FACTORS INFLUENCING THE ACADEMIC ACHIEVEMENT OF DEAF LEARNERS IN KILIFI COUNTY, KENYA: A CASE OF SAHAJANAND SCHOOL FOR THE DEAF

BY

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DECLARATION

This Research Project Report is my original work and has never been presented for a degree or any award in any other university

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The Research Project Report has been submitted for examination with my approval as the University Supervisor

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DEDICATION

I dedicate this research to my father, Mr. Eugene Mwanyuma whose desire for attainment of the highest level of education has pushed me this far. To my son Femi Quentin, whose journey of life has just begun.

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ABBREVIATIONS AND ACRONYMS

ASL	American Sign Language
DFID	Danish Federation for International Development
DHH	Deaf and Hard of Hearing
ECDE	Early Childhood Development Education
EFA	Education for All
GoK	Government of Kenya
HI	Hearing Impairment
IDCS	International Deaf Children's Society
IDEA	Individuals with Disabilities Education Act
IEP	Individualized Education Plan
KCPE	Kenya Certificate of Primary Education
KCSE	Kenya Certificate of Secondary Education
KISE	Kenya Institute of Special Education
KNEC	Kenya National Examinations Council
KSDC	Kenya Society for Deaf Learners
KSL	Kenyan Sign Language
MoE	Ministry of Education
MoEST	Ministry of Education Science and Technology
SEN	Special Educational Needs
SNE	Special Needs Education
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization

ABSTRACT

The global need for Education as a measure of one's ability to fully function in today's society is a major motivation for efforts to attain the highest levels of education all over the world. The continued lower than average academic achievement of Deaf learners in Kenyan schools is now becoming an issue of concern within the academic spheres. Several factors can be attributed to this trend. This research investigated some of these factors in Kilifi County, specifically at Sahajanand School for the Deaf in the south coastal region of Kenya. The factors that were investigated by this study are: Socio-cultural factors, curriculum factors, language of instruction and availability of teaching and learning resources. Literature review by the researcher has shown that others have conducted research in the area of Deaf Education and factors influencing academic achievement but there still exists a huge knowledge gap in the areas under investigation in this study. This study was conducted from a target population of 46 respondents which is the entire population under study. The researcher therefore employed census sampling technique to sample 46 respondents including 1 head teacher, 37 teachers and 8 parent representatives of Sahajanand School for the Deaf. The target population from the Sahajanand School for the Deaf was randomly selected as a representative population of the 12 Deaf schools spread across 6 counties in the coast province. The experiences within this population are similar to those of Deaf schools and institutions in other areas of Kenya. A pilot test with a retest preceded the main research to test the research instrument in preparation for the actual study. The research instrument was subjected to the expert opinion of the supervisor to determine content validity and utilized the test-retest method and Pearson's Moment correlation coefficient to test for its reliability. The data collection instruments used were questionnaires and interview guide. Quantitative data was organized and analyzed using simple statistical techniques including tables, mean and standard deviation. The study found that negative community and societal attitudes towards the Deaf influence their achievement in Education, the present curriculum does not cater for all learners with Special Educational Needs in terms of coverage of curriculum content and that the few available teachers are not very familiar and fluent in using Kenyan Sign Language. Most of the schools offering special education to children lack adequate teaching and learning resources. This study recommends societal awareness on deafness and the benefits of educating Deaf children; curriculum adaptations and flexibility in terms of content and time; intensive in-service training of teachers on Kenyan Sign Language and methods of teaching Deaf learners; and more government allocation of resources to Deaf schools. The Ministry of Education in conjunction with Kenya Institute of Curriculum Development and other stakeholders should revise and simplify the curriculum used in examinations and textbooks to suit the needs of Deaf learners in order to improve academic achievement of Deaf learners. Deaf learners can only achieve their best potential in academics when these factors are critically considered by all in stakeholders.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The development of human resource capacities for sustainable economic growth and development is highly dependent on education. Through imparted knowledge and skills, education increases human capabilities and improves productivity in labour and national growth. People are able to participate and function better in various aspects of life. Education is an important tool in achieving independence and gender balance in equitable distribution of opportunities (Muganda & Mwangi, 2002).

The Government of Kenya recognizes education as a key contributor to the economy and development in general. Thus, quality of education at all levels has remained an important policy issue since independence. The government has in the past established various commissions such as The Koech Commission of 1999, The Gachathi Commission of 1976 among others. The most recent development is the implementation of free and compulsory primary education policy for all school-going age learners.

The Government of Kenya has made deliberate efforts to improve the enrollment of learners who are Deaf into schools through awareness creation programs, establishment of units for the Deaf attached to regular primary schools, establishment of more secondary schools for the Deaf and affirmative action in admitting more Deaf learners into institutions of higher learning such as teacher colleges and Universities to pursue professional courses. More Deaf individuals are now studying up to the Master's level, and competing for opportunities with their hearing counterparts. Machakos Teachers' college offers certificate and Diploma courses on General Education, Special Education and ECDE and now admits Deaf students. Kenya Institute of Special Education (KISE) offers Special Education courses as well as Kenyan Sign Language Training, both Certificate and Diploma levels. Universities such as Maseno and Kenyatta University have Special Education programs and have been admitting Deaf students in the past few years. However, there have been challenges in these institutions in providing appropriate

accommodations for Deaf students such as providing Sign Language Interpretation services to enable Deaf students learn effectively.

In the coastal region of Kenya, the Education of learners with disabilities was for a long time not given much importance since disability was stereotyped to mean one is cursed and it was taboo for anyone with disability to interact with other people or even be seen in public as they were considered to bring bad luck. Deaf people are often ridiculed and neglected in society, with parents and community members openly favoring their "normal" learners over the Deaf learner. This is however slowly changing, whereby the coastal region has seen an increase in schools and Units for the Deaf and an increase in enrollment. Generally, there has been an increase in establishment of Deaf units attached to regular schools over the past 10 years. This is in response to the rising need for these schools and the constitutional requirement that all children have a righto free and compulsory education. Recent statistics show that 4% of Deaf learners in Kenya are enrolled in schools. Currently there are 120 schools and units for the Deaf Countrywide, 12 of them being at the coastal region of Kenya (Kenya Society for Deaf Learners, 2013) which makes up 10% of the total number of schools.

This is by no means the ideal position but it is a step in the right direction in the education of Deaf learners in this region. These schools are crippled with inadequate teaching and learning resources, lack of infrastructure such as classrooms and inadequate number of teachers to meet the needs of learners. Most Deaf units are characterized by mixing of learners of different ages and levels into the same room being taught by one teacher. One would ask, how is it possible for one teacher to teach learners who are at different learning levels and linguistic capabilities in the same room at the same time? (Mweri, 2014) The few available teachers have little or no knowledge of Kenyan Sign language which is the primary language of communication for Deaf learners. They lack the linguistic know how to impart education to the Deaf learners who use visual mode of communication while these teachers use oral mode of communication (Mweri, 2014). Given this background, this study intended to investigate the factors influencing the academic achievement of Deaf learners in Kilifi County which is one of the 6 counties the coastal region of Kenya.

1.2 Statement of the Problem

Repetition and poor achievement in national examinations such as Kenya Certificate of Primary Education (KCPE) in Kenyan public primary schools for Deaf learners continues to pose a challenge to the quality of education that these learners receive at various primary school levels. Deaf Learners do not perform comparably with their hearing peers in KCPE exams where they average 150 marks out of a possible 500, with the pass mark being 250, while their hearing peers average 300-400 marks. (KNEC, 2014) Deaf schools when ranked with regular schools, they rank among the bottom five positions in terms of mean scores. In Kilifi county for example, Deaf schools have averaged a mean score of between 100 and 200 marks in national examinations over the past 5 years, compared to the regular schools which average a mean score of 250 marks and above out of a possible 500 in KCPE (MoE, 2014).

According to Adoyo (2004), poor academic achievement in Kenyan Schools for the Deaf is an issue of rising concern. Deaf learners in Kenya have constantly lagged behind their hearing peers in National Examinations (Ndurumo, 1993), (Okombo,1994) and (Adoyo, 2004).Poor academic achievement has often been linked to factors such as inappropriate teaching methods, low motivation of teachers, and significant communication challenges (Ogutu,1996). Furthermore, the curriculum was no being presented in a language that was suitable for Deaf learners hence propagating the continued failure of these learners. Other factors such as socio-cultural influences, rigid curriculum and poor instructional methods have been attributed to this (Saitoti, G. 2005, Republic of Kenya 2005).The Deaf learner is at a disadvantage due to their condition of deafness which causes challenges in communication, language acquisition and understanding of abstract concepts. This study therefore investigated he factors that influence the academic achievement of Deaf learners in Kilifi County, A case of Sahajanand School for the Deaf.

1.3 Purpose of the Study

This study investigated the factors influencing the academic achievement of Deaf learners Kilifi County, Kenya. A case of Sahajanand School for the Deaf.

1.4 Objectives of the Study

The following were the objectives of this research:

1. To assess the influence of socio-cultural factors on the academic achievement of Deaf learners in Kilifi County.
2. To determine the influence of the curriculum on the academic achievement of Deaf learners in Kilifi County.
3. To examine the influence of the language of instruction on the academic achievement of Deaf learners in Kilifi County.
4. To assess the extent to which availability of teaching and learning resources influence academic achievement of the Deaf learners in Kilifi County.

1.5 Research Questions

The following were the research questions of the study:

1. What is the influence of socio-cultural factors on the academic achievement of Deaf learners?
2. What is the influence of the curriculum on the academic achievement of Deaf learners?
3. How does the language of instruction influence the academic achievement of Deaf learners?
4. To what extent does availability of teaching and learning resources influence the academic achievement of Deaf learners?

1.6 Significance of the Study

The findings of this research will be utilized by organizations and institutions to design and manage programs on Deaf Education that will improve the academic achievement of Deaf learners, create awareness on deafness, enhance their quality of life and further promote the global development agenda. Education experts and stakeholders will use the findings of this research to plan for a holistic education of the Deaf learner through development of policies and guidelines which will be beneficial to them. They will use the findings and recommendations of this research to design curricula, learning experiences and classroom accommodations which will improve academic achievement of Deaf learners. Teachers will utilize the recommendations from this study to make classroom adjustments and experiences that suit the needs of Deaf learners to enable them develop into an all-round individual in school and after school. Schools and institutions will be able to use these findings to formulate favorable admission and finance policies that better support the Deaf learner to enable them acquire professional and functional

skills that will help them acquire jobs, businesses, leadership positions and compete with their hearing peers in all aspects of life.

The government will use the findings of this research to enforce current affirmative action policies and formulating more policies and laws that will improve the education of Deaf learners. The government will better support awareness creation efforts by institutions and private individuals and organizations through allocation of funds for training of teachers and public servants in Kenyan Sign Language in order to be more able to meet the needs of Deaf learners. They will use the recommendations thus made to allocate more resources for infrastructure and learning materials to schools to improve the achievement of Deaf learners. Researchers and scholars can utilize the findings and recommendations in this study to conduct further research in other areas of Deaf education and to improve this sector in general.

1.7 Delimitations of the Study

This study was conducted in Sahajanand School for the Deaf, located in Mtwapa, Kilifi County. Despite the fact that there are many Deaf schools in Kenya, this study focused on this particular school in Kilifi county because the coastal region is geographically vast, with 12 Deaf schools and units spread across the 6 counties, yet the experiences within this target population are similar to those of Deaf schools in this region as well as other areas of Kenya. Despite the fact that there are hearing learners whose academic achievement is lower than average, this study focused on the academic achievement of Deaf learners because of their handicap which compounds the challenges they face in accessing education unlike their hearing peers. Also this was an area of interest due to the cultural and societal stereotypes held against Deaf learners in the coastal region.

1.8 Limitations of the Study

The major limitation that occurred when conducting this research is that some of the respondents were unwilling to provide information unless given incentives such as money. The researcher explained the background of the research and where and how it will be used and explained that no one will be quoted directly or victimized for providing such information. This removed any suspicion and doubt. The researcher only worked with individuals who were willing to provide this information voluntarily. Some of the respondents were illiterate hence unable to provide

information in writing. The researcher employed verbal techniques to obtain information that could not be put in writing. Some of the respondents in the study were Deaf and therefore the researcher had to supplement verbal and signed communication with written communication to avoid missing out on important information from these respondents.

1.9 Assumptions of the Study

This study assumed that respondents would be willing to provide information correctly and truthfully and that they would see the importance of this study. It also assumed that factors that would be identified in this research would have a direct influence on the academic achievement of Deaf learners. This study also assumed that respondents understood the language and terminology used and their significance in this study. It also assumed that the sample was representative of the population and that the data collection instruments to be used had validity and were reliable in measuring the desired constructs.

1.10 Definitions of Significant Terms

Academic achievement - This term refers to success or failure in academic subjects determined by set levels and standards, measured by standardized tests and exams.

Curriculum - This refers to organized experiences that occur in the educational process that include the instructional sequence, the subjects taught, the subject content, the school and classroom environment and other activities that take place inside and outside the classroom. It provides guidelines on the content, sequence of activities, teaching methods/ format, time schedules, educational resources and evaluation procedures. Its framework is aimed to teach average learners.

"Deaf" or "deaf" - "Deaf" (written with an upper case D) refers to deaf culture and is used to mean a sociolinguistic minority group or a way of giving identity. "deaf" (lower case d) is the audiological condition of deafness and used grammatically as an adjective.

Deaf - A Deaf person has little to no hearing ability, a condition which is sometimes referred to as Hearing Impairment or Hearing Loss.

Deaf Culture - Beliefs, values, history, norms, attitudes, behaviors and characteristics shared by Deaf people and communities.

Deafness - This refers to the condition of being deaf. Inability to hear.

Kenyan Sign Language –This is visual language with its own structure and uses manual signs that have meaning and are used to pass message. This is the primary language for learners with hearing impairments and used in school and other settings. It is always used alongside the other communication approaches. It is the backbone of communication of learners with HI in any setting.

Language of Instruction - This is the language used by teachers in delivering curriculum content to learners. For Deaf Learners, the recommended language of instruction is Sign Language, which refers to hand and arm movements used to communicate.

School Environment - This refers to infrastructure and facilities available in the school for the Deaf that's supports learning and general well-being of the student. It includes the physical environment as well as school policies, disciplinary procedures and the general school culture that affects learners and school staff.

Socio-Cultural Factors - These are societal forces that influence behavior and way of life of a community. They include customs, religion, language, beliefs, values, economic status, politics and laws that influence members of a community.

Teaching and Learning Resources - These are materials such as text, videos and visual aids used by teachers and learners in the teaching-learning process.

1.11 Organization of the Study

This study was divided into five chapters. The first chapter is an introduction to the study which includes a background to the study, the problem statement, the purpose of the study, objectives, the research questions significance of the study, delimitations and limitations as well as assumptions of the study. Also in this section, the researcher defined significant terms as they were used throughout this study. The second chapter is on literature review where the researcher reviewed what others have done in this study area. It is divided into four subsections of introduction, body, theoretical framework and conceptual framework. The third Chapter is on

research methodology i.e the research design, target population, sampling procedure, data collection and analysis methods and ethical issues. Chapter four covers analysis, presentation and interpretation of the data collected while chapter five is on summary, discussions, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, the researcher will review literature related to the problem under study to reviewing literature relevant to the problem under study. It is an in-depth analysis of work that has been done by other people related to this area of this study. The researcher first looks at the history of special education in other parts of the world and how it began in Kenya, what has been done and current status of Deaf education in Kenya. The researcher also looked at what others have done in relation to the influence of socio-cultural factors, curriculum, language of instruction and teaching and learning resources on the academic achievement of Deaf learners from a global perspective as well as in Kenya. The reviewed literature is discussed under the sub-sections outlined below.

2.2 A review of the Academic Achievement of Deaf Learners

The history of Special E globally can be traced to the U.S after World War II, when a number of parent-organized advocacy groups emerged. During the 1960's, an increasing level of access to school was started for learners with disabilities at the state and local levels. This advocacy led to the more recent history of special education in America, which started with the approval of the "Education for All Handicapped learners Act" (Public Law 94-142) in 1975. Later this law was revised severally and is now known as the Individuals with Disabilities Education Act (IDEA).
The Individuals with Disability Education Act (IDEA) is responsible for the provision of Special Education opportunities to more than 6.5 million learners every year. Today, special education remains an integral part of public education and is supported by the American government through initiatives, policies and funding.

The Children's Act of 2001 of the laws of Kenya recognizes that every Kenyan learner should receive education as a basic human right and that the disadvantaged children should enjoy equal educational opportunities. Education deals with persons, society, things and ideas. It is concerned with individuals, their social, physical, cultural, economic and spiritual development. Education makes an individual attain new knowledge, possess new experiences and thus develop

emotionally, socially, and economically. Therefore, education is a paramount process in human development. Rumberger (1995) states that education's goal is to prepare and equip the youth to be happy and useful members of the society. Therefore Deaf learners also need education to help them develop and be useful members of the society. According to Annan (1999), Education is a basic human right with a great power to change and transform people and institutions. Freedom, democracy and sustainable human development are founded on Education. Anan further states that the right to education guides classroom practice, shapes curricula and practical experiences in schools around the world. Therefore, when children's right to education is ensured and respected, the whole world benefits.

A report by The Task Force on Special Needs Education (SNE) Appraisal Exercise, November 2003, chaired by Dr. Kochung, Special Education in Kenya can be traced to 1940s. It is during this year that special schools for the persons with visual and mental impairment were begun. The Aga Khan units for the hearing impaired in Nairobi and Mombasa were started in 1958. Nyang'oma School for the Deaf was established in 1960 and the Mumias Primary School for the hearing impaired was established in 1961, (M. O. E, 2003). During this time, many schools for the Deaf followed the "oral" approach to teach, focusing on speech, speech reading, and hearing aids to try to make the hearing impaired people function like "normal" hearing people. Many of these original schools for the Deaf still exist and the number of the schools and units, despite a movement toward mainstreaming and inclusive education, continues to grow.

In 2003, the Government of Kenya implemented free primary education. Education was and is still recognized as a basic right for all learners, including learners with special needs. Parents, who were financially unable to send their learners to primary school, were then required to do so. This policy increased the enrolment of learners into government schools across Kenya, including those with special needs (Kochung, 2003). Schools for the Deaf saw an increase in enrolment and deaf units in regular schools were created across the country. Under the free primary education program, the government did not build new classrooms nor guaranteed that the number of teachers allocated to schools would match the increased intake of students. Deaf schools and units have lacked the necessary resources to facilitate affective learning; teachers have not been trained and lack the materials, equipment and guidance to enable them in curriculum delivery.

Special curriculum adaptations have not been made in order to accommodate Deaf learning. Many teachers assigned to the schools and units have poor fluency in Kenyan Sign Language (Kochung, 2003).

Currently, the Kenyan Government follows the inclusive education and integration where learners with Special educational needs should attend regular learners together with their hearing peers. Only in cases where the nearner's needs cannot be met in a regular school that such a learner should be placed in a special school. Whether attending a regular or a special school, learners with special needs should be provided with the necessary support they need. A 2003 Task Force Report found that nearly 90% of Deaf learners in Kenya attend special schools and only about 10% attend special units.

Majority of Deaf learners in Kenya enter school later than their hearing counterparts and, as stated above, they spend more years in school than some of the hearing learners who attend pre-school before they enter school (Ngao, 2005). In their study in regular schools Lewin and Sabates (2011) attribute a pattern in Kenya whereby the age range in a class widens from Standard 4 onwards partly to repetition. While they note that standard 8 learners fall between ages 12 and 18 years for regular learners, some Deaf learners in Kenya leave primary school when they are much older due to late entry and compulsory repetition of classes (Mundi, 2009).

Deaf schools all over Kenya have performed below average in national examinations and when ranked with other public hearing schools, they are among the bottom last with mean scores as low as 131 out of a possible 500. For instance in the 2012 KCPE national exam, Kuja School for the Deaf, Maseno School for the Deaf and Mumias School for the Deaf attained mean scores of 151,131 and 155 respectively and were ranked last in their respective counties (MoE, 2012). These results are replicated in deaf schools all over the country and the trend has been an ongoing for years. This has cultivated a culture of failure and acceptance of failure among the Deaf learners and the society as a whole. Several factors can be attributed to this achievement in various parts of the country. However, this study focuses on socio-cultural factors, curriculum

factors, language of instruction and availability of teaching and learning resources and their influence on academic achievement in the coastal region of Kenya.

2.3 Socio-Cultural Factors and Academic Achievement of Deaf Learners

The US Department of Education (2000) learnt that the relationship between parents' poverty or economic status and the academic achievement of learners is not simple and direct. It states that poverty accounts for differences in academic achievement throughout rural, sub-urban and urban districts. There exists a close link between education, disability and poverty. Persons with disabilities are more likely to be poor than their non-disabled peers (DFID, 2010: 9). It is estimated that 20% of the global population living in poverty are people with disabilities (DFID, 2010). It is also estimated that one third of the 72 million learners of primary school age who were not in school by 2007 have a disability and that over 90% of learners with disabilities in the world's poorest countries do not go to school (UNESCO, 2010a). Out of the estimated 150 million learners living with disabilities worldwide, about four in five learners are in developing countries where many live in poverty (UNESCO, 2010a).

Individuals with disabilities have worse educational experiences and labour market outcomes hence are more likely to be poor than individuals without disabilities (WHO, 2011). Deaf people still face discrimination in the labor market where they are not considered for jobs because of their disability (Paparella, 2011). Since they are not exposed to equal educational opportunities as their hearing peers, Deaf people usually lack skills and qualifications to make them competitive in the job market. This leaves them at an economic disadvantage making them unable to meet their basic needs such as access to food, healthcare and good living conditions. Restricted access to basic healthcare services, poor nutrition, disease and the inability to pay for healthcare contributes to a wide range of disabilities. Sen, 2009 states that education can help lift people out of poverty and can act as a medium in breaking cycles of poverty. Since low level educational attainment is associated with higher poverty levels (UNESCO, 2010a), access to quality education can help reduce educational marginalization and provide job opportunities for people with disabilities.

Tirusew (1998) states that, the attitudes of others towards the Deaf chils and the child's ability to communicate in a mutually acceptable way influences the extent to which a Deaf learner successfully interacts with family, peers and community members Deaf people in Kenya and specifically in the coastal region are considered invalid and invaluable to families and societies. They are often labeled with dehumanizing and superstitious names that push them outside human communication and social life. Deaf individuals are denied access to education, work, and other equal opportunities that would make them self- supportive and full members of their respective societies (Joutselainen, 1993). Culturally communities have not accepted them, but rather label them as stupid (Barnes, 1991). In some areas, Deaf learners are considered a curse and hence are neglected by their families. Women who give birth to Deaf learners may also be abandoned by their husbands or they may be kicked out of their matrimonial homes as a result. Parkinson (2010) noted that, people without disability often do not want to marry partners who are Deaf which is the case in Kenya and specifically the coastal region of Kenya. You will often find Deaf people marrying fellow Deaf while others remain single for a long period of time. This is due to the fear and stigma inflicted by societal perceptions that the Deaf people are a curse and that one may also give birth to a Deaf learner as well. Powers and Gregory, 1998, note that the social, ecological and family or parental environment affects the academic achievement of the Deaf learners. Parental support, positive attitude of the society and government policies that support Deaf education can motivate the Deaf learner to put more effort in his education and attain better outcomes in academics.

2.4 Curriculum and Academic Achievement of Deaf Learners

The term curriculum refers to all the organized and planned experiences that provided in schools and the classroom to help learners develop holistically. It consists of subjects taught, subject content, school and classroom environment and activities that take place in and out opf the classroom. Curriculum outlines the sequence in which the content should be delivered to learners, teaching methods and strategies, , time schedules, and materials and resources required in the teaching-learning experience, assessment methods and evaluation procedures used by educators across various learning levels.

There are different types of curriculum. A differentiated curriculum is an approach where one identifies curriculum subjects that should be covered by a learner and plan for the individual needs and abilities. In this case, some learners with hearing impairments require a differential curriculum while others require the adapted one. However, Koech's Report (1999) states that the Kenyan curriculum is inappropriate in that there is no clear policy guidelines and legal framework on the provision of Special Needs Education, inadequate educational facilities, services and equipment for learners that are challenged and inadequate trained teachers. Savolainen (2000) says that it is vital to have an appropriate curriculum for education to be meaningful for all learners with special needs. Due to delayed language development which is a result of hearing loss, the curriculum for learners with hearing impairments calls for four types of curriculum. These are: adopted, adapted, specialized and specialist curricula. The specialist curriculum employs skills such as the philosophy of total communication which entails speech reading, cued speech reading, writing, sign language and gestures among others.

Kathenya (2002) explains that adopted curriculum involves taking the whole regular curriculum the way it is rather than modifying it. The adapted curriculum refers to modified and improved curricula to meet the needs of the learner with special needs. The specialized curriculum is essential for learners with severe handicaps, multi handicaps and the mentally challenged. It emphasizes the rationale for modification, mode of presentation of materials and the use of an Individualized Educational Program (IEP).The Task Force on Appraisal of Special Needs Education (2003) noted that the curriculum used in regular schools is rigid and overloaded. Thus, the curriculum content is too packed with a lot of material that may not be covered by a learner with special needs as it is stipulated. It is content heavy and does not provide for individualized instruction to cater for the varied needs of Deaf learners. Kenyan teachers struggle to deliver the curriculum content within the stipulated time without emphasis on the learners understanding the content being delivered, thus compromising the quality of the classroom content. The task force further noted that the curriculum has to be differentiated in terms of time, mode of access and learning resources.

The Task Force (2005) committee that visited schools for learners with Special Educational Needs (SEN) noted that these learners required an environment that was barrier-free to maximize

their potential as they covered the curriculum content. It was noted that the physical structures in institutions for learners with SEN were so in-conducive to the learners that most of them were not able to cope with the learning. The in-conducive structures in the schools for Deaf learners included the horse shoe sitting arrangement, group and individual hearing aids, sound-proof classrooms, library that is well equipped with reading and writing materials among others. These are structures that would likely enhance the coverage of curriculum content. It was established by the task force (2003) that the present curriculum does not cater for all learners with SEN in terms of coverage of curriculum content. This is because there are some learners who are gifted and talented who can complete the curriculum in less than the specified time, and others like the mentally challenged and those with hearing impairments may not be able to cover the curriculum content within the stipulated time.

The Task Force (2003) noted that many subject content areas of the curriculum had neither been adapted nor a specialist curriculum prepared for the areas where they are required. In the examinations, the competition that is enhanced and the selection of learners for promotion to higher learning levels does not consider learners with special needs (GOK, 2006 Draft policy on learners with disabilities).The current Kenya national examinations as well as continuous assessment tests are designed for the general hearing population and not appropriate for Deaf learners. From the taskforce report, many issues emerged in the area of examination for learners with special needs. The issues were on grading, time allocation and mode of presentation of examination papers. For instance, it was found out that the Kenya National Examinations Council (KNEC) allows candidates with special needs thirty extra minutes to complete writing their examinations. The Task Force (2003) however noted that the extra thirty minutes does not work well with the learners with Special Educational Needs and in all subjects. Also, very little is done to help them prepare adequately for the exams and understand what is required of them. Some schools have created an extra class of pre-candidates in order to cover the remaining part of the syllabus before the learners proceed to class eight for their final exams. (A case of Machakos School for the Deaf)

The Task Force (2003) recommended that taped exams be given to those who required them. Time allocation for learners with SEN should be determined by the length of the examination

paper and the nature and severity of the disability. For learners with hearing impairment, English language is usually different in that it is said to be simplified but tests the same concepts. Their English composition papers should be moderated because of their grammatical error of object, subject and verb order instead of the usual subject, verb and object.

Deaf students have to learn the same subject matter in school as their hearing peers in order to compete with the job market, but there is some evidence that they do not. Moores (2001) believes that the emphasis on teaching communication skills and other specialized subjects in most class sessions for students with hearing impairments has resulted in neglect of the traditional academic areas such as mathematics, science and social studies. This is what is likely to have happened between 1958 and 1980s when most learners who were Deaf used not to sit for KCPE examinations. The casual factors could be due to the teachers‟ attitudes, lack of teachers‟ commitment, knowledge of sign language and some topics among others. As such, the teachers may feel incompetent to teach students with hearing impairments making them unable to perform well in KCPE examinations. Although Moores suggests that educators should be more attentive to the teaching of traditional content areas so as to prevent their students with hearing loss from experiencing a major knowledge gap, the teachers who implement the curriculum sometimes do not hit the balance by catering for all the subjects and topics as laid down in the syllabus. Furthermore, Moores and Meadow Orlans (1990) report that Deaf learners spend less time on academic subjects. This suggests that it is important to give equal time to all learning activities. The more time the students spend on academic subjects, the higher level of achievement is expected. This research intended to find out the influence of curriculum on the academic achievement of Deaf learners.

2.5 Language of Instruction and Academic Achievement of Deaf Learners

Since 2004, Kenyan Sign Language (KSL) has been the official language of instruction in Kenyan schools and it is the language that learners should be taught once they join school (MoE, 2009a). Previously, learners were taught American Sign Language (ASL) which was also used as the language of instruction. Whereas they join school having acquired signs that they use at home, they are taught the manual alphabet so that they can fingerspell written words. They are also taught new signs for new concepts and how to articulate the signs mainly for the purposes of

communication with the teachers and amongst themselves. KSL is currently taught as a subject concurrently with English (MoEST, 2004b). Its written form is in English although its structure is significantly different from that of English.

Developing an effective communication system is often the greatest challenges a Deaf learner faces. It is the most important area for the support team to work on. Communication is very important and essential in the teaching-learning process. There is a process of communication development that most learners with hearing impairments can be taught. It may take time to teach a learner with limited access to information but it can be done.

Learners with hearing impairments learn by doing, by being actively involved, by signing and watching. Listening is not a reliable mode for him/her. The underlying nature of communication requires that teachers should be familiar with the communication approaches in the field of learners with Hearing Impairments and be able to assess the learners' changing needs over time. This is in relation to the subjects, topics and the learner's degree of hearing loss. This can be the best way to ensure that the learner is provided with the best communication approach that is appropriate for their understanding during the teaching and learning process, and could enable the learner perform well academically to progress to the next level (MoE, 2009a). Both receptive and expressive forms of communication are important. Receptive communication is the process of receiving and understanding a message or information. It is often not easy to determine how a learner with hearing impairments receives and conceptualizes a message. If we pay close attention to the way we send our message, we increase their chances of it being received. It is up to the teachers to find a way or ways in which Deaf learners can understand what they are teaching in all subject areas.

Teachers should put all their learners on a communication map to assist them in determining the ways their learners receive information. The need of simultaneous use of multiple communication modes enhancing the learners' ability to receive additional information such as through sound and facial expressions arises. These methods of communication are used by teachers in the education of Deaf learners that enables them understand what is being taught. KSDC (2000) maintains that oral, aural/oral, manual, bilingual, total communication, sign

language and signed English are all communication approaches that may enhance academic achievement among Deaf learners. However, teachers who deliver the content matter and always choose what is suitable to them and their learners. Thus it depends on the teachers' knowledge and skill level of the communication approaches. This choice of freedom sometimes leads to either good or poor achievement in examinations like KCPE. Crume et al, (1999), argues that majority of the teachers of Deaf learners are unable to teach well due to their inability to communicate with these learners. He further noted that many of these teachers have poor signing skills which hinders their effort to teach these learners.

Recent informal discussions with teachers of various primary schools for the Deaf revealed that there are few reliable institutions that offer KSL training to teachers. Sometimes teachers are posted to schools for the Deaf with little or no sign language skill and are expected to teach Deaf learners. They therefore resort to oralism or written communication both of which are not suitable for communication with the Deaf. This means that the learners miss out on vital Information meant to enhance their achievement in academic subjects.

2.6 Teaching and Learning Resources and Academic Achievement of Deaf Learners

Teachers in Kenyan schools for the Deaf and units lack adequate resources to design classroom experiences that can help Deaf learners understand the content being taught. In addition, the teaching and learning materials meant to be used in Deaf schools are unavailable or inadequate and the few available ones are not adapted to suit the Deaf learners. Large scale studies on school effectiveness have pointed out the importance of teaching and learning resources Deaf learners' achievement. Fuller and Clarke, (1994) researched on studied school effectiveness in developing countries that adjusted learners' achievements for their family background and found quite consistent school effects related to availability of textbooks and other accompanying reading materials.

Various studies have showed a significant positive relation between children's achievement in academics and school inputs. Boissere (2004) said that teaching and learning resources such as text books and writing materials were essential contributors to the academic achievement of Deaf learners at the primary level in developing countries. Studies conducted by Michaleowa (2001)

found that the availability of textbooks had a significant positive on the academic achievement of learners. Much literature in developing countries suggests that the most important and cost effective input is the textbook and other pedagogical learning materials (Fuller and Clarke, 1994).

Instructional materials such as diagrams, pictures, graphs and flow charts are very essential in the teaching and learning process and more so to a Deaf learner as they reduce language and reading demands. This is because visual methods of teaching and learning create a more lasting experience and relate most readily to other sensory experiences (Sumner, 1985). Instructional materials accomplish 83% of what is learnt through sight activating students in the learning process. They make the learning become very interesting even to dull and hyperactive students. A Chinese saying, "If I hear I forget, if I see I remember, if I do I know" puts more emphasis on the importance of visual materials in information retention (Harrison, 1983). By seeing over and over again, the brain may be able to recall what has been learnt. Some of the concepts become more visible and self-explanatory from the diagrams. It reduces the language demands especially for Deaf learners and they are able to easily recall what has been learnt from such visual aids.

According to the researchers' observation, when the pictures or charts are displayed in the classrooms, then even in the absence of the teacher, the learners can look at the charts and review their own work. They can also connect ideas and remember other related facts. For example, when a class six student looks at a diagram showing parts of a flower, he or she can recall their functions and whether it is wind, insect or self-pollinated. The teacher should also be familiar with the learner's condition from the Individualized Education Plan (IEP). The IEP is a written statement for every learner with a disability that states the present level of achievement, annual goals, short-term instructional objectives special educational services needed and relevant date and evaluation procedures. Once developed, an IEP is signed by parents as well as educational and other personnel present or involved in its development.

According to Hallahan and Kauffman (1997) other areas of instructional materials are the technological explosion in the area of hearing impairment. The explosion of micro-computer and

related technology like video discs is expanding learning capabilities for people who are deaf. For instance, visual displays of speech patterns on a computer screens can help children who are Deaf and Hard of Hearing learn and understand speech. Video programs showing people sign are also available for use in teaching Kenyan Sign Language which if used by teachers they can improve their sign language skill that could be a challenge to them. Although these technological advancements are now being widely used to benefit the Deaf learners in developed countries, they are yet to be fully embraced in Kenya. Hearing aids, closed caption television programs, telephones and computer assisted instruction assist individuals with hearing Impairments to communicate and have access to information. These devices are still very costly to acquire and maintain and are not readily available to Deaf learners as well as teachers. Most schools are still grappling with providing basic infrastructure in schools and provide basic teaching and learning materials for the Deaf learners. Therefore, they are unable to acquire such costly resources despite their usefulness in learning. The researcher sought to find out whether teaching and learning materials used by teachers influence the learners academic achievement.

2.7 Theoretical Framework

Cummin's (1989) Linguistic Interdependence model is the theoretical foundation for most bilingual and bicultural models of Deaf Education. This model argues for the existence of a common competency underlying all languages. The argument from the proponents of this model is that Deaf learners with a solid L1 foundation in a native sign language can use this language to learn how to write it without being exposed to speech or a manually coded system. A recent research of Theory of mind skills in learners who are Deaf, (Language and Theory of mind, funded by De Villiers, De Villiers, Schick and Hoffmeister) attempted to determine whether Deaf learners were equally delayed in tasks that used language and those that didn't.

Further research by De Villiers & De Villiers, 2000 has shown that Deaf children have great delays in their understanding of their theory of mind. Previous researchers have argued that the lack of access to conversations in the environment causes Deaf learners to miss out on important information about the world. However, Deaf children have some access to conversations and mostly they are socially competent even when their language delays are severe. They acquire a lot of information about the world through Visual means. In Addition, most research on Theory

of Mind skills in Deaf children has relied heavily on verbal tasks to assess their understanding. It could be possible that Deaf children have a Theory of Mind but don't have sufficient language to understand the stories usually used to test them (De Villiers and De Villiers, 2000). For Deaf children, delays in acquisition of a Theory of Mind are caused by lack of access to language and not by any underlying cognitive problems. This ability for Deaf learners to acquire a Theory of mind has a significant effect on how they understand and interpret classroom and curriculum concept that in turn affect their academic achievement in continuous assessment tests.

According to Schick (2014), language provides a lot of raw materials for the development of social cognition and Theory of Mind. For Hearing learners, parents who talk more about what they are thinking and feeling are more advanced in Theory of Mind skills. Schick further explains that for Deaf learners or learners who are hard of hearing research shows that learners' language skills are highly correlated with social understanding and theory of mind. Learners with more age-appropriate language skills are more likely to have age appropriate skills in social cognition. Families that use sign communication influence their learner's skills related to Theory of Mind and social cognition. Theory of Mind skills are essential for the development of social interaction skills, especially schools requires in the school and classroom.

Teachers need to come up with ways that can assist a Deaf learner to acquire a Theory of Mind in order for this learner to be able to comprehend concepts and think critically. Role Play and pretend play are strategies that allow learners to move from reality and invoke their imaginations. In order to do this, learners may need to develop different cognitive representations for what is real and what is imagined. Many preschool books have a lot of opportunities and references to explore how the mind works. School curriculum developers need to incorporate this theory of mind aspects in developing and adapting curriculum for Deaf learners. One critical point is for teachers to use the native signed language to these learners to activate prior knowledge of the learners, to help them learn and conceptualize new information. When teaching and learning materials are in a form that can be understood by Deaf learners, then it may be easier for these learners to better understand and interpret abstract concepts hence perform better in standardized tests.

2.8 Conceptual Framework

This is a diagrammatic representation of the variables under study and the parameters which were used to guide this research. It shows the relationship between the four independent variables and the dependent variable as well as one moderating variable.

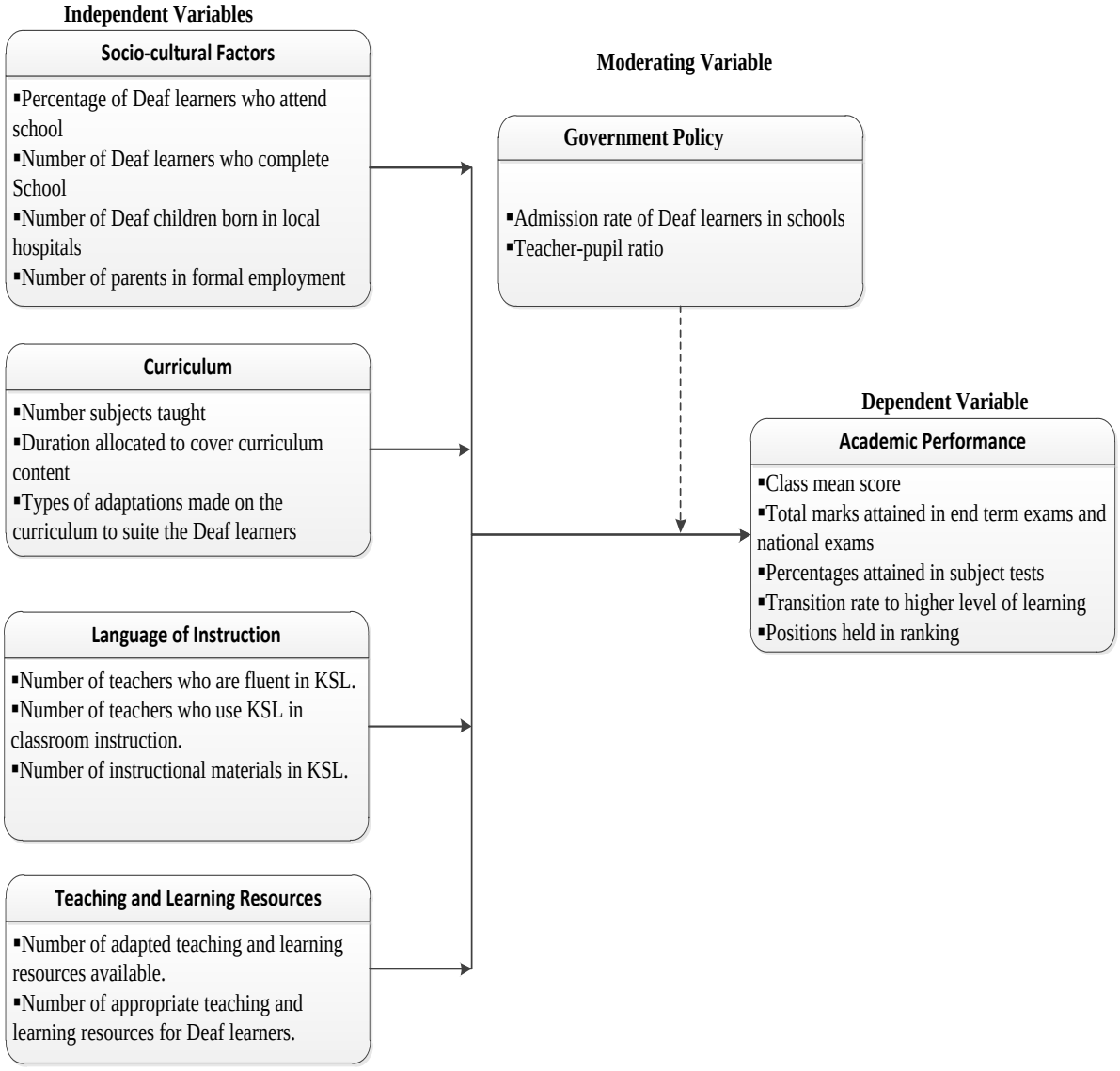

Figure 1: Conceptual Framework

2.9 Knowledge Gap

Table 2.1: Knowledge Gap

The table below gives a summary of the works by other researchers and identifies the knowledge gap that this research intends to cover.

Study Variable	Research Year	Title of Study	Methodology Used	Study Finding	How different is the previous study from the current one	Knowledge gap
Socio-cultural factors	1998	Psychosocial and learning aspects of disability and intervention strategies	Descriptive survey	Deaf individuals are denied access to education, work and equal opportunities	This study by Tirusew only focused on societal perception and stereotypes rather than qualifications of the deaf that would make them competitive in education, work and other opportunities.	Are there other factors that contribute to the deaf missing out on education, employment and other opportunities available to their hearing peers?
Curriculum factors	2003	Taskforce on appraisal of Special Needs Education	Case Study, Descriptive Survey	The present curriculum does not cater for all learners with Special Educational Needs in terms of coverage of curriculum content	This study did not explore adaptations that teachers and schools may have made to deliver curriculum content specifically to deaf learners. The findings of this research were for the general special needs population.	How can the current curriculum affect Deaf learning? What are some of the adaptations that should be made?
Language of Instruction	2000	Communication Methods used by teachers	Case Study	Teachers should simultaneously use multiple communication modes to enhance learning for Deaf learners	This study did not explore the effect of KSL knowledge and fluency by teachers on the learning of Deaf learners	Are Teachers adequately trained in KSL to make them fluent enough to deliver curriculum content?

Teaching and Learning Resources	2008	Sight Learning: Methods and materials for Deaf Learners	Descriptive Survey	Visual methods of teaching and learning create a more lasting experience and relate most readily to other sensory experiences	This study did not explore the availability of resources and time to create these aids given the content to be covered by the Kenyan curriculum. It did not explore alternatives for teachers and schools which are financially constrained to be able to adapt learning materials that are locally available.	How can teachers make use of locally available materials and learning experiences that can enhance learning for Deaf learners?

2.10 Chapter Summary

The foregoing reviewed literature presented work that has been done by others in the study of academic achievement of Deaf learners and factors that have influenced their achievement in academics. Some studies only focused on one factor such as curriculum or language of instruction and determined their influence on the academic achievement of the Deaf learners. Some studies focused on individual schools, while others focused on an entire region or province. Some focused on specific subjects while others focused on all examinable subjects in school. Some of the study results were generalized to the country Kenya, while others focused on global generalizations. Several research designs were used depending on the intended research outcomes by various authors. In this study, the researcher was interested in four variables that influence the academic achievement of Deaf learners in Sahajanand School for the Deaf in Kilifi County given the uniqueness of this population in terms of geographical location, societal and cultural beliefs of this population as well as language, curriculum and institutional factors that directly or indirectly influence learning. The researcher employed the descriptive survey method to conduct the research, since this method would provide detailed and objective information over a short period of time and the results can be generalized to a larger population with minimal error.

CHAPTER THREE

RESEARCH METHODOLODY

3.1 Introduction

This chapter focuses on the description of the research design, methods which were used to collect data, the target population and the population sample, sampling procedure, selected instruments that were used to collect data, the procedures and methods for data analysis and interpretation, ethical issues in the study and operational definition of variables.

3.2 Research Design

This study used the descriptive research design to obtain data related to the study. According to Mugenda & Mugenda,2003 the descriptive research design determines and reports things the way they are. This method was found suitable for this study due to its potential to provide a lot of information obtained from quite a large sample of individuals under study and provides an in-depth description of data in the natural setting. The study incorporated both qualitative and quantitative approaches whereby the qualitative approach provided typical narrative data that was gathered through questionnaires and in-depth interviews while quantitative research provided typical numerical data that quantified observations, administered tests and instruments (Mugenda & Mugenda, 2003). Questionnaires were issued to the head teacher and all the teachers of Sahajanand School for the Deaf and one-on one interview was conducted to the parents.

3.3 Target Population

The target population should have observable characteristics to which the study intends to generalize the result of the study (Mugenda and Mugenda, 2003). The research targets a study population of 46 comprising of 1 head teacher, 8 parent representatives and 37 teachers in Sahajanand School for the Deaf, located in Kilifi County at the coastal region of Kenya.

3.4 Sampling Procedure and Sample Size

A sample is a small group that is carefully selected from the whole population (Mugenda & Mugenda, 1999). Sampling is the method used to select a given numner of objects or things from

a given population. (Merteins, 1998; Borg & Gall, 1992).The study employed census sampling technique on the head teacher and teachers, and purposive sampling technique to sample the parent representatives who represent all the parents of Sahajanand school for the Deaf. Census technique was found appropriate for this study since the researcher studied all the teachers and the only head teacher of the school. Therefore, the researcher was able to obtain adequate information from this population. A census is a study of every unit, everyone or everything in a population. It is known as a complete enumeration which means a complete count. It provides a true measure of the population and no sampling error (Mugenda & Mugenda, 2003). Purposive sampling was used because it gave the researcher a chance to select typical and useful cases for the study. The study sample consisted of 46 respondents consisting of 1 head teacher of, 8 parent representatives representing the eight classes and 37 teachers of Sahajanand School for the Deaf.

Table 3.1: Sampling Frame

Category	Target Population	Sample Size
Head Teacher	1	1
Teachers	37	37
Parents	8	8
Total	**46**	**46**

3.5 Research Instruments

The research instruments that were used in the study include questionnaires for teachers and the head teacher, interview schedules for parents and document analysis. According to Toulliatos and Compton (2008) questionnaires are best used in studies concerned with variables that cannot be directly observed as view/opinions or perspectives. In this study, questionnaires were used as instruments consisting of a set of questions to which respondents react to in writing or with response to an interrogation. Majority of the respondents were able to respond to the questionnaire items. Questionnaires were administered in-person, through research assistants and through emails. Questionnaire return rate was largely influenced by the respondents' willingness to respond in the limited time available.

The interview schedule for parents was used to collect their opinion on the subject matter. The interview schedule was preferred since they are able to collect indepth information on the research questions. The open ended questions were used since their nature encouraged the respondents to provide an in-depth response without holding back any information. Open ended questions enables a respondent to give an insight to their feelings, background, motivation, interests and decisions.

The researcher conducted document analysis by assessing school achievement records over time especially in national examinations and examined overall pupil's mean scores, total marks and grades attained overall and percentages in individual subjects. Documents such as end of term exam paper mark lists, registers, fee payment records, syllabuses and other relevant materials were also examined. Document analysis was used to find out whether lesson plans, schemes of work, record of work covered were prepared by the teachers and also to check on the continuous progress records of learners. This analysis was conducted with permission from the school head.

3.5.1 Pilot Testing

Pilot testing of research instruments is important because it reveals vague questions, unclear instructions and enables the researcher to improve the efficiency of the instruments (Nachmias & Nachmias, 2007). Pilot testing of research instruments was conducted on Maseno School for the Deaf which is a separate population from the population under study but with similar experiences. This helped to determine the reliability of the research instruments and to make adjustments on the research instruments based on the experiences and results of the pilot study. It provided the researcher a chance for orientation to the working environment.

3.5.2 Validity of Research Instruments

Golafshani (2003) defines validity in terms of accuracy, rigor and trustworthyness, while Gravetter (2009) defines validity of a research instrument as how well an assessment intrument is capable of measuring the what it is supposed to measure. Content validity which was used in this study is a measure of the degree to which data collected using a particular instrument represents a specific domain or content of a particular concept. To establish the validity of the research instrument the researcher sought opinions of experts in the field of study especially the lecturers

in the department of project planning and management and from the supervisor to establish how representative and suitable the questions were and to give suggestions on how to improve the structure of the tool being used.

3.5.3 Reliability of Instruments

According to Orodho (2005), reliability refers to the degree to which a particular measuring procedure gives similar results over a number of repeated trials. In other words, it refers to the consistency of the scores obtained, that is, how consistent they are for each individual from one administration of an instrument to another. In this study, the researcher ensured reliability of the instruments using the test-retest method during the pilot testing. According to Mugenda & Mugenda (2003), the test-retest method involves administering the same instrument to the same group of respondents twice.

The researcher administered the instrument to a group of subjects from the pilot school then waited for two days and administered the same instrument to the same subjects under the same conditions for a second time. The researcher then correlated the scores from both testing periods by comparing the consistency of the two results. The two sets of items were scored and correlated to compute reliability using Karl Pearson's Moment Correlation Coefficient (r) formula of to calculate the reliability of the instrument. If the questionnaires yield a reliability of 0.6 to 1.0 then it is reliable (Mugenda & Mugenda, 2003). The Coefficient of reliability is given by:

$$r = \frac{\sum_{i=1}^{n}(X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^{n}(X_i - \bar{X})^2}\sqrt{\sum_{i=1}^{n}(Y_i - \bar{Y})^2}}$$

Where r = reliability coefficient

n = Number of respondents

x = Total score of the test administered

y = Total score of the retest administered

The study achieved a composite reliability coefficient of 0.852 showing that the overall research instruments were reliable since they exceeded the 0.6 threshold put forward by Mugenda & Mugenda, 2003.

3.6 Data collection Procedures

Data collection procedures contain details concerning authorization and permits acquisition prior conducting the research and data collection; as well as the process of data collection followed during the research. The researcher sought approval from the University of Nairobi, through a letter of authorization to conduct the research. The letter was then presented to the Ministry of Education, Science and Technology who issued the researcher with a research permit and a letter of authorization for data collection through the respective county offices. The researcher then proceeded to identify research assistants would assist in data collection. They were then trained on the research procedure and ethical issues such as confidentiality, seeking for respondents' consent, non-disclosure of research information outside research confines, non-distortion of research findings, and sharing with the research respondents' information on how the research findings will affect them. Data collection was done within one week. Data from filled-in questionnaire items was collected at the end of each day and assessed for accuracy, callbacks and completeness. The researcher also conducted document analysis during this period and recorded the findings. Verbatim responses were recorded and reported verbatim.

3.7 Data Analysis Techniques

Mugenda and Mugenda (1999) states that data analysis breaking down large components of research data or information to simpler easily synthesized and understood parts. The quantitative raw data obtained from the closed ended items was coded into the Statistical Package for Social Sciences (SPSS version 22) and summarized using descriptive statistical techniques such as frequencies, percentages, mean and standard deviation. For qualitative data the researcher organized, categorized and coded (assigning numeral or symbols to different data categories) the data obtained from open ended items of the questionnaire and the document analysis. These were analyzed using descriptive statistics. The findings were presented using frequency tables. The researcher used the analyzed data to draw conclusions based on empirical evidence by drawing inferences on the bigger population hence guide recommendations based on the research problem.

3.8 Ethical Considerations

The researcher communicated with the head of the school to introduce self and carried out an introduction to the respondents and interviewees before beginning the data collection process. Before conducting the interview, the interviewer explained to the respondents the objectives and purpose of the study. The respondents were concerned with the privacy and confidentiality of the information gathered since the data collection process entailed access to specific and personal records and documents. The researcher explained the intention of the research and assured respondents that the findings of the research will not be used to cause harm to them or destroy their reputation. The respondents were offered the freedom to ignore items that they did not wish to respond to and the researcher ensured that the respondents willingly participated in the research. Responses were anonymous. The researcher ensured that the respondents were not subjected to any physical or psychological harm in the process of giving information for the study. This was done by avoiding use of threatening statements that could cause anxiety among the respondents. Impartiality was observed on the part of the researcher throughout the exercise with utmost respect for views and culture in order to establish rapport. Lastly the researcher acknowledged all the sources read to avoid plagiarism.

3.9 Operational Definition of Variables

According to Gravetter, 2009, operational definition of variables is a precise statement of how a conceptual variable is converted into a measured variable. This section analyzes the operational definition of variables on the academic achievement of Deaf learners in Kilifi County as given in the table below.

Table 3.2: Table of Operationalization of Variables

Objectives	Conceptual Variable	Measured Variable (Indicator)	Measurement/ Scale	Data collection methods	Tool of Analysis
To assess the influence of socio-cultural factors on the academic achievement Deaf learners in Kilifi County	Socio-cultural factors	Percentage of Deaf learners who attend school. Number of Deaf learners who complete School Number of Deaf learners born in local hospitals. Number of parents in formal employment.	Ordinal, Nominal	Questionnaire, Interviews, Document Analysis	Qualitative, Quantitative
To determine the influence of the curriculum on the academic achievement of Deaf learners in Kilifi County	Curriculum	Number subjects taught. Duration allocated to cover curriculum content. Types of adaptations made on the curriculum to suite the Deaf learners.	Ordinal, Nominal	Questionnaire, Interviews, Document Analysis	Quantitative, Qualitative
To examine the influence of the language of instruction on the academic achievement of Deaf learners in Kilifi County	Language of Instruction	Number of teachers who are fluent in KSL. Number of teachers who use KSL in classroom instruction. Number of instructional materials in KSL.	Ordinal, Nominal	Questionnaire, Interviews, Document Analysis	Quantitative Qualitative
To assess the extent to which availability of teaching and learning resources influence the academic achievement of Deaf learners in Kilifi County	Teaching & learning resources	Number of adapted teaching and learning resources available. Number of appropriate teaching and learning resources for Deaf learners.	Ordinal, Nominal	Questionnaire, Interviews, Document Analysis	Quantitative Qualitative

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter discusses the findings obtained from the primary instrument used in the study. It discusses the characteristics of the respondents, their opinions on the factors influencing the academic achievement of Deaf learners Kilifi County, Kenya: A case of Sahajanand School for the Deaf. In order to make the discussions simpler, the researcher used tables to summarize the collective responses of the respondents.

4.1.1 Response Rate

This research had a target sample size of 46 respondents from which 39 responded to the questionnaires and returned them. This made a response rate of 79.9 %. which was satisfactory to make representative conclusions for the study. According to Mugenda and Mugenda (2003), a response rate of 50 % is adequate for analysis and reporting, a rate of 60% is good and a response rate of 70% and over is excellent. Based on this scale, the response rate was excellent. This is presented in Table 4.1 on response rate

Table 4.1: Response Rate

Cluster	Targeted Sample Size	Response	Percentage	Composite Percentage
Head Teacher	1	1	100	84.8%
Teachers	37	30	86.2	
Parents	8	8	100	
Total	**46**	**39**		

4.2 Background Information of the Respondents

This section investigates the teachers and parents background information. Specifically, this part investigates the gender distribution, period of service, professional qualification, motivation for the choice of career and also socio-economic activities of the parents.

4.2.1 Distribution of Respondents by Gender

The research sought to determine the distribution of respondents by gender; this was sought in view of ensuring fair engagement of male and female respondents in this research. The findings are analyzed in table 4.2.

Table 4.2: Gender Distribution

	Teachers		Parents	
Gender Distribution	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Male	9	29.0	2	25.0
Female	22	71.0	6	75.0
Total	**31**	**100.0**	**8**	**100.0**

The findings show that majority of the teachers as shown by 71.0% were females whereas 29.0% were males. This implies that both male and female teachers where fairly engaged in this study therefore the findings of this study did not suffer from gender biasness.

The studies revealed that majority of the parents as shown by 75.0% were females whereas 25.0% were males. This implies that female's parents were more willing to share their experience with of learners compared to the maw parents.

4.2.2 Period Engaged in Teaching Deaf Learners

Employee period of service is associated with growth in knowledge and experience in relation to area of professional specialization and internal operation of and processes in an organization. In view of establishing the respondents understanding on the factors influencing the academic achievement of Deaf learners in Kilifi County, respondents were required to indicate their period of service. Results are analyzed in table 4.3.

Table 4.3: Period in Teaching Deaf Learners

Period	**Frequency**	**Percentage**
Less than one year	1	3.2
1-5 years	5	16.1
Six and above	25	80.6
Total	**31**	**100.0**

Results obtained show that majority of the respondents as shown by 80.6% had taught Deaf learners for more than six years, 16.1 % had taught Deaf learners for a period of 1 to5 years whereas 3.2% had taught Deaf learners for not more than a year. The findings on period of service show that most of the teachers have been teaching Deaf learners for a reasonable period of time which meant that they were able to provide reliable information on factors influencing the academic achievement of Deaf learners in Kilifi County based on their vast knowledge.

4.2.3 Level of Professional Training in Special Needs Education

Respondents were requested to indicate their level of professional training in Special Needs Education. Results are analyzed in table 4.4

Table 4.4:Level of professional training in Special Needs Education

Level of education	Frequency	Percentage
Diploma	24	77.4
Degree	7	22.6
Total	**31**	**100**

From the findings, it was clear that majority of the teachers dealing with Deaf learners as shown by 77.4% held college diploma certificates while 22.6% held bachelor's degree. This implies that majority of the teachers were in a position to give credible information relating to this study.

4.2.4 Motivation for the Choice of Career

Respondents were requested to indicate the motivation for career choice in Special Needs Education. Results are analyzed in table 4.5

Table 4.5: Level of education

Level of education	Frequency	Percentage
Passion	6	19.4
Parents' influence	5	16.1
Peer influence	3	9.7
Pay and remuneration	17	54.8
Total	**31**	**100.0**

Results obtained show that majority of the teachers as shown by 54.8% were motivated by pay and remuneration to join Special Needs Education, 19.4% indicate that they were motivated by passion 16.1 % indicate that they were motivated by parents' influence whereas 9.7% indicated

that they were influenced by peers. This implies that majority of the teachers were motivated by pay and remuneration to join special need education.

4.2.5 Socio-Economic activities

Parents were requested to indicate the Social economic activities they engaged inn. From the study findings, the research revealed that parents of Deaf learners engaged in agricultural activities, petty trade, fishing, others indicated that they works as casuals in firms.

4.3 Socio-Cultural factors Influence on Academic Achievement of Deaf Learners

This sub-section investigates the influence of societal perception of Deafness and academic achievement of Deaf learners.

4.3.1 Societal Perceptions and Academic Achievement Deaf Learners

The study sought to establish the extent to which respondents agreed with the following statements relating to influence of societal perception of Deafness on academic achievement of Deaf learners. Results are analyzed in table 4.6.

Table 4.6: Societal perceptions and Academic Achievement Deaf Learners

	Extremely Negative	Negative	Neutral	Positive	Extremely Positive	Mean	Std deviation
Relationship between Deaf learners and their family members	19.4%	0%	9.7%	48.4%	22.6%	3.55	1.39
Relationship between Deaf learners and their community members	0%	0%	9.7%	51.6%	38.7%	4.29	0.64
Relationship between Deaf learners and their hearing peers	0%	22.6%	3.2%	45.2%	29.0%	3.58	1.50
Relationship between Deaf learners and their teachers	0%	0%	6.5%	48.4%	45.2%	4.39	0.62
Cultural/ societal perception on the condition of Deafness	0%	0%	0%	54.8%	45.2%	4.45	0.51
Impact of visiting days on the academic achievement of Deaf pupil	6.5%	0%	6.5%	41.9%	45.2%	4.19	1.05
Perception of the community about a Deaf learner	0%	0%	9.7%	58.1%	32.3%	4.23	0.62

From the research findings majority of the respondents agreed that the following factors affect the academic achievement Deaf learners. They include cultural/ societal perception on the condition of Deafness (mean = 4.45, STD dev = 0.51), relationship between Deaf learners and their teachers in school (mean = 4.39, STD dev = 0.62), relationship between Deaf learners and their community members (mean = 4.29, STD dev = 0.64); perception of the community about a Deafness affected achievement of Deaf learners (mean = 4.23, STD dev = 0.62).

This research also revealed that the number of parental visiting days influenced the academic achievement of Deaf learners (mean = 4.19, STD dev = 1.05), relationship between Deaf learners and their hearing peers also affected the achievement of Deaf learners (mean = 3.58, STD dev = 1.50) and the relationship between Deaf learners and their family members (mean = 3.55, STD dev = 1.39).

4.3.2 Relationship between Fees Payment and Academic Achievement of Deaf Learners

The study sought to establish the extent to which delays in payment of school dues by parents or guardian influenced the academic achievement of Deaf learners. Results are analyzed in table 4.7

Table 4.7:Relationship between Fees Payment and Academic Achievement Deaf Learners

Extent	Frequency	Percentage
To a great extent	22	71.0
To a minimal extent	9	29.0
Total	**31**	**100.0**

From the analysis, majority of the respondents as shown by 71.0% were of the opinion that delays in payment of school dues by parents or guardian influenced the academic achievement of Deaf learners to a great extent whereas 29.0% of the respondents indicate to a to a minimal extent. This clearly shows that delays in payment of school dues by parents or guardian influenced the academic achievement of Deaf learners to a great extent. The low income families believe that learners with special needs cannot learn like “normal” learners and therefore educating them is a waste of resources.

4.3.3 Effect of Socio-Cultural Factors on Academic Achievement of Deaf Learners

The study sought to determine the extent to which respondents agreed with the following statements relating to effect of Socio-cultural factors on academic achievement of Deaf learners. Results are analysed in table 4.8

Table 4.8: Effect of Socio-cultural factors on academic achievement of Deaf learners

Socio-cultural factors	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std Deviation
Delays in reporting to school and class in attendance have a negative influence on the academic achievement of the Deaf learner.	0%	0%	6.5%	41.9%	51.6%	4.45	0.62
Majority of the parents cannot afford to pay school levies, transport for their learners to and from school, visit them regularly or provide their basic needs	0%	0%	3.2%	48.4%	48.4%	4.45	0.57
Deaf learners are happier in school than they are at home	0%	9.7%	3.2%	51.6%	35.5%	4.03	1.14
Many Deaf learners drop out of school due to financial constraints by their families	0%	12.9%	6.5%	38.7	41.9	3.97	1.30
Many families with Deaf learners prefer to keep them at home rather than educate them	0%	0%	6.5%	41.9%	51.6%	4.45	0.62
The society has not fully embraced Deaf learners	0%	0%	0%	54.8	45.2%	4.45	0.51
Relations of Deaf learners with their parents, family and peers has an influence on their academic achievement	0%	6.5%	6.5%	38.7%	48.4%	4.23	1.06
Teachers at my school have a positive attitude towards the Deaf learners.	3.2%	0%	0%	54.8%	41.9%	4.32	0.79
Parents have a positive attitude towards the education of their Deaf learners.	19.4%	0%	6.5%	51.6%	22.6%	3.58	1.39

From the research findings majority of the respondents agreed that majority of the parents cannot afford to pay school levies, transport for their learners to and from school, visit them regularly or provide their basic needs, delays in reporting to school and class in attendance have a negative influence on the academic achievement of the Deaf learner, many families with Deaf learners prefer to keep them at home rather than educate them, the society has not fully embraced Deaf learners (mean = 4.45 in each case) teachers at my school have a positive attitude towards the Deaf learners (mean = 4.32 , stddev = 0.79). The study also revealed that relations of Deaf learners with their parents, family and peers has an influence on their academic achievement (mean = 4.23, stddev = 1.06) Deaf learners are happier in school than they are at home(mean = 4.03, stddev =1.14), many Deaf learners drop out of school due to financial constraints by their families (mean = 3.97 , stddev =1.30) and that parents have a positive attitude towards the education of their Deaf learners (mean = 3.58, stddev = 1.39).

4.3.4 Timely Reporting to School on Beginning of the School Term

The study sought to establish whether Deaf learners promptly report to school when the school term begins. Results are analyzed in table 4.9

Table 4.9:Timely Reporting to school on beginning of the school term

	Frequency	Percentage
Always	1	3.2
Often	6	19.4
Sometimes	7	22.6
Never	17	54.8
Total	**31**	**100.0**

From the research findings, 54.8% of the respondents indicated that never, b22.6% of the respondents indicated sometimes, 19.4% of the respondents indicated often, while 3.2% of the respondents indicated always. This implies that the rarely did Deaf learners promptly report to school at the beginning of school term.

4.3.5 Rate of Class and School Attendance

Respondents were requested to indicate the rate of class and school attendance. Results are analyzed in table 4.10

Table 4.10: School Attendance and Class Rate

Attendance	Frequency	Percentage
100%	3	9.7
50%	12	38.7
Below 50%	16	51.6
Total	**31**	**100.0**

From the research findings, 51.6% of the respondents indicated below 50% 38.7% of the respondents indicated 50% while 9.7% of the respondents indicated 100% this implies that class and school attendance rate was less that 50 percent.

4.4 Influence of School Curriculum on academic achievement Deaf learners

This sub section investigates on influence of curriculum and academic achievement of Deaf learners.

4.4.1 Relationships between School Curriculum and academic achievement of Deaf Learners

The study sought to establish the extent to which respondents agreed with the following statements relating to influence school curriculum on academic achievement of Deaf learners. Results are analyzed in table 4.11

Table 4.11: **Relationships between School Curriculum and Academic Achievement of Deaf Learners**

Curriculum	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**Mean**	**Std Deviation**
The curriculum is adapted for Deaf learners	0%	0%	0%	41.9%	58.1%	4.58	0.50
The curriculum is very flexible in allowing me to adapt content to suit the Deaf learners	0%	0%	0%	32.3%	67.7%	4.68	0.48
The curriculum has provided adequate strategies for teaching Deaf learners	3.2%	6.5%	0%	35.5%	54.8%	4.32	1.01
The curriculum is suitable for Deaf learners	9.7%	48.4%	22.6%	19.4%	0%	3.71	1.27

From the research findings majority of the respondents strongly agreed that the curriculum is very flexible in allowing me to adapt content to suit the Deaf learners (mean = 4.68 , stddev = 0.48), the curriculum is adapted for Deaf learners (mean = 4.58 , stddev = 0.50), the curriculum has provided adequate strategies for teaching Deaf learners (mean = 4.32 , stddev = 1.01) and that the curriculum is suitable for Deaf learners the curriculum is suitable for Deaf learners (mean = 3.71 , stddev = 1.27). The study also revealed that Kenyan government should have high standards for personnel preparation, adequate training and practice by teachers, suitable curriculum, and accessibility of resources and teachers by Deaf learners. Staff should be fluent in KSL, culturally competent, and highly qualified in teaching academic subjects

4.5 Language of Instruction Influence on Academic Achievement of Deaf Learners

This sub section investigates the influence of language of Instruction on academic achievement of Deaf learners.

4.5.1 Common Communication Modes Used by Teachers of Deaf Learners

The research sought to determine the common communication modes used by teachers of Deaf learners. Results are analyzed in table 4.12

Table 4.12: **Common Communication Modes Used by Teachers of Deaf Learners**

Communication mode	Frequency	Percentage
Using Kenyan Sign Language	26	83.9
By writing on paper	3	9.7
Use of gestures	2	6.5
Total	**31**	**100.0**

Results obtained show that most of the teachers communicated with the Deaf learners using KSL. 83.9% of the respondents indicated using Kenyan Sign Language, 9.7% of the respondents indicated by writing on paper while 6.5% of the respondents indicated using gestures. This implies that the most common communication mode used by teachers with Deaf learners include sign language, gestures and writing on paper.

4.5.2 Teacher Personal Rating on Fluency in Kenyan Sign Language

Teachers were requested to rate their knowledge and fluency of Kenyan Sign Language. Results are analyzed in table 4.13

Table 4.13: **Teacher Personal Rating on Fluency in Kenyan Sign Language**

Rating	Frequency	Percentage
Very Good	1	3.2
Good	9	29.0
Moderate	19	61.3
Not good	2	6.5
Total	**31**	**100.0**

From the research findings majority of the respondents as shown by 61.3% indicated moderate, 29.0% of the teachers indicated good, 6.5% of the teachers indicated not good, while 3.2% of the teachers indicated very good. This implies that majority of teachers in Kilifi county were moderately fluent in using Kenyan Sign Language to communicate and teach Deaf learners.

4.5.3 How often teachers used KSL to teach

The study sought to establish how often teachers used KSL to teach. Results are analyzed in table 4.14

Table 4.14: **How often teachers use KSL to teach**

	Frequency	**Percentage**
Always	6	19.4
Often	22	71.0
Sometimes	2	6.5
Never	1	3.2
Total	**31**	**100.0**

Results obtained show that most of the teachers as shown by 71.0%, used Kenya Sign Language often, 19.4% of the respondents indicated always, 6.5% of the respondents indicated sometimes and 3.2% of the respondents indicated never. This implies that majority of teachers used Kenya Sign Language always to teach Deaf learners.

4.5.4 Other Modes of Communication

Teachers were requested to indicate other modes of communication they used in the class room to teach Deaf students. Results are analysed in table 4.15

Table 4.15: **Other Modes of Communication**

Communication mode	**Utilization**	**Frequency**	**Percentage**
Writing	Yes	21	67.7
	No	10	32.3
	Total	**31**	**100**
Gestures	Yes	18	58.1
	No	13	41.9
	Total	**31**	**100**
Oralism	Yes	13	41.9
	No	18	58.1
	Total	**31**	**100**

Results obtained show that most of the teachers as shown by 67.7% used writing, 58.1% of the respondents indicated gestures, whereas 41.9 % of the respondents indicated using oralism to teach. This implies that besides Kenya Sign Language, teachers also used writing, gestures and oralism to communicate to Deaf learners. Use of alternative modes of communication was noted in a report by Rappolt (2002), that it is helpful to Deaf students to help them acquire background information and develop vocabulary and schema which is useful in their learning. Visual aids such as photos, films and pictures should be used to teach multi-sensory concepts.

4.5.5 Use of Kenyan Sign Language and Academic Achievement of Deaf Learners.

The study sought to determine the extent to which use of Kenya Sign Language in teaching affected the academic achievement of Deaf learners. Results are analyzed in table 4.16

Table 4.16: **Kenyan Sign Language and Academic Achievement of Deaf Learners**

Extent	Frequency	Percentage
To a great extent	26	83.9
To a minimal extent	5	16.1
Total	**31**	**100**

From the research findings, majority of the respondents as show by 83.9 % were of the opinion of that the use of Kenyan sign language in teaching affects the academic achievement of Deaf learners to a great extent whereas, whereas 16.1% indicated to a minimal extent. This implies that the use of Kenyan sign language in teaching affects the academic achievement of Deaf learners to a great extent.

4.5.6 Relationships between language of instruction and academic achievement of Deaf learners

The study sought to establish the extent to which respondents agreed with the following statements relating to influence of language of instruction on academic achievement of Deaf learners. Results are analyzed in table 4.17

Table 4.17: **Relationships between Language of Instruction and Academic Achievement of Deaf Learners**

Language of instruction	Strongly Disagree	Disagree	Neutral	agree	Strongly Agree	Mean	Std Deviation
It is easy to communicate with Deaf learners using Kenyan Sign Language	61.3%	38.7%	0%	0%	0%	1.39	0.50
All the instructional materials are not in Kenyan Sign Language	0%	0%	0%	35.5%	64.5%	4.65	0.49
Teachers have great challenges teaching using Kenyan Sign Language	0%	3.2%	3.2%	38.7%	54.8%	4.42	0.85
Language of Instruction has a great influence on the achievement of Deaf learners	0%	3.2%	6.5%	38.7%	51.6%	4.35	0.88

From the research findings majority of the respondents agreed that all the instructional materials are not in Kenya Sign Language (mean = 4.65, std.dev =0.49) teachers have great challenges teaching using Kenya Sign Language (mean = 4.42, std.dev = 0.85), language of instruction has a great influence on the achievement of Deaf learners (mean =4.35, std.dev = 0.88). Teachers also opposed that it is easy to communicate with Deaf learners using Kenya Sign Language (mean = 1.39, stddev = 0.50).

4.6 Teaching and Learning Resources and Their Influence on Academic Achievement of Deaf Learners

This section investigates the influence of teaching and learning resources on academic achievement of Deaf learners.

4.6.1 Influence of Teaching and Learning Resources on the Academic Achievement of Deaf Learners

The study sought to determine the extent to which respondents agreed with the following statements relating to influence of teaching and learning resources on academic achievement of Deaf learners. Results are analyzed in table 4.18.

Table 4.18: **Influence of Teaching and Learning Resources on the Academic Achievement of Deaf Learners**

Teaching and Learning Resources	Strongly Disagree	Disagree	Neutral	agree	Strongly Agree	Mean	Std Deviation
The school has adequate teaching and learning resources	0%	3.2%	6.5%	41.9%	48.4%	4.00	1.24
The school needs more teaching and learning resources	3.2%	0%	0%	38.7%	58.1%	4.32	0.87
The available teaching and learning materials are not adapted for the Deaf learners	3.2%	9.7%	0%	35.5%	51.6%	4.48	0.81
Deaf learners who need Hearing devices are not able to get them.	0%	3.1%	9.8%	38.7%	48.4%	4.32	0.91
Availability of teaching and learning materials affects the achievement of Deaf learners	6.5%	3.2%	0%	22.6%	67.7%	4.29	0.90
The government does not provide sufficient support in ensuring that teaching and learning materials are available to the school	0%	0%	0%	38.7%	61.3%	4.45	1.06
Teachers have great challenges teaching using Kenyan Sign Language	9.7%	0%	16.1%	38.7%	35.5%	4.61	0.50

From the research findings majority of the respondents agreed that teachers have great challenges teaching using Kenya Sign Language (mean = 4.61 , std dev = 0.50), The available teaching and learning materials are not adapted for the Deaf learners (mean = 4.48, std dev =0.81), the government does not provide sufficient support in ensuring that teaching and learning materials are available to the school (mean = 4.45, stddev = 1.06), the school needs more teaching and learning resources (mean = 4.32 , std dev = 0.87). The study also revealed that Deaf learners who need hearing devices are not able to get them. (Mean = 4.32, STD dev =0.91) Availability of teaching and learning materials affects the achievement of Deaf learners (mean = 4.29, Std dev = 0.90) and that the school lacks adequate teaching and learning resources (mean = 4.00, std dev = 1.24).

Teachers were requested to provide the possible actions that can be taken to improve the academic achievement of Deaf learners. Respondents reported that a combination of general quality improvement of educational resources which would be relevant for all learners and some Deaf-specific interventions for Deaf learners is an approach that could support Deaf learners to achieve more in their learning.

Teachers were requested to suggest what can be done to change societal stereotypes and stigma on Deaf learners in this community; they reported that positive societal and community attitudes are critical in providing a positive environment for Deaf learners. Deaf learners can only be included in communities which have a good understanding of disabled children's rights. Creating an inclusive society will reduce the links between poverty and disability in the long term. Governments have a major responsibility in ensuring that all their citizens have access to community services. In addition, other stakeholders such as international and local organizations working on community development issues should also endure that they include Deaf learners and their families in their programs.

In order to sustain Deaf learners' attention as well as promote concentration, remedial teaching also helps and hence reinforces retention of knowledge and skills taught (Brown, 1976). Teachers need to improvise instructional methods and materials as necessary, so as to create a ricv learning environment that would enhance achievement among learners with hearing impairments. Teacher for Deaf learners need to be given in-service trainings to improve their

efficiency levels in teaching. Further development of KSL Vocabulary is critical to ensure maximum learning outcomes.

4.7 Socio-Cultural Factors Influence on Academic Achievement of Deaf Learners

This sub-section investigates the influence of socio-cultural factors and academic achievement of Deaf learners.

4.7.1 Relationship between Parents and Their Deaf Learners

The study sought to establish the relationship between parents and their Deaf learners. The findings are analyzed in table 4.20

Table 4.19: Relationship between Parents and Their Deaf Learners

	Frequency	Percentage
Very good	2	25.0
Good	2	25.0
Fairly good	4	50.0
Total	**8**	**100.0**

From the research findings, majority of the parents as shown by 50.0 % indicated that the relationship between the m and their Deaf learner was fairly good while 25.0 % of the parents indicated very good or good. This implies that there existed a fairly good relationship between parents and Deaf learner.

4.7.1 Payment of School Fees for the Deaf Learners

The study sought to establish who paid the school fees for the learner. Results are analyzed in table 4.21.

Table 4.20: Payment of School Fees for Deaf learners

	Frequency	Percentage
Myself	5	62.5
Relatives	2	25.0
Sponsors	1	12.5
Total	**8**	**100.0**

From the research findings, majority of the parents as shown by 62.5% indicated that they paid the fees themselves, 25.0% of the parents indicated relatives, while 12.5% of the parents indicated sponsors. This implies that parents mostly meet the full educational cost.

4.7.2 Extent to which Teaching and Learning Resources Affect the Academic Achievement of Deaf Learners

The study sought to determine the extent to which respondents agreed with the following statements relating to effect of teaching and learning resources on the academic achievement of Deaf learners. Results are analyzed in table 4.22

Table4.21: Extent to which Teaching and Learning Resources Affect the Academic Achievement of Deaf Learners

Teaching and Learning Resources	Strongly Disagree	Disagree	Neutral	agree	Strongly Agree	Mean	Std Deviation
The community knows about Deaf learners and treats them as their hearing peers	0%	12.5%	0%	12.5%	75.0%	3.88	0.99
Delayed reporting to school affects the achievement of my Deaf learner	0%	12.5%	12.5%	50.0%	25.0%	4.38	0.74
Late diagnosis of the hearing impairment affects my Deaf learner's achievement	0%%	0%	12.5%	37.5%	50.0%	4.75	0.46
Lack of special needs services and schools within my area led my learner to start school late	0%	0%	0%	25.0%	75.0%	4.50	0.53
There are challenges in communicating with my Deaf learner	0%	0%	0%	50.0%	50.0%	4.63	0.52
The culture is oppressive to the Deaf learner	0	0%	0%	37.5%	62.5%	4.50	0.53
The community does not support the education of the Deaf learner	0%	0%	0%	50.0%	50.0%	4.38	0.74
The society thinks the Deaf learner is not able to learn	0%	0%	12.5%	37.5%	50.0%	4.25	0.71
The society views Deaf learners as a curse to the family	0%	0%	12.5%	50.0%	37.5%	4.75	0.46

The society has accepted the Deaf learner	0%	0%	0%	25.0	75.0%	4.25	0.71
Deaf learners can finish their Education and get formal employment	0%	0%	12.5%	50.0%	37.5%	3.88	0.99

From the research findings majority of the parents strongly agreed that the society views Deaf learners as a curse to the family, late diagnosis of the hearing impairment affects my Deaf learner's achievement (mean = 4.75, std deviation = 0.46), there are challenges in communicating with my Deaf learner (mean = 4.63, std deviation = 0.52), the culture is oppressive to the Deaf learner, lack of special needs services and schools within my area led my learner to start school late (mean = 4.50, std deviation = 0.53).

The study also revealed that delayed reporting to school affects the achievement of my Deaf learner, the community does not support the education of the Deaf learner (mean = 4.38, std deviation = 0.74) and that the society thinks the Deaf learner is not able to learn (mean = 4.25, std deviation = 0.71), further parents agreed that Deaf learners can finish their education and get formal employment and that the community knows about Deaf learners and treats them as their hearing peers (mean = 3.88).

4.7.3 Parents' view on the highest level of education which Deaf learners can achieve

Parents were requested to indicate the highest level of education they thought a Deaf learner can achieve. Results are analyzed in table 4.23

Table4.22: Parents' knowledge on the highest level of education which Deaf learners can achieve

	Frequency	**Percentage**
Primary	4	50.0
Secondary	3	37.5
College	1	12.5
Total	**8**	**100.0**

From the research findings majority of the parents as shown by 50.0% were of the opinion that the highest level of education which Deaf learner can achieve was primary education. 37.5 % of the parents indicated secondary whereas 12.5% of the parents indicated college. This implies that

majority of the parents were of the opinion that the highest level of education which Deaf learner can achieve was primary education.

Parents were requested to give suggestions on how to improve achievement in academics in Deaf schools. From the findings, parents recommended that the Kenyan government should fully support Special Needs Education and allocate more resources to these schools. This includes providing adequate funding, facilities, and other teaching and learning resources to the schools, and providing adequately trained personnel and teachers to Deaf institutions to support learning.

The parents also recommended for language-driven placements. This implies that decisions about educational placements for Deaf learners should be driven by considerations of language. Deaf learners need to be placed in an educational setting that supports access and development of their language needs. Least Restrictive Environment for a Deaf learner is a language-rich environment. For a majority of Deaf learners it refers to a specialized setting and not necessarily the regular education environment.

Parents have a right to select a suitable school for their Deaf learners. For this parental right to remain protected, Kenyan government must ensure continued funding of schools for the Deaf and that parents and local school districts support the choice of a school for the Deaf as a viable placement option.

The Government of Kenya should develop and facilitate collaborations between Deaf schools and the Deaf community countrywide, parents, professionals and other stakeholders in Deaf Education. For the maximum benefit of Deaf learners, Kenyan government should form a committee or task force comprising of all these stakeholders. Through these collaboration initiatives issues that impact education of Deaf children will be addressed and will eventually improve academic achievement for Deaf and hard of hearing learners in general.

4.8 Correlation Analysis

Table 4.23: Correlations

		Academic Achievement Of Deaf Learners	Socio-Cultural Factors	Curriculum	Language Of Instruction	Availability Of Learning Resources
Academic achievement of Deaf learners	Correlation Coefficient	1.000				
	Sig. (1-tailed)	.				
Socio-cultural factors	Correlation Coefficient	-.553	1.000			
	Sig. (1-tailed)	.001	.			
Curriculum	Correlation Coefficient	-.741	.142	1.000		
	Sig. (1-tailed)	.003	.001	.		
Language of instruction	Correlation Coefficient	-.622	-.037	.046	1.000	
	Sig. (1-tailed)	.002	.000	.001	.	
Availability of learning resources	Correlation Coefficient	-.648	001	.008	.124	1.000
	Sig. (1-tailed)	.000	.001	.003	.000	.

The researcher conducted a Pearson moment correlation Coefficient on the study variable. From the findings in the table above, the study found that there was strong negative correlation coefficient between socio-cultural factors and academic achievement of Deaf learners as shown by correlation factor of - 0.553. This strong relationship was found to be statistically significant as the significant value was 0.001 which is less than 0.05, the study found strong negative correlation between curriculum and academic achievement of Deaf learners as shown by correlation coefficient of -0.741, the significant value was 0.003 which is less than 0.05. The study found strong negative correlation between s language of instruction and academic achievement of Deaf learners as shown by correlation coefficient of -0.622, this too was also found to be significant at 0.002, and finally the study found strong negative correlation between

academic achievement of Deaf learners and availability of learning resources as shown by correlation coefficient of -0.648 at 0.000 levels of confidence.

CHAPTER FIVE
SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

From the analysis of the data collected, the following findings, discussions, conclusions and recommendations were made. The responses were based on the objectives of the study.

5.2 Summary of Findings

The study found a strong negative correlation coefficient between socio-cultural factors and academic achievement of Deaf learners, (correlation factor = - 0.553 significant value = 0.001) this implies that negative perception from the society was a challenge in the academic achievement of Deaf learners. Therefore positive societal attitudes are important in providing an enabling environment for Deaf learners. Deaf learners can only be included in communities and societies which have a positive understanding of disabled children's rights.

The study found a strong negative correlation between curriculum and academic achievement of Deaf learners as shown by (correlation coefficient = -0.741, significant value = 0.003), the curriculum is not flexible in allowing for the adaptation of content to suit the Deaf learners, the curriculum is not adapted for Deaf learners, the curriculum has not provided adequate strategies for teaching Deaf learners, and that the curriculum is not suitable for Deaf learners.

The study found a strong negative correlation between simplified language of instruction and academic achievement of Deaf learners (correlation coefficient = -0.622, significant = 0.002).The study also revealed that all the instructional materials were not in Kenyan Sign Language (KSL), teachers have great challenges teaching using KSL and that language of instruction has a great influence on the academic achievement of Deaf learners. Teachers also opposed that it is easy to communicate with Deaf learners using KSL. The results also show that the most common communication means used by teachers to teach Deaf learners include sign language, gestures and writing on paper. Majority of teachers of Sahajanand School for the Deaf are moderately fluent in use of KSL.

The study found strong negative correlation between academic achievement of Deaf learners and availability of learning resources (correlation coefficient =-0.648, P- value 0.000).The study revealed that Deaf schools in Kilifi County have little or no teaching and learning resources, and the few available ones are not suitable for Deaf learners. The results also showed that, lack of teaching and learning materials affects the achievement of Deaf learners to a great extent.

5.3 Discussions of Findings

This section focuses on the discussion of findings relative to the previous researchers on the subject matter.

5.3.1 Socio-Cultural Factors and Academic Achievement of Deaf Learners

The study found a strong negative correlation coefficient between socio-cultural factors and academic achievement of Deaf learners, (correlation factor = - 0.553 significant value = 0.001) this implies that negative perception from the society challenged the academic achievement of Deaf learners therefore positive societal attitudes are critical in providing an enabling environment for Deaf learners. Deaf learners can only be included in communities and societies which have a positive understanding of disabled children's rights. The findings are in line with the study by MoEST, (2004) that creating an inclusive society will reduce the links between poverty and disability. Among the negative attitudes from the society that impeded the learning of Deaf learners include cultural/ societal perception on the condition of Deafness, poor relationship between Deaf learners and their teachers in school, poor relationship between Deaf learners and their community and negative perception of the community about Deafness. These findings are consistent with those reported by Bell (2004) who found out that, young learners with hearing impairments experience higher levels of stress and have more difficulties in coping.

5.3.2 Curriculum Factors and Academic Achievement Deaf Learners

The study found a strong negative correlation between curriculum and academic achievement of Deaf learners as shown by (correlation coefficient = -0.741, significant value = 0.003), the curriculum is not very flexible in allowing teachers to adapt content to suit the Deaf learners, the curriculum is not adapted for Deaf learners, the curriculum has not provided adequate strategies for teaching Deaf learners, and that the curriculum is not suitable for Deaf learners. It further revealed that teachers struggle to deliver the curriculum content to Deaf learners within the

stipulated timelines and that the current curriculum is meant for Hearing learners. This had a negative impact on their achievement in exams and ultimately in their academic achievement. The findings are in support of the study by Savolainen (2000) who says that it is vital to have an appropriate curriculum for education to be meaningful for all learners with special needs.

5.3.3 Language of Instruction and Academic Achievement of Deaf Learners

The study found a strong negative correlation between simplified language of instruction and academic achievement of Deaf learners (correlation coefficient = -0.622, significant = 0.002). The study also revealed that all the instructional materials are not in Kenyan Sign Language (KSL), teachers have great challenges teaching using KSL and that language of instruction has a great influence on the achievement of Deaf learners. Teachers also opposed that it is easy to communicate with Deaf learners using KSL. The findings are in support of the literature by Schick (2014), recognizing the expert knowledge of Deaf teachers gained from their experiences as teachers and formerly as Deaf learners, and their proficiency in sign language would contribute towards providing the learners with opportunities to learn more. Results also show that the most common communication means used by teachers to teach Deaf learners include sign language; gestures and writing on paper. Majority Teachers in Kilifi County who have specialized in special needs education were moderately fluent in the use of KSL to communicate and to teach. The findings concur with the research findings by Mweri (2014) who noted that the few available teachers have little or no knowledge of Kenyan Sign Language which is the primary language of communication for Deaf learners. Majority of teachers always used KSL to teach Deaf students but also used writing, gestures and oralism to communicate with their Deaf learners. Use of alternative modes of communication was noted in a report by Rappolt (2002), that it is helpful to Deaf students to help them acquire background information and develop vocabulary and schema which is useful in their learning.

5.3.4 Teaching and Learning Resources and Academic Achievement Deaf Learners

The study found strong negative correlation between academic achievement of Deaf learners and availability of learning resources (correlation coefficient = -0.648, P- value 0.000). The study also noted that Deaf schools in Kilifi County are in need of more teaching and learning resources. The findings concurs with the research findings by Boissere (2004) who confirmed that teaching and learning materials such as text books and writing materials were essential to

school effectiveness at the primary level in developing countries . Results also show lack of teaching and learning materials affects the achievement of Deaf learners and that a considerable number of school in Kilifi County lack adequate teaching and learning resources. The findings are in support of the literature by Michaleowa (2001) that, the availability of textbooks had a strongly significant and positive impact on learning outcomes.

5.4 Conclusions of the Study

The study concludes that the society has not fully embraced Deaf children, delays in reporting to school and class in-attendance have a negative influence on the academic achievement of Deaf learners, majority of Deaf learners do not promptly report to school at the beginning of school term and eventually drop out of school due to financial constraints by their parents/guardian. Most parents do not therefore value the education of their Deaf children due to cultural and societal stereotypes. Further, the study concludes that positive societal attitudes are critical in providing an enabling environment for Deaf learners and creating more inclusive societies will reduce the links between poverty and disability in the long term. The current curriculum is rigid and unsuitable for Deaf learners and major curriculum adaptations are required to improve their achievement. The few available teachers are not very familiar and fluent in using Kenyan Sign Language and most of the school offering special education to learners lack adequate teaching and learning resources.

5.5 Recommendations of the Study

1. Lack of co-operation from parents, negative perception on Deafness, cultural beliefs and norms and negative attitudes to the Deaf learners was found to challenge their academic achievement. Late payment of fees by parents due to poverty and unstable financial background of parents had a significant negative impact on the Deaf learners. The study recommends advocacy on Deaf rights and societal sensitisation on the importance of according the Deaf the same status gives to the hearing peers in the society. Further, the Government of Kenya should provide financial support to needy children and subsidise the education of Deaf learners and ensure continued funding of schools for the Deaf.

2. The Ministry of Education should work with the Kenya Institute of Curriculum Development (KICD) and other stakeholders should revise and simplify the curriculum to make it suitable for Deaf learners. Teachers should be provided with more teaching strategies, flexibility to adapt content, make classroom accommodations for Deaf learners and adopt an individualised learning teaching approach. Textbooks and other learning materials should be friendly to Deaf learners to meet their academic needs and ultimately improve their achievement. The Kenya National Examinations Council should also look into ways of adapting Examinations for the Deaf students without compromising on the quality of outcomes. Accommodations during exams such as more time for Deaf learners to complete exams may have a positive impact in the Deaf learners' achievement.

3. The study also revealed that majority of the teachers are not very familiar and fluent in using Kenyan Sign Language. Thus the study recommends that the government should facilitate and conduct refresher trainings to teachers on KSL and thorough pre-service and in-service trainings to teachers on how to teach Deaf learners effectively.

4. Lack of teaching and learning resources was found to negatively affect the learning process and the achievement Deaf learners, therefore the study recommends that the government should fully support the Special Needs Education and allocate more resources to these schools. This includes providing adequate funding, facilities, and other teaching and learning resources to the schools, and provide adequately trained personnel and teachers to Deaf institutions to support learning.

5. Deaf learners need to be placed in an educational setting that supports access and development of their language needs. Least Restrictive Environment for a Deaf learner is a language-rich environment. For a majority of Deaf learners it refers to a specialized setting and not necessarily the regular education environment.

6. The Government of Kenya should develop and facilitate collaborations between Deaf schools and the Deaf community countrywide, parents, professionals and other stakeholders in Deaf Education. For the maximum benefit of Deaf learners, Kenyan

government should form a committee or task force comprising of all these stakeholders. Through these collaboration initiatives issues that impact education of Deaf children will be addressed and will eventually improve academic achievement for Deaf and hard of hearing learners in general.

5.6 Suggestion for Further Research

The research suggests that further studies be conducted on factors influencing the academic achievement of Deaf learners in all schools in Kilifi County and also other counties to allow for generalization of results. Further studies should also be conducted on learner based factors affecting academic achievement of Deaf learners in the country. More studies should also be conducted on the influence of parental involvement on the academic achievement of deaf learners.

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APPENDICES

Appendix I: Letter of Transmittal

University of Nairobi
Department of Extra-Mural Studies
P.O. Box 30197
Nairobi
9th October, 2016

Dear Sir/ Madam,

RE: RESEARCH ON FACTORS INFLUENCING THE ACADEMIC ACHIEVEMENT OF DEAF LEARNERS IN KILIFI COUNTY, KENYA: A CASE OF SAHAJANAND SCHOOL FOR THE DEAF

I am a postgraduate student at the University of Nairobi, Nairobi Main Campus, I am interested in conducting a research on the above topic and I have sampled your community to get the necessary data to inform the research.

The information acquired will be used for academic purposes and shall not be diverted for any other purpose. All private information disclosed to me during the process of research undertaking shall remain confidential and shall only be limited to usage in this research. I kindly request you to cooperate and allow me to collect information from your locality.

Thank you for your cooperation,

Yours faithfully,

Renalda Mwanyuma

Appendix II: Questionnaire for Teachers' and the Headteacher

I am pursuing a Master's degree in Project Planning and Management at the University of Nairobi. Currently, I am carrying out a study on factors influencing the academic achievement of the Deaf learners in Kilifi County: a case of Sahajanand School for the Deaf, Kenya. I kindly request you to answer all the questions to the best of your knowledge. Indicate with a tick or filling in the space(s) provided. The information will be treated with confidentiality.

Section A: Background information

1. Gender
    a) Female ( )
    b) Male ( )
2. For how long have you been teaching Deaf learners?
    a) Less than one year ( )
    b) 1-5 years ( )
    c) Six and above ( )
3. At which level is your professional training in Special Needs Education??
    a) Certificate ( )
    b) Diploma ( )
    c) Degree ( )
    d) Post- graduate ( )
4. Was the motivation for your choice of career
    a) Passion ( )
    b) Parents' influence ( )
    c) Peer influence ( )
    d) Pay and remuneration ( )

Section B: Socio-Cultural factors influence on academic achievement of Deaf learners

5. What do you think is the societal perception of Deafness and Deaf children and how do Deaf Learners relate to others? Using a scale of 1-5 what is your response to these statement

   1 - Extremely Positive, 2 – Positive, 3 – Neutral, 4 – Negative, 5 - Extremely Negative

Relationships and societal perceptions	1	2	3	4	5
Relationship between Deaf children and their family members					
Relationship between Deaf children and their community members					
Relationship between Deaf children and their hearing peers					
Relationship between Deaf children and their teachers in school					
Cultural/ societal perception on the condition of Deafness					
Impact of visiting days on the academic achievement of Deaf pupil?					
Perception of the community about a Deaf child?					

6. To what extent do delays in payment of school dues by parents or guardian influence the academic achievement of your Deaf learners?
   a) To a great extent ( )
   b) To a minimal extent ( )
   c) No Influence ( )
7. To what extent do you think the following statements influence the academic achievement of Deaf learners. Using scale of 1-5 what is your response to these statement 1-strongly Agree, 2-Agree, 3- Neutral, 4 - Disagree, 5-Strongly disagree

Socio-cultural factors	1	2	3	4	5
Delays in reporting to school and class in attendance have a negative influence on the academic achievement of the Deaf child.					
Majority of the parents cannot afford to pay school levies,					

transport for their children to and from school, visit them regularly or provide their basic needs					
Deaf pupils are happier in school than they are at home					
Many Deaf pupils drop out of school due to financial constraints by their families					
Many families with Deaf children prefer to keep them at home rather than educate them					
The society has fully embraced Deaf Children					
Relations of Deaf children with their parents, family and peers has an influence on their academic achievement					
Teachers at my school have a positive attitude towards the Deaf children.					
Parents have a positive attitude towards the education of their Deaf children.					

8. Do pupils report to school on time when the school term begins
   a) Always ( )
   b) Often ( )
   c) Sometimes ( )
   d) Never ( )

9. What is the rate of class and school attendance?
   a) 100% ( )
   b) 50% ( )
   c) Below 50% ( )

Section C: Curriculum factors influence on academic achievement Deaf learners

10. To what extent do you agree with the following statements and their influence of the academic achievement of Deaf learners. Using scale of 1-5 what is your response to these statements

    1-strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly disagree

Curriculum	1	2	3	4	5
The curriculum is adapted for Deaf learners					
The curriculum is very flexible in allowing me to adapt content to suit the Deaf learners					
The curriculum has provided adequate strategies for teaching Deaf learners					
The curriculum is suitable for Deaf learners					

Section D: Language of Instruction influence on academic achievement of Deaf learners

11. How do you communicate with your Deaf learners?
    a) Using Kenyan Sign Language ( )
    b) By writing on paper ( )
    c) Use of gestures ( )
12. How would you rate your knowledge and fluency of Kenyan Sign Language?
    a) Very Good ( )
    b) Good ( )
    c) Moderate ( )
    d) Not good ( )
    e) Poor ( )
13. How often do you use KSL to Teach?
    a) Always ( )
    b) Often ( )
    c) Sometimes ( )
    d) Never ( )

14. Which other modes of communication do you use in the class room? (Tick all that may apply)
    a) Writing ( )
    b) Gestures ( )
    c) Oralism ( )
    d) None ( )
15. To what extent do you think the use of Kenyan sign Language in teaching affects the academic achievement of Deaf learners.
    a) To a great extent ( )
    b) To a minimal extent ( )
    c) No Influence ( )

16. To what extent do you agree with the following statements and their effect the academic achievement of Deaf learners. Using scale of 1-5 what is your response to these statements.

    1-strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly disagree

Language of instruction	1	2	3	4	5
It is easy to communicate with Deaf children using Kenyan Sign Language					
All the instructional materials are in Kenyan Sign Language					
Teachers have great challenges teaching using Kenyan Sign Language					
Language of Instruction has a great influence on the achievement of Deaf learners					

Section E: Teaching and Learning resources influence on academic achievement of Deaf learners

17. To what extent do you agree with the following statements and their influence on the academic achievement of Deaf learners. Using scale of 1-5 what is your response to these statement

    1-strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly disagree

Teaching and Learning Resources	1	2	3	4	5
The school has adequate teaching and learning resources					
The school needs more teaching and learning resources					
The available teaching and learning materials are not adapted for the Deaf learners					
Deaf learners who need Hearing devices are not able to get them.					
Availability of teaching and learning materials affects the achievement of Deaf learners					
The government provides sufficient support in ensuring that teaching and learning materials are available to the school					
Teachers have great challenges teaching using Kenyan Sign Language					

Section F: Recommendations for alleviating these challenges to improve achievement in academics

What are some of the possible actions that can be taken to improve the academic achievement of Deaf learners?

_____

_____

_____

_____

1. What can be done to change societal stereotypes and stigma on Deaf children in this community?

   _____

   _____

2. What steps should be taken by Education stakeholders to enhance curriculum for Deaf children?

   _____

   _____

   _____

3. What can be done to improve classroom instructions to enhance academic achievement?

   _____

   _____

   _____

4. Which resources can be useful to the teachers and learners to ensure a meaningful classroom experience?

   _____

   _____

   _____

Thank you!

Appendix III: Interview Schedule For Parents

I am pursuing a Master's degree in Project Planning and Management at the University of Nairobi. Currently, I am carrying out a study on factors influencing the academic achievement of the Deaf learners in Kilifi County: a case of Sahajanand School for the Deaf Province, Kenya. I kindly request you to answer all the questions to the best of your knowledge. Indicate with a tick or filling in the space(s) provided. The information will be treated with confidentiality.

Section A: Background information

1. Gender
   a) Female ( )
   b) Male ( )
2. What do you do for a living? _____

Section B: Socio-Cultural factors influence on academic achievement of the Deaf learner

3. How is the relationship between you and your Deaf learner?
   a) Very good ( )
   b) Good ( )
   c) Fairly good ( )
   d) Poor ( )
   e) Very poor ( )
4. Who pays school fees for your learner/learners?

a) Myself ( )
b) Relatives ( )
c) Sponsors ( )
d) CDF ( )

5. To what extent do you agree with the following statements. Using scale of 1-5 what is your response to these statements

   1-strongly Agree, 2. Agree, 3. Neutral, 4. Disagree, 5. Strongly disagree

Teaching and Learning Resources	1	2	3	4	5
The community knows about Deaf learners and treats them as their hearing peers					
Delayed reporting to school affects the achievement of my Deaf learner					
Late diagnosis of the hearing impairment affects my Deaf learner's achievement					
Lack of special needs services and schools within my area led my learner to start school late					
There are challenges in communicating with my Deaf learner					
The culture is oppressive to the Deaf learner					
The community Does not support the education of the Deaf learner					
The society thinks the Deaf learner is not able to learn					
The society views Deaf learners as a curse to the family					
The society has accepted the Deaf learner					
Deaf learners can finish their Education and get formal employment					

6. Which is the highest level of education that you think a Deaf learner can achieve?

a) Primary ( )
b) Secondary ( )
c) College ( )
d) University ( )

Section C: Recommendations for alleviating these challenges to improve achievement in academics

7. What are some of the possible actions that can be taken to improve the Academic achievement of the Deaf learner?

   _____

   _____

   _____

   _____

Thank you!

Appendix IV: Guiding Matrix for Document Analysis

DOCUMENT	**INFORMATION**
School achievement records	Mean scores attained in final exams and continuous tests Highest scores attained by students overall and in individual subjects Highest achieved marks by individual students Position held by school in ranking
Schemes of work	Adaptations made in planning teaching Duration of class hours Curriculum content
Syllabi	Curriculum Content Number of subjects to be covered
Fee Payment Records	Fee arreas, Time taken to pay fees
Admission records	Number of Deaf learners admitted in school each year Number of learners who complete primary school education Number of school drop outs Government policy on admission Teacher-pupil Ratio