into the family based factors influencing the academic performance of students in public secondary schools in Machakos Sub-County in Machakos County.

1.4 Research Objectives

The following were the specific objectives of the study:

i. To establish the association between parents' marital status and students' academic performance in secondary school in Machakos sub-county, Machakos County
ii. To assess the relationship between family socio-economic status and academic performance of secondary school students in Machakos sub-county, Machakos County
iii. To investigate the relationship between parents' educational level and academic performance of secondary school students school in Machakos sub-county, Machakos County

iv. To examine the relationship between family size and academic performance of secondary school students in Machakos sub-county, Machakos County

1.5 Research Questions

The following were the research questions answered by the study:

i. What is the relationship between parents' marital status and academic performance of secondary school students in Machakos sub-county, Machakos County?
ii. What is the relationship between family socio-economic status and academic performance of secondary school students in Machakos sub-county, Machakos County?
iii. What is the relationship between parents' educational level and academic performance of secondary school students in Machakos sub-county, Machakos County?
iv. What is the relationship between family size and academic performance of secondary school students in Machakos sub-county, Machakos County?

1.6 Significance of the Study

This study was of importance to different individuals who include: Parents; in order to make them aware of the importance of family background in shaping the academic performance of their children's; The school management in order to enlighten them on the important factors in the children's family background so as to be able to deal with or pay more attention to those factors which may affect adversely the students' academic performance; The study benefited other researchers in the same field with the literature to support their arguments and hence improved knowledge. These enriched available information on family background specific factors and how they affect students' academic performance in secondary schools.

1.7 Delimitation of the Study

This study was delimited to students' academic performance in Central Division in Machakos sub-county, Machakos County. Machakos sub-county is among the sub-counties in Machakos County. The study was also delimited to the following school based factors; parents' marital status, family socio-economic status, parents' educational level, and family size. It was also delimited to secondary school students in Machakos sub-county.

1.8 Limitation of the Study

The study was limited by distance from one school to another making it difficult and tiresome to cover all the schools and therefore the researcher employed research assistants to ensure that the expected scope was covered within the given time limit. Some respondents did not respond due to issues of confidentiality. Some questionnaires were not returned after filling.

1.9 Definition of Terms

Family - A group consisting of blood related people including those adopted to the group.

Family background - refers to circumstances and past events that help to explain how a child develops.

Family background relationship - refers to any positive or negative impression or effect that families exercise on their children while studying in the schools.

Family size- it is the total number of children in the child's family in addition to the child himself.

Academic - The process of teaching and learning in school. It involves reading, studying and examinations.

Academic performance - is the outcome of education; the extent to which a student, teacher or institution has achieved their educational goals.

Public secondary schools – post-primary schools mandated for or offered to all children without charge, funded in whole or in part by taxation.

Parental marital status – indicates whether the parent is married, single, widow or divorced

Parents' education – The rank of a parent's formal education attainment

Socio-economic status – is an economic and sociological combined total measure of a person's work experience and of an individual's or family's economic and social position in relation to others, based on income, education, and occupation.

Family based factors – family related circumstances, facts, or influences that contribute to a result or outcome related to the family.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter contains the socialization theory and the themes which were used to conduct the study. The themes include parents' marital status, parents' socio-economic status, parental education level and the family size. This chapter contains also theoretical review and the conceptual framework.

Socialization is the process by which human infants begin to acquire the skills necessary to perform as a functioning member of their society, and is the most influential learning process one can experience. Although cultural variability manifests in the actions, customs, and behaviors of whole social groups the most fundamental expression of culture is found at the individual level. This expression can only occur after an individual has been socialized by his or her parents, nuclear family, extended family, and extended social networks. This reflexive process of both learning and teaching is how cultural and social characteristics attain continuity (Chang, 2000).

This theory therefore adapted the socialization theory. Socialization theory was developed by Charles Cooley in 1929 and it refers to the parenting practices that influence children's development. Socialization is a lifelong process that involves inheriting and disseminating norms, customs and ideologies hence providing an individual with the skills and habits that are necessary for participating within one's own society. Socialization therefore is the means through which individuals acquire skills that are necessary to perform as functional members of their societies and is the most influential learning process. Although cultural variability manifests in the actions, customs and behaviors of the whole social groups, the most fundamental expression of culture is

usually found at the individual levels, and this expression is usually socialized by one's parents, extended family and extended social networks (Hanushek, 1996).

Chang (2000) highlighted that usually it is assumed that cultural models define desirable endpoints for development that inform socialization goals which define the ideas about parenting in terms of parenting theories. He however added that the cultural model is represented mainly by feminism, which encompasses loyalty, reciprocity and solidarity with the members of the family and therefore the family is an extension of self. Therefore, this study added to the knowledge of socialization theory by relating the influence that family background has only one aspect of a child's life, which is academic achievement. Further, it tested to find out whether this model was applicable in a developing country scenario which was Kenya and specifically Machakos sub-county.

2.1 Academic Performance of students in public secondary schools in Machakos sub-county

Education system in Kenya has been stressing on performance as integral part of quality education emphasized in the Sessional Paper No.1 of 2005. The provision of quality education and subsequent high performance in school is inevitable for the realization of millennium development goals and the vision 2030. The value of performance was envisaged to lead to white collar jobs immediately after independence. This is the time when the contribution of education to individual development was increasingly recognized, especially in trained man power. Hence, priority was accorded to the higher academic performance economic growth and development.

It is worth noting that, over the years, many commissions and committees have been formed to review the education. It is in this, respect that the Government of Kenya in conjunction with United

Nation Education for children Fund (UNICEF) and other international organization have introduced several peer education programs to scale up the provision of quality education through seminars and workshop for the purpose of improving students' performance at all levels of education cycle in the country, according to total integrated quality Education and Training (TIQET), the government reviewed the curriculum in terms of content, teaching methods, education strategies and administration structures in order to enhance schools performance in Kenya Certificate of Secondary Education (KCSE). It is in this regard that the Koech commission (1999) recommended the establishment and installation of an effective democratic and community based infrastructure for the management and monitoring students' performance in Kenya certificate of secondary Education or secondary schools level. Further, the introduction of free day secondary Education fund by the National Rainbow Coalition (NARC) government in 2001 and the establishment of national secondary schools as centers of excellence in each constituency in Kenya was a move to enhance students' performance.

Education is an essential need in the society today, and therefore academic performance is positioned quite high on the national agenda, with educators and policy makers putting effort in testing, accountability and other related concerns (Greenberg, Weissberg, O'Brian, Zins, Fredericks, Resnik & Elias, 2003). In Kenya, education is examination oriented and hence the only evaluation for performance is through examinations (Maiyo, Amadalo & Amunga, 2009). The government funding in secondary schools is also intended to improve infrastructure, teaching and learning and subsequently performance in national examinations. In 2002, the government of Kenya through Kenya Institute of Education (KIE) reduced the subjects to be examined from eight to seven and at the same time students were given a variety of optional subjects for the purpose of

excellent performance in all subjects. However, despite interventions by the government, international organizations and community, students' performance at Kenya Certificate of Secondary Education (KCSE) still remains a problem. A lot of concern to teachers, parents, community, stakeholders, educationist and politicians which has led to the critical question and what are the family based factors influencing students' performance at KCSE Machakos sub county, Machakos County; It is against this background that confirms the need for students' performance in society especially at secondary school level.

2.2 The influence of family based factors on students' academic performance

2.2.1 The influence of parents' marital status

A number of significant changes have occurred in African families over the past 50 years. In 1950, married couples headed 78% of African families. By 1996, this number dropped to only 34% (Amato & Keith, 2001). The divorce rate has also increased dramatically for African. In 1960, only 78 per 1,000 African women's marriages ended in divorce. In 1990, this number jumped to 358 per 1,000. It is expected that 75% of African children born to married parents will experience their parents' divorce before the age of sixteen (Amato & Keith, 2001).

Studies conducted on African populations indicated that children from two-parent homes do better than children from single- parent homes on a variety of social indicators (McLeod, *et al.*, 2004). In another study, a significant positive relationship was found between father presence and self-esteem (Passley *et al.*, 2006). Father-present youths also exhibited stronger scholastic achievement and more stable peer relations and that the father-son relationship facilitated the adoption of an adequate self-concept because boys were able to model their fathers. The study further found that living in a single-parent home was a significant risk factor for violent behavior in African children.

A recent longitudinal study found that African children in two-parent homes had significantly higher math and reading scores and lower behavioral problems than did children in single-parent homes. The results held up over a 4-year period for both older and younger siblings in the sample (Paschall *et al*., 2006). However, some researchers highlighted the fact that not all studies show advantages for two-parent homes as evident by the study carried out by Vollmer (2012) ,and even for the studies that do, the effect sizes may not be large enough to be socially relevant. Many researchers also argued that the consequences of single-parent homes were mainly related to the economic deprivation of the single-parent home and others argued that the studies did not account for important aspects of family functioning or extended kin (Scott, Bronte-Tinkew & Horowitz, 2009). For instance, Wilson (2009) argued that the strength of flexible family roles in African families has not been taken into consideration.

The family structure model fails to consider aspects of parent-child relationships and socialization processes within African families (Wilson, 2009). The family functioning model suggests that children may be better off in a cohesive single-parent home than in a conflictive two-parent home (Vollmar, 2006). Research on the effects of family functioning quality on African children has generally been very supportive of the family functioning theory (Heiss, 2006). Dancy and Handal (2004) found that family-environment quality significantly predicted African adolescents' perceptions of family climate, psychological adjustment, and grade point average. Heiss (2006) also found that family structure had weak effects on academic variables for African adolescents, but parental involvement had a very strong effect on the same variables.

Numerous studies showed that fathers and mothers treated their girls and boys differently. For instance, Wilson (2009) found differences in children's and mothers' perceptions regarding the

African fathers' socializing strategies of their girls and boys. Specifically, mothers, grandmothers, daughters, and sons perceived the fathers of sons as using more controlling, demanding, and supporting parental behaviors than was perceived for fathers of daughters. Fathers of sons were also perceived as more involved with their children than were fathers of daughters. Other studies showed that fathers hold more masculine gender role attitudes toward their sons and more feminine attitudes toward their daughters (Hokoda & Fincham, 2005). In general, fathers appeared to be more strict with their boys than were mothers and more strict with boys than they were with girls. Therefore, the effects of parental marital status may be more apparent for boys than for girls.

According to Turker (2003), those who grow up in fatherless families do worse on measures of scholastic achievement, educational attainment, psychological health, behavioral problems, delinquency, stable family formation, early sexual debut, partner satisfaction, economic success, and even physical health. The bottom line is that single motherhood may reduce the quantity of parental time with children, both for mothers and fathers. This may translate into less socialization, less supervision and monitoring, and less involvement and emotional support.

Household composition is less stable among single-mother families, with extended family, boyfriends, and stepfathers entering and exiting the picture over the course of childhood. Such instability may be psychologically disruptive to children. To the extent that it reduces income, growing up with a single mother may shape educational aspirations by making college seem more or less plausible an option. Furthermore, single mothers may be unable to afford luxuries such as stylish clothes, sports equipment and fees, and orthodontics for their children. Their children's status among their peers may suffer as a result (Harris, 1999). Finally, having a single mother itself may be stigmatizing to children.

Furthermore, single parenting can rob children of gender-specific role-modeling (Sigle-Rushton and McLanahan, 2012). Father absence – resulting either from divorce or non-marital pregnancy – might harm the ability of children to form healthy relationships (Fleming & Gottfried, 2004). Coley (2008) has argued that single-mother families feature less hierarchical and more peer-like relations between parent and child than two-parent families do. Single mothers are more reliant on their children for support and assistance than married mothers are. As a result, their children are under-exposed to authority relations typical of hierarchical institutions related to education and employment. Fathers may also have cultural capital that mothers lack, such as knowledge about professions and industries dominated by men (Scott & Black, 2009).

2.2.2 The influence of parents' socio-economic status

Family background can be analytically separated into at least three distinct components as raised by Somers, Owens and Piliawsky (2008). These are: financial (physical) capital (family income or wealth), human capital (parent education), and social capital (relationship among actors). With respect to children's educational achievement, Caughy, O'Campo, Randolph and Nickerson (2002) maintained that, there is a direct relationship between parental financial and human capital and the successful learning experience of their children. However, he stressed that while both of these factors are important determinants of children educational success, there remains a substantial proportion of variation in educational success, which was unaccounted for by these variables alone. Caughy, O'Campo, Randolph & Nickerson, (2002) explained that this variance by what he called the "social capital" which mediates the relationship between parents' financial and human capital, on the one hand, and the development of the human capital of their children on the other. A research conducted using a sample of low-income minority families, found that mothers with

higher education had higher expectations for their children's academic achievement and that these expectations were related to their children's subsequent achievement in reading Caughy, O'Campo, Randolph & Nickerson, (2002).

The economic deprivation perspective has been given enormous attention by researchers of African family processes, specifically with regard to single-mother homes (Wilson, 2009). Fifty percent of African female-headed families live below the poverty line, which makes them the most impoverished group in Africa (Taylor, Pearson, Clark & Walpole, 2000). The proponents of the economic deprivation perspective argued that the potential effects of single parents is not due to the physical absence of one parent but to the absence of the economic resources generated by the absent parent. Therefore, the effects of marital status on child well-being will be reduced when income is statistically controlled or when families are matched on income level. For instance, McLeod, Lloyd-Williams, (2004) argued that parents who experienced income loss became more rejecting of their children and that their children were at risk for developing feelings of inadequacy associated with parental rejection. However, the empirical research on the effects of income has not been adequately tested nor has it consistently supported these assumptions for African children (Soria & Linder, 2014). The limitations and small effect sizes found by family structure studies, as well as the income perspectives, led many researchers to criticize both approaches for several reasons (Murray, 2009). For instance, Ng'ang'a and Nyongesa (2012) argued that the major problem with pathological-based studies was not the harsh facts that described an important number of African families but the failure to study how these families survived in extremely adverse conditions.

A study revealed that single motherhood generally reduces the economic resources available to families because non-custodial fathers contribute far less to their children's household than they otherwise would. In fact, only a minority of children with non-custodial fathers receives any child support payments, and the amount is typically very small. This means that by reducing income and necessitating greater paid work by mothers, single motherhood increases the time children must spend doing housework and working for pay, which might negatively affect educational achievement and progress (Zulauf & Gortner,1999). Another study conducted by Becker and Powers (2001) revealed that family income also affected children's educational aspirations, their status among their peers, their neighborhood quality, the stability of their lives, and insecurity within their family, any or all of which may influence child outcomes. Furthermore, the inability to exploit the work/home specialization afforded by two-parent families' means that child care expenses are often greater for single mothers than they would be with a husband. Another benefit of specialization is that married parents may self-invest strategically in forms of human capital that, over time, magnify the gains from a work/home division of labor (Becker & Powers, 2001). Husbands and wives can exploit the comparative advantage each has in household and market production so that investment in children is greater than it would otherwise be in the absence of specialization.

No doubt, that it is important to investigate the different aspects of academic achievement within a specific family situation. However, the family situations cannot be detached from the general culture (example, societal values, traditions, attitudes and home environment). Accordingly, one applied aspects of this study is secondary school students' performance as influenced by family structure, functions, values and other psychological dimensions such as parent beliefs. Lumsden

(2004), for example, stated the role of the significant others (parents and home environment) in students' academic performance as a main factor which shapes the initial constellation of students' attitudes they develop toward learning. He stressed that "When children are raised in a home that nurtures a sense of self-worth, competence, autonomy, and self-efficacy, they will be more apt to accept the risks inherent in learning".

Gottfried, Cook, Gottfried & Morris (2005) supported this trend and emphasized that their study "strongly suggest that parental motivational practices are causal influences on children's academic intrinsic motivation and school achievement". Accordingly, there was a need to instruct parents on motivational practices such as encouragement of persistence, effort, mastery of subject area, curiosity and exploration that are likely to impact on the academic performance of the student. In fact, the impact of family on students' motivation and school achievement is an old issue that has been stressed since 1953. Recent studies in Australia, for example, had pinpointed the role of social integration in academic integration (Saito, Mayangsari & Hiramatsu, 2000). Some of these studies showed that experiences with peers and family members do influence social and academic integration in complex ways. The demands, for example, of family and friends outside the academic institution can limit opportunities for social integration. Deci and Ryan (2000) stressed that despite the fact that humans are liberally endowed with intrinsic motivational tendencies, the evidence was now clear that the maintenance and enhancement of this inherent propensity requires supportive conditions, as it can be fairly disrupted by various unsupportive conditions.

Research has revealed that external negative impacts such as threats, deadlines, directives, pressured evaluations, and imposed goals diminish intrinsic motivation. Consequently the same

reported that studies showed that autonomy-supportive parents, relative to controlling parents, have children who are more intrinsically motivated (Deci & Ryan, 2000)

2.2.3 The influence of parents' educational level

The influence of the level of education of parents on the academic performance of their children is evident in all countries. Pamela and Kean (2010) states those that students whose parents have a tertiary level of education perform, on average, significantly better in tests of science, reading and mathematical ability than do those whose parents have only basic schooling. Thus, across these three disciplines, the average grades achieved by students with well-educated parents ranged from 7% higher than those achieved by students with poorly educated parents in developing countries to 45% higher in most developed countries.

Even though much of the literature on parents' education pertains to the direct, positive influence on achievement (Deci & Ryan, 2000), the literature also suggests that it influences the beliefs and behaviors of the parent, leading to positive outcomes for children and youth (Heiss, 2006). For example, Alston and Williams (2002) found that parents of moderate to high income and educational background held beliefs and expectations that were closer than those of low-income families to the actual performance of their children, Low-income families instead had high expectations and performance beliefs that did not correlate well with their children's actual school performance.

Research on parenting also has shown that parent education is related to a warm, social climate in the home. Gottfried et al. (2004) found that both mothers' education and family income were important predictors of the physical environment and learning experiences in the home but that

mothers' education alone was predictive of parental warmth. Likewise, Smith et al. (2007) found that the association of family income and parents' education with children's academic achievement was mediated by the home environment. The mediation effect was stronger for maternal education than for family income. Thus, these authors posited that education might be linked to specific achievement behaviors in the home. Murray and Fairchild (2009) also found that maternal education had the most consistent direct influence on children's cognitive and behavioral outcomes with some indirect influence through a cognitively stimulating home environment. However, they examined only two, quite broad aspects of family mediators: learning stimulation and parental responsively. Mediation might have emerged if other parent behaviors and attitudes were examined.

2.2.4 The influence of the family size

Family size in this context refers to the total number of children in the child's family in addition to the child himself. The type of family that a child comes from either monogamous or polygamous family usually has impact on the child academic performance. Moreover, either of the family type (monogamous or polygamous) family dictates the size of the family. Polygamous family is peculiar to Africa in general and in Kenya in particular. According to Gottfried *et al*. (2004), polygamous family is a common among well-educated families as well as among poorly-educated families. He added that it is equally common among professional and managerial fathers of the top of the occupational hierarchy although to unskilled workers polygamous is prominent.

Children from larger families are found to do worse than children from smaller families as revealed by Lacovou (2001). He found out that children lower down the birth order do worse than those higher up the birth order. According to Adler (2009), first-borns or the oldest child is usually

advantaged by a good deal of attention and warmth during the early stage on age of life, which he entertains all alone. Observations and studies have shown that more attention and time are usually accorded to the first born (Seigal, 2007). Lacovou (2001) reported that parental attention by parents declines as the number of sibling's increases and later born children perform less well than earlier born siblings.

Studies carried out in the past on the relationship between academic achievement and birth order have shown that there were positive relationships. For example, Scott & Black (2009) discovered that on relationship of birth order and creativity, first born and configurations of oldest and only children are significantly more creative on verbal test of creativity than later born. Smith (2007) observed that there was more significantly outstanding academic performance amongst first birth children. Seigal (2007) observed that there was a significant difference in intelligence capacity between the first born children and later born children.

2.3 Theoretical framework

The study was based on the Effective Schools Model by Lezotte (2010). According to this model, an effective school is a school that can, in measured student performance, demonstrates the joint presence of quality and equity. According to Lezotte (2010), there are seven correlates of student performance - strong instructional leadership, clear and focused mission, safe and orderly schools, climate of high expectations for success, frequent monitoring of student progress, positive home-school relations, and opportunity to learn/time on task. According to Lezotte (2010), strong instructional leaders are proactive and seek help in building team leadership and a culture conducive to learning and professional growth. In the effective school, the principal and others act

as instructional leaders and effectively and persistently communicate and model the mission of the school to staff, parents, and students.

Having a clear and focused vision and mission means everyone knows where they are going and why. A clear focus assists in aligning programs and activities for school improvement. To effectively determine a specific focus, school leadership and stakeholders use a collaborative process to target a few school goals and then build consensus around them. A safe and orderly school is defined as a school climate and culture characterized by reasonable expectations for behavior, consistent and fair application of rules and regulations, and caring, responsive relationships among adults and students (Lezotte, 2010). Classrooms are warm and inviting, and learning activities are purposeful, engaging, and significant. Personalized learning environments are created to increase positive relationships among students and between students and their teachers. Students feel that they belong in the school community, and children are valued and honored; their heritage and backgrounds are viewed as "assets," not deficiencies.

In a climate of high expectations, the mantra "all students can learn" must be followed by instructional practices and teacher behavior that demonstrate that teachers believe in the students, believe in their own efficacy to teach students to high standards, and will persist in teaching them. Teaching advanced skills and teaching for understanding together with basic skills are required for all students to achieve at high levels.

Frequent monitoring of teaching and learning requires paying attention both to student learning results and to the effectiveness of school and classroom procedures (Lezotte, 2010). Learning is monitored by tracking a variety of assessment results such as test scores, student developed

products, performances, and other evidence of learning. Teaching is monitored by teachers themselves through self-reflection and by supervisors for program and teacher evaluation. Assessment results are used for planning instruction for individual students as well as for school-wide decision making and planning. Classroom and school practices are modified based on the data.

According to Lezotte (2010), family and community involvement is a general term used to describe a myriad of activities, projects, and programs that bring parents, businesses, and other stakeholders together to support student learning and schools. Families and other adults can be involved in the education of young people through a variety of activities that demonstrate the importance of education and show support and encouragement of students learning. These are legitimate approaches for involvement and do not necessarily require adults spending time at the school site.

Opportunity to learn and student time on a task simply means that students tend to learn most of the lessons they spend time on. Time on task implies that each of the teachers in the school has a clear understanding of what the essential learner objectives are, grade-by-grade and subject-by-subject. Once it is clear what students should be learning, they should be given time to learn it. In an effective school, teachers allocate a significant amount of classroom time to instruction on the essential skills. Students of all abilities, races, gender, and socioeconomic status have equal opportunities to learn (Lezotte, 2010).

The theory is relevant to this study in that the seven correlates of student performance require effective leadership in the part of the school administrators. This is in line with Sullivan and Glanz's (2000) assertion that a prime task of school leaders is to exercise instructional leadership

of the kind that results in a shared vision of the directions to be pursued by the school, and to manage change in ways that ensure that the school is successful in realizing the vision. By identifying the correlates of well performing schools in Kenya, the study tests Lezotte's (2010) Effective Schools Model, and also suggests measures that low performing schools can take to improve academic performance.

2.4 Conceptual Framework

A conceptual framework explains the relationship between the independent and dependent variables. It briefly explains the relationship between family size, family financial status, parental marital status, parental education level and academic performance of students in secondary schools in Machakos sub-county. This is presented in Figure 2.1.

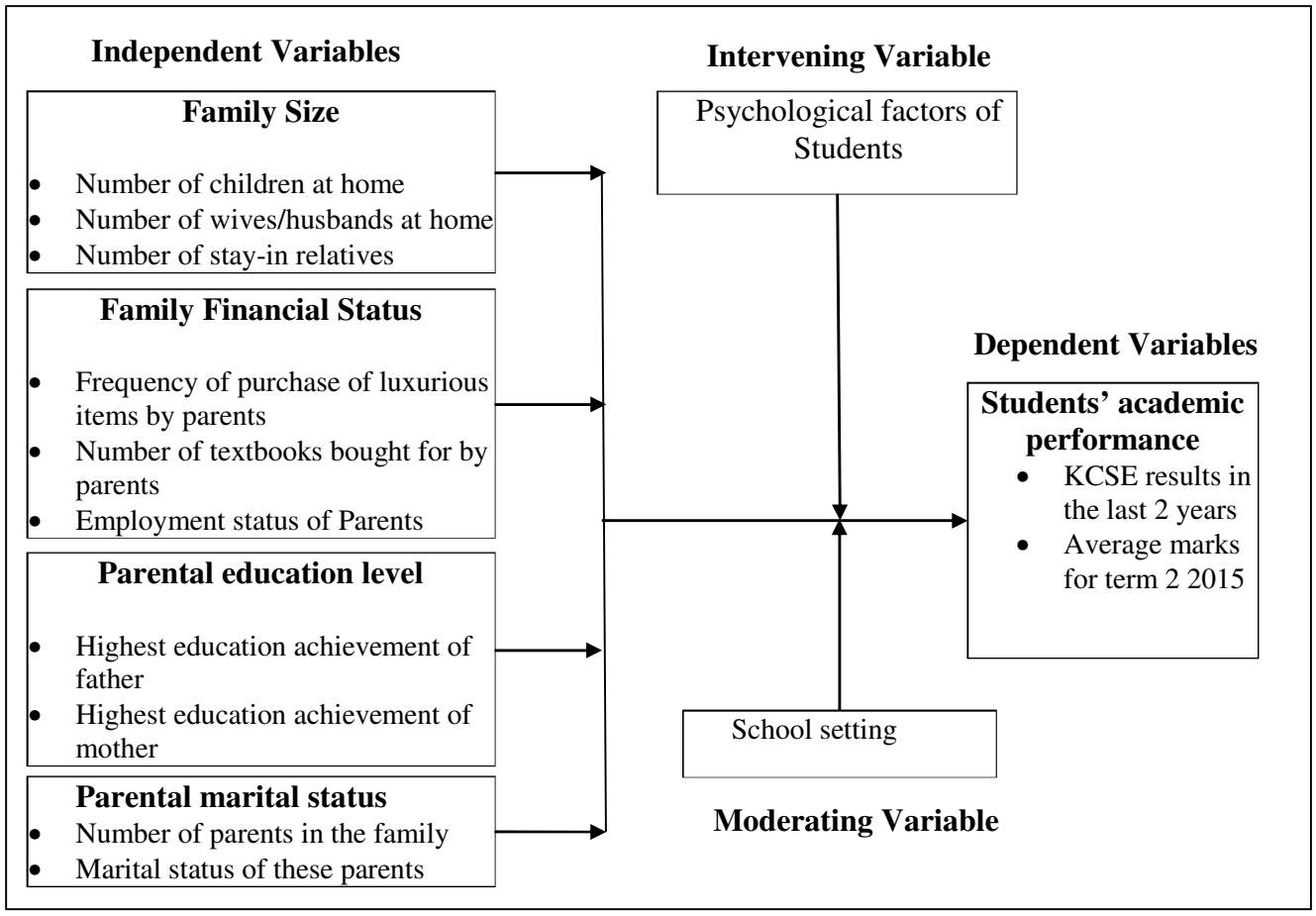


Figure 2.1: Conceptual Framework (*Source: Researcher*)

2.4.1 Explanation of the conceptual framework

The independent variable of this study was family background, which is divided into the following components; family size, family financial status, parental educational level and parental marital status while the dependent variable was secondary school students' academic performance. The independent variables were investigated on how they would affect the performance of the students in secondary schools. The family size would affect the performance in the sense that, if a student is from a big family, then it might be challenging if the family is not well-up to sustain as required the studies of the student. Further, the financial status may also affect the student's performance if

the family is not well stable financially. The parental education level may affect the student's performance in the sense that if the parent is not well educated, he/she may not see the importance of education and by so doing, the student's performance may be affected. Marital status may affect the performance of the student especially if one of the parents is not available.

The intervening variable is the psychological factors of students. the way the student perceives things or is affected by events may contribute to the way the student performs in school. If a student has a negative attitude always, then in case of any of the independent variable, the student's performance may be affected. This may be contrary if the student has a positive attitude, his or her performance may not be affected.

The moderating variable was the school setting which is believed to have a contingent effect on the dependent variable. The school setting is made up of the characteristics of an individual school such as the type of school, the administration, the decision-making processes in the school, degree of students' participation in decision making among others. Considering these, the student performance may be affected.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter describes the research methodology that was used in the study. It discusses the research design, location of the study, the target population, sampling techniques, data collection instruments, data collection techniques, pretesting instruments, data analysis and logical and ethical considerations.

3.2 Research Design

This study adopted a descriptive survey design to investigate on how family background influences secondary school students' performance. The researcher selected a descriptive survey design since it attempts to describe the characteristics of the variables of this study (Mugenda & Mugenda, 2003). According to Mugenda, descriptive research design studies have advantages in that they may be adopted to collect information that can be generalized from all population and that they provide relatively simple and straight forward approach to the study of values, attitudes, beliefs and motives.

According to Mbweza (2000), descriptive research seeks to identify what large numbers of people think or feel about certain issues. In addition, Mbweza (2000) and Orodho (2003) affirm that descriptive surveys are used to describe some aspects or characteristics of human population such as opinions, attitudes, believes or even knowledge of certain phenomenon. Therefore this study fits as a descriptive survey because it seeks to find and describe opinions, attitudes, believes and knowledge of the students on how background affects their performance in the study locale of Central Division of Machakos sub-county.

3.3 Target Population

The target population of this study was 4530 students of secondary schools in the Central Division of Machakos sub-county. This target population was obtained by getting a list of all secondary school students in the Central Division from Machakos County Division office 2015.

3.4 Sampling Procedure and Sample size

To select a representative sample, the researcher must first have a sampling frame (Mugenda & Mugenda, 1999). This is a directory or index of cases from which a sample was selected. According to Orodho (2005), sampling is a process of selecting a sub-set of cases in order to draw conclusions about the entire set. In this research, using simple random samples, the researcher selected 16 students from the 50 public secondary schools to make a total sample of 800 which is 17% of the target which was more than the expected sample size percentage of 10% according to Mugenda & Mugenda (1999).

3.5 Data Collection Instruments

The study employed both the quantitative and qualitative techniques of data collection. This was done to get a holistic picture of the problem of social-economic background on how it affects students' performance in Central Division. This study used questionnaire and interview schedule guide.

3.5.1 The Student Questionnaire

Questionnaire method was used to obtain information from students because their number is large. This questionnaire enabled the researcher to collect a large amount of information from students in a reasonably quick space of time. The questionnaire also gave respondents (students) freedom

to express their views or opinions and also to make suggestions. In this study, the anonymity of questionnaire was ensured because students were not supposed to write their names on the questionnaire. This helped in producing more candid answers.

A questionnaire was administered to all the sampled students. The study used both closed ended and open ended questions in seeking opinions and views on issues expressed by Orodho (2005) who gave the following similar advantages of open ended questionnaires such as; they stimulate the respondents to think about their feelings and express what they consider to be the best assessment of the situation and also it gives respondents an opportunity to give an insight into their feelings, background hidden and deeper motivations and interests. The closed ended questions were only useful when confirming whatever the answer is “yes” or “no”.

3.5.2 Interviews Schedule for Students

The importance of interviews is to allow the researcher to investigate and prompt things that he/she cannot observe (Orodho, 2005). This is the reason why it was used to some of the respondents. Interviews enabled all the respondents to give their account of situations how they live, gone through or seen. The interview guide was employed to help the researcher elicit verbal responses from students. Use of interview helped the researcher to probe the respondents and therefore get in-depth information on their socio-economic background.

3.6 Pilot Study

Before collecting the actual data, the researcher did a pre-testing of the questionnaire to enhance reliability and validity of the instruments (Mugenda & Mugenda, 1999; Orodho, 2003). The pilot study enabled the researcher to establish the validity and reliability of the instruments where the

unclear instruments, insufficient writing space, vague questions and wrong numbering was reveled and corrected, thus improving the questionnaire. These questionnaire instruments were piloted in one of the secondary schools in Machakos sub-county which share the same locality with the secondary schools sampled.

3.7 Validity of the Instruments

Validity refers to the extent to which a test or instrument measures what it is intended to measure (Mbweza, 2000). The questionnaire in this study was validated through application of content validity. Gay and Berne (1981) identified that content validity is a matter of judgment by the researcher and professionals. Hence, the researcher sought expert advice, comments and suggestions from the university supervisors and other university lecturers whom he considered and incorporated in order to validate the questionnaires. The university supervisor scrutinized the questionnaire to judge the items on their appropriateness of content and determined all the possible areas that needed modification so as to achieve the objectives of the study.

Data validity refers to the degree to which the results represents the phenomenon under study and therefore the results are accurate, meaningful and free from interference. Internal validity refers to the degree to which extraneous factors have been controlled, such that a change in dependent variable can accurately be attributed to that of change in independent variable. External validity on the other hand is the degree to which research findings can be generalized to the population and environment outside the experimental setting. This is generally a representation of the sample with regard to the target population (Mugenda, 2008).

To establish the validity of the data collection instruments, the research instrument was given to 250 students from one of the schools in Machakos County during the pilot study. The students were expected to tick the relevance of the items in the questionnaires towards investigating into the family based factors which influence academic performance in public secondary schools.

The content of the responses given by the students were checked against the study objectives and rated using a scale of 1 (very relevant) to 5 (not very relevant). The Content Validity Index was used to determine the validity by adding up all the items rated using a scale of 3 and 4 and dividing the total sum by the total number of items in the questionnaires. The coefficient of the data gathered from the pilot study was computed with assistance of SPSS. A context of validity coefficient index of 0.9193 which was above 0.75 was achieved and this implied that the questionnaires were valid research instruments for the study (Joppe, 2000).

3.8 Reliability of the Instruments

This is a measure of the degree to which the research instruments yield consistent results after repeated trials (Mugenda & Mugenda, 1999). In this case, the test retest viability was used. According to Gay and Berne (1981), test retest reliability, also referred to as the co-efficient of stability, this is the degree to which scores are consistent over time. Then by using the spearman rank order correlation, the correlation coefficient was computed to establish the extent to which contents of the questionnaire are consistent in eliciting the same response every time the questionnaires are used.

Reliability refers to the consistence, stability or dependability of the data. Whatever a researcher measures a variable, the researcher wants to be sure that the measurement provides dependable

and consistent results (Cooper & Schindler, 2003). A reliable measurement is one that if repeated a second time will give the same results as it did the first time. If the results are different, then the measurement is unreliable (Kiess & Bloomquist, 2009).

To measure the reliability of the data collection material, an internal consistency technique using Cronbach's Alpha was applied using SPSS. Cronbach's Alpha is a coefficient of reliability that gives an unbiased estimate of data generalizability (Zinbarg, 2005). As presented in Table 4.2, all the study variables had an Alpha coefficient of above 0.75 and this satisfied Zinbarg (2009) that an alpha coefficient of 0.75 or higher indicates that the gathered data is reliable as it has a relatively high internal consistency and can be generalized to reflect opinions of all respondents in the target population. Thus this implied that the data collection instruments were reliable in gathering sufficient data that could be used to investigate into the family based factors influencing academic performance.

3.9 Data Collection Process

First, the researcher sought permission to conduct research from the university and the ministry of education. The researcher then visited the selected schools to seek for cooperation from principals and assure them of confidentiality of the information obtained from their schools.

3.10 Data Analysis

The quantitative data collected was organized, edited, coded, sorted and computed using Statistical Package for Social Sciences (SPSS). It was presented in form of frequencies, percentages, pie charts and bar graphs. The qualitative data was categorized, described and regression coefficients computed.

3.11 Ethical Considerations

The researcher sought permission from principals of the study schools. The data collected was treated with confidentiality and was used for the academic purpose of the study. The researcher created a good report with the respondents so as to ensure that they give consent to provide answers to the questions that were asked about the study.

CHAPTER FOUR

DATA ANALYSIS , PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents the results obtained from the research findings. The results were presented in tabular form and analyzed. The analysis was done using SPSS and presented in pie charts.

4.2 Questionnaire Return Rate

The study sampled 800 respondents from the target population of 4530 students in data collection regarding an investigation into the family based factors influencing academic performance in public secondary schools in Machakos sub-county. The questionnaire return rate results are shown in Table 4.1.

Table 4.1 Questionnaire Return Rate

	Frequency	**Percentage**
Responded	706	88.25
Non Responded	94	11.75
Total	**800**	**100**

The study showed that 706 out of 800 target respondents filled in and returned the questionnaires, translating to 88.25%. According to Mugenda and Mugenda (2003) conformation, this response rate is a good representative since it stipulates that a response of 50% is adequate for analysis and reporting and response rate of 70% is excellent. This response rate is commendable and can be attributed to data collection procedures employed by the researcher.

4.3 Pilot Study Test Results

To ensure reliability in the study, pilot test was done on a total of 250 students from one of the schools in Machakos sub-county. This sample size constituted 5.5% of the target population. According to Dempsey (2003) 5% to 10% of the target population is adequate sample for determining the number of respondents to be involved in the pilot study. According to Cooper & Schindler (2003), determining the validity and reliability of the data collection instruments in a research study, the pilot study should be equivalent to residents who are between 5% and 10% of the target population.

Table 4.2: Reliability Results

Constructs	Cronbach's Alpha Value	Comments
Parents' marital status	0.9243	Accepted
Parents' Socio-economic status	0.8521	Accepted
Parents' Education level	0.8845	Accepted
Family size	0.9256	Accepted

4.4 Demographic Data

This section presents the results of respondents' background information.

4.4.1 Gender

This was done to determine the ratio of boys to girls involved in the study.

Table 4.3: Gender of the students

Gender	Students
Male	424
Female	282
Total	**706**

The data presented in Table 4.3 was analyzed and presented in a pie chart presented in Figure 4.1.

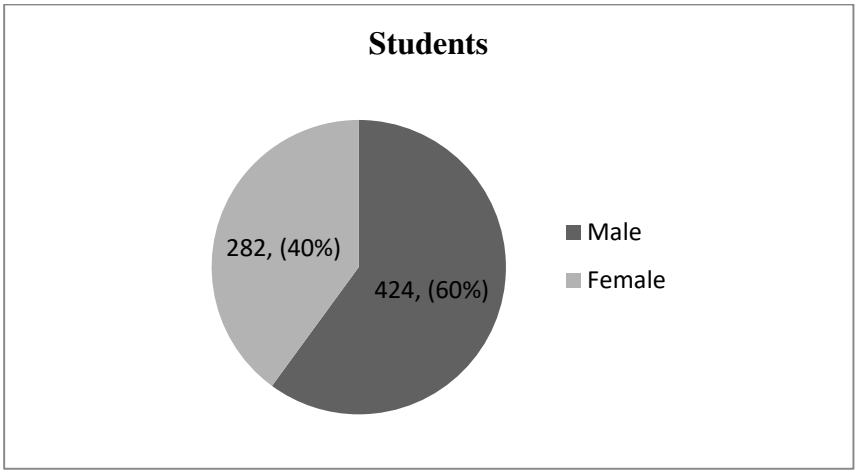


Figure 4.1: Students' Gender

4.4.2 Students' Age

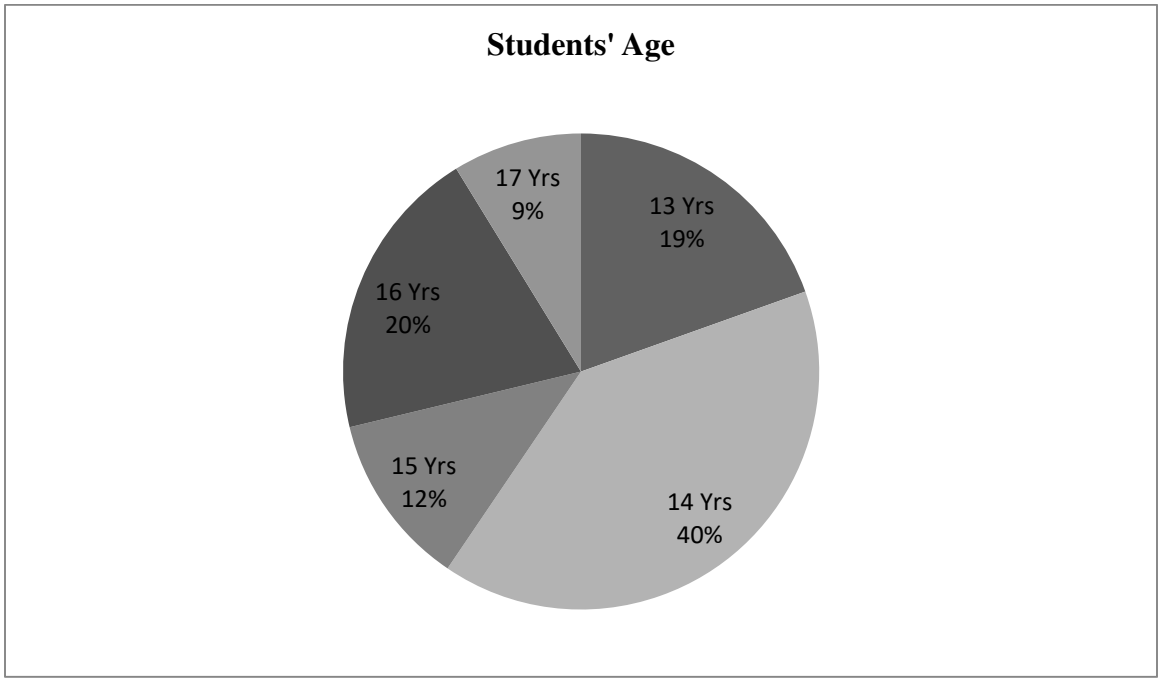
The age of students was determined. This was done to establish if the time of their stay in school would affect their performance in a way. The data is presented in Table 4.4.

Table 4.4.: Students' Age

Number of Years	Students
13	138
14	282
15	83
16	141
17	62
Total	**706**

The data presented in Table 4.4 was analyzed and presented in a pie chart shown in Figure 4.2.

Figure 4.2: Students' Age



4.4.3 Type of School

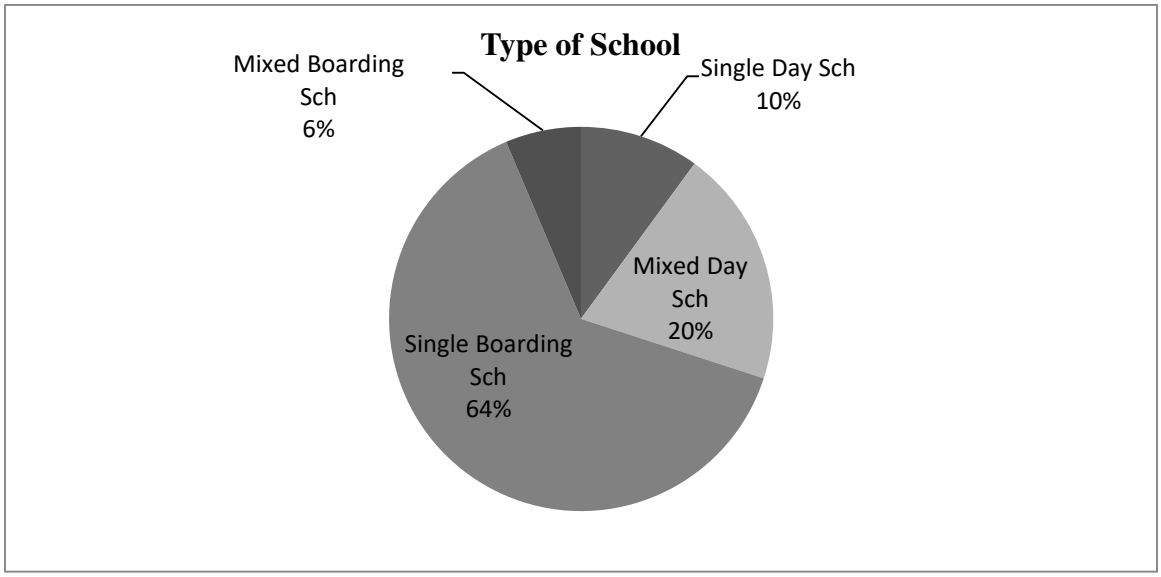
The type of school data was collected to determine the kind of schools used in the study. Table 4.5 shows the data collected.

Table 4.5: Type of schools

Type of School	Students
Single Day School	71
Mixed Day School	141
Single Boarding School	449
Mixed Boarding School	45
Total	**706**

The data presented in Table 4.5 was analyzed and presented in a pie chart shown in Figure 4.3.

Figure 4.3: Type of School



4.5 Study Variables

4.5.1 Parents Marital Status

Parents in Machakos sub-county face some challenges in their marriage just like in the case of many others in the whole county. The study conducted showed that some parents are in marriage, others divorced, single and others are widows, according to McLeod, et a;., 2004 it was found that children from two-parent homes do better than children from single- parent homes on a variety of social indicators The data showed that different students had different opinions on the way their parents perceive education hence affecting their performance. Further, it was found that some parents show concern while others do not. The results are presented in Table 4.6.

Table 4.6: Results for the Parents Marital Status

Marital Status	Students
Single	48
Married	608
Divorced	8
Widow	42
Total	**706**

The parents' marital status data was analyzed and presented in a chart presented shown in Figure 4.4

Figure 4.4: Parents' Marital Status

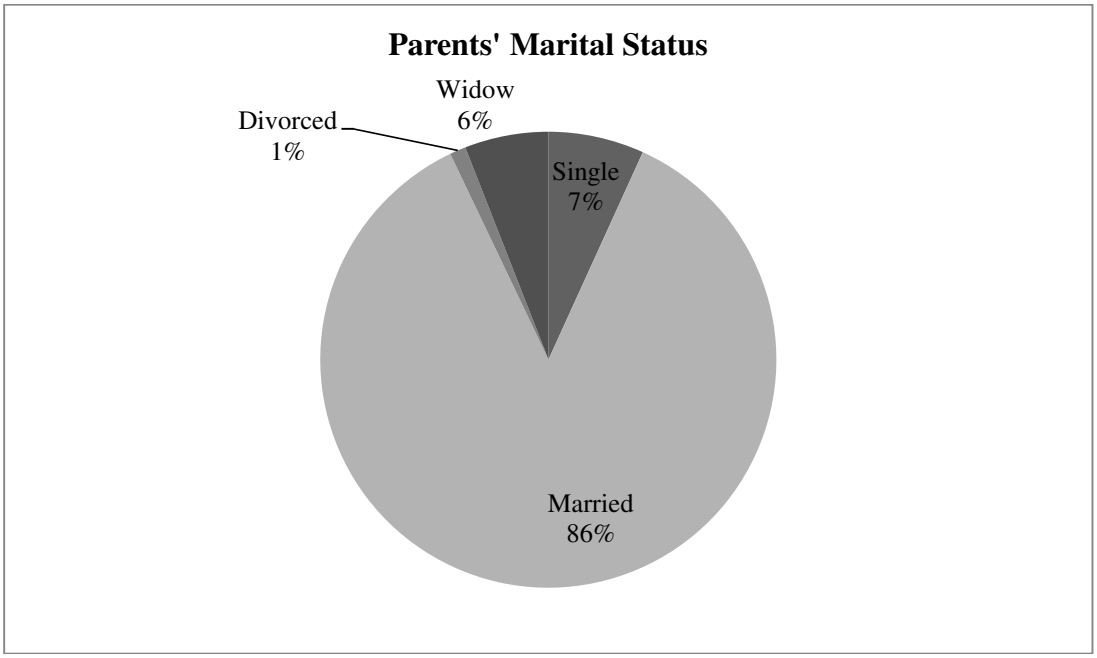


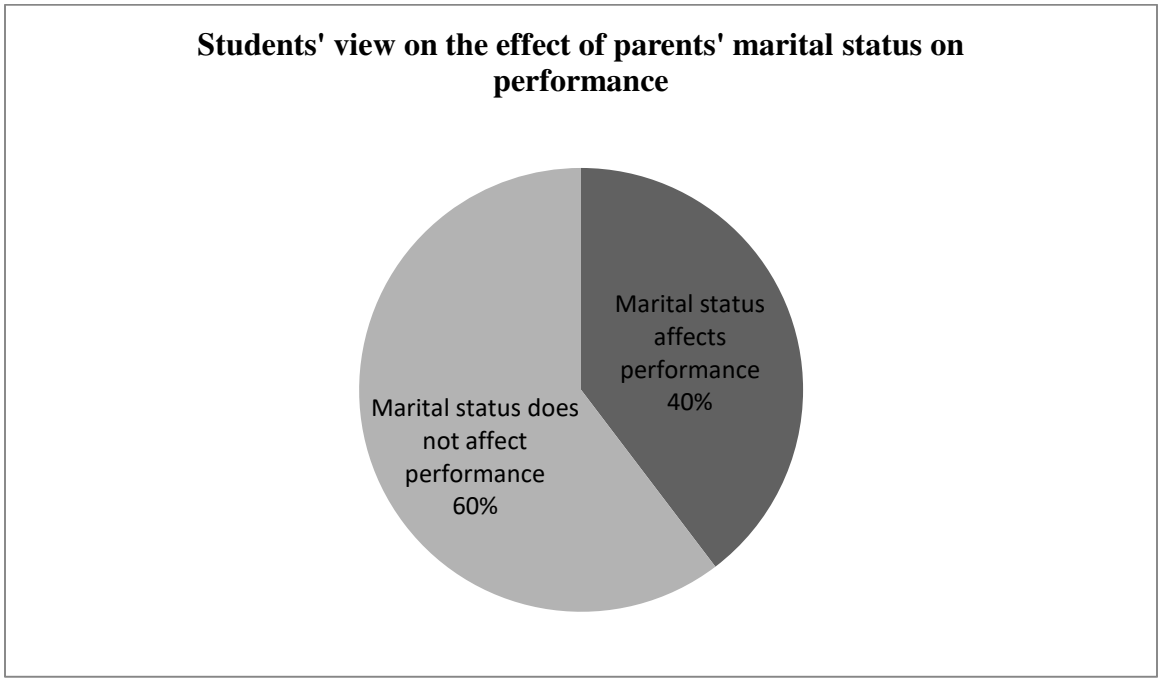
Figure 4.4 presents the parents' marital status. From the figure, it's evident that the largest number of the parents are married with the smallest being divorced. A recent longitudinal study by (Paschall *et al*., 2006). found that African children in two-parent homes had significantly higher math and reading scores and lower behavioral problems than did children in single-parent homes. In relation to the parents' marital status, the data collected from the interview conducted is presented in Table 4.7.

Table 4.7: Students' view on the effect of parents' marital status to performance

Students' view on the effect of parents' marital status to their performance	Yes	No
Do you think your parents' marital status affect your performance?	280	426

The data in Table 4.7 is analyzed and the results presented in Figure 4.5.

Figure 4.5: Students' view on the effect of parents' marital status to performance



Based on the analysis presented in Figure 4.5 on the effect of parents' marital status to the student performance, a greater number of students do not find the marital status affecting their performance academically. The number that did not agree with the marital status affecting their academic performance was 60% of the total data collected. Therefore, it can be concluded that, marital status though affects the students' performance, it is not that much. Table 4.8 shows the data for the students who stay with single parents, widows or divorced. The data was analyzed and results presented in Figure 4.6.

Table 4.8: Single Parent Staying with the Student

Parent Staying with	Students

Mother	04
Father	94
Total	**98**

Figure 4.6: Parent Staying with the Student

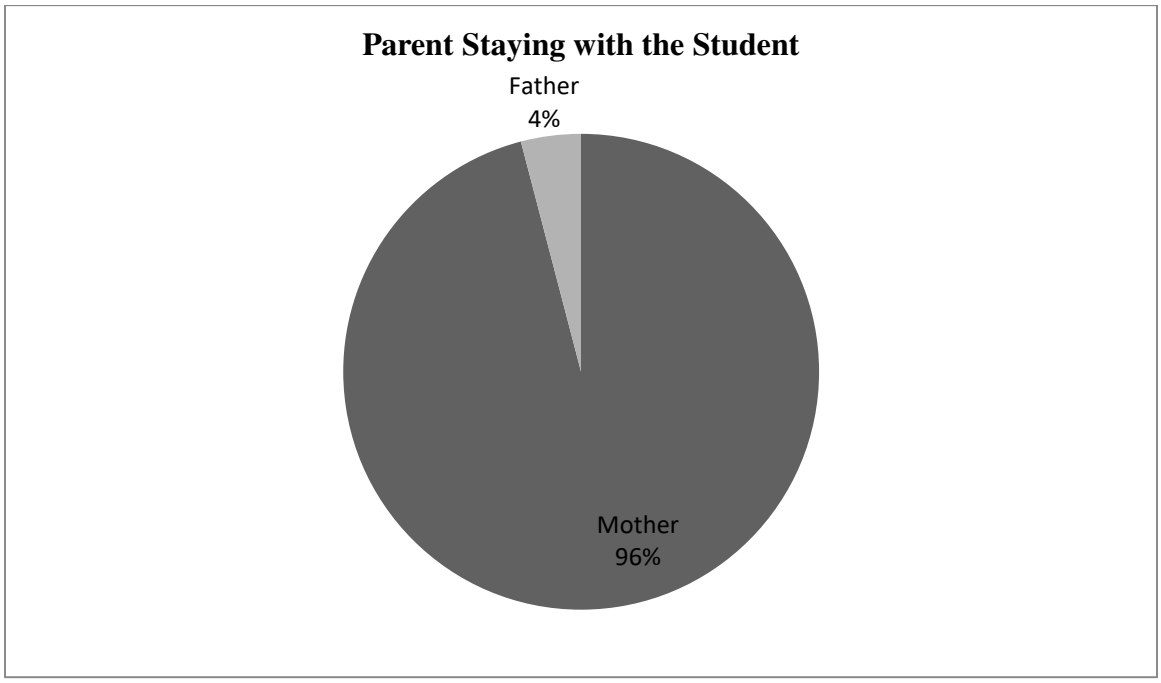
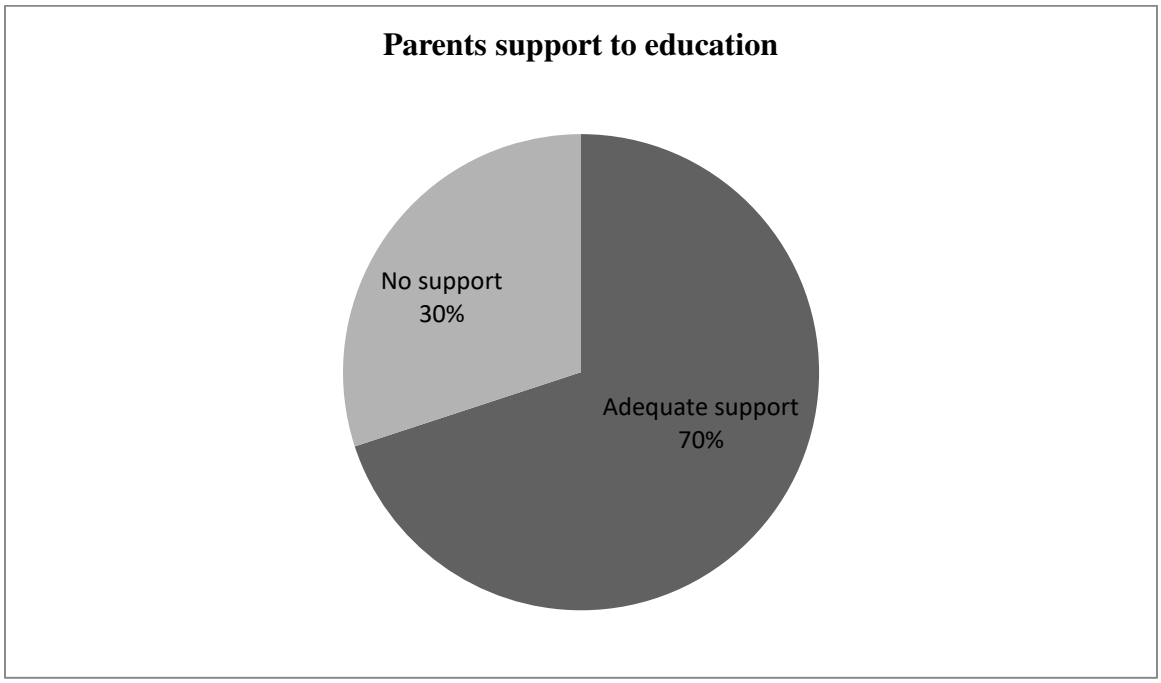


Figure 4.6 shows that most of the students who were raised by single parents, stay with their mothers. The mothers constitute the largest percentage of 96% while men the least of 4%. Table 4.9 presents the data on the way students perceive their parents on the support of their studies. Figure 4.7 presents the analysis of the data presented in Table 4.9.

Table 4.9: Parents' view on students' performance

Parents' View	**Students**
Adequate support	494
No support	212
Total	**706**

Figure 4.7: Parents' support to education



From the analysis presented in Figure 4.7 shows that most of the parents support the education of their students. Only a small number constituting 30% not being supportive to the education of their children.

4.5.2 Family Socio-Economic Status

The study showed that the parents from Machakos sub-county have different sources of income, which include farming, business and employment. A research conducted by Caughy, O'Campo, Randolph & Nickerson (2002) found that mothers with higher education had higher expectations for their children's academic achievement and that these expectations were related to their

children's subsequent achievement in reading. The data on the socio-economic activities collected during the study is presented in Table 4.10.

Table 4.10: What Parents do for a Living

Parents' Source of Income	Students
Farming	64
Business	193
Employment	449
Total	**706**

The data was analyzed and presented in a pie chart shown in Figure 4.8.

Figure 4.8: Parents' Source of Income

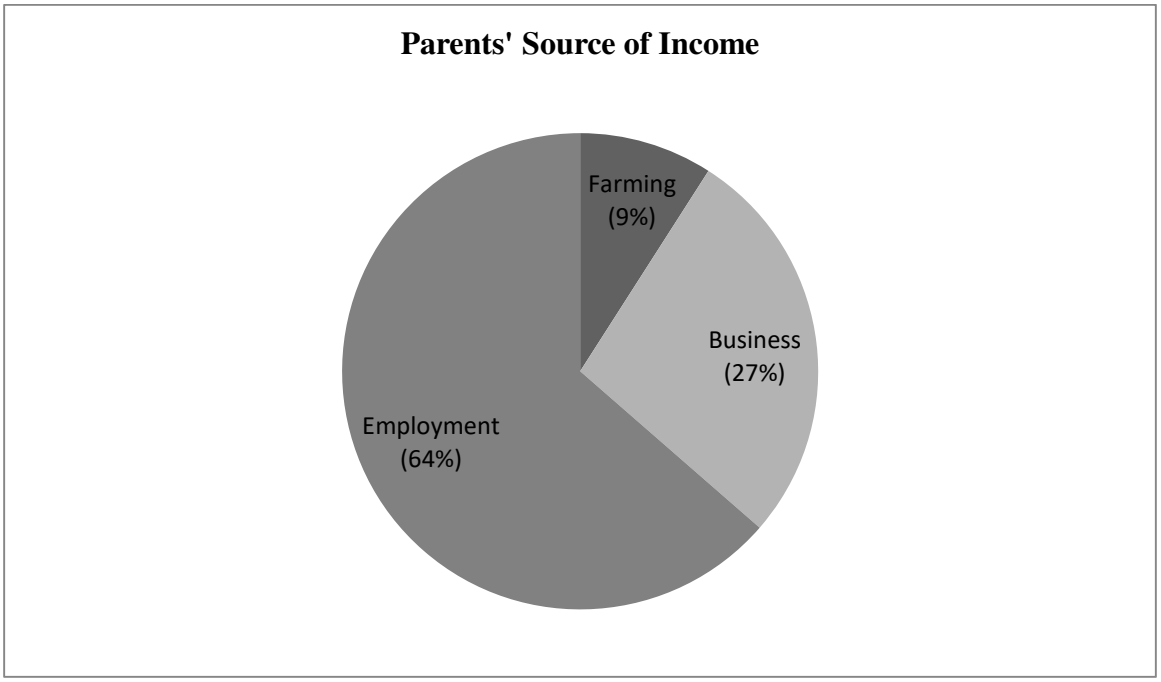


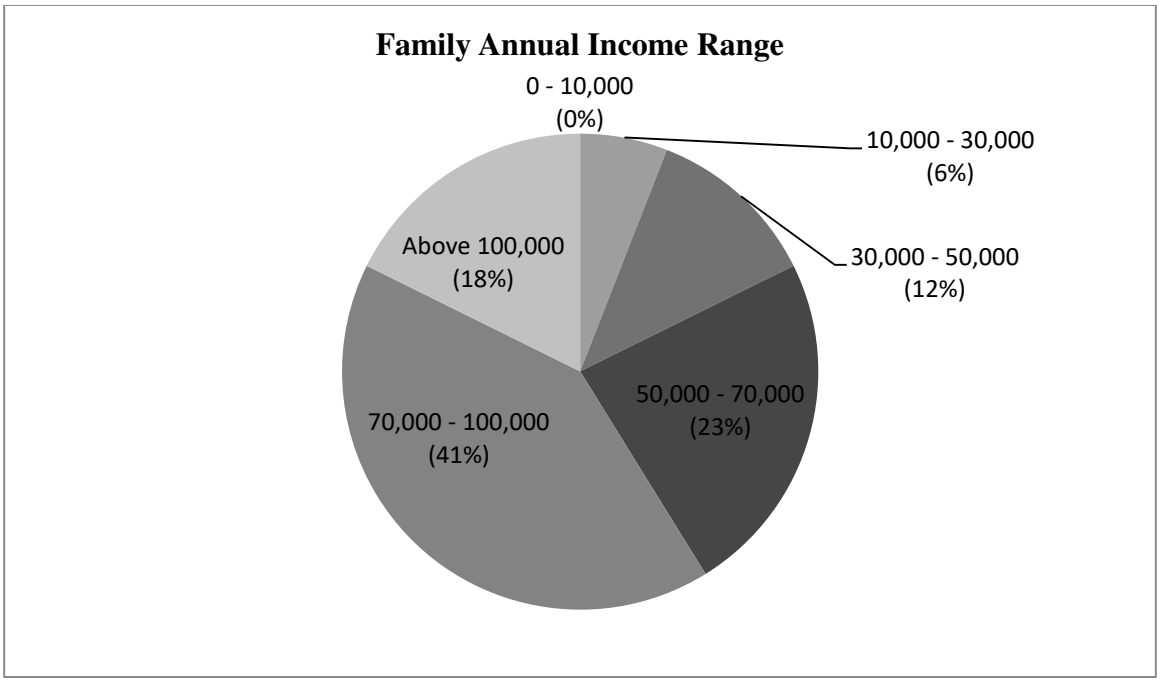
Figure 4.8 shows the analysis done on the data on the different types of income of the parents from the sub-county. The figure shows that most of the parents are on employment, this giving a percentage of 64%, followed by business, 27% and then lowest number of parents are farmers that constitute 9%. In relation to the types of income of the parents, Table 4.11 shows the data collected on the family annual income of the parents.

Table 4.11: Family Annual Income

Income Range	Students
0 – 10,000	0
>10,000 – 30,000	42
>30,000 – 50,000	83
>50,000 - 70,000	166
>70,000 – 100,000	291
>100,000	125
Total	**706**

The data in Table 4.11 was analyzed and the findings presented in Figure 4.9.

Figure 4.9: Family Annual Income



The analysis presented in Figure 4.9 on the family annual income shows that a greater number of parents earn between 70,000 to 100,000 followed by 50,000 to 70,000, above 100,000, 30,000 to 50,000, 10,000 to 30,000 and then less than 10,000 that constitutes 41%, 23%, 18%, 12%, 6% and 0% respectively. Further, data related with the parents' finances was collected and presented in Table 4.12.

Table 4.12: Family Financial Relationships and Details

Financial Relationships and Details	Yes	No
Are the annual earnings enough to cater for the studies?	212	494
Family getting financial support?	101	605
Family financial status affecting studies?	584	122

The analysis of the data presented in Table 4.12 was analyzed and the results presented in Figure 4.10.

Figure 4.10: Family Financial Relationships and Details

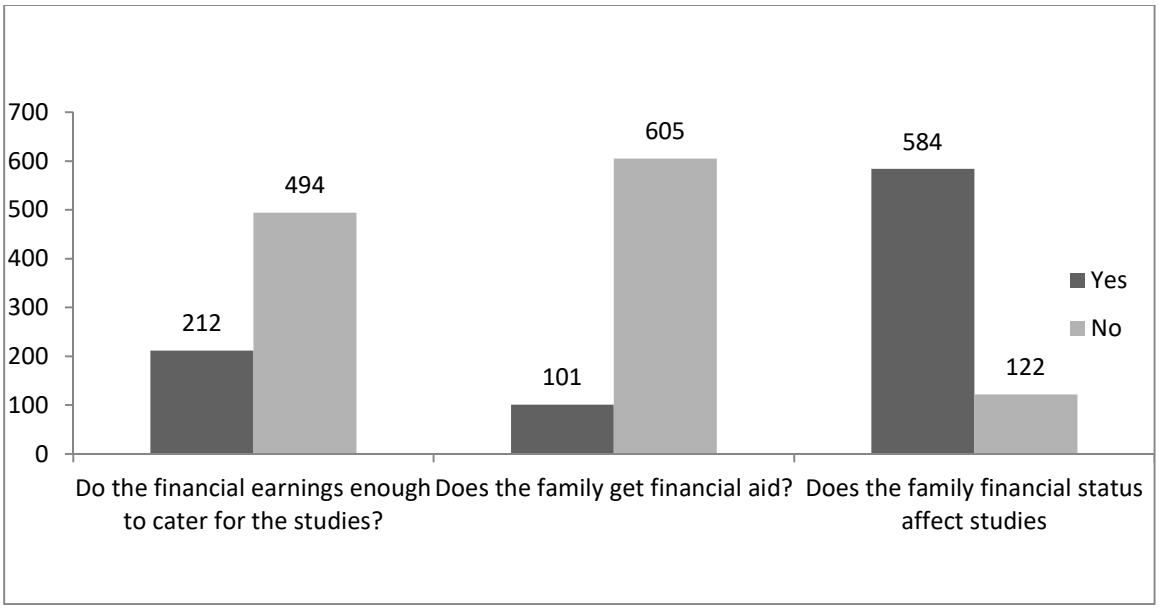


Figure 4.10 shows the effects of financial status of the parents and the view of students on how they affect their studies. It can be noted from the figure that the parents' financial earnings are not enough to cater for their studies and there are no enough financial aids from well-wishers. This is evident from the figure that it affects the performance of the students. This is evidenced from the figure since 584 students out of 706 (83%) agree that their parents income affect their studies. Further, there is no enough financial support as 605 students out of 706 (86%) exclaims from the findings. This leads to performance being affected negatively as evidenced by the findings where 584 students out of 706 (83%) point out. In addition, the interview done on whether the money raised by parents was enough to cater for their studies is presented in Table 4.13.

Table 4.13: Family Financial Income and education expenses

Family Financial Income and education expenses	Yes	No
Does the money raised by your family enough for your studies?	247	459

The data presented in Table 4.13 was analyzed and the results presented in Figure 4.11.

Figure 4.11: Family Financial Income and education expenses

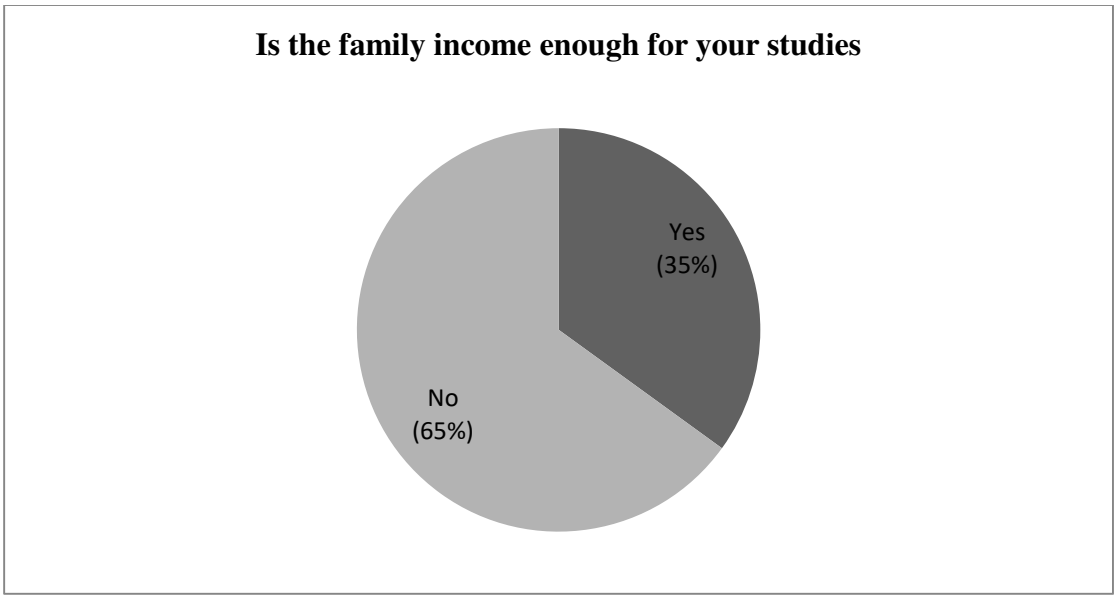


Figure 4.11 shows clearly that the parents' income does not support the students' education fully. The students who pointed out that the families income cannot support their education was constituting 65% according to the analysis.

4.5.3 Parents' Educational Level

Parents' educational level was another aspect that was investigated and according to Alston and Williams (2002) found that parents of moderate to high income and educational background held beliefs and expectations that were closer than those of low-income families to the actual performance of their children, Low-income families instead had high expectations and performance beliefs that did not correlate well with their children's actual school performance.

The results are presented in Table 4.14.

Table 4.14: Parents' Highest Level of Education

Financial Relationships and Details	Father	Mother	Total

University	123	73	196
Diploma	181	70	251
High School	93	149	242
Primary School	210	275	485
Never Attended	5	135	140

The data presented in Table 4.14 was analyzed and presented in Figure 4.12

Figure 4.12: Parents' Highest Level of Education

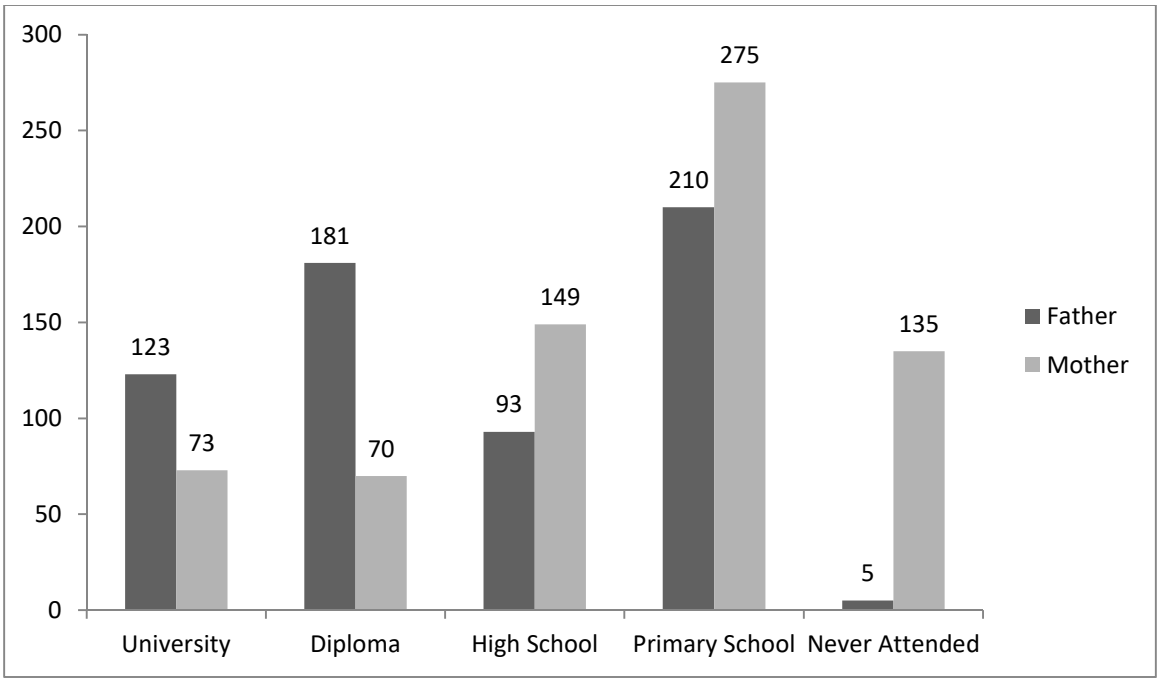
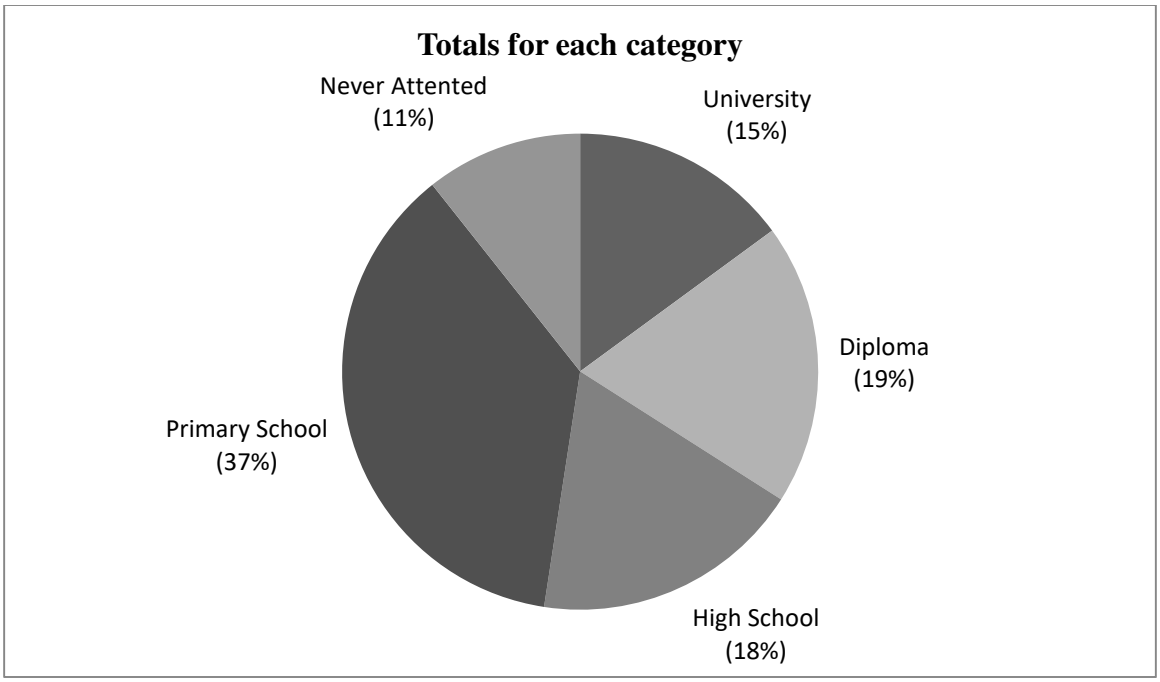


Figure 4.12 shows that male are more educated than the ladies. This is evidenced by the series for university and diplomas where the fathers have a greater number as compared to the mothers. The mothers have a greater number at the lower levels which include high school, primary school and those never attended school.

The data presented in Table 4.14 was analyzed further where the totals for each academic level were considered and the results presented in Figure 4.13.

Figure 4.13: Totals for each academic category



Form the Figure 4.13, it's evident that most of the parents were primary school graduates a category that constituted 37% of the total while those never went to school constituting the lowest percentage of 11%. The other categories included diploma, high school and university constituting 19%, 18% and 15% respectively.

4.5.4 Family Size

The study was conducted on the number of siblings in each family to determine if they affect the performance of the students. It was discovered that Children from larger families are found to do worse than children from smaller families as revealed by Lacovou (2001) and according to Adler (2009), first-borns or the oldest child is usually advantaged by a good deal of attention and warmth during the early stage on age of life, which he entertains all alone. Observations and studies have shown that more attention and time are usually accorded to the first born (Seigal, 2007). The data collected is presented in Table 4.15.

Table 4.15: Number of Siblings

Range	Students
0 to 2	282
3 to 5	424
More than 5	0

The data in Table 4.15 was analyzed and the results presented in Figure 4.14.

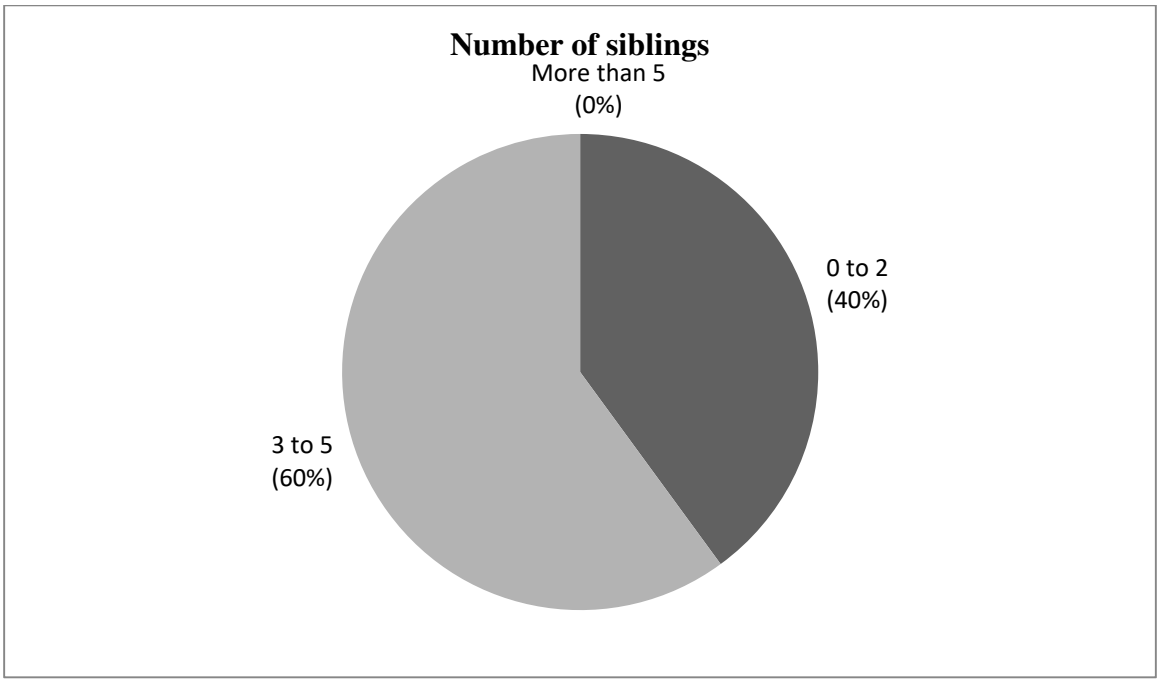


Figure 4.14: Number of Siblings

Figure 4.14 presents the analyzed data on the number of siblings in each family. The analysis show that most of the families have between 3 to 5 siblings while the rest have between 0 to 2. In this case, the 3 to 5 category constitute 60% of the total while the 0 to 2 category constituting 40%. This makes the category with more than 5 siblings to constitute 0%. More data was collected to

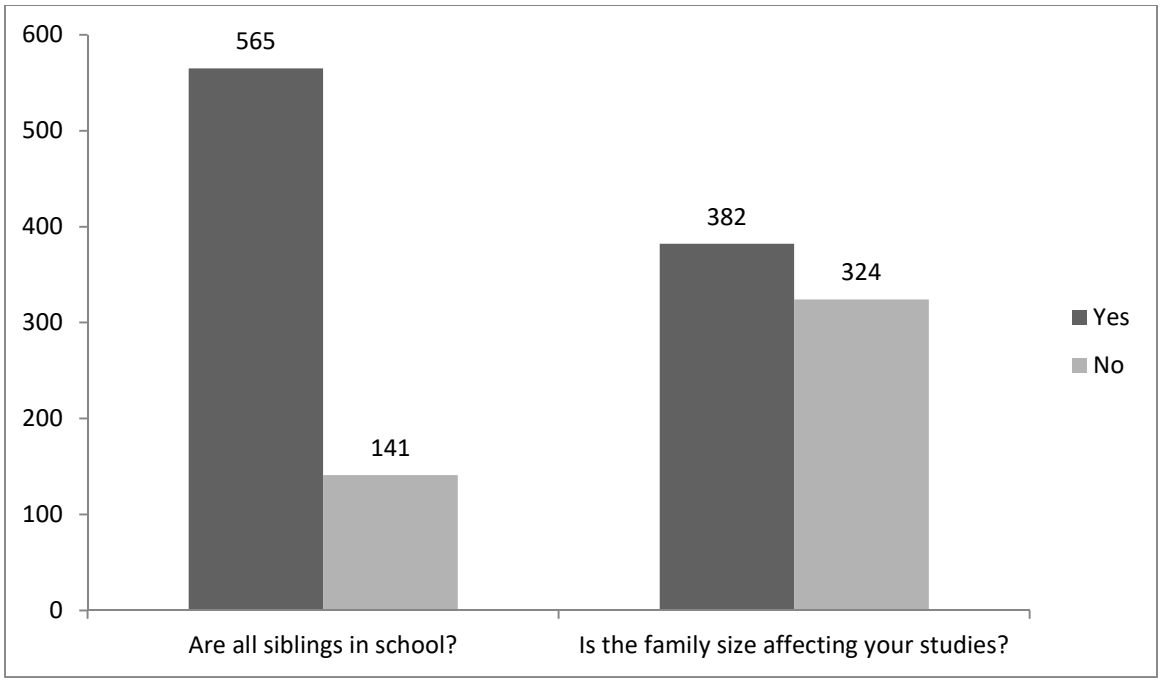
determine if the number of siblings affect the performance of students. The data collected is presented in Table 4.16.

Table 4.16: Siblings in School and effect of family size to studies

Size and Effect	Yes	No
Are all siblings in school?	565	141
Is the family size affecting your studies?	382	324

The data presented in Table 4.16 was analyzed and presented in Figure 4.15.

Figure 4.15: Siblings in School and effect of family size to studies



The analysis presented in Figure 4.15 shows that most of the siblings are in school. This gives the largest percentage while those not in school constituting the least number. Besides, the question

about the effect of the size of the family in relation to the studies of the student, showed that the respondents were almost agreeing and disagreeing almost at the same rate. This shows that the size of the family may or may not affect the studies of the students though a greater number supported that it affects the studies of the students. The study further collected data on the performance of the students based on the best and worst grades each student had attained. The data collected is presented in Table 4.17.

Table 4.17: Best and Worst grades

Grade	Best	Worst
A	8	0
A-	63	0
B+	128	5
B	459	68
B-	31	149
C+	17	183
C	0	243
C-	0	54
D+	0	4
D	0	0
D-	0	0
E	0	0

The data in Table 4.17 was analyzed and findings presented in Figure 4.16. and Figure 4.17.

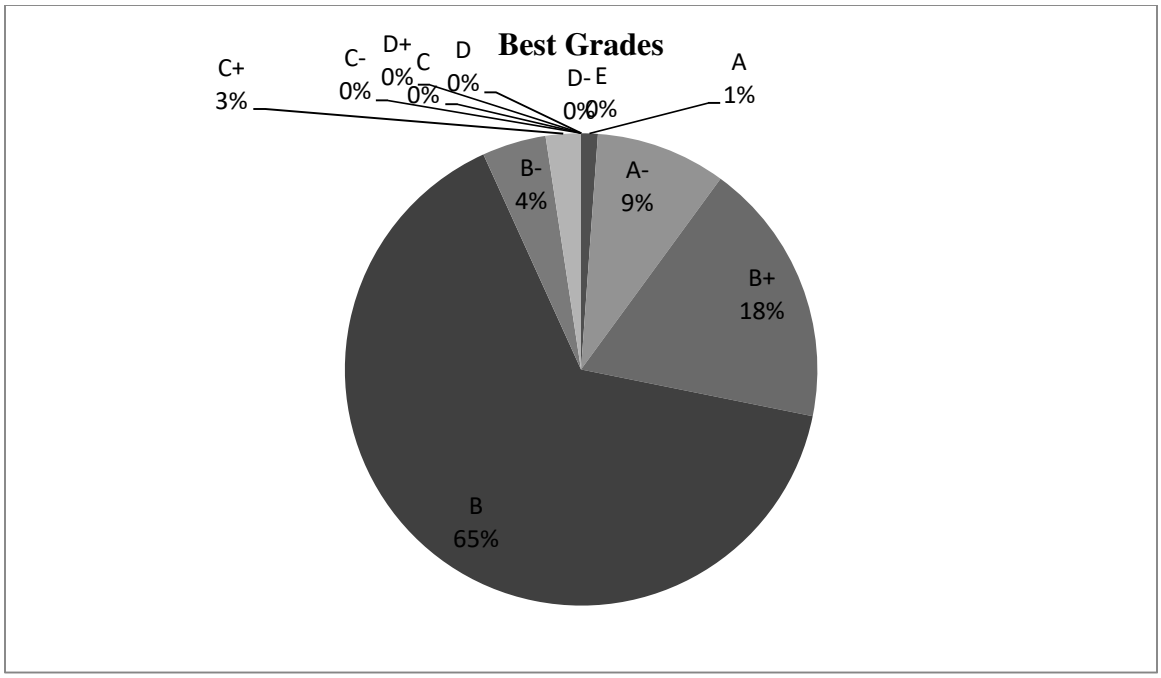


Figure 4.16: Best Grades ever attained

The analysis in Figure 4.16 shows that most students attained grade B, which constitutes 65% of the total while other grades having not attained as the best grades. The grades not attained as the best ranged from C to E.

On the other hand, there was an analysis on the worst grades ever attained. The analysis are presented in Figure 4.17.

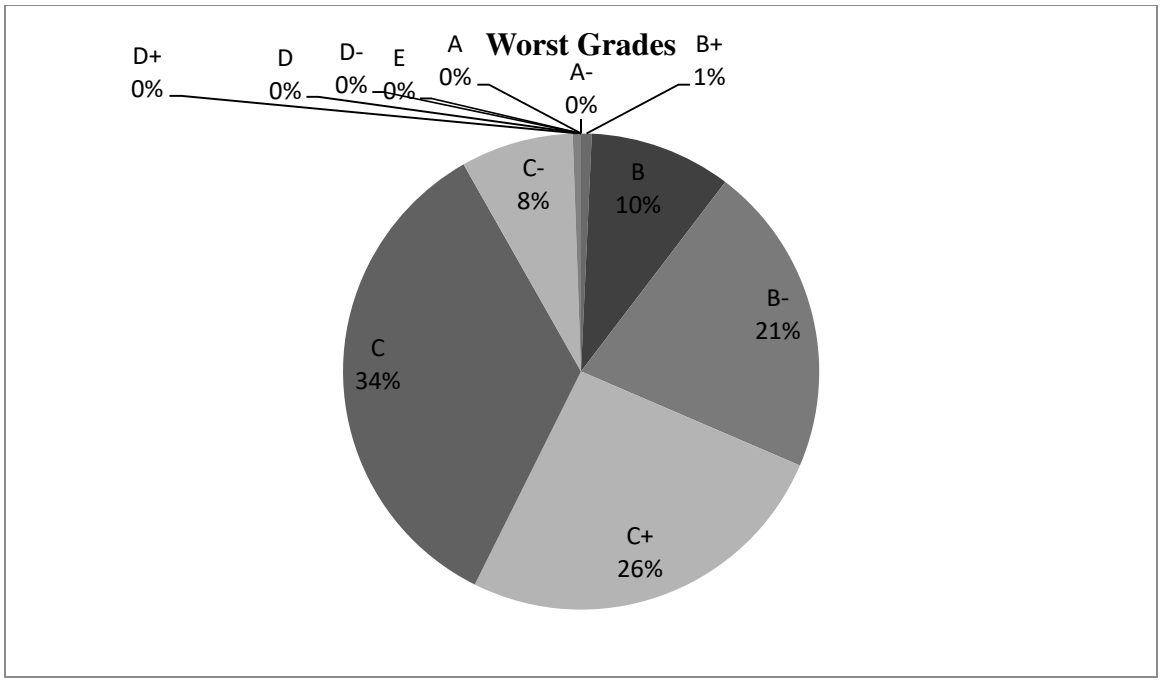


Figure 4.17: Worst Grades ever attained

The analysis presented in Figure 4.17 shows that the largest number of the students scored a worst grade of C which constitutes a percentage of 34%. Similarly, some grades were never attained as worst grades which include A, A-, D, D- and E.

Based on the analysis presented in Figures 4.16 and 4.17, the students' performance were not that bad irrespective of their challenges in their studies.

4.6 Inferential Statistics

Inferential statistics was done on the data collected where in particular multiple regression was done. This was done to investigate on the factors influencing the performance of students in public secondary schools.

4.6.1 Spearman's Rank Correlation Analysis

The Spearman's rank correlation analysis was done to compare the relationship between parents' marital status, family socio-economic status, parents' educational level and family size with the students' performance. The students' view on whether the variables affected their performance was given marks. Those agreed were given mark 1 while those disagreed, mark 0. Further, the variables were given codes as follows; Marital status (MS), Socio-Economic status (SE), Educational level (EL) and Family size (FS). Table 4.19 shows the coding for the views of the respondents.

Table 4.19: Coding for the view of the respondents towards students' performance

Respondents View	Marks (M) allocated
Yes	1
No	0

Table 4.19 shows the data on the view of the respondents towards the effects of the students' performance. Using SPSS, the Spearman's rank correlation was analyzed and the results presented in Table 4.20

4.6.2 Regression Analysis

The main purpose of multiple regression is to learn more of the relationship between several independent variables and a dependent variable. The Statistical Package for Social Sciences (SPSS) was used to code, enter and compute the measurements of the multiple regression for the study. The regression model that was used was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

After the regression analysis done, the coefficients $\beta_0, \beta_1, \beta_2, \beta_3 and \beta_4$ had the values as summarized in the Table 4.18

Table 4.18: Regression Coefficients Summary

Independent variable	**Coefficient**
(Constant)	5.147270714
Parents' marital status (X_1)	1.26170693
Family socio-economic status (X_2)	1.460774283
Parents' educational level (X_3)	0.552751633
Family size (X_4)	0.316713585

Therefore, the regression model equation becomes;

$$Y = 5.147270714 + 1.26170693X_1 + 1.460774283X_2 + 0.552751633X_3 + 0.316713585X_4$$

The regression equation above established that by taking all the factors (parents' marital status, family socio-economic status, parents' educational level and family size) into account, then by keeping them constant at zero, student performance will increase by 5.147270714. Also for a unit increase in parents' marital status, family socio-economic status, parents' educational level and family size, then student performance would increase by 1.26170693, 1.460774283, 0.552751633 and 0.316713585 respectively. This infers that family socio-economic status determine student performance to the greatest extent, followed by parents' marital status, parents' educational level and to the least extent, the family size.

Table 4.20: Spearman's Rank Correlation Analysis

Marks (M)	MS	SE	EL	FS	Rank M	Rank MS	Rank SE	Rank EL	Rank FS
1	280	459	106	342	2	1	2	1	1
0	426	247	600	364	1	2	1	2	2

Marital status Spearman's Rank Coefficient	-1
Socio-Economic Spearman's Rank Coefficient	1
Education Level Spearman's Rank Coefficient	-1
Family Size Spearman's Rank Coefficient	-1

The values of the Spearman's rank correlation shown in Table 4.20 were generated by the SPSS software used during analysis. The correlation analyses expresses the strength of linkage or co-occurrence between two variables in a single value between -1 and +1, which are referred to as the correlation coefficient. A positive correlation coefficient indicates a positive relationship between the two variables while a negative correlation coefficients expresses a negative relationship. Therefore in this case, parents' marital status, education level and family size have a negative relationship with the student's performance. The family socio-economic status has a positive relationship with the student's performance.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the analyzed data. The summary was based on the research objectives and hence the answering of the research questions.

5.2 Summary of the Findings

The main objective of this study was to investigation into the family based factors influencing academic performance in public secondary schools in Machakos sub-county. The findings from the study showed that the parents' marital status, family socio-economic status, parents' educational level and family size used to influence the performance of the students in public secondary schools.

5.2.1 Parents' Marital Status

The analysis of the data on the parents' marital status, it was found that this affected the performance of the students to some extent. It was found that most of the students had an opinion that this does not affect their performance like in the case of the other factors. In this respect, only 40% of the respondents pointed out that marital status affected the performance of the student while 60% denying this.

5.2.2 Family Socio-Economic Status

The data collected and analyzed showed that this factor was mainly affecting the performance of the students in public secondary schools. It was pointed out that the family income was not enough

to support the students' studies. Further, it was found that the parents were not getting enough financial aid from well-wishers. This led to many students being affected academically.

5.2.3 Parents' Educational Level

The analysis of the data on this factor showed that many parents were primary school graduates with the lowest number being the university graduates. On the same note, most men were highly educated as compared to the female. Though most of the parents were from primary school, this factor did not affect the performance of the students that much as compared to marital status and socio-economic status of the families.

5.2.4 Family Size

It was found that most of the parents took their children to school. A greater percentage of the students pointed out that most of the children were being taken to school irrespective of the parents' educational level. Further, it was found that though the family size was affecting the students' performance, it was not that much since those who were affected were slightly higher than those not. In the analysis and comparison with the other factors, it was found that this factor affected the performance of the students the least.

5.3 Conclusion

To conclude, there were four categories of factors which were being studied to determine if they affect the performance of the students. The factors affected the performance of the students at different magnitudes. In this case, the family socio-economic status took the lead, followed by the marital status, parents' educational level and lastly the family size. Based on the inferential statistics, the effect of family's socio-economic status, parents' marital status, parents' education

level and the family size influenced the performance of the students at different strengths which include 1.460774283, 1.26170693, 0.552751633 and 0.316713585 respectively.

The study was conducted under the guidance of determining the effects of parents' marital status, socio-economic status, parents' educational level and family size on students' performance in public schools, as the objectives. The parents' marital status, socio-economic status, parents educational level and family size were identified as well as their effect to the students' performance hence the achievement of the objectives.

5.4 Recommendation for future work

The study was conducted in public secondary schools on Machakos sub-county. Therefore, a similar study can be conducted in the same sub-county but involving the students in private secondary schools and the results compared.

Further a similar research can be conducted in the neighboring sub-counties in Machakos county and the results compared to determine the extent in which the factors affect the performance of the students in a wider perspective.

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APPENDIX A

LETTER OF INTRODUCTION TO THE RESPONDENTS

PETER MASAKU MUIYA

P.O. Box 39-90100
Machakos

Dear Respondent,

RE: REQUEST TO VISIT YOUR SCHOOL FOR DATA COLLECTION

I am a post-graduate student at the Machakos University, pursuing a Masters degree in educational administration and curriculum studies. Am conducting a study on the family based factors influencing students performance in KCSE in public secondary schools in Machakos sub-county and your school has been selected to participate in the study. I request to visit your school to collect data, your assistance and cooperation will be highly appreciated. Please comply and give your honest and accurate information as per the questionnaire.

Thank you in advance.

Yours Sincerely,

PETER MASAKU MUIYA

Mobile No. 0722-305 240

APPENDIX B

STUDENT QUESTIONNAIRE

This questionnaire is designed to gather data about yourself and your school to be used in the study of Factors influencing Performance in KCSE examinations in Public Secondary Schools in Machakos sub county. You are kindly requested to tick (√) the appropriate response or respond as indicated. Do not put your name or any other form of identification. The information you give will be confidential and will only be used for the purpose of this study. Please respond to all items.

SECTION A: Demographic Information

1. What is your gender

Male	
Female	

2. What is your age? ----------

3. What is the type of your school?

Single Day School	
Mixed Day School	
Single boarding	
Mixed boarding	

SECTION B: Factors influencing performance

i) Marital status

4. What is the marital status of your parent(s)?

a) Single parent	
b) Married	
c) Divorced	
d) Widow	

5. If Qz 4 is a), c) or d), then whom do you stay with?

a) Father	
b) Mother	

6. Has your parent(s) been supporting, encouraging you and showing concern in your studies?

a) Yes	
b) No	

7. Based on your answer in Qz 6, what do you think is(are) the reason(s)?

---

ii) Family socio-economic status

8. What do your parent(s) do for a living?

a) Farming	
b) Business	
c) Employed	

9. Approximately, how much do your family earn as income in monetary value in a year?

a) Below Ksh. 10,000	
b) Between Ksh. 10,000 and Ksh. 100,000	
c) Between Ksh. 100,000 and Ksh. 200,000	
d) Above Ksh. 200,000	

10. Is the money stated in Qz 9 enough to cater for your studies?

a) Yes	
b) No	

11. Do your family get financial help to support you studies if No in Qz 10?

a) Yes	
b) No	

c) In your own opinion, does your family financial status affect your academic performance?

a) Yes	
b) No	

iii) Parents' educational level

12. What is your parents' highest education level?

Highest level	Father	Mother
University		
High school		
Primary school		
Never attended		

iv) Family size

13. How many are you in your family (including your parent(s))?

a) Less than 5	
b) Between 5 and 10	
c) More than 10	

14. Are all your siblings in school?

a) Yes	
b) No	

15. In your own opinion, do you think the size of your family affects your studies?

a) Yes	
b) No	

16. What was your worst and best grade ever in secondary school life?

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Best												
Worst												

17. In your opinion, what do you think should be done to improve your grades?

Thank you for your cooperation

APPENDIX C:

INTERVIEW SCHEDULE FOR STUDENTS

The following questions will be used to guide the researcher during interviewing session with the students.

1. What is the type your school?
2. What is the marital status of your parents?
3. How do your parents raise your fees?
4. Do you have any fees balance?
5. What is the highest academic level of your parents?
6. How many are you in your family?

APPENDIX D:

WORK PLAN

Duration in Months	**Activity**
April to September, 2016	Research proposal preparation and presentation
November, 2016	Defense
December, 2016 to January, 2017	Data Collection
January,2017	Data analyses
February- March, 2017	Report writing
April, 2017	Preset research/ defense
October,2017	Corrections and final submission
December,2017	Graduation

APPENDIX E:

RESEARCH PERMIT

NATIONAL COMMISSION FORSCIENCE,
TECHNOLOGY ANDINNOVATION

Telephone: +254-20-2213471,
2241349,2310571,2219420
Fax: +254-20-318245,318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

4th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref No. **NACOSTI/P/17/98889/18056**

Date **10th July, 2017**

Peter Masaku Muiya
Machakos University
P.O. Box 136-90100
MACHAKOS.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Influence of family based factors on students academic performance in public secondary schools in Central Division Machakos Sub-County."*** I am pleased to inform you that you have been authorized to undertake research in **Machakos County** for the period ending **7th July, 2018.**

You are advised to report to **the County Commissioner and the County Director of Education, Machakos County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Machakos County.

The County Director of Education
Machakos County.