RELATIONSHIP BETWEEN HOME ENVIRONMENT, ACADEMIC ACHIEVEMENT MOTIVATION AND PERFORMANCE FOR PUPILS WITH HEARING IMPAIRMENT IN CENTRAL PROVINCE, KENYA

BY

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Relationship between home environment,
DECLARATION

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

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To my parents Stephen Muranga and Margaret Muthoni whose effort to educate me has brought me this far.
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Table 5.1: Home environment factors and academic performance ..................... 52
The study examined the relationship between home environment and academic performance of upper primary pupils with hearing impairment in Central Province, Kenya. The study was based on Atkinson's motivation theory. From the literature reviewed, it was realized that a strong positive correlation between academic performance and home environment existed (Kapila 1976). In addition, a weak correlation between academic motivation and academic performance was also noted in a study by Maundu (1980). A sample of 75 upper primary pupils classes (5,6,7,8) between the ages of fourteen and eighteen were randomly selected from three primary schools for the hearing impaired in Central Province. Survey design was used whereby two questionnaires were used to collect data. The academic achievement motivation questionnaire (SP profile) was used to obtain information on pupils' level of academic achievement motivation. The home environment questionnaire was used to collect information on pupils' home environment. The result of the end of the year 2005 was used as a measure of their academic performance. For data analysis, statistical software, SPSS was utilized. Pearson's product – moment correlation analysis and two-tailed t-test for mean differences were used to test the hypotheses. The hypotheses were tested at a significant level of 0.05. The findings showed there were no significant relationships between academic achievement motivation and academic performance: The correlation coefficients ranged between ($r = 0.077 - 0.323$). In 70 percent of the respondents, it was found that home environment played a crucial role in determining the academic performance of children with hearing impairment. Sex was also found to influence their academic motivation and their academic performance: The mean for academic achievement motivation score of boys ($X = 51.70$) was higher than that of the girls ($X = 51.13$). The study, therefore, recommended that parents, teachers and educationists should try to ensure that the children with hearing impairment have favourable home environment in order to achieve success in school.
CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

Education and learning of children with hearing impairments is a major problem in Kenyan education sector. A serious problem exists in rural villages of Central Province whereby children never make it beyond primary school level. Though free primary school education is running in those areas, it is apparent that it has not resolved the long existing problem of hearing impaired dropping out of school or performing very poorly in the final examination compared to their hearing counterparts. The most significant thing a parent can give to a child is education and therefore, the education of a child needs to be taken seriously. The impact of home environment as well as academic achievement motivation is a major determinant of academic performance (Lexmond 2004). The emphasis of the study is to establish the impact of the above-mentioned variables on academic performance.

Academic achievement is a human quest for recognition and self-actualization. For example, in Kenyan society, a person is regarded and recognized as successful if he/she has a university level of academic achievement. Academic achievement is measured by use of examination. Examinations are used as the main basis for judging a student’s academic ability and as a means of selection for educational advancement and employment. In Kenya, Kenya Certificate of Primary Education (KCPE.) measures the academic performance of the pupils who complete primary school at the end of the eighth year of the primary school. The other major examination, Kenya
Certificate of Secondary Education KCSE is done at the end of the fourth year in the secondary school curriculum. KCPE is used for certification and selection of students to join secondary schools. Currently, the highest possible mark a student can score in KCPE is 499 out of 500 marks.

Most bright pupils with hearing impairments usually score between 350-400 marks. The performance of pupils with hearing impairments during the year 2006 compared to that of the hearing is as follows: Tumutumu School for the hearing impaired had 16 pupils who sat for KCPE. The highest score was 160 out of 500 compared to Tumutumu School for hearing pupils that had registered 125 pupils for KCPE and the highest score was 419 out of 500 marks. Kerugoya School for the hearing impaired had registered 13 candidates. The highest score in the school was 250 marks out of 500 while in Kaitheri, a school for the hearing pupils had registered 63 pupils; the highest had 384 out of 500 marks. Nyandarua School for the hearing impaired registered 12 pupils. The highest score was 292 marks while Engineer school for hearing pupils had registered 112 pupils. The highest score was 415 out of 500 marks.

The performance at KCPE for the pupil with hearing impairment was poor compared to that of the non-handicapped pupils as illustrated in the above paragraph. The implication of such poor performance was that a pupil would miss the opportunity for higher education and employment. Alternatively, it might mean that a pupil would gain admission in one of the day schools or private schools which charged exorbitant fees, had unqualified teachers and inadequate equipment (Tomlinson, 1998). For
instance, in the year 2005, out of 481,111 candidates who sat for KCPE, only 45.5 percent of the total secured government assisted secondary school places (KNEC, KCPE 2006). Most pupils with hearing impairments were among those who missed admission to government-assisted secondary schools.

That poor performance of pupils with hearing impairment at KCPE has drawn the attention of the government, educationists, teachers, administrators, researchers, parents and pupils with hearing impairment. Most people have sought to know the factors that lead to the poor academic performance. For example, the parents of pupils with hearing impairments in Kenya have formed an association to investigate the cause of poor performance in KCPE and KCSE. The parents listed the following as the main factors responsible for the poor performance: Lack of facilities in schools, lack of special educators for teaching pupils who were hearing impaired, lack of houses for teachers, and unfavourable home environments.

Psychologists such as Mykelburst (1964) have attributed the following factors as possible causes of poor performance among pupils with hearing impairment.

- Intelligence of pupils
- Academic achievement motivation
- Pupils self-concept
- Types of schools; day, residential, special units, inclusive program etc.
- Curriculum
- Experience and exposure
- Learning facilities in school
• Pupil attitude towards school.
• Teacher factors: qualification, experience, specialization
• Home environment: parental involvement, socio-economic status, parental occupation, and attitudes of parents towards education and parental level of education.
• Handicapping condition: Hearing impairment.

While those factors had been recognized as possible contributors to the variation in academic performance among pupils without hearing impairment in Kenya, the study attempted to find out the role played by academic achievement motivation, and some selected home environments in influencing academic performance among pupils with hearing impairment. The selected home environments were parental encouragement, parental occupation, parental education, family size and learning facilities at home.

The Kenya Government plays a big role in the education of the handicapped persons. It mainly seek to improve their academic performance in schools, by offering the following services:

• Paying salaries to special education teachers
• Giving personal allowances to teachers working with pupils with handicaps
• Giving grants to special schools to pay salaries for subordinate staff
• Training special education teachers at the Kenya Institute of Special Education (KISE)
• Giving study leave with pay to teachers going for degree courses in special education at Kenyatta University
• Offering assessment and support services to the children who are through Kenya Institute of Education (KIE) which is charged with the development of curriculum and teaching materials.

• The Kenya National Examinations Council (KNEC) evaluates the curriculum at Kenya Certificate of Secondary Education (KSCE) and Kenya Certificate of Primary Education (KCPE) levels.

• In addition, the government has licensed some non-governmental organization (NGOs) to assist the pupils with handicapped in special schools. These are institutions like Christoffel Blidden Mission (CBM), World Vision, Sight Savers International, Care International, and Lions Club. These NGOs sponsor pupils education in schools and integrated schools/units.

In Kenya, not much research had been done to establish the relationship between academic achievement motivation and home environment between hearing pupils and pupils with hearing impairment in primary schools. Studies by Muola (1990) found out that a correlation existed between academic achievement and academic performance among pupils who were hearing. The study looked at the relationship between home environment and academic achievement of pupils with hearing impairment as opposed to the above studies.

1.2 Statement of the Problem

Too much emphasis is placed on good examination results among pupils in the society (Conrad, 1998). The poor performance especially among the pupils with hearing impairments as illustrated earlier (Section 1.1) is of great concern to parents,
teachers and educationists. Although there could be many factors that could be contributing to the poor performance, the major problem of the study was how to gather research-based answers to the research questions. The study attempted to establish the role played by academic achievement motivation and some selected home environments that influence academic performance among pupils with hearing impairment.

1.3 Research Objectives

(i) To establish whether there was any relationship between selected home environmental factors and the pupils with hearing impairment’s academic performance.

(ii) To establish whether there was any relationship between selected home environmental factors and the pupils with hearing impairments academic achievement motivation.

(iii) To find out if there was any relationship between the male/female pupils academic performance.

(iv) To find out whether there was any relationship between boys academic achievement motivation and performance and girl’s academic achievement motivation and performance.

1.4 Research Questions

The study tried to answer the following research questions:

(i) Is there any relationship between the selected home environmental factors and the pupils with hearing impairment’s academic performance?
Is there any relationship between the selected home environmental factors and the pupils with hearing impairment academic achievement motivation?

Is there any relationship between the male/female pupils' academic achievement motivation and his/her academic performance?

Is there any variation in the relationship between boys' academic achievement and performance and girls' academic achievement motivation and performance?

1.5 Purpose of the Study

The purpose of the study was to examine the extent to which the academic performance among pupils with hearing impairments could be attributed to their sex, academic achievement motivation and home environments. The other purpose was to find out if the sex of pupils who were hearing impaired influenced their academic achievement motivation and their performance.

1.6 Significance of the Study

To develop the child with hearing impairment's full academic potential, it is necessary to be aware of the obstacles that may hinder his/her efforts to succeed in school. An awareness of some of the home environment conditions and motivational factors which are conducive to the educational achievement of the child with hearing impairments can be of much help to the special education planners in their effort to minimize poor performance among pupils with hearing impairment. Poor performance implies undesirable stage through dropout and repeating classes. The government can control that by finding means of improving the performance in cases where it is caused by lack of motivation, handicapping conditions and poor home
environments. The knowledge gained from the study will be useful in guiding the students with hearing impairments to select the most appropriate institutions (such as technical institutions), subjects, courses and occupations. It is hoped that the educators in special education, parents and special education planners will benefit from the findings and recommendations of the study in seeking means and ways of motivating the students with hearing impairments to learn. The study will also be expected to contribute towards the understanding of academic performance by showing how it is affected by the study variables. Additional information on factors that affect academic performance of pupils with handicaps will be of beneficial to special educationists and psychologists. Finally, it is hoped that the study will stimulate interest for further research on the factors studied and others, which may influence academic performance of the hearing impaired.

1.7 Limitation of the Study

Academic achievement is a multi-dimensional concept. It depends on interaction of very many factors. For that reason, the study of certain factors as they affected academic performance is rendered difficult. The factors under study were influenced by intervening variables, which were hard to control. The findings of the study might have been influenced by possible unreliability of the teacher-made examination questions, which were used as a measure of academic performance. Lack of control of extraneous factors which contributed to the performance of pupils such as intelligence of pupils, school environment, anxiety leave, teacher qualifications and other handicaps might not have been easily controlled.
The possible shortcomings embedded in the measuring instruments might have influenced the measurement of the home environmental factors and pupil academic achievement motivation. Time and financial constraints were also limitations of the study.

1.8 Definition of Terms

**Home Environment:** The totality of external things, conditions and influences within the home, which may affect the pupils' performance in school. The home environments incorporate the physical amenities, socio-economic background and intellectual environment (level of education of parents) (Chandler & Tool 1996).

**Academic performance:** The total level of achievement of a pupil with respect to attained skills or knowledge, as compared with other pupils on some adapted standards.

**Achievement motivation:** It is the need to achieve success. Maclweren & Bryson (2004) describe it as the positive or negative effect aroused in situations that involve competition with a standard of excellence where performance in such a situation could be evaluated as successful or unsuccessful.
**Handicapping condition:** This is the extent to which a pupil has a problem and a limitation due to impairment of some parts of the body. For example, the hearing impaired has an impaired auditory channel, the physically handicapped has a malfunctioning limb or defective organ in the body and the visually handicapped has a defective visual channel.

**Upper primary:** Upper primary includes classes 5, 6, 7 and 8. These were pupils between ages fourteen and eighteen in special schools for Hearing Impaired (H.I).

**Pupils with handicaps:** These are pupils with problems and limitations and require special education and related services to maximize their potential in academics.

**Hearing impaired:** This is a pupil who cannot understand speech through the auditory channels. Auditory channel involves the outer ear, ear canal, middle ear, inner ear, and auditory nerve to the brain. There were two types of hearing loss, the deaf and hard-of-hearing. The person who is deaf is one whose hearing is affected to an extent that precludes the understanding of speech through the ear alone with or without a hearing device. The hard-of-hearing person is one whose hearing is disabled to an extent that it makes it difficult to understand speech through the ear alone without the use of a hearing device (Hallahan & Kaufman 1991).
GHCRE: Geography, History, Christian Religious Education were taught in the primary school syllabus as a combined subject:

T-TEST: A statistical test that allows comparison of two means to determine the probability that the difference between the means is real difference rather than a chance difference.

Correlation coefficient: A statistical technique used to measure the extent to which variables were related to one another. It can indicate the degree of relationship, which exists between one variable and another (Malim & Birch 1997).

Pearson product moment correlation: Is a parametric measure of correlation, which reflects the linear relationship between two variables (Malim & Birch, 1997).
2.1 Introduction

In the chapter, the academic achievement motivation concept was discussed and linked with the theory of achievement motivation, which was developed by (Atkinson & Letwin, 1964); Atkinson & Feather, 1966); Atkinson & Raynor, 1974). The factors that determined the strength of academic achievement motivation were highlighted. It is followed by a discussion on the relationship between academic achievement motivation and performance in school from related literature. The different home environmental factors as they affected academic performance were discussed independently. The discussion of each factor was followed by an explanation of differences in handicapping condition to pupil academic performance. Finally, the hypothesis generated after the review of literature was presented. Early motivational theorists in psychology attempted to explain motivation in many different settings and for many kinds of behaviour (Weiner, 1990). Motivation is referred to as multidimensional; it measures impulsive and deliberate action, is concerned with the internal and external factors. Harter (2003) proposes a model of mastery motivation. The goal of effectance motivation acquires competence and influencing one's environment ( Eccles, Wigfield, & Schiefele, 1998). Mastery motivation is defined as a general tendency to interact with and to express influence over the environment.

According to Goldberg (1994), children with intrinsic motivation in academic have higher self-perceptions of competence in academics and that children who were
extrinsically motivated have lower perceived academic competence. Harter’s effectance motivation theory is important because it includes the effects of both success and failure on subsequent motivation (Eccles, Wigfield & Schiefele, 1998).

Student motivation for learning is generally regarded as one of the critical determinants of the success and quality of any learning outcome (Mitchell, 1992). Examining the construct of intrinsic motivation in the elementary years may have profound implications for initial and future school success. Students who were more intrinsically than extrinsically motivated perform well and students, who were not motivated to engage in learning, were unlikely to succeed (Goltford, 1990). The study attempted to establish the truth and to fill the gap that the above studies did not address.

2.2 Theoretical Framework

According to Atkinson and Letwin’s theory (1964) on the need for achievement, the strength of motivation to achieve varies from individual to individual. The strength of achievement motivation or tendency to achieve success is dependent on three variables: one’s motive to achieve success, probability of success in particular activity and the incentive values of success. The motive to achieve success is the individual’s stable personality trait, which does not vary from situation to situation. On the other hand, the probability of success is the person’s expectation that the performance of a certain activity will be followed by success. The incentive value of success is the attractiveness of success at that particular activity. The handicapped child’s tendency
to achieve success in academic work in this theoretical framework can be conceived as a function of the following variables:

- The motive to avoid failure,
- The probability of failure and
- The incentive value of failure;

The motive to avoid failure is seen as a person's capacity to react with the shame and humiliation after failing in a certain task. When such a feeling is aroused within a person, the result is anxiety or fear of failure and hence a tendency to withdraw from the situation, that could lead to failure.

The theory of achievement motivation assumes that all individuals have a motive to achieve success and a motive to avoid failure. In other words, all individuals have some capacity for interest in achievement and also have anxiety about failure. Those two traits were expressed in any situation when it is apparent to the individual that his/her performance would be evaluated in reference to some standard of excellence, for example, national examinations like the KCPE and KCSE.

The theory further holds that the achievement motive and expectation of success produce positive interest in the pursuit of success. On the contrary, the motive to avoid failure and expectation of failure make the individual shy away from any achievement-related activities. After reviewing the theory of achievement motivation by Atkinson (1964), the concept of academic achievement motivation is formed.
2.3 Conceptual Framework

As far as the academic achievement motivation theory was concerned, a pupil with hearing impairment from a favourable home environment was likely to have a high level of motivation to perform well in school. A pupil who got encouragement to complete his/her homework, whose parents pay his/her fees in good time and had learning facilities at home was likely to have a high motivation to achieve success and is likely to perform well in school. Children from favourable home environments tended to have a high need for achievement, as compared to children from unfavourable home environments (Atkinson & Feather 1966). The inter-relationship between academic performances can be presented diagrammatically as follows:

To interpret the above diagram academic performance was influenced by favourable home environment. Parents of pupils who perform well in school were motivated to buy more learning facilities for the child, and that was likely to enhance the child’s level of motivation to excel which in turn influenced his /her performance in school. Pupils who performed well in school were from favourable home environment and they were motivated to achieve success in school. A favourable home enhanced a child’s motivation to excel in school.
2.3.1 Determinant of Academic Motivation

The strength of a pupil with hearing impairment to achieve academic success could be well understood by looking at some determinants of achievement motivation as identified by Atkinson and Letwin, (1964), Atkinsonnn and Raynor, (1974). Those determinants were:

(i) The relatively general and stable personality called motive to achieve. That motive to achieve varies from one individual to another.

(ii) The relatively attractiveness of success of a particular activity or the incentive value of success. That is the importance attached to the goal ahead. If a lot of importance is attached to academic achievement, the drive to move forward will be strong despite the obstacles to be overcome. For instance, being the first time for the standard eight pupils to sit for a national examination, (which determines their future advancement in education and career opportunities) their need for academic achievement will be very high.

(iii) The extent to which the individual expects his or her performance to lead to his goal or to success. One of the factors, which lead to the development of high levels of the need for achievement, is early independence training. Early independence training means the insistence on self-reliance in doing a task and praise for the child when he or she succeeds in doing things that were difficult for his her age and ability. Parents or guardians can provide the early independence training to the child with hearing impairment.
2.3.2 Academic achievement, Motivation and Performance in School

The academic progress of a pupil with hearing impairments is determined by motivation among other factors. A pupil who is hearing impaired and is highly motivated to achieve success, would tend to work hard to attain a high standard of excellence. The study expected to ascertain whether pupils with hearing impairments who have high academic achievement motivation perform better than those with low academic achievement motivation.

Researchers who have measured other non-handicapped pupil achievement drive in academic activities have reported no relationship or a negative relationship between achievement motivation and academic performance. For example, in a study on achievement motivation among high school students, Heckhusen (1999) reports no relationship between the two variables. In another study on achievement motivation among high school students, he reports that there is no relationship between the pupil’s scores on the need for achievement and scores on academic performance in various subjects (Smith & Luckasson, 1995).

With the emergency of better self-rating scales, Entwistle’s (1988) research showed that motivation was related to grades obtained by pupils in school subjects. Entwistle used a twenty-four item self-rating inventory (Aberdeen Academic Motivation Inventory), which was constructed to assess academic achievement motivation. In a study on 79 elementary/primary standard seven pupils with no handicaps in Columbus Ohio, USA, he found out that there was a significant relationship between academic achievement motivation and performance. He used the Aberdeen Inventory to assess
the strengths of pupil's drive to excel in academic work and compared it to their academic performance.

2.4 Home Environment

The term home environment is a broad concept, which involves many factors and therefore cannot be defined adequately. Home environment incorporates all subjects, forces and conditions in the home, which influence the child physically, intellectually and emotionally. Different home environments vary in very many aspects such as:

- Parental level of education
- Occupational status
- Socio-economic status
- Religious background
- Parental attitude towards education of their child
- Parental value in life
- Parental interests in education of the child
- Parental expectation of the child and
- Family size

Children with hearing impairment came from different home environments and were differently affected by such aspects. The study was based on the assumption that as the child with a hearing impairment went home over the holiday; he/she interacted with the family members and the physical environment, which in turn affects his/her academic performance. That assumption is supported by Atkinson and Raynor (1974) who posit that children’s performance in school is explained best by examining an interaction framework of behaviour. The interaction model proposes that the
behaviour of an individual is the result of continuous interaction between the person and his environment. The assumption that different home environments affect children with handicap is further supported by Rawlings and Jensema (2002). In their study of 37 pairs of children with hearing impairment in Australia, they reported that more children with hearing impairment were born of manual workers who live in broken homes and were less intelligent than children with hearing impairment born by professionals and lived with both parents.

Research findings by Lexmond (2004) have demonstrated that differences in parents level of income, parents level of occupation, living conditions, parents level of education, parents involvement and family size, determined the pupils academic progress in school to a certain extent. Boles (2003) in his study on 221 children with hearing impairment in Canada, observed that a child with quite a severe hearing loss but who got quality help, support and encouragement from home was able to adjust well to normal schooling and had a desire to excel in school.

In contrast, a child with a mild disability with unhelpful home circumstances might need special services to adjust to normal schooling and to enable him or her to have a desire to excel in school. However, the study of the home environment as a variable by itself was difficult to be done in a single undertaking. Researchers who had attempted to investigate the relationship between home environment and academic performance had tended to select specific home factors for their studies. In the case, the researcher selected the following home environmental factors for the purpose of the study:
1. Parental encouragement
2. Parental occupation
3. Parental education
4. Family size and
5. Learning facilities

All home environmental factors overlapped in their effect on the child’s academic performance; for instance, according to Douglas (2000) parents who were unskilled workers lacked interest in their children’s schoolwork. Such parents might have large families, live in overcrowded homes and sent their children to schools, which were not well equipped; therefore, the above categorization was only for convenience. The following sub-sections included the description of each of the variables and the discussion on how they influenced academic performance. The review of relevant researches involved the variables also discussed.

2.4.1 Parental Encouragement

Parental encouragement is important for a child’s academic performance. In support of this statement, Barton, (1981) noted that no matter how successful a child is taught at school, the effort is largely wasted unless the child is encouraged to apply his or her learning at home. The encouragement from parents is indispensable for that purpose.

Furthermore, the joint commission on mental health of children in Canada (1970) said that successful education of children with special needs was dependent on full involvement of their parents. Parents who know the importance of education and have a positive attitude towards school would always press their children to complete their
work and assist them in doing it. Berdin and Blackhurst, (1964), in a study on 5,362 children drawn from every type of home in England and Wales found that parental encouragement was significantly related to child performance. The noted that children whose parents were most interested in their education and encourage them to do well, score high marks compared to children whose parents were least encouraging. The parents' interests implied the level of support and encouragement, which helped the child to take interest in schoolwork. The importance of parental encouragement on academic performance was also noted by Gulliford (1993).

We were fully aware that many children with handicaps may suffer from wider social deficiencies while for most children their family life enhances their development, others show educational difficulties because they do not obtain from their families the quality of stimulation or sense of stability which is necessary for proper educational progress (Ibid, 1993:163).

2.4.2 Parental Occupation

The parental level of education determines his or her occupation in most cases. Sherian (2000) observed that parental occupation was another variable, which was related to the pupils with hearing impairments academic performance. Parents in high-income occupation tended to be in a position to provide adequate learning facilities for their children. They were also able to send them to good schools where the pupil's academic performance was also good. Plowden (1967) further supported the above notion when he reported that in education, the influence of a good home environment
on academic success was vital. Manual working class parents failed to equip their children with requisite skills for educational success.

The parental occupation level was related to the child’s academic success. In a study of 400 ordinary Aberdeen school children aged 13 and 14 years, Fraser (2000) found out the father’s occupation to be significantly related to the child’s school success. The study significantly revealed that the ordinary children of parents of high-income occupations tended to do better in classwork than those of parents of low-income occupation. That was attributed to the fact that parents of low-income occupations tend to be less well-informed. Therefore, they had fewer intellectual interests than parents with higher-income occupations.

Plowden (1967) claimed that since the majority of the parents of children with hearing impairment were in the low-income occupation, they were likely to be incompetent in developing adequate involvement in the education of their children. The reason for that incompetence was due to the fact that they (parents) were not well-educated. With the little level of education, they had a low income, which inadequately provided the necessary learning facilities at home or the encouragement to do well in school.

2.4.3 Parental Education

The parental education is one of the factors known to have some influence on the child’s academic achievement (Doll, 1996). In the homes where both parents had gone to secondary school, they were given a high rating. In the homes where neither
parents had gone to secondary school, they were given a moderate rating and in homes where neither parents had any form of education, they were given a low rating. That came about when the performances in class of children from the different home environments were correlated with the parental level of education. The child whose parents had formal education had a higher score than a child whose parents had no formal education. However, the relationship between the two might be hereditary or environmental. Hereditary means that a child will tend to inherit the capacity of parents, which is often reflected by the parental educational attainment. Environmental factors mean that education influences economic position. It also incorporates the parental familiarity with school system, their attitudes towards education and amount of encouragement and help they give the child.

In Kenya, Bali et al (1984) did a study on 571 Kenya standard seven non-handicapped pupils from four different regions (Nairobi- Kiambu, Mombasa- Kwale, Kisumu and Meru). They reported a significant positive relationship between the educational and occupational level of the parents and pupils’ overall achievement in the KCPE examination. A good example was the correlation between home environmental variables and the pupil performance in English and overall achievement in the KCPE examination which was 0.22 and 0.13 respectively.

Further, Bali et al (1984) reported that the educational background of the family is related to the academic performance of the child. They observed that the correlation between educational and occupational level of the family and the pupils’ performance
in English in the KCPE was 0.22 and in mathematics was 0.09. These imply that there was improvement in performance.

2.4.4 Family Size

Children with hearing impairment from large families tend to have less contact with their parents. As a result they do not receive attention, encouragement, stimulation and support, which were important in the development of intellectual skills. In most cases, the standards of living deteriorate with the increase of family members due to the fact that the limited resources have to be shared among the many family members.

To support the idea that family size is related to academic performance, Peresuh, et al (1997) observe that children with hearing impairment, who were from a large family tend to have less contact with their parents.

In cases where the contact is given, it is usually in form of over protection and over dependency of the child who is hearing impaired on the siblings. The child with hearing impairment therefore fails to receive the attention, encouragement, stimulation and support, which were important in development of academic skills.

Rawlings and Jensema (2002) support the above findings in the study they carried out on 37 boys and 37 girls with hearing impairments in Australia, where they stated that there was evidence that deaf children were more likely to be born into large families than into small families. As a result, such a child was denied material support for his/her schoolwork and his or her educational opportunities were limited. Given that scenario therefore, a child with a hearing impairment from a large family was likely to
perform poorer than a hearing impaired child from a small family. In Kenya, a study by Bali et al (1984) showed that children from small families performed at a significantly higher level than children from large families.

2.4.5 Learning Facilities at Home

The parents of pupils with hearing impairment were generally involved in the education of their children, by visiting them in school to check on their performance. They paid their fees and bought the school items, which were needed by the child in school, such as personal effects whenever they could afford to do so.

When the pupils went home after the school closed, the parents were likely to be involved in their academic work. They were likely to check and discuss the pupil’s report cards. They might also enquire if they had been given homework. If they had homework, the parents may supervise them in order to do it well. The parents were likely to buy books to be read at home during holidays, such as novels, story books, supplementary readers, practice books, a dictionary, a bible and an atlas. They might also ensure that the pupils did their studies in quiet rooms whenever possible. It was also the responsibility of the parents to ensure that facility at home such as radios or televisions were used properly. The parents needed to monitor the programmes the pupils listened to or watched on television.

A child with hearing impairment from home with adequate learning facilities was at an advantage as compared to a child from a home with inadequate learning facilities. A child from a home with facilities such as newspaper, magazines, radios or
television set and books was likely to perform well in school. The most obvious indication of parental encouragement of academic progress was seen where parents gave high priority to the provision of good facilities for quiet study and homework (Barton, 1981).

### 2.5 Hearing Impairment and Academic Performance

The section discussed the implication of hearing impairment performance of students in primary schools. Learning problem associated with hearing impairment was usually lack of proficiency in speech and language, which therefore, affected reading, writing and arithmetic. That problem then affected other content areas that used reading, writing and listening as a major learning tool. Language for instance, was closely associated to different kinds of thinking and behaviour. Therefore, it might be expected that the deaf would suffer mental retardation. Mykelburst (1964) noted that in most kinds of non-verbal intelligence tests that use concrete materials and patterns, pupils with hearing impairment performed as well as ordinary pupils.

Limitations of language could also have detrimental consequences on the emotional development of pupils with hearing impairment. For instance poor self-image, low-esteem and lack of perseverance had implication for education of those pupils. Poor communication limited social experiences through which personal qualities and adjustments were supposed to be made. Lack of language limited development of self-control, understanding of human relationship and moral concepts (MyKleburst (1964), Smith and Luckasson (1995).
The extent of the handicap was put into consideration in the study, since the hard-of-hearing pupils was considered for the study because they were the majority in special schools. They had a hearing loss of less than 51 db, therefore could benefit from amplified speech sounds, lip-reading and use of sign language but the totally deaf were few and could perceive any speech sounds. Pupils with hearing impairments' performance in Kenya had been the concern of the parents, teachers, and the government. That was due to the poor performance shown as compared to the hearing children. In primary school examination for instance among the pupils with hearing scored about 195 marks out of 500 whereas the best student among the hearing pupils scored 447 marks in KCPE 2006 (KNEC 2006). Pupils with hearing impairment perform fairly well in elementary grades. They competed fairly with the hearing students in class performance (US 2000).

2.6 Research Hypotheses

After reviewing the related literature, it was evident that the studies on academic achievement motivation and home environments and their influence on academic performance had been inconclusive. From the review of the related literature, the following hypotheses were formulated:

- There was no significant relationship between academic achievement motivation and academic performance of boys/girls with hearing impairment.
- There was no significant relationship between the home environmental factors and academic performance of boys/girls with hearing impairment.
• There was no significant relationship between the home environmental factors and academic achievement motivation of boys/girls with hearing impairment.
• There was no significant relationship between the mean scores on performance of boy and that of girls who were hearing impaired achievement motivation.
• There was no significant relationship between academic achievement motivation of girls and that of boys with hearing impairment.

2.7 Conclusion
The previous research studies were done on ordinary hearing pupils, the present study attempted to fill the gap in academic motivation and home environment on performance among the pupils with hearing impairment. Researches done in previous studies were done with pupils in on day schools. The study tried to find out the relationship of the above-mentioned variables among pupils in residential schools.

Summary
The study was based on Atkinson’s and Letwin’s theory of motivation which was developed in 1964. After reviewing of the theory of motivation, the conceptual framework was formulated. Research findings such as Entristle (1988) found that there was a significant relationship between the children’s academic achievement, motivation and their academic performance. However, Heckhausen (1984) found that there was no significant relationship between academic achievement, motivation and academic performance.
CHAPTER THREE

METHODOLOGY

3.1 Introduction

The chapter presents the research methodology the researcher employed under the following subheadings: Research design, population and sample, instrumentation, pilot study, data collection, data analysis/hypothesis testing. Those procedures were described as below.

3.2 Research Design

The chapter presents the research methodology, the researcher employed under the following subheadings: Research design, population and sample, instrumentation, pilot study, data collection, data analysis and hypothesis testing. Those procedures were described below.

Some advantages of correlation method were: The correlation method permitted the researcher to analyze the relationships among a large number of variables in a single study. The correlation coefficient provided a measure of degree and direction of relationship. Correlations were useful in exploring the nature of relationships between the variables in the study. Additionally, they enabled the researcher to predict scores on one variable from subject’s scores on other variables. The statistical significance of correlation coefficients indicated whether the obtained coefficient was statistically significantly different from zero, the null hypothesis could not be rejected.
The closer to one that the correlation was, the stronger the relationship between two variables while the closer to zero, the weaker the relationship. If the correlation coefficient was a negative number, the magnitude was the same only in the opposite direction (US Department of Education, 2000).

3.3 Populations and Sample

The sample consisted of 75 upper primary (standards 5, 6, 7 and 8) pupils from 3 special schools namely: 1, 2, 3, in Central Province. Those schools had a total of about 100 pupils in upper primary classes (see appendix C).

The pupils with a hearing loss of not more than 51 decibels (db) were used for the study. The pupils were between 14 and 20 years. They also had a set of scores for end of year examinations for the previous year. The hard-of-hearing pupils were selected using the results of audiograms taken earlier, which were obtained on request from the school headteacher. Those audiograms showed the pupil hearing loss at admission and it was checked regularly.

The province had five primary schools for pupils with hearing impairments namely: Tumutumu, Kerugoya, Murang’a, Nyandarua and Kambui. The study used 3 schools due to their proximity to the researcher, time and financial constraints. Random sampling procedure was used. A list of all pupils in upper primary classes was obtained on request from the schools. That list considered only those pupils who were in classes 5, 6, 7 or 8 in the year 2005 and had a complete set of scores in the end of term examination and aged between 14 to 20 years. The pupils were selected from the
list of pupils who were hard-of-hearing (e.g. all students whose names fell under odd numbers, that is 1, 3, 5 etc were selected for the study).

In the study, primary school pupils were preferred because they were able to display their academic achievement motivation more readily than secondary school pupils who had varied areas of interest. Upper primary pupils (classes 5-8) were able to respond to the questionnaires correctly because their level of understanding and reading was higher than that of pupils in lower primary grades (McClelland, 2001, Khatena, 1996).

Respondents in the study were older than their acceptable counterparts in regular primary schools. The reason was that children with hearing impairment took longer time to go to start school as their parents decided what to do with them. That was why the study used children between 14 and 20 years in primary schools (Chege et al; 1999).

3.4 Instrumentation

Two questionnaires were used to obtain data for the study, which were the academic achievement motivation questionnaire and home environment questionnaires. The results of the end of year teacher made examinations were also used as a measure of academic performance. The questionnaires were well-explained in the following sections.
The Academic Achievement Motivation Questionnaire

The instrument called the SP profile was developed by Sandven (1975) for use by children aged between 13 to 16 years in upper primary school to measure pupil motivation to achieve success in school. It was called SP profile so as not to give the subject any clue as to the purpose of the investigation. The SP is the code that indicated the variable that is academic achievement motivation as related to the school situation, which the instrument dealt with.

The instrument consisted of 17 stimulus situations, which were in form of short stories. The stories were constructed to elicit action/reaction tendencies towards some functional dimension, and in that case, it was the achievement motivation as related to the school situation. After each short, story two statements were given. Each pair of statements describes two opposing responses to the stimulus situation. Here was an example: A pupil had failed in the examination. During the school year, he had managed fairly well. Should he/she repeat a year or should he/she leave school?

A. He may fail next time too

B. He would have tried once more

The respondent was asked to select either A or B then either support (s) or oppose (o).

The response to the selected statement was recorded. For instance, if a respondent selected B and supported it, he had to put a cross in the square marked like this.
A. He may fail next time too

B. He would have tried once more

Alternatively, if the respondent is in doubt whether to oppose or to support the selected statement, he/she might put a question mark on one of the boxes

A. He may fail next time too

B. He would have tried once more

3.4.2 Validation of the Instruments

Given that the cultural background and level of understanding of pupils used in the study might be different from that of the Norwegians for whom the test was originally developed, some alterations were made in some stimulus situation and on the statements. Experiences familiar to Kenyan pupils were used. For example ‘skiing’ was replaced by football, which was a more familiar sport to Kenyans. Furthermore, familiar and easier words were used. For the students with hearing impairments, a standard sign language was used. Instead of some colloquial expressions used in the original version of the instrument, for instance, “Neil often felt down” was substituted with phrase ‘John felt disappointed’. Other changes involved the use of indigenous
names instead of unfamiliar ones used in the original instrument. For example, the names ‘Juma and Kioko’ were used instead of “Elisa” and “Kate” respectively.

3.4.3 The Home Environment Questionnaire

The instrument was adapted for use in Kenya after the pilot study. The home environment questionnaire, which was a measure of pupil's home environment, consisted of 31 items. The questionnaire had the following questions and sections covering the factors, which had been selected for the study.

- Parental occupation (questions 1 and 2)
- Parental education (question 5)
- Family size (questions 6 and 7)
- Parental encouragement (questions 8 and 21)
- Learning facilities at home (questions 22 and 31)

The questionnaire would normally take about half an hour to complete but more time was allowed about 45 minutes for the pupils with hearing impairment.

3.4.4 Measure of School Performance

The study used each school's internal examination results, done at the end of the previous year, as a measure of school performance. The results were obtained from the headteachers of the specified schools on request. Until 2000, the mock examination used to consist of seven papers, the same used to be offered in KCPE. From 2001, KCPE, the examination consisted of five subjects. The KCPE examined five subjects too. The following subjects were offered in the internal examination and their results were used in the study.

- English
3.5 Pilot Study

A pilot study was conducted to pre-test the research instruments and to facilitate the improvement of data collection techniques, validity of the instruments and also to allow a check of planned statistical and analysis procedure. The sample was drawn from a population of 25 pupils from Kaaga School for the hearing impaired in Eastern Province. The pilot study that was conducted enabled the researcher to delete some ambiguous terms in the original instrument for example games such as ‘skiing’, were replaced by ‘football’ which was a familiar game to the respondents. The pilot study enabled the researcher to plan for the time needed to fill in the questionnaire and how to analyze the data collected. For instance, the respondents were given on hour to fill in the questionnaire. That time was found not to be enough and therefore in the study, two hours were given to fill in the questionnaire.

3.6 Data Collection

The SP profile questionnaire was administered by the researcher with the help of a research assistant and a teacher in every school. That SP profile questionnaire was used to collect data on academic achievement motivation and the home environment questionnaire was used to collect data about pupils’ home environment. The questionnaire respondents were students who had scores for the previous year’s end-of-term examinations. The questionnaires were presented to the respondents in a
group. The instructions were read to them and an example on how to fill in the questionnaires was given on the blackboard. The respondents filled the questionnaire individually. The questionnaire took about two hours to complete. The hearing impaired had a sign language interpreter for them until they understood the concept by choosing one of the responses to the stimulus. The researcher collected the completed questionnaires the same day.

3.7 Data Analysis

After scoring the academic achievement motivation questionnaire and the home environment questionnaire, the data were coded for computer analysis e.g. home factors were given Nos. 1-6, the academic subjects were coded 1-5. The analysis is done using the (statistical package for social sciences (SPSS).

3.8 Hypothesis Testing

Pearson Product Moment Correlation and a two-tailed t-test for mean differences were used to test the following null hypotheses:

(i) There was no significant relationship between the home environmental factors and academic performance of boys and girls with hearing impairment. That hypothesis was analyzed using Pearson's Product Moment Correlation analysis.

(ii) There was no significant relationship between the home environmental factors and academic achievement motivation of boys and girls with hearing impairment. That hypothesis was analyzed using Pearson's Product Moment Correlation analysis.
(iii) There were no significant differences between the end of term exam mean scores of boys and girls with hearing impairments. That hypothesis was analyzed using a two-tailed chi-square.
CHAPTER FOUR
RESULTS AND INTERPRETATIONS

4.1 Introduction

The chapter presents results of the data analysis together with their interpretations. The findings on the relationship between academic achievement motivation and academic performance were presented first. That was followed by the results on the relationship between the home environmental factors and academic performance. Third, the results obtained after testing the hypotheses on the relationship between the home environmental factors and academic achievement motivations were given. Fourth, the findings on the hypothesized sex differences in pupil’s academic achievement motivation and academic performance were presented. Finally, a summary of the findings was presented.

Table 4.1 (a) Gender of respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>Class</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td></td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>38</td>
<td>51</td>
</tr>
<tr>
<td>Girls</td>
<td></td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>37</td>
<td>49</td>
</tr>
</tbody>
</table>

Table 4.1 (a) showed the gender of the respondents such as class 5 had 9 boys, class 6 had 9, class 7 and 8 had 10 pupils each. Class 5 had girls, 6 and 7 had 10 each while class 8 had 8 pupils making a total of 38 boys and 37 girls.
Table 4.1 (b) Age of respondents

<table>
<thead>
<tr>
<th>Age in years</th>
<th>14-16</th>
<th>15-17</th>
<th>15-19</th>
<th>15-20</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>38</td>
</tr>
<tr>
<td>Girls</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>9</td>
<td>37</td>
</tr>
</tbody>
</table>

Table 4.1 (b) showed the age of the respondents such as they were 9 boys aged between 14 and 16 years, 10 boys between 15 and 17 years, 10 between 15 and 19 and 9 between 15 and 20 years of age. There were 9 girls between 14 and 16 years, 9 between 15 and 17, 10 between 15 and 19 years, and 9 between 15 and 20 years making a total of 38 boys and 37 girls.

4.2 Relationship between Academic Achievement Motivation and Academic Performance

The first null hypotheses stated that there was no significant relationship between the pupils' academic achievement motivation and their academic performance. That hypothesis was tested by correlating the pupil scores on academic achievement motivation with their academic performance scores obtained in the examination papers in the end of year examination used. The results presented in table 4.2 below supported the hypotheses and therefore the hypothesis was not rejected.
Table 4.2: The relationship between academic achievement motivation and academic performance

(N=75)

<table>
<thead>
<tr>
<th>Examination Results</th>
<th>Correlation between performance and Academic Achievement Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>-0.036</td>
</tr>
<tr>
<td>Kiswahili</td>
<td>-0.036</td>
</tr>
<tr>
<td>Mathematics</td>
<td>-0.077</td>
</tr>
<tr>
<td>Science</td>
<td>0.323</td>
</tr>
<tr>
<td>GHCRE</td>
<td>-0.042</td>
</tr>
</tbody>
</table>

Table 4.2 shows that:

(i) The correlation coefficients between academic achievement motivation and pupils’ academic performance ranged from -0.077 to 0.323. That indicated a weak negative correlation between academic achievement motivation and pupil’s academic performance which meant that academic performance was not very much influenced by motivation.

(ii) The pupils’ academic achievement motivation was not significantly correlated to their academic performance in all subject areas.

(iii) That implied that performance in the above subjects was not dependent on how motivated the pupils were.

(iv) The academic achievement motivation and performance in science was not significantly correlated because \(r = 0.323, p > 0.05\).
The results implied that the pupil with hearing impairment academic performance was not influenced by their level of motivation to do well in school. According to the observation made by the researcher, many pupils with hearing impairment did not take much interest in academic subjects because they viewed them as hard and unmanageable and due to their previous poor performance, they felt that no matter how hard they tried, they would always fail (UNESCO, 1988). That might be one of the reasons that could be attributed to the low correlation between pupils’ academic achievement motivation and performance in the subjects areas mentioned. As Mehta (1998) found out the pupils’ interest and perception of their ability in doing certain subjects affected their achievement in such a subject. Therefore, a pupil with hearing impairment who was bright and highly motivated to do well in school may perform poorly in school subjects because of his/her lack of interest and poor perception of his ability to do those subjects.

4.3 The Relationship between Home Environmental Factors and Academic Performance

The second null hypotheses stated that there was no significant relationship between the home environmental factors and academic performance. Table 4.3 presented the results of correlation analysis between scores on the various environmental factors and academic performance.
Table 4.3 Relationship between home environmental factors and academic performance

(N=75)

<table>
<thead>
<tr>
<th>Home factors</th>
<th>Examinations Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English</td>
</tr>
<tr>
<td>1. Father’s occupation</td>
<td>-0.211</td>
</tr>
<tr>
<td>2. Mother’s occupation</td>
<td>-0.240</td>
</tr>
<tr>
<td>3. Father’s education</td>
<td>0.486</td>
</tr>
<tr>
<td>4. Mother’s education</td>
<td>0.131</td>
</tr>
<tr>
<td>5. Family size</td>
<td>-0.167</td>
</tr>
<tr>
<td>6. Parental encouragement</td>
<td>0.175</td>
</tr>
<tr>
<td>7. Facilities at home</td>
<td>-0.025</td>
</tr>
</tbody>
</table>

The table 4.3 above shows that:

(i) The correlation coefficients, which ranged from -0.011 to 0.486, indicated that there was some significance in the two correlated variables.

(ii) The only significant correlations were between:

(a) Father’s occupation and academic performance in English; \(r = -0.211\), and Kiswahili \(r = -0.221\).

All other factors were not significant at \(p<0.05\) such as

(b) Mothers’ occupation and pupil performance in English \(r = -0.240\), Kiswahili \(r = -0.047\), Mathematics \(r = -0.082\), Science \(r = -0.144\) and GHCRE \(r = -0.011\).

(c) Fathers’ education and pupil performance in Mathematics.

(iii) Mothers’ education and performance in Mathematics.
(iv) Family size and performance in all the subject areas mentioned in table 4.1
(v) Parental encouragement and performance in Mathematics ($r = -0.083$).
(vi) Learning facilities at home and performance in English ($r = -0.025$), Kiswahili ($r = -0.076$).

The results showed that the relationship between the home environmental factors and the pupils' academic performance was weak.

It suggested that pupils with hearing impairments, whose fathers were well-educated, tended to perform better in English and Kiswahili than pupils whose fathers were not highly educated. The results also implied that mothers of pupils with hearing impairment did not have a relationship with their children's performance in all subject areas. The results further indicated that pupils with hearing impairment whose fathers were in high-income occupation did not correlate significantly with performance in all subject areas. That implied that father's occupation influenced performance among their children. The other correlations, for example the family size, had no significant relationship with academic performance of pupils with hearing impairment in all subject areas as shown in table 4.2. Researchers such as Fraser (2000), Yseldyke & Algozzine (1992) and Lexmond (2004) in their study on family size and academic performance observed that there was a positive significant relationship between the two variables.

The fact that the scores on the home environmental factors were not strongly related with the pupils' academic performance in that study did not rule out the influence of
the home environmental factors on academic performance. There could be possible explanations as to why the pupils with hearing impairment scores on various home environmental factors did not correlate positively with their scores in academic performance. Some of the possible explanations for such findings were discussed as below:

The negative correlations on the parental occupation and pupil performance might have implied that the parents with a high income occupation tended to spend most of their time in those occupations and had little time for their children at home. The pupils with hearing impairments were in residential schools. It implied that though there could be learning facilities at home, they rarely made use of them because they spent most of the time in schools. That explained why the home environmental factors had low correlation with academic performance of the pupils with hearing impairment. In such cases where learning facilities were not adequately and properly utilized, there might be no connection between availability of such facilities and the pupil performance.

Atkinson and Raynor (1974) observe that high expectations and pressure for good performance in the name of encouragement by some parents might have negative effect on performance since they cause anxiety and fear of failure to the child with hearing impairment. That could be another explanation as to why there was no significant positive correlation between parental encouragement and pupils' academic performance in all subject areas.
4.4 The relationship between Home Environmental Factors and Academic Achievement Motivation

The third null hypothesis stated that there was no significant relationship between the home environmental factors and academic achievement motivation. Table 4.4 below shows that the results supported the above hypothesis and therefore the hypothesis was not rejected.

**Table 4.4: The relationship between home environmental factors and academic achievement motivation**

(N-75)

<table>
<thead>
<tr>
<th>Home Environmental Factors</th>
<th>Academic Achievement Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathers’ Occupation</td>
<td>-0.103</td>
</tr>
<tr>
<td>Mother Occupation</td>
<td>0.162</td>
</tr>
<tr>
<td>Father’s education</td>
<td>-0.040</td>
</tr>
<tr>
<td>Mother’s education</td>
<td>0.021</td>
</tr>
<tr>
<td>Family size</td>
<td>-0.081</td>
</tr>
<tr>
<td>Parental encouragement</td>
<td>-0.072</td>
</tr>
<tr>
<td>Learning facilities at home</td>
<td>0.143</td>
</tr>
</tbody>
</table>

Table 4.4 showed that:

1. The correlation coefficient between academic achievement motivation and the various home environmental factors ranged from -0.103 to 0.143.

2. The correlation between the pupils’ scores on academic achievement motivation and father’s occupation showed that there was a significant relationship between
the two ($r = -0.103$). That implied that the father’s occupation did not motivate pupils with hearing impairments to perform well in school. The mother’s occupation had no correlation with the academic achievement motivation ($r = 0.162$).

3. Correlations between parental education and academic achievement motivation showed that there was no significant relationship between father’s education ($r = -0.040$); mother’s education ($r = 0.021$) and academic achievement motivation.

4. Correlations between family size and academic achievement motivation ($r = -0.081$) were not significant.

5. Parental encouragement and academic achievement motivation showed that there was no significant relationship ($r = -0.072 \ P < 0.05$) between the two.

6. Between learning facilities at home and motivation, showed there was no significant correlation ($r = 0.143$).

The findings implied that a more favourable home environment might not motivate a child with hearing impairment to excel in school. That could be attributed to the fact that pupils with hearing impairment whether from small or large families had little contact with their family members because they were in residential schools. Therefore, family size whether large or small did not have influence over the academic achievement motivation. Learning facilities at home and academic achievement motivation had no significant relationship ($r = 0.143 \ P > 0.05$). That implied that the pupil with hearing impairment need to excel in school was not influenced by the learning facilities at home. A television set or radio at home might not have assisted the child with hearing impairment in learning in any way because
he/she could not hear speech sounds without adequate help from family members. The members spend little time with pupils with hearing impairments who stayed at school most of the time. There was also a possibility that the questions on learning facilities at home did not tap that variable adequately hence the low relationship. Those findings were in conflict with the observation made by Atkinson and Feather (1966) that children from favourable home environments tended to have had a high need for achievement as compared to children from unfavourable home environments.

4.5 Sex differences in pupils' Academic Achievement Motivation and Academic Performance

The fourth hypothesis stated that there were no significant difference between the mean scores of male and female pupils with hearing impairment in academic achievement motivation and academic performance. An analysis of a two-tailed t-test was carried out to test for the differences in the mean scores of boys and girls in academic achievement motivation and also on various examination results. The results presented in table 4.5 below did not support the hypothesis and therefore the hypothesis was rejected.
Table 4.5: Sex differences in pupils’ academic achievement motivation and academic performance

<table>
<thead>
<tr>
<th>Academic Achievement motivation</th>
<th>Male N=37</th>
<th>Females N=38</th>
<th>Chi-square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D</td>
<td>Mean</td>
</tr>
<tr>
<td>Academic Achievement Motivation</td>
<td>51.70</td>
<td>3.49</td>
<td>51.30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACADEMIC PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
</tr>
<tr>
<td>Kiswahili</td>
</tr>
<tr>
<td>Mathematics</td>
</tr>
<tr>
<td>Science</td>
</tr>
<tr>
<td>GHCRE</td>
</tr>
<tr>
<td>Total Aggregate Score</td>
</tr>
</tbody>
</table>

The table above show that there were no significant differences in the mean scores of boys and girls with hearing impairment in academic achievement motivation. That meant that boys and girls were not equally motivated to do well in their academic work. The results showed that the boys mean scores in academic achievement motivation were higher than those of girls. Girls mean scores in Kiswahili, Science and GHCRE were higher than those of boys. The girls mean aggregate score (263.56) was higher than that of boys (259.71).
The results indicated that boys tended to perform better than girls in Mathematics and English while girls perform better than boys in Kiswahili, Science and GHCRL. Deck (1999) was in agreement with the findings of the study. He also found out that boys performed better than girls in Mathematics.

The results of the study suggested that the sex of the pupil was not an influential factor in their performance in school but only in their academic achievement motivation. The results showed that boys had a higher level of academic achievement motivation than girls. The fact that both boys and girls with hearing impairments tended to perform equally well could be attributed to the changing cultural attitudes, where parents gave both boys and girls equal opportunities in education. It also appeared that both girls and boys had realised that they had to work equally hard in order to compete for the limited chances in higher institutions of learning and the few job opportunities available.

Summary

The study used Pearson’s Product Moment Correlation to test the hypotheses. One of the major findings indicated that there was no significant correlation between academic achievement motivation and their academic performance (table 4.2). The other findings as shown in table 4.3 indicated that there was no correlation between academic achievement motivation and home environment. However, findings in table 4.5 showed that girls’ mean score was higher than that of the boys.
CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter deals with discussion and implications of the results, recommendations, suggestions for future research and conclusion of the research. The research was designed to study the effect of motivation, home environment, and the student characteristics on academic achievement. Research in that area should increase the awareness to concentrate on student motivation in an effort to increase effective school functioning in the years and eventually improves our educational stature.

5.2 Discussion and Implications of the Results

The main purpose of the study was to seek answers to the general questions; "What were the factors that contributed towards the variations in academic performance of pupils with hearing impairment in primary schools?" In attempting to answer that general question, the researcher found it necessary to consider certain factors, which were thought to influence academic performance. Those factors were the pupils' academic achievement motivation and some selected home environmental factors. Further, the researcher was interested to find out how the selected home environmental factors affected academic achievement motivation. The other area of interest was to find out if sex of a pupil would affect his/her academic performance and academic achievement motivation. After reviewing the relevant literature, specific hypotheses were formulated to provide answers to the above research question.
5.2.1 Academic achievement Motivation and Academic Performance

The results on table 4.1 indicated correlation coefficients ranging from -0.077 to 0.323 between the pupils with hearing impairment academic achievement motivation and their performance in the various examination papers. All the correlation coefficients were not significant at $P<0.05$ significance level. Those findings indicated that the performance in science subject areas, were not influenced by the pupils with hearing impairment motivation to achieve success in school, among other factors. Those results were in conflict with previous studies by Heckhusen (1999) and Jefree (2001), in which a significant relationship between academic achievement motivation and academic performance was observed. However, Mehta (1998) supports the above findings that academic achievement motivation as a personality trait does influence academic performance. According to his study, scores in Mathematics were not significantly correlated with their academic achievement motivation. The study by Leximond (2004) showed that pupils’ attitude towards specific school subjects tended to influence their performance in such subjects. Thus, if pupils with hearing impairments had formed the idea that a subject like science was hard for them, they lacked interest and the motivation to achieve high grades in it even when they might be motivated to do well in other subject areas. There might be other possible explanations to the reason why those subject areas performances were not significantly correlated with academic achievement motivation. Possibly, another variable uninvestigated or unknown to the researcher may explain that lack of significance in the results.
5.2.2 Environment and Academic Performance

It appeared from this study that the home environmental factors did not have an effect on the pupils with hearing impairment academic performance. (Table 4.2) results indicated significant relationship was only noted between:

(a) Fathers’ education and the pupil performance in English \( (r=-0.0486) \), and Kiswahili \( (r=-0.417) \).

Table 5.1: Home environment factors and academic performance

<table>
<thead>
<tr>
<th>Home factors</th>
<th>Examination results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English</td>
</tr>
<tr>
<td>Father’s occupation</td>
<td>-0.211</td>
</tr>
<tr>
<td>Father’s education</td>
<td>0.486</td>
</tr>
</tbody>
</table>

a) Other areas showed no significant correlation such as:

b) Mothers’ education and pupil performance in mathematics \( (r=-0.094) \), GHCRE \( (r=0.045) \)

c) Fathers’ and mothers’ occupation and pupil performance in all subject areas as shown in table 4.2.

d) Family size and performance in the five subject areas in table 4.2.

e) Parental encouragement and performance in Mathematics \( (r=-0.083) \).

f) Learning facilities at home and performance in English \( (r=-0.025) \), Kiswahili \( (r=-0.076) \).
Those and other conflicting findings by previous researchers such as Reynolds et al (1987) Sherian (2000) and Zigmond (1983) suggested that the research findings on the effect of home environmental factors on academic performance were not yet conclusive.

Generally, it seemed reasonable to expect a child from an academically favourable home environment to perform better than a child from a home with poor conditions. For instance, a child with hearing impairment who had adequate learning facilities at home would undoubtedly have an advantage over a child who lacked such facilities. Assuming that those facilities were adequately used, then we would expect the child who had them to do well in his academic work. The explanation as to why the pupils with hearing impairment scores on academic performance did not significantly correlate well with some home environmental factors could be due to some factors as explained in the next paragraphs. Academic attainment was a product of innate abilities plus one's effort coupled with interacting environmental factors (Piaget, 1952). For that reason, it was important to point out that the low relationship between those home environmental factors and the pupils' scores in academic performance might not mean that such relationships did not exist. To have an academically favourable home environment and to work successfully within such an environment was another thing altogether. The effective use a child can make of an academically favourable home environment may be influenced by other factors such as stability of the family, pupil intelligence, anxiety and the importance he/she attaches to education (Hewett & Forness 1974).
As noted earlier, most of the pupils' with hearing impairments were in residential schools. That implied that most of their time was spent away from home. Therefore, the home environmental factors could be of little influence to their academic performance. The parental encouragement and active involvement in the child's schooling could also have been little since there was little time spent with their children at home.

The negative relationship between parental occupation and the pupils with hearing impairments academic performance (table 4.2) implied that most of the parents in high income occupation tended to spend much of their time at work and therefore had little or no time to check on children with impairments' schoolwork. Those results implied that there were other factors that influence child's performance in relationship to the parental occupation, which was not investigated in the study.

The results further indicated that there was no significant relationship between parents of low-income occupation and pupils with hearing impairment academic performance. It implied that whether the parents were in low-income occupation or high-income occupation, it did not affect the academic performance of the pupils with hearing impairment. The possible explanation could be that the parents had little contact with pupils with hearing impairment who spent most of their time in school thus, if a parent had a low income or a high income occupation and was available at home for other children, the hearing impaired was not affected in either way because he/she was at school most of the time. So their presence at home to give continuous encouragement and (discipline which in the long run might be more effective than the
actual assistance in doing schoolwork), did not have effect on pupils with hearing impairment performance.

The low and negative relationship between learning facilities and the pupils with hearing impairment academic performance in most of the examination papers (table 4.2) implied that:

(i) The learning facilities were more or less similar in all homes.
(ii) The availability of learning facilities might not be an adequately discriminating variable.
(iii) Pupils with hearing impairment did not study at home.
(iv) The parents were less concerned about the academic progress of the children with hearing impairments or did not bother to provide proper learning environment at home.

When correlated with academic performance, family size showed a significant relationship (Table 4.2) for example family size and performance in English \( r = -0.167 \) Kiswahili \( r = -0.192 \) etc. \( P < .05 \) level of significance. Normally, it is expected that academic performance of children from small families would be better than that of children from large families; in this study, the above, expectation is fulfilled as explained at the beginning of the paragraph. This suggested that the family size matters a lot in determining the child with hearing impairments' academic performance. Those results could be attributed to the fact that the immediate family members of a pupil with hearing impairments (as seen in the study) assist them in their schoolwork. The negative correlation implied that there were little or no contact
between the family members and the child in order to be assisted in schoolwork. That could not influence his/her academic performance though the family size was small or large.

It was probable that it was not the material facilities alone that affected academic performance but rather the parental involvement in making sure that the child made use of them and the child's effort to achieve success (Barton 1981). In the study when parental encouragement scores were correlated with pupils with hearing impairments' scores in academic performance, it was noted that performance in all subjects were not influenced by parental encouragement (table 4.2). The relationship was thought to explain the fact that parents of the pupils with hearing impairments who urged them to study hard and provided them with the necessary learning facilities might do better than parents who provided such learning facilities without caring about how they were used. Perhaps, it might be that parental lack of interest in the child schooling and involvement that lead to poor performance in school. The negative correlation implied that the parental encouragement given could be in form of overprotection of the child with hearing impairments such that the more the parents encourage the child, the poorer the child performed in mathematics.

5.2.3 Home Environment and Academic Achievement Motivation

According to the findings of the study, significant relationship was noted between the pupils with hearing impairment scores in academic achievement motivation and some of the home environmental factors, for instance, parental education, family size and parental encouragement. The correlation coefficients between the pupils' academic
achievement motivation and those of home variables ranged from -0.103 to 0.162. The occupation of the father had a significant relationship (Table 4.3) e.g. Fathers’ occupation ($r = -0.103$) while mothers’ occupation ($r = 0.162$) was not significant. That could be attributed to the fact that the parents were either unemployed or were in low-income occupation and did not take a lot of interest in their children with hearing impairments.

Heckhusen (1999) stated that achievement motivation is positively related to the socio-economic status but this was not the case in the study. The explanation could be due to the fact that most of the respondents with hearing impairments in the study had mothers who were in low income occupation and therefore, did not motivate their children to do well in school. The possible reason could be due to the poverty level of the mothers.

Atkinson and Feather (1966) in their study observed that the high level of education of a parent might have a motivating effect on the child so that he/she could achieve like the parent. The correlation between fathers’ education ($r = -0.040$), Mothers’ education ($r = 0.021$) and academic achievement motivation had a significant relationship. The relationship was attributed to the fact that majority of the parents (84% and 89.3%) for fathers and mothers respectively had attained only primary education or no school at all. Children from small families tended to have high academic achievement motivation probably because the size of the family made it easy for the parents to interact with the child frequently and to motivate him/her academically. While it was known that children with hearing impairments from small
families tended to have strong contact with their parents thus boosting their academic achievement morale, (Rawlings & Jensema, 2002) found out that to be the case in their study. There was a negative relationship between family size and academic achievement motivation of the pupils with hearing impairments though it was significant ($r = -0.081$) $P < 0.05$. That could be attributed to the fact that whatever contact existed; it might have been in the form of over protection and over dependence of the children with hearing impairments on their parents and siblings.

When parental encouragement scores were correlated with academic achievement motivation scores, there was a significant relationship between the two ($r = -0.072; P < 0.05$). That implied that parents of the pupils with hearing impairment tended to encourage their children to do and well in school. Some parents tended to cause fear or failure instead of motivation within the child through too high demands and pressurized for good performance that could be a probable explanation as to why there was a negative significant correlation though not significant between the two variables.

Learning facilities at home did not have a significant relationship to the academic achievement motivation of the pupils with hearing impairment. ($r = 0.143; P > 0.05$). The results indicated that learning facilities at home for the pupils with hearing impairments did not motivate them to do well in school. The possible explanation could be due to the fact that, though the facilities were there at home, they did not use them to improve learning because the parents as observed earlier were of low academic qualifications and did not know how to guide them to use the facilities to
learn. For instance, a television set could be available at home, but due to their hearing impairment, they could not learn anything from it on their own. If the parent could assist, it could be an effective facility at home to enhance the need to excel in school (US Department of Education 1982).

5.2.4 Sex Differences in Academic Achievement Motivation and Academic Performance

The hypothesized difference between the academic achievement motivation of boys and girls was revealed. The results implied that the boys with hearing impairments mean for academic achievement motivation ($x = 51.70$) was higher than that of girls with hearing impairments ($x = 51.13$) (table 4.4). That finding did not support Sandven's (1975) report that girls tend to be more motivated to do well in school than boys. However, that study was based on a sample of normal hearing pupils.

The results further showed the relationship between mean scores of various subjects. From the results, the difference was minimal. That was a possible indication that boys with hearing impairment seemed to be more motivated to do well in school than girls. The possible explanation for those findings could be due to the rising standards of living in which both tend to aspire for gainful employment and to compete for the limited job opportunities. According to Reynolds et al (1987), the differences in the performances of boys and girls could be explained by their differences in academic self-concept and the teachers' perception of their abilities in doing Mathematics as compared to boys. The girls' low perception of their abilities in doing mathematics led to formation of negative attitudes that determined their understanding and efforts.
which in turn influenced the grades they achieved. That could be a possible explanation to the low performance of girls in Mathematics and English, which was reported in the study. Another possible explanation could be the differences in cultural expectations that were usually reflected in school tasks where certain subjects were seen as appropriate to a particular sex and role and career expectations. The society’s stereotyped view of sex roles and capabilities may tend to determine the perception of one’s abilities in certain areas both in school and in social life. That might be true, though the researcher did not come across any research findings to prove whether it was true or not.

5.3 Conclusion

The findings of the study were in conflict with other research findings, which showed a positive relationship between academic achievement motivation and school performance among the pupils with hearing impairment. For instance, Entwistle (1988) in a study on 79 standard seven pupils in Columbus, USA found out that there was a positive significant relationship between academic achievement motivation and performance. No significant correlation was found between academic achievement motivation and performance in all subject areas mentioned in the study.

The home environment factors were reported to have positive influence on the pupil’s academic performance. The significant relationship was observed between:

(a) Father’s education and performance in English ($r=-0.486; p>0.05$) and Kiswahili ($r=0.417, p>0.05$).

All other factors had no significant correlation such as;
b) Mother's education and performance in English ($r=0.131$, $p>0.05$), Kiswahili ($r=0.234$, $p>0.05$), Science ($r=0.163$, $p>0.05$).

c) Parental encouragement and performance in all subject areas ($r=-0.083$, $p<0.05$).

The study did not support the findings of the study by Berdin & Blackhurst (1964) on 5,362 children drawn from a cross section of homes in England and Wales. The findings showed that parental encouragement was significantly related to child's performance. Fraser (2000); Ysseldyke and Algozzine (1992) noted a significant relationship between father's occupation and performance. The study revealed no significant relationship between father's occupation and the child's performance.

Language was a social art that was learnt through imitation (Harter 2003). Girls with normal hearing did better in English language and Kiswahili than boys in KCPE and KCSE (KCPE/KCSE results 2006). That study however, found that boys with hearing impairment did better than girls. That could be due to the hearing impairment condition that hindered language acquisition and speech proficiency among the girls. The delay in language acquisition and speech affects reading, writing and listening, which was a major learning tool, noted that the delay could lead to mental retardation among pupils with hearing impairment. Limitation in language use may contribute to emotional behaviour among those pupils such as poor self-image, low self-esteem and lack of perseverance in difficult situations like conversations. Poor communication limits social experiences and limits learning. Boys with hearing impairment had a better self-image and their self-esteem was higher than that of girls with hearing impairment (Turner & Barlet 1997). That could be the possible explanation as to why
boys performed better than girls in languages because they were able to interact and explore the world of social experiences and learn. The findings gave indication that the sex of the pupils with hearing impairment accounts for their academic achievement motivation and also the pupils’ academic performance was seen to be influenced by the sex of the pupils because the findings showed that there was a difference in mean score for boys performances in various subject for example the mean score for boys performance in English was (x=43.35) while that of girls was (X=42.45).

5.4 Recommendations

Specific recommendations were made on the basis of the obtained results:

(i) Educationists should carefully consider the fact that motivation is a potential predictor of academic performance as suggested in the reviewed literature, where some subjects significantly correlated to academic achievement motivation. For that reason, parents, teachers and educationists of the pupils with hearing impairment could try to do all they could to ensure that the child’s motivation to achieve success in school is as high as possible. Teachers and the government should try to create a more motivating learning climate in schools and change the perception of the performance of the pupils with hearing impairment.

(ii) The negative correlation between the pupils with hearing impairments’ performance in subjects’ areas and some home environments, especially mother’s occupation, could suggest that parental commitment to their jobs hindered them from being actively involved in their children’s schoolwork.
Despite their job requirements, parents should spare time for their children to find out how they were doing at school and give them the necessary help to improve on their schoolwork. In addition to providing learning facilities at home, the parents should supervise the children to make sure that they benefit from such facilities.

(iii) The findings of the study showed that some home environmental factors contributed to improved academic performance of the child with hearing impairment. If parents could not provide a conducive environment for learning at home due to the nature of handicap of the child, they could coordinate with the teachers to provide those facilities in schools to compensate for the home environment deficiencies. Children with hearing impairments could be given extra tuition in private rooms, use schoolbooks and other facilities in the school. Precaution should be taken when it comes to parental encouragement. Unreasonable high demands and too much pressure for good academic performance by some parents might cause anxiety and fear of failure within the children. Parents therefore, should understand that it is not the amount of encouragement that mattered but the way it is given.

(iv) Many parents may not be aware of the influence the various home factors have on the academic achievement of their children with hearing impairment. Some parents may lack awareness of the importance of education for their children. For this reason, it is recommended that teachers of children with hearing impairments, policy-makers and leaders, should try to create awareness in parents of children with hearing impairments on the importance of the favourable home environmental factors and its influence on academic
performance. That would help the parents of the pupils with hearing impairment to understand their role in education of their children so that they do not put the blame entirely on the teachers when their children do not perform well in school.

(v) Curriculum developers should incorporate techniques of motivating pupils to do well in the various subject areas taught in the primary school syllabus. Teacher training institutions should incorporate in their syllabuses such techniques of motivating the pupils with hearing impairment as part of their teaching methodology and training. Such teachers would be expected to do the following in order to enhance motivation among the pupils with hearing impairment:

(a) Look at their jobs as careers to be proud of and not as a favour to the pupils with hearing impairment.

(b) Use correct terminologies to refer to persons / children with hearing impairment and not as cripples or disabled.

(c) Encourage their integration in special schools and mostly in the regular school.

(d) Not to treat the pupils with hearing impairment with sympathy but help them to achieve their academic goals.

(vi) Regular meetings between teachers and parents of pupils with hearing impairment should be organized so that teachers would advise the parents on how they could contribute to the education of their children, through encouragement, provision of learning facilities maintenance of discipline and motivation.
5.5 Suggestions for further research

The following suggestions were made for future research:

(i) Little empirical research had been done to show the various factors behind the poor performance in schools for the pupils with hearing impairments in Kenya. The present study was an attempt along that line of action and it has shown that academic achievement motivation did not influence performance but some selected home environmental factors could be seen to influence the academic performance of pupils with hearing impairment in the schools. For that purpose, there is need to carry out further research to identify other specific personality traits and environmental factors besides the home that affect the performance of pupils with hearing impairment in our country.

(ii) It was possible, therefore, that the findings of the study could have been influenced by lack of control over other variables within the pupil or within his environment which were not investigated or known to the researcher. For this reason, a future research to study the effect of those factors on academic performance is recommended.

(iii) Additional research is needed to establish the factors that promote academic achievement motivation other than home environment. Such information would help parents and teachers who are trying to find means of how to motivate the pupils with hearing impairment to do well in school.
REFERENCES


Federal Register (1977, August 23).


APPENDIX A: SP PROFILE

Academic Achievement Motivation Questionnaire for Pupils

Name: ____________________________________________________________

Male: ___________________________ Female: _________________________

School: __________________________________________________________

Class: ___________________________________________________________

Instructions

Here are some questions about your level of need for success

S. Means you support the statement

O. Means you oppose the statement

If you support the statement, put an (x) in the square like this:

<table>
<thead>
<tr>
<th>S</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

If you oppose the statement, put an (x) in the square like this:

<table>
<thead>
<tr>
<th>S</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

If you were not sure of what to choose put a (?) like this

<table>
<thead>
<tr>
<th>S</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>?</td>
<td></td>
</tr>
</tbody>
</table>

This is not a test. There is no wrong or right answer; it is only what you think that you mark. Remember to put (x) in only one of the squares.
For example:

A handicapped pupil had failed in KCPE examination. During the school year he had managed fairly well. Should he now repeat a year or should he leave school?

A. He may fail next time too

B. He ought to try once more

So, if you support A, put

If you oppose B, put

If you were in doubt, put

Remember that it is only in one of the squares you were to put, a cross. Do this now:

1. David had a lot of homework to do and felt he has not prepared sufficiently to do the work. He could like to get praised by the teacher and would try to avoid being caught in something he did not know.

When his friend called and asked him if he is going to watch a football match, it became tempting for him.

a. The homework ought to be done first

before going to watch the football match.
b. On a single occasion it is probably not too bad to watch a football match then finish the homework.

2. Njeri had worked hard on a problem in mathematics for nearly an hour without succeeding. Now, in a short time, a music programme was to start on the television. Was there any sense in continuing to work on the problem?

a. Probably it is not easy to solve and she needed to watch the music programme then solve the problem later.

b. If she managed to solve it in the end, she would be very happy so she should try solving it first then listen to the programme later.

3. Peter was somewhat not good in all subjects.

The subjects he liked best, he took first. Other subjects had to wait until the last day. He knew that he had to be good in all the subjects in order to become what he wanted to be.

a. It is difficult to force oneself to like all subjects So he should do the ones he likes most.

b. What is important is to get started in any subject whether he liked it or not.
4. Mumbi had disabilities for drawing. She used much of her time to exercise in drawing. Partly this is done at the expense of her lessons. She have failed once in her KCPE. There was a danger that she would fail once more.

a. She had better wait with the drawing. She ought to think of the KCPE Examination.

b. Perhaps the exam is not important to her so she should practise her drawing

5. The father of Mutiso is a businessman. Mutiso had the opportunity to join him for a two months tour in a foreign country. But in that case, he had to leave school for two months through. He would like to go. The school would not deny him the permission to go on for the trip. But should he stay away from school for so long.

a. It is a chance that surely is very tempting and he might never get such a chance again.

b. He should rather wait until he had finished the school then go on trips as he wished to.

6. Mwende was bored at school. She has some training in knitting, but used to give in easily. She did not like to think about the future. Rather, she would like each day to do what she felt enjoyable.
a. If she started to make a serious effort, she would probably get to like both the school and the knitting.

b. It was also necessary to learn something else different from schoolwork.

7. John was moved to a higher class on approval. He had decided to use the August vacation to learn what he did not master. But if he was offered a vocational job with a good pay, he is able to buy a bicycle. Should he take the job or should he read?

a. He ought to use the time for reading and would buy a bicycle later

b. That would be a dull vacation so he should go for the vacation job and buy a bicycle.

8. Mary was very clever. People thought that she ought to continue in school and go into higher studies. But she could not stay at school. Neither had her parents any money, and they could not help her. She would therefore be forced to go to work for sometime, and the studies would take much more time than usual. Should she still go ahead?
a. It would be very difficult for her to work while other students of her age were in school.

b. She ought to go ahead and work, then school will come later.

9. For John, the work in school had never been easy. But he had been very attentive and did what he could to keep on. Still, his marks had never been better than average. The teacher was clearly disappointed that the progress was not better. John's parents got impatient and thought that he should be able to work more. John often felt disappointed. But should he give in?

a. Since nobody understood that he did his best, he might as well take it easy.

b. Still, he ought to continue to work as hard as he could, no matter the frustration.

10. Jane was the cleverest student in the class. None of her school friends got her engaged in anything until she had finished her schoolwork. As time went on, they rarely asked her to join them. She regretted for this. Should she always let the school come first?
It ought to be right to let the most important thing come first, then friends will come later.

Now and then it should be all right to let the lessons wait and be with her friends.

Kioko and some other boys have always kept together and had much fun. But with Kioko, the work in school did not go well. Both his teachers and his parents said that he had to be serious. When he then tried to do that, his friends mocked him. They wanted to have him with them as before.

He ought to pay attention to them and ignore his teachers and his parental advice.

It was no good if they became unfriendly either because he needed friends, so he should do as his friends wanted him to do.

The class had got a very hard working teacher. He wanted that all in the class should get a head as far as possible. He praised the students who made effort and was strict with those who did not do their best. Some of the students liked him this way, others did not.
a. A teacher ought to see to it that all the students do their best.

b. He should not be too strict

13. Generally, the working order in a class was good. But now and then there were some students who made noise. Because of this much time was wasted, and the class did not get as far as it should. Some of the students thought that this was bad, others did not say anything.

a. There must be so much of quietness that it is possible to work.

b. One cannot expect that it always will be quiet. Some little noise is good to allow pupils to discuss some issues.

14. Few of the students liked all subjects in school equally well. Generally, each student liked some of the subjects and worked well with them. In other subjects, it was less easy. The teacher said that good work had to be done in all subjects.

a. Nobody can like all the subjects, since there were so many of them.
b. If one gets into serious work with a subject and gets a grasp of it, one is likely to like it too.

15. The teacher observed well that all the students took good care of their books. Each book should have a cover, and they ought not be made dirty. Not all the students felt this to be important.

a. One does not get cleverer by keeping the books nice.

b. Anyhow, a certain order must be kept to ensure the books last longer.

16. The teacher got ill, and it was not possible to get another one to take his subjects. A week passed before the teacher came back. The last day he said that it should be good if the students could continue their work themselves with some of the subjects. Then there would not be so much to cover later.

a. It could rarely be a duty to work on one's own.

b. I would have felt that I should try to do something on my own.
17. Shortly, there was to be a final exam (KCPE.). Some of the students were to go on to other schools, and some were to go into work. There were also some who had not decided as yet what to do. Many students were happy to get rid of the school. Others have mixed feelings about it.

a. It is often nice to go to school.

b. It is often sad too, to go to school.
## APPENDIX A: 2 SCORING KEY FOR THE SP PROFILE

<table>
<thead>
<tr>
<th>Stimulus</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<tr>
<th>Stimulus</th>
<th>7</th>
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<tr>
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<th>14</th>
<th>15</th>
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</table>
Scoring procedure for the SP profile

Using the scoring key given in Appendix A:2, the subject responses in this questionnaire are scored with values ranging from 0 to 6. Below is an example to help in the description of the scoring procedure.

A. The homework ought to be done first

B. On a single occasion, it was probably not too bad to watch the football match then finish the homework.

(a) If a cross (x) is used in the S-square or in the O-square marked in the key the score is 6 for example;

A. 

B. 

= 6 or
(b) A cross in the S - square, or in the O - square, which is not marked in the key, is given a score of O. For example:

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<td>x</td>
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A.  

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(ii)

(a) If a question mark (?) is used, the score will either be 4 or 2 for instance:

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(b)  

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A.  

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B.  

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B.  

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(iii) If responses are given in two squares, each of them is given half of the ordinary score.

For example:

(a)

\[
\begin{array}{c}
\text{A} \\
\text{B}
\end{array}
\]

\[
\begin{array}{c}
\text{x} & \text{o} \\
\text{?} & \text{x}
\end{array}
\]

Total score = 6

(b)

\[
\begin{array}{c}
\text{A} \\
\text{B}
\end{array}
\]

\[
\begin{array}{c}
\text{?} & \text{x} \\
\text{x} & \text{x}
\end{array}
\]

Total score = 5

The total score of each pupil obtained in the SP profile was used as a measure of his/her academic achievement motivation.
APPENDIX B: HOME ENVIRONMENT QUESTIONNAIRE

Name: __________________________________________________________

Male __________________ Or Female: ________________________________

School: _________________________________________________________

Class ____________________________________________________________

INSTRUCTIONS

Here are some questions about you and your family. Please fill in the blank spaces and put a star (*) against the word or the sentence that is most applicable to you. You were requested to read the questions carefully and answer them truthfully.

Note: The information you give will be kept confidential and will not be available to anybody.

1. With whom do you live with most of the time when you go home?

Both father and mother [ ]

Father [ ]

Mother [ ]

With relatives [ ]

Others, Specify: ____________________________

2. Which statement is true about your family?

a) My parents were both dead [ ]

b) Mother is dead [ ]

c) Father is dead [ ]

d) Mother and father were separated (divorced) [ ]
3.  a) Where does your father work? [ ]  
b) What kind of work does he do? [ ]  
4.  a) Where does your mother work? [ ]  
b) In addition to housework what else does she do? [ ]  
5. Some parents went to school while others didn't. What education level has your parent reached?  
FATHER:  
University [ ]  
College/polytechnic [ ]  
Teacher training [ ]  
Secondary school [ ]  
Primary school [ ]  
Did not attend school [ ]  
I don't know [ ]  
MOTHER:  
University [ ]  
College/polytechnic [ ]  
Teacher training [ ]  
Secondary school [ ]  
Primary school [ ]  
Did not attend school [ ]  
I don't know [ ]  
6. How many brothers and sisters do you have?
Number of brothers [  ]
Number of sisters [  ]

7. Were there other children living in your home, other than your brothers and sisters.
   Yes [  ]
   No [  ]
   If yes, how many? ______________________

8. How often does your parent or guardian assist you in doing your homework when you go home?
   Everyday [  ]
   Two or three times a week [  ]
   Once a week [  ]
   Never [  ]

9. How often does any other person for example help you in doing your homework at home?
   Everyday [  ]
   Two or three times a week [  ]
   Once a week [  ]
   Never [  ]
   Who helps you? ______________________

10. Do you have a quiet place where you can do your homework without being disturbed at home?
   Yes [  ]
   No [  ]
11. Apart from the recommended schoolbooks, does your parents/guardians buy you other books so that you can improve in your schoolwork?

Yes [ ]

No [ ]

If yes specify the kind of books they buy for you

12.

How often do your parents/guardians give you a gift when you do well in your examinations?

Always [ ]

Sometimes [ ]

Never [ ]

13. How often do your parents/guardians praise or congratulate you for doing well in School?

Always [ ]

Sometimes [ ]

Never [ ]

14. How often do your parents/guardians ask you whether you have schoolwork to do at home?

Everyday [ ]

Two or three times a week [ ]

Once a week [ ]

Never [ ]

15. How often do your parents/guardians check your report form?

Every term [ ]
16. How often do your parents/guardians make sure you do your schoolwork at home?

Everyday  [ ]
Two or three times a week [ ]
Once a week [ ]
Never [ ]

17. How often do your parents/guardians use the language you understand well?

Everyday [ ]
Two or three days a week [ ]
e) Once a week [ ]
d) Never [ ]

18. How often do your parents/guardian talk with your teacher to find out how you were doing in your schoolwork?

Everyday [ ]
Every term [ ]
Once a year [ ]
Never [ ]

19. Do you miss school because your parents/guardians want you to assist them with some work at home?

Yes [ ]
No [ ]

If yes, specify the occasions in which they ask you to assist them?
20. Do your parents/guardians expect you to go to secondary school?
   a) Yes [   ]
   b) No [   ]

21. How many books school texts were there at your home?
   (a) Over 100 [   ]
   (b) 50 to 99 [   ]
   (c) 26 to 49 [   ]
   (d) 10 to 25 [   ]
   (e) No books [   ]

22. Is there a dictionary in your home?
   Yes [   ]
   No [   ]

23. Is there a radio in your home?
   Yes [   ]
   No [   ]

24. How often do you listen to the radio?
   Everyday [   ]
   Sometimes [   ]
   Never [   ]
   b) Which programmes do you listen to?

25. Do you have a television at home?
   a) Yes [   ]
   b) No [   ]

26. How often do you watch television?
Everyday [ ]
Sometimes [ ]
Never [ ]

Which programmes do you prefer watching most?

27. How often do your parents or the people you live with buy a newspaper?

Everyday [ ]
Two or three times a week [ ]
Once a week [ ]
Never [ ]

28. Where do you do your homework and private study while at home:

29. Does anybody disturb you when doing your homework?

Yes [ ]
No [ ]

30. How often is English spoken at home?

Always [ ]
Sometimes [ ]
Never [ ]

31. How often is Kiswahili spoken at home?

Always [ ]
Sometimes [ ]
Never [ ]

Specify when: ________________________________
Coding procedure for the home environment questionnaire

Item 1 and 2 were not meant for quantitative analysis and therefore not coded.

Items 3 and 4 were categorized into four major groups based on the income generated and given points 4, 3, 2 and 1 as shown below:

Classification of occupations as used in the study.

Group A. High income brackets (4 points)

1. Managing Director
2. Doctor
3. Manager
4. Engineer
5. Deputy general manager
6. Salesman
7. Ship captain
8. Accountant
9. Town clerk
10. Education officer
11. Assistant education officer
12. Business (running a fleet of buses, a garage, spare parts shop, a wholesale shop etc.)
13. Landlord/lady
14. Bishop
15. Lecturer
16. Commissioners (police).
Group B. Middle-income brackets (3 points)

1. Teaching
2. Copy typist
3. Clerical officer
4. Nurse
5. Church minister
6. Mechanic
7. Land adjudicator
8. Telephone operator
9. Clinical officer
10. Business (a retail shop, a hotel etc.)
11. Driver
12. Photographer
13. Forest ranger
14. Policeman
15. Artist
16. Assistant chief
17. Mason
18. Laboratory assistant
19. Land registrar
20. Evangelist
21. Secretary
22. Statistician
23. Public health officer
24. Foreman
25. Veterinary Officer
26. Agricultural Officers

Group C: Income brackets (2 points)

1. Watchman
2. Shopkeeper
3. Small scale farmer
4. Cook
5. Tailor
6. Manual farm labourer
7. Shoe maker
8. Painter
9. Flower attendant
10. Nursery school teacher
11. Waiver
12. Milkman
13. House help

Group D. Unemployed / No income (1 point)

This category included all parents who were not in any form of income generating activity. Housewives and parents whose occupation were not known to the children or were not sure of, were grouped under this category for quantification purposes.
Item (5) is classified into 5 levels. The university level of education is given 5 points and 1 point for lack of any formal education as shown below:

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>5</td>
</tr>
<tr>
<td>College (diploma level)</td>
<td>4</td>
</tr>
<tr>
<td>Teacher training</td>
<td>3</td>
</tr>
<tr>
<td>Secondary school</td>
<td>3</td>
</tr>
<tr>
<td>Primary school</td>
<td>2</td>
</tr>
<tr>
<td>Did not attend school</td>
<td>1</td>
</tr>
<tr>
<td>Do not know</td>
<td>1</td>
</tr>
</tbody>
</table>

Family size items (6 and 7) were coded by giving 2 points for families that had 5 or less then 5 children and 1 point for families that have more than 5 children. The structured items on parental encouragement and learning facilities at home were coded by giving values that preceded different responses, for example:

1. How often does your parent or guardian assist you in doing your homework when you go home?

- Every day
  - Every day
- Two or three times a week
  - Two or three times a week
- Once a week
  - Once a week
- Never
  - Never

The subject's total score on each of the items in that questionnaire was used as a measure of the home environment variable.
APPENDIX C: LIST OF SCHOOLS USED

Pilot study

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kaaga School for the Deaf in Eastern Province</td>
<td>25</td>
</tr>
</tbody>
</table>

Main Study

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tumutumu School for the Hearing Impaired</td>
<td>25</td>
</tr>
<tr>
<td>2. Murang’a School for the Hearing Impaired</td>
<td>25</td>
</tr>
<tr>
<td>3. Kerugoya School for the Hearing Impaired</td>
<td>25</td>
</tr>
</tbody>
</table>
### Distribution of responses in parental academic qualifications

<table>
<thead>
<tr>
<th>Academic Qualification</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Father</td>
<td>Mother</td>
</tr>
<tr>
<td>Don’t know</td>
<td>51</td>
<td>52</td>
</tr>
<tr>
<td>No schooling</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Primary Education</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Tertiary Education</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>74</td>
</tr>
</tbody>
</table>

### Distribution of responses in parental occupation

<table>
<thead>
<tr>
<th>Occupational level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low level</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>Medium level</td>
<td>8</td>
<td>4</td>
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<tr>
<td>High level</td>
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<td>-</td>
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<tr>
<td>Highest level</td>
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<td>-</td>
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<tr>
<td>Total</td>
<td>57</td>
<td>46</td>
</tr>
</tbody>
</table>

* 18 pupils did not report on the occupation of their fathers while 29 pupils did not report on occupation of their mothers. These cases were treated as missing.*
<table>
<thead>
<tr>
<th>Variable</th>
<th>T</th>
<th>DF</th>
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</thead>
<tbody>
<tr>
<td>Academic motivation</td>
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<td>.514</td>
</tr>
<tr>
<td>Home environment</td>
<td>-.372</td>
<td>73</td>
<td>.174</td>
</tr>
<tr>
<td>Academic performance in English</td>
<td>-.225</td>
<td>73</td>
<td>.823</td>
</tr>
<tr>
<td>Academic performance in Kiswahili</td>
<td>.181</td>
<td>73</td>
<td>.857</td>
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<tr>
<td>Academic performance in Mathematics</td>
<td>-.269</td>
<td>73</td>
<td>.789</td>
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