

TEACHERS' PERCEPTION OF FACTORS
THAT INFLUENCE THE IMPLEMENTATION
OF 8-4-4 CURRICULUM IN SCHOOLS FOR THE HEARING
IMPAIRED IN NAIROBI PROVINCE AND ITS ENVIRONS

This project is my original work and has not been
presented for a degree at any other University.

BY

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A PROJECT SUBMITTED IN PARTIAL FULFILMENT

OF

MASTER OF EDUCATION (PTE) DEGREE

This project has been submitted for examination
and approved by the University Supervisor.

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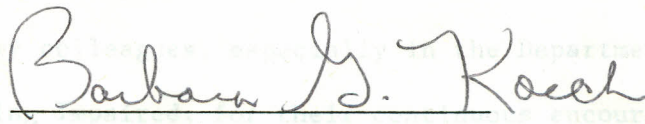
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DECLARATION

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


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A C K N O W L E D G E M E N T

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To my beloved husband, Dr. Josphat K. Yego and children:
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CHAPTER ONE

INTRODUCTION

1.1: THE CONTEXT OF THE PROBLEM

There are many definitions that have been associated with the term 'curriculum'. Bishop (1985), in its wide context defines curriculum as 'the sum total of all the experiences a pupil undergoes'. Oluch (1982), like other educators also sees curriculum as "all that is planned to enable the students acquire and develop the desired knowledge, skills and attitude. Curriculum implementation, therefore, is the translation of theoretical ideas of curriculum into practice.

Curriculum in Kenyan educational system has not been static. There have been changes and each change has come with a purpose. Since independence the school curriculum has undergone re-examination and re-organization in order to meet the national goals and objectives. These changes have been brought about through the recommendations made by the various committees and commissions. The major ones that are related to curriculum change include: The Education Commission of 1964 (Ominde Commission); The National Committee on Educational Objectives and Policies of 1976 (Gachathi Report); and the recent and the most important one being, the Report of the Presidential Working Party on the Second University of 1981 (McKay Report).

Ominde Commission of 1964 was set up to survey the existing educational resources and advice the government in the formation of National policies of education. The national concern at that time was the training of more human resources to enhance economic development, more equal distribution of national income, and closer integration in order to bring closer national unity.

The purpose of the National Committee on Educational Objectives and Policies of 1976, was to evaluate the system of education at that time. There had been a national concern on the increase of the number of school leavers as opposed to scarce job opportunities.

In 1981, The Presidential Working Party was appointed to make general recommendations on implementation of a government decision to establish a Second University (the present Moi University). The present system of education came about as one of the recommendations of the Presidential Working Party. It recommended that the Primary Education System should change from 7-4-2-3 to 8-4-4 in order to meet social and economic needs of the country. The new system of education would equip the primary school leavers with adequate intellectual and vocational training to enable them to get a full, useful and rewarding life.

The recommendations that have been made by the above mentioned commissions and others, have served to improve education system and continue to do so in order to meet

the national and individual needs. The roles of these commissions have helped in focusing on areas of weakness as well as successes in education system, thereby enabling the society to bring about the desired political, economical, social and emotional development.

While all these changes in educational curriculum seem to be true to the majority of the general population, the question is, how has the situation been with education of the hearing impaired? In Kenya, since independence, it appears that it has been assumed that whenever there is any curriculum change in educational system for the general population, the change would automatically affect the educational system of special education, including the education of the hearing impaired, of which this study focuses on. This is evidenced by what is stated in the policy for Special Education that:

Every aspect of special education has links with every other aspect with education of the general population. Thus, when any significant change takes place in any important aspect of special education, it will set off a chain reaction having widespread repercussions. This requires therefore, that such changes are carefully and systematically planned and executed.¹

Therefore, it is clear that whenever there is change in the general education, it obviously affects special education.

Since the inception of education of the hearing impaired children in 1958, their academic performance has not been very encouraging. For instance, formal education to many hearing impaired children is terminal at standard eight level. Makumi (1987) in his attempt to establish the output of special education programmes in Kenya to-date, found out that "there is nothing tangible" in the area of the hearing impaired. He noted that there is only one pilot project at Mumia Vocational Training Centre for hearing impaired, where a few hearing impaired girls have been

¹Republic of Kenya, Ministry of Education. Policy for Special

enrolled for 'O' level passed with division three. They were both admitted to Sang'alo Institute of Technology to take agricultural courses. Also in 1987, two girls did 'O' level in the same school. One got a division three while the other got division four. Otherwise, the few who have proceeded to institutions of higher learning have done so, outside the country. Infact to be exact, two have successfully completed University degrees. One with a Ph.D in Special Education Administration and one with a First Degree.

In the past, the emphasis on the curriculum has been on specialist subjects. Specialist subjects include, speech and language development, speech training and auditory training. Perhaps, it was assumed that the specialist subjects would assist the hearing impaired children to follow the regular curriculum. Unfortunately, many people involved in this area such as curriculum developers, inspectors, teachers of the hearing impaired, parents and others have had great concern over the general low standard of education of the hearing impaired. The following statements made by different people on the same issue express such concerns and dissatisfaction:

- (a) In 1980, Kenya Society for Deaf Children stated that one of the problems that strikes "one when dealing with deaf school leavers is the poor communication skills they acquire, not to mention their low level of education. It is our feeling that the type of education provided or rather the method of teaching used (oral), is not very effective as the majority of the deaf children come out not able to lip-read, talk or write".

- (b) In 1981, Nkingangi and Mbindyo interviewed a number of headmasters who observed that hearing impaired children went to school for the deaf with great enthusiasm, only to leave the schools "more deaf or more mute than when they first entered them".
- (c) In November, 1984, the Subject Panel for the Hearing Impaired of Kenya Institute of Education observed that "most of the young people who graduate from schools for the deaf are semi-literate". The panel further noted that the fact that the young deaf boys and girls are semi-literate after spending eight or nine years in school is embarrassing and a matter of serious concern".

From these statements, the blame on the low standard of education for the hearing impaired children seem to be directed at two factors: Communication Skills and the method of teaching.

1.2 STATEMENT OF THE PROBLEM

During the period of late 1970s and early 1980s, the societal outcry for change in the curriculum with the education of hearing impaired was beginning to be felt. This was also around the same time when there were signs for change of curriculum in the education of the hearing children. Now, the question is, what implication will 8-4-4 curriculum have on education of the hearing impaired?

While attempts were being made to improve the education of the hearing impaired in general, it now has to be done with 8-4-4 curriculum in mind. Therefore, this also mean that the task of implementing the curriculum change would potentially be more challenging to the implementors in the schools for the hearing impaired than is the education of the ordinary children.

The most practical implementors of curriculum are the teachers. The teacher determines the effectiveness of change since many curriculum changes are realized in school. Also, the role of the teacher in curriculum implementation is not only important but it is also central to matters that are related to curriculum development. On the contrary, the problem has been that often the teachers are not consulted as much as they should when it comes to matters that pertains to curriculum implementation. This study therefore, attempts to look at those factors that teachers of hearing impaired perceive as affecting the implementation of 8-4-4 curriculum in schools for the hearing impaired.

1.3 PURPOSE OF THE STUDY

This study sought to find out the factors that affect the implementation of 8-4-4 curriculum of the hearing impaired, as perceived by the teachers of the hearing impaired. Then make the necessary recommendations based on the findings.

Curriculum implementation process involves various agents. These are curriculum developers,

administrators, inspectors, headteachers, parents and others. But above all full involvement of teachers is very crucial. The proposed study was therefore, based on the following rationale:

- (a) Teachers can be singled out as the most practical implementors since they are involved in practical activities of socializing the learners.
- (b) Since teachers are the sole practical implementors of the curriculum, they are the right people who can identify factors that affect curriculum implementation.
- (c) Teachers can also make dependable and practical suggestions that can be used to improve curriculum implementation.

1.3.1 OBJECTIVES

There were two general objectives for this study:

1. To find out the extent to which teachers of the hearing impaired perceive that the following factors affect implementation of the 8-4-4 curriculum in schools for the hearing impaired:

- (a) The mode of communication and language used in teaching hearing impaired children.
- (b) Academic and professional qualification of both headteachers and teachers of the

hearing impaired.

- (c) Physical facilities, equipment and other teaching materials.
- (d) Supervisory services.
- (e) Knowledge of the content areas in the 8-4-4 curriculum.
- (f) Method of teaching the hearing impaired children.

2. To find out if there are other factors that teachers of the hearing impaired perceive as influencing the implementation of 8-4-4 curriculum in schools for the hearing impaired.

1.3.2

QUESTIONS

The following research questions were generated from the objectives which guided the study.

1. To what extent do teachers of the hearing impaired perceive that the mode of communication and language used in the classrooms are influencing factors in implementing the 8-4-4 curriculum in their school?
2. To what extent do the teachers of the hearing impaired perceive that academic and their professional qualification of both headteachers and teachers of the hearing impaired influence the implementation of 8-4-4 curriculum in their school?

3. To what extent do teachers of the hearing impaired perceive that the physical facilities, teaching materials and equipment influence the implementation of the 8-4-4 curriculum in their school?
4. To what extent do teachers of the hearing impaired perceive that supervisory services in their classes for the hearing impaired influence the implementation of 8-4-4 curriculum in their school?
5. To what extent do teachers of the hearing impaired perceive that their knowledge of the content areas of the various subjects influence the implementation of 8-4-4 curriculum in their school?
6. To what extent do teachers of the hearing impaired perceive that the method used in teaching hearing impaired children influences the implementation of 8-4-4 curriculum in their school?
7. What other factors do the teachers of the hearing impaired perceive as influencing the implementation of 8-4-4 curriculum in their school?

1.4

SIGNIFICANCE OF THE STUDY

This study has come at an appropriate time when the Ministry of Education is in the process of evaluating the 8-4-4 curriculum. It is therefore, hoped that the findings of the study and suggestions from teachers of the hearing impaired would help towards the improvement of

curriculum implementation process in the regular schools as well as in the schools for the hearing impaired.

There is very limited literature on special education in Kenya especially in the area of the hearing impaired. It is therefore, hoped that this study will be one of the reference material for other people in future. At the same time, it is hoped that it will stimulate other similar studies in this area of hearing impaired as well as other areas of special education.

This study focused on teachers perspective as the role practical implementors of the curriculum who are rarely involved or consulted at the planning stage of the curriculum. Hopefully, the findings of this study will assist the teachers of the hearing impaired, curriculum developers and other agents involved in implementation of 8-4-4 curriculum.

1.5 LIMITATION OF THE STUDY

The study was based on population of teachers of the hearing impaired in and around Nairobi Province. Therefore, it was not possible to identify the general perspective of the teachers of the hearing impaired throughout the country as far as factors that influence 8-4-4 curriculum implementation are concerned. Consequently, the

results cannot be generalised to all teachers of the hearing impaired.

1.6

DEFINITION OF TERMS

The following terms will be used in the study and should be understood as defined below:

1. CURRICULUM IMPLEMENTATION: Implies taking specific steps to ensure that the curriculum developed, reaches and is used in schools as it was intended.
2. DEAF: Refers to an individual whose hearing disability precludes successful processing of linguistic information through auditory channel, with or without a hearing aid.
3. DEAFENED: Deafness that is acquired later in life.
4. HARD OF HEARING: Refers to an individual who has difficulty in hearing, but does not preclude the understanding of speech through the ear alone, with or without a hearing aid.
5. HEARING IMPAIRED: Is a general term that is preferred when one has a hearing loss that may be mild, moderate, severe or profound. It is especially used in educational setting.
6. MANUAL METHOD: Is a system of communication that uses manual alphabet (finger spelling), body movement, facial expression and signs. It is used as a form of communication with the hearing impaired individuals as well as a

means of instruction in the classroom.

7. ORAL-AURAL METHOD: Refers to the use of speech and speech-reading. It stresses auditory training (learning to listen), oral training (learning to speak) and speech reading (learning to read the lips and facial expression). In this method emphasis is also placed on the use of hearing aid for amplification.
8. SIGN LANGUAGE: It is non-oral method of communication. It is purely visual, gestural language which has been developed and is used by deaf people.
9. SPECIAL EDUCATION: Is a system of education where specialised or adapted curriculum, intervention, the procedures, teaching methods, and special facilities are provided to assist handicapped children to perform to a level similar to that of non-handicapped children.
10. TOTAL COMMUNICATION: Is a philosophy of communication that incorporates more than one mode of communication. The philosophy stresses the right of the hearing impaired child and teacher to use all forms of communication including facial expression, gestures, body movements, amplification, speech, lipreading, fingerspelling sign language, writing and reading.

EDUCATION OF THE HEARING IMPAIRED

Historically the education of the hearing impaired children was traced back to sixteenth

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

Over the years, there have been numerous attempts to introduce changes in education in both the developed and developing countries. While this is true in the regular education, it also applies to education of the hearing. Teachers play important roles during curriculum change and implementation process.

Although this study focused specifically on the teachers of the hearing impaired, the literature that was reviewed on various aspects on curriculum implementation could apply to any teacher. The literature review will be based on the following areas:

- (a) Historical perspective of curriculum change in Education of the Hearing Impaired,
- (b) The process of Curriculum Implementation,
- (c) Factors influencing curriculum implementation.

2.2 HISTORICAL PERSPECTIVE OF CURRICULUM CHANGE IN EDUCATION OF THE HEARING IMPAIRED

Historically the education of the hearing impaired children can be traced back to sixteenth

century in Spain as observed by Evans (1982).

It is generally considered that the systematic teaching of deaf people had its origin in sixteenth century in Spain when the deaf children of important families were placed in the care of Pedro Ponce De Leon. Because it was a legal requirement that these children should acquire speech to claim their inheritances, the prime emphasis was placed upon the teaching of speech.²

Soon, the formal education of the hearing impaired spread to Europe and later to United States of America (U.S.A.). Different countries adopted different methods of teaching the hearing impaired. Oral method was predominant in Europe especially in England, while manual method was predominant in France. The manual method also became popular in U.S.A., mainly because of French influence. Thomas Hopkins Gallaudet, the first person to start a school for the hearing impaired in U.S.A. in 1817 studied manual method in France.

Throughout the history of education of the hearing impaired, the two methods of teaching have had heated controversies among the educators in this area. The proponents of each method claim that their method

² L. Evans - Total communication, Washington D.C. Gallaudet College Press, 1982, pg 1.

is the best for teaching the hearing impaired. However, in 1880 during the famous Milan International Congress, it was resolved that the method to be used in teaching the hearing impaired was the oral method. This resolution was perhaps reinforced by the discovery of telephone system by Alexander Graham Bell. The same principle for telephone system was applied to the development of technical aids such as hearing aids.

Later, other methods emerged from the combination of the two methods such as simultaneous method. This refers to simultaneous use of both oral and manual method.

During the 1960 an increasing concern and dissatisfaction on aural/oral method of teaching the hearing impaired was expressed in industrialized countries especially in U.S.A. This was as a result of mainstreaming of the partially hearing children into regular schools or units which left the special schools with severe to profound deaf children who responded even poorer to this method. Evans (1982) cited a number of studies such as that of Trybus and Karchmer (1977) who found that in the twenty-year old deaf population (who had passed through primary education in 1960), the average student had a reading ability below fifth-grade level, only 10 per cent

read above eight-grade level.

At around the sametime, studies were carried out by researchers such as Stevenson (1964), Stuckless or Birch (1966) and Meadow (1968) who tried to compare deaf children of deaf parents and deaf children of hearing parents. Deaf children of deaf parents used manual communication while deaf children of hearing parents used oral communication. They concluded that early use of manual communication had a positive influence on various aspects of development such as general educational attainment, lip-reading abilities, written language and social maturity.

Since the early 1980s, there has been a growing worldwide awareness of other alternatives ways of educating the hearing impaired. For instance, the Total Communication Philosophy has been surfacing as a more liberal approach of teaching the hearing impaired. UNESCO Consultation on Alternative Approaches for the Education of the Deaf observed that:

The total communication philosophy presents an attitude of openness to all methods and training, so as to make optimal use of all known approaches to communication and takes into account the social, psychological and educational adaptation difficulties experienced by the deaf.³

³UNESCO Consultation on Alternative Approaches for the Education of the Deaf Puris 18-22, June, 1984 pg. 12

It can therefore be seen that the value for a hearing impaired individual of acquiring the best possible oral skills and manual skills as well as good competence in written language is recognized.

The awareness of significance of sign language in education of hearing impaired has also been growing in recent years. The old idea that the use of sign language will be a hindrance to the development of spoken and written language is no longer valid. Many people including teachers of the hearing impaired ask questions as to whether sign language is a real language. A number of researchers such as Lane and Grosjean (1980), Kyle and Woll (1985), Brenna, Colville and Lawson (1984) and others have concluded that the various sign languages of different countries are fully developed and have grammatical structures that are different from that of spoken languages.

Coming back to the Kenyan situation, one can say that the developments on education of the hearing impaired has more or less followed a similar trend as in the industrialized countries. The following is a brief account of the development of education of the hearing impaired in Kenya.

The education of the hearing impaired children was started by non-governmental organization and missionaries, just like in the regular education. The beginning of education of hearing impaired started when Kenya Society for Deaf Children was formed in 1958. The initial purpose of forming the society was to assist hospitals in starting Ear, Nose and Throat (ENT) Clinics. This was where assessment on degree of hearing loss and other problems could be diagnosed and treated medically or provide remedial education. Soon church organizations and other service clubs such as Round Tables, Rotary, Lions, Aga Khan Education Board developed an interest in education of the hearing impaired. The development has been rapid and to-date there are about 28 schools and units of hearing impaired in the country. Many schools have boarding facilities and are either maintained or government assisted.

At the same time, a special education training programme was started in order to meet the manpower needs for the established schools for special education. The first local course for teachers of the hearing impaired was started in 1964 at Central Teachers College (the present Kenya Institute of Education) as a unit attached to the regular Teachers College. The unit was later moved to three different colleges between 1972 and 1985. In 1986, Kenya Institute of Special Education was established to cater for teacher training programmes in all areas of special

education (Mwangiri, 1988 p. 4 - 7).

Kenya has also undergone similar developments and changes as those of industrialized countries in matters related to the curriculum and education of the hearing impaired. Infact some of the factors that may have influenced the education of the hearing impaired in Kenya is as a result of what was inherited from some developed countries. For example, the oral method of teaching which has been in use for the last 27 years, was predominant in Britain for many years and it may have found its way to Kenya through the past historical events.

As mentioned earlier in Chapter One, many people involved in education of the hearing impaired became concerned and dissatisfied with this method. Consequently, the need for curriculum change became necessary. In 1978, the Hearing Impaired Subject Panel of Kenya Institute of Education (K.I.E.) saw the need for flexibility in the method of teaching the hearing impaired. Other methods were to be considered. For instance in 1982, the same panel agreed that the sign language should be developed to be used to facilitate the teaching of the hearing impaired children, especially the deaf children. A few signs used by the deaf people in Kenya and those that are used in U.S.A. were collected and compiled in 1984.

In 1985, the Ministry of Education decided that there was a need to start an alternative method of teaching the hearing impaired children. In an effort to implement this

decision, the Ministry of Education considered it more logical in terms of curriculum development to establish a pilot school in Machakos to experiment with total communication approach, with special emphasis on simultaneous communication method. The signs to be used were those that were collected in 1984. The hearing impaired pupils who joined this pilot school (Machakos School for the Deaf) were selected from five residential schools for the hearing impaired and three units in the country. Six teachers for the hearing impaired who were to teach in the pilot school were selected and inserviced for three weeks in the new materials. The subsequent inservicing followed after they had taught for seven months.

In June 1987, the Director of Education appointed a committee to evaluate the new approach of teaching the hearing impaired children in the pilot school and compare it with oral-aural method. The results of the evaluation would determine the National Policy on the method, mode of communication and language to be used in teaching the hearing impaired children. In short, the findings revealed simultaneous communication method was superior to the oral-aural method when used alone. The evaluation report was submitted to the Ministry of Education in May, 1988 and its outcome is being awaited for. (Report of the Committee Appointed to Evaluate Methods of Teaching the Deaf in Kenya).

Meanwhile, other developments have been taking place.

As already mentioned, KISE which was established in 1986 trains teachers for all areas of handicaps, among other things. One of the many obligations of KISE besides training teachers for the handicapped children is to conduct research in special education as stated in the Legal Notice No.17 of 1986. In 1988, two Lecturers in the Hearing Impaired Department at KISE documented a Basic Kenyan Sign Language Dictionary. The main purpose of writing this dictionary was the need for basic material for teaching Kenyan Sign Language. There was also the desire to demonstrate the fact that a national sign language is a living language and that it is rooted in the culture of the users. (KISE Bulletin Vol. No.1 pg. 6 and A Basic Kenya Sign Dictionary).

While these developments have been taking place, there has also been heated controversies on different issues, among those involved in the education of the hearing impaired. The first controversy that emerged in the 1970s was on the method of teaching oral-aural versus manual method. The latest controversy is on which sign language to be used especially with deaf children. There are those who believe that contrived systematic sign system such as sign Exact English would be the best for use in schools for the hearing impaired. While others believe that indigenous sign language, that is Kenya Sign Language is the best because it is a true language and it is rooted in the culture of the people. Unless this issue is resolved, education of the hearing impaired may have

*Ref
KISE
Commission*

negative results.

When the 8-4-4 system of education was finally launched in 1985, it meant that all the primary schools in Kenya including primary schools and units for the hearing impaired were to implement the new curriculum. This concurs with what is stated in Education in Kenya: Information Handbook, that "the Primary School Curriculum is uniform throughout the country". Also, UNESCO, consultation on Alternative Approaches for the Education of the Deaf observed that:

Since the education of deaf children follows in principle the same lines as that of hearing children, the curricula of ordinary and special schools are often not significant different.⁴

This implies therefore that the curriculum in the 8-4-4 system of education has to be implemented along with those other changes that have already been pointed out in the education of the hearing impaired.

The rationale for changing from the old system of education (7-4-2-3) to the new system of education (8-4-4) is that the former system of education was criticized for failing to meet the needs of the society. According to the McKay Report of 1981, the 8-4-4 system of education is broad based and lays greater emphasis on

⁴UNESCO, Consultation on Alternative Approaches for the Education of the Deaf, pg.14

practical skills, independent learning and continuous assessment. At the primary school level the system is planned to cater for pupils for whom this level of education is terminal; and for those who continue to secondary school level and later to the University level.

Under the 8-4-4 primary school curriculum, the following subjects are covered:

1. Agriculture
2. Art and Craft
3. Art Education (Std. 6 - 8)
4. Business Education (Std. 6 - 8)
5. Craft Education (Std. 6 - 8)
6. English
7. Geography, History and Civics (GHC)
8. Home Science (Std. 4 - 8)
9. Kiswahili
10. Mathematics
11. Mother Tongue (Std. 1 - 3)
12. Music
13. Physical Education
14. Religious Education
15. Science
16. Pastoral Programme

(Syllabuses for Kenya Primary Schools pg. XIV)

Prior to 1985, some concerns were expressed at curriculum development level as to the implication that 8-4-4 curriculum have on education of the hearing impaired. For instance, in the Minutes of the Hearing Impaired Subject

Panel meeting held at K.I.E. in November, 1984, the effect of 8-4-4 system on the education of the hearing impaired was discussed. It was observed that some of the examinable subjects may be difficult for the hearing impaired children. One example quoted was music. It was proposed that it would be necessary for inspectorate to liaise with subject inspectors so as to find out whether hearing impaired children who would be prepared for C.P.E. (K.C.P.E.) and other public examinations could be exempted from writing subject which would be too difficult (Minute 6/84 - The 8-4-4 and its effect on Education of the Hearing Impaired pg. 14).

Kirk (1972) emphasises that the curriculum for the hearing impaired should include other academic subjects taught in regular schools; besides the specialist subjects (speech and language development, speech reading, auditory training and reading).

Looking at the list of subjects in the 8-4-4 curriculum and the additional specialist subjects, as suggested by Kirk, the question that immediately comes to one's mind is, what implication will these have on the implementation of 8-4-4 curriculum in schools for the hearing impaired? It is important to look at the process of curriculum implementation, in order to understand what is involved in curriculum implementation of this nature.

2.3 PROCESS OF CURRICULUM IMPLEMENTATION

According to Hawes (1981) curriculum implementation involves two main processes: First is changing attitudes

of policy makers, administrators, teacher trainers, supervisors, teachers, parents and above all, the learners. The second process include providing the materials and administrative means to make this possible.

Oluoch (1982) has also identified nine sub-processes in new curriculum implementation, and when analyzed, they seem to fit neatly into Hawes broad processes. The sub-processes in the implementation of a new curriculum include persuading a variety of people to accept the new curriculum; keeping the general public informed; educating the teachers; educating the teacher educators; provision of necessary facilities; supply of materials, and equipment; actual presentation of the new curriculum; institution of appropriate student assessment procedures; and providing continuous support for the teacher. Each process will be discussed briefly.

PERSUADING PEOPLE

Naturally people do not like change. Change can be uncomfortable and destabilizing because they are taken out of their traditional ways of doing things and have to learn or adopt new ways; and this means hardwork.

In order for curriculum implementation to succeed, it requires team effort of the following people; administrators, inspectors, policy-makers, curriculum developers, community leaders, teachers,

and parents. These people have to be persuaded about the new curriculum.

Persuasion strategies can be done by giving a lot of information on the new curriculum to the key people among the people mentioned above. This can be done through mass media.

KEEPING THE PUBLIC INFORMED

Just like in persuasion strategies several avenues for disseminating information can be used. For example, newspapers, radio, television, school broadcast, newsletters and magazines. Other ways include organizing special seminars; use of field officers and local leaders. These people can inform the general public about the new curriculum as they go about their duties.

EDUCATING THE TEACHERS

Teachers must first understand, accept and internalize the philosophy of the new curriculum. In order to do this they must go through specifically designed educational programmes. These programmes should be included in the pre-service training course for teacher trainees. It is also important to organize in-service training programmes for the serving teachers to familiarize them with the materials of the new curriculum.

EDUCATING THE TEACHER EDUCATION

Teacher educator used in this context include

educational administrators, the school inspectors, college tutors, teacher advisory centre tutor and the headteachers of the schools. It is also important that these people are given special courses to help them understand the new curriculum and inturn they will be able to pass the materials of the new curriculum to the teachers in the field or teacher trainees in teacher training colleges effectively and confidently. Such courses should be taught by competent personnel who are well versed in the theoretical background relevant to the new curriculum. They should also be people who have practical experience in teaching and curriculum development.

PROVIDING THE NECESSARY FACILITIES AND EQUIPMENT

The success or failure of curriculum implementation may well depend on the availability of facilities and equipment. The list of facilities and equipment that can be used to facilitate implementation of a new curriculum can be endless. Just to mention a few, facilities in broad context include: syllabuses, buildings, writing facilities, visual aids, reading materials. Equipment include tools that are used in different subjects such as science, agriculture, art and craft, music etc., audio-visual equipment, radio, tape recorders, duplicators and others.

The provision and supply of these facilities and equipment should be a joint effort between the

educational authority, school community and parents of the children at the school. For example, the school community and parents have been putting up classrooms and workshops through the joint efforts of 'harambee'. While the school community and parents work together to provide facilities, they need guidance from educational authorities. For instance, 'facilities utilization service' was specifically set up in 1973 for the purpose of giving guidance to schools on questions related to facilities. As for the equipment, it is suggested that it should be supplied by educational authorities.

SUPPLY OF CURRICULUM MATERIALS

Supply of curriculum material involves purchasing, delivery, storage and physical production of the materials.

Production of materials can be done in two ways: through private companies or government owned firms. For example, English Course for Lower Primary classes in Kenya was produced and published by Oxford University Press. Jomo Kenyatta Foundation is a government owned firm. The government owned firms were set up in order to produce cheaper materials. Unfortunately, this is not the case. Books produced by Jomo Kenyatta Foundation have been known to be more expensive than other books that are commercially produced.

As for the purchase, it has been suggested that it should be done centrally except for items that can be purchased more conveniently locally. The delivery should be decentralised. Storage facilities should be improved for more room and security. Delay in procuring and supply of materials and equipment should be guarded against because it can inconvenience the children and teachers.

PRESENTATION OF THE NEW CURRICULUM

This is the key process in curriculum implementation. It is suggested that the presentation of the curriculum should start at the 'bottom of the ladder' and not at 'several points along the ladder'. For example, in the case of the first eight years of primary education, it would be logical to start the new curriculum in class one and move up year by year until class eight. In this way, many problems that could be encountered if the new curriculum is introduced at different classes in different schools are avoided. For instance, problems such as those associated with time-tabling that might have to be re-organized; inservice courses that would be necessary within each school, new assessment methods that would have to be introduced and many other inconveniences.

INSTITUTING APPROPRIATE ASSESSMENT METHODS

It is stressed here that appropriate methods of assessment be instituted as soon as the implementation

process starts. This method should have been thought about and constructed at the time of planning the new curriculum. For example, in the present syllabuses for Kenya Primary schools, it is stated that the assessment of the various subjects in the 8-4-4 curriculum is continuous.

CONTINUOUS SUPPORT

It is emphasized here that the teachers and headteachers will need a lot of support from people such as educational administrators, school inspectors and other educational authorities during implementation stage. These personnel should equally be supported by providing them with the necessary facilities, for example, finances for running seminars or inservice courses. For example, vehicles for transportation is very vital. This facility will facilitate field visits. Such facilities would make their work effective and they would be able to give effecient support to the teachers as they implement.

The foregoing discussion on sub-processes of implementation, suggested factors that could influence curriculum implementation. In the next section, the discussion will focus on general factors that influence curriculum implementation as well as specific factors that could influence 8-4-4 curriculum in schools for the hearing impaired.

2.4

FACTORS INFLUENCING CURRICULUM IMPLEMENTATION

Bishop (1985) said: Curriculum design becomes curriculum proper when it is adopted in the classroom. But there is often a mismatch between the 'official' curriculum and the 'actual' curriculum of the classroom.⁵

The discrepancy between the intent of a new curriculum and what actually happens in the classroom can be attributed to many factors.

According to Bishop, the following are some of the factors that can influence curriculum implementation: resistance to change, change of attitudes, parental cooperation and time.

RESISTANCE TO CHANGE

Resistance to change is considered to be one of the major factors that can influence curriculum implementation. It is mainly because of tradition.

Bishop cited UNESCO Pamphlet: Educational Planning: A World Survey of Problems and Prospect (1970 pg. 79) states:

⁵G. Bishop, Curriculum Development, London McMillan Publishers 1985 pg. 184.

There is practically complete agreement in theory on the view that great changes are inevitable, but in practice, every positive innovation encounters the most vigorous opposition. Education is a realm of tradition, and resistance to change springs up in the most varied quarters, ranging from the teachers themselves, the administrators, the parents, the pupils to political, professional, confessional and cultural circles.⁶

CHANGE OF ATTITUDES

As mentioned earlier, curriculum change and implementation requires changing of attitudes of the varied people involved in curriculum implementation.

Of all the people involved in curriculum implementation, teachers play an important role in implementation of educational programmes; as noted by Bishop (1985) when he says that the teachers is the key to educational change. He goes on to say that for curriculum change to succeed or to take root, depends in the teacher in the long run and that he is the 'adopting unit'.

As already discussed under implementation process, it was noted that naturally, people do not like change

⁶Bishop Curriculum Development pg. 185

because changes of any kind can be uncomfortable. People have to learn or adopt new ways of doing things. New demands are placed on teachers when implementing new curriculum. For example, in the case of the 8-4-4 curriculum which emphasizes practical skills, the demands on the teachers, including the teachers of the hearing impaired, involve acquiring new knowledge and attitudes. Poorly trained or untrained teachers become discontented and frustrated. Consequently, they cannot bring about the required change. Resistance to change can be eliminated through adopting some of the strategies mentioned in the implementation process such as training and retraining teachers as well as teacher educators; providing teachers with the necessary facilities equipment and teaching materials; and providing support from educational authorities and parents.

CHANGE OF ATTITUDES

Unless there is change of teachers' attitude towards a new curriculum, everything else that is done becomes meaningless. The change of attitudes of teachers about a new curriculum depends on how the information about the new curriculum is communicated. Hawes (1981) noted that "often headmasters, teachers and parents are ill-informed

about intended changes in primary curriculum programmes".

Persuasion, mentioned earlier as one of the processes of implementation of curriculum may be seen as an important strategy for changing attitudes of teachers towards a new curriculum. Persuasion can be done through mass media, inservice training and providing teaching facilities and providing the necessary support.

PARENTAL COOPERATION

It has been suggested that drastic change in primary education should never be attempted until the parents have been prepared for the change. Bishop (1985) also cited Griffith who observed that "parents as elsewhere in the world are concerned with success in examination; and that they are likely to be suspicious of change".

Again looking at the teachers as the practical and sole implementation of curriculum, cooperation between teachers and parents is very vital. This cooperation can be done in many ways. For example, parents can reinforce what has been taught by making sure that they provide their children with conducive environment at home for learning. They can assist their children with their homework or make

sure that children do their homework. Another way parents can cooperate with teachers is providing the necessary facilities and materials such as putting up classrooms workshops, exercise books, text books and others.

TIME

Time can be seen as a factor that influence curriculum implementation in different ways. For example, Bishop observes that 'trying to achieve too much, too fast', can have opposite results from the expected. To clarify this, he gave Hawe's example on the case of the New Primary Approach (to teaching English) in Kenya. This was a research project which was carried out on 25 Asian schools in Nairobi. The following factors that are related to time were observed: the extension went too far too fast; the time available for inservicing was reduced; supervision arrangements brokedown and in addition there were complaints semi-literacy or even illiteracy in the upper classes.

COMPETENCE IN SUBJECT MATTER AND TEACHING METHOD

K.I.E. carried out a summative evaluation of the Primary Education Project in October, 1986 in order to determine the extent to which teachers were competence with both the subject matter and teaching methods of the new curriculum. The evaluators

reported that the majority of the teachers believed that they were competent in most subjects. Subjects they found difficult to teach are Music, Art and Craft, Home Science and Agriculture.

OTHER FACTORS

The above mentioned evaluation team was also concerned with successes and difficulties the teachers, pupils and community had in implementing the new primary education curriculum. Many of the respondents stated that the curriculum developed useful skills in the pupils, made them responsible and raised their standard of character and health. They also said that the introduction of the 8-4-4 system of education has made it possible for teachers to provide an all round education to the pupils, unlike in the past when such subjects as Art and Craft; Home Science, Music and Kiswahili were rarely taught.

An analysis was also made to determine the problems teachers, pupils and community leaders encountered. The following are the problems mentioned by most respondents:

- (a) Implementing the new curriculum makes heavy demands on teachers and pupils. There are too many subjects and the content in each subject is too much.
- (b) Schools lack physical facilities and equipment including textbooks, home science materials and craft equipment.

- (c) Teachers lack adequate knowledge of the new content areas. (K.I.E. Research Report Series No.7; Summative Evaluation of the Primary Education Project. June, 1988 pg. 17 and 32).

The factors mentioned above that influence curriculum implementation can apply to any curriculum. However, the following discussion will focus on factors that are unique to the education of the hearing impaired.

Earlier, while looking at historical perspective of curriculum change in education of hearing impaired, worldwide and in Kenya, three issues kept on surfacing and they seem to be the major issues that may influence implementation of 8-4-4 curriculum in schools for the hearing impaired. These are: mode of communication, language and method of teaching the hearing impaired. These factors are interrelated.

According to Quigley and Kretschmer (1982), the major issue in the education of hearing impaired is the "form of language and communication that should be used by and with children in school and in their infant and early childhood years in the home". The form of communication can be identified with oral communication. While language refer to aspects related to sign language or the use of spoken language.

Studies by Silverman (1967) and Best (1970) revealed that greater grasp of language allows for a higher standard of performance on cognitive tasks on the part of deaf children. The same study states that performance is correlated with exposure to language. Hearing children performed most effectively, while deaf children with most exposure to both oral and manual language performed better than other deaf children in writing, reading, written language and academic achievement.

Silverman (1970) stated that there is a movement to introduce the language of signs as a major mode of communication with deaf children on the grounds that the capacity for thinking must be confused with the capacity for using language.

On the question of the ability of teachers of the hearing impaired to communicate, Ndurumo (1986) stated that the majority of the teachers of the hearing impaired lack effective communication technique only.

Makumi (1987) carried out a study to find out the causes of semi-literacy among the hearing impaired primary school leavers. From the findings, he concluded that "the causes

of semi-literacy among hearing impaired primary school leavers cannot hinge on one variable alone but include other variables". These include issues on language and communication, inadequate professional inspection; breakdown of communication between educational authorities and teachers of hearing impaired, hence breakdown of communication between educational authorities and teachers' method of approach to teaching the hearing impaired children; inadequate training of specialist teachers; lack of policy on matters related to education of hearing impaired; inadequate learning material and negative attitude etc. Most of these variables are similar to the factors that have been suggested to have some influence on implementation of 8-4-4 curriculum in schools for the hearing impaired.

In concluding, one can say that the factors that have been suggested in this literature review to have some influence on curriculum implementation are just but a few; and the only way to clarify the importance of these and other factors is through a study which seeks to find out what teachers of the hearing impaired perceived as factors that affect the implementation of 8-4-4 curriculum in their schools. Hopefully, these findings would be used for the improvement of curriculum implementation in future.

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

The goal of this study was to identify factors that the teachers of the hearing impaired perceived as influencing the implementation of 8-4-4 curriculum in their schools. The design of the research was a simple descriptive survey. A pilot study to assess the reliability and validity of the instrument was carried out prior to the actual study.

3.2 POPULATION

The population of the study consisted of all teachers of the hearing impaired throughout the Republic of Kenya. The estimated total number of teachers for the hearing impaired in the country is 300.

3.3 SAMPLE

The sample of the study consisted of forty five (45) headteachers and teachers of primary schools for the hearing impaired in Nairobi Provinces and its environs. The following table summarizes the schools that the teachers come from and how many they are in each school.

TABLE I

TEACHERS IN THE STUDY

SCHOOLS/UNITS	NUMBER OF TEACHERS	PROVINCE
1. Aga Khan Unit for the Deaf	4	NAIROBI
2. Dagoretti Unit for the Deaf	2	NAIROBI
3. Race Course Unit for the Deaf	3	NAIROBI
4. Kambui School for the Deaf	20	CENTRAL
5. Machakos School for the Deaf	16	EASTERN

From the table it can be seen that the first three schools are units while the last two are exclusively residential schools for the deaf or rather residential schools for the hearing impaired children attached to a regular school for the hearing children, basically for the purpose of either academic and/or social intergration.

There were three reasons for selecting these schools and units. The first reason was that these schools and units vary. The units are in the urban area while the schools are in the rural area. Also the units are attached to regular schools and are day schools. The two schools for the deaf are residential schools. The second reason was that due to the limited time, the five schools and units are within reasonable distance, and the researcher could reach these schools and units and carry out the

research within the given period. The third reason was that these schools and units represent three provinces namely: Nairobi, Central and Eastern.

The subjects from these schools were selected through non-probability sampling technique due to the limited number of the general population.

3.4 DESCRIPTION OF INSTRUMENTS

The main instrument was a questionnaire. There were two types of questionnaires. The first one was for headteachers which sought general information about the school, the children, and the teachers. The questionnaire consisted of multiple choice and open-ended questions.

The second type of questionnaire was for both headteachers and teachers of the hearing impaired. The questionnaire was organized in two parts as follows:-

Part A: Which sought general information on the academic and professional qualification, teaching experience, age and sex etc.

Part B: Which was designed to cover the various factors that teachers perceive as influencing the implementation of 8-4-4 curriculum in school for the hearing impaired.

The questions in Part A were multiple choice and fill in. The questions in Part B were of two types. The first type used Likert Scale which looked at the extent

of influence of specific factors that teachers perceived as influencing the implementation of 8-4-4 curriculum in schools for the hearing impaired. The second type of questions consisted of open-ended questions whereby teachers and headteachers attempted to give honest comments or opinions on how individual factors affect the implementation.

As mentioned earlier, the questionnaire was pilot-tested on a selected group of teachers and teacher trainers of the hearing impaired, in order to ensure it was a valid and reliable tool for collecting data. It was then improved and a final form of questionnaire was prepared. The respondent of the main study were requested to respond to instructions outlined in the final questionnaires. The questionnaires are attached as appendixes B and C.

3.5 DATA COLLECTION PROCEDURE

An introductory letter was written to the headteachers of the selected schools informing them that their schools have been selected for the purposes of the present study. Hence their approval and cooperation of members of his staff was sought. Confidentiality was also assured.

The written questionnaire were also taken to the schools personally by the researcher. She also collected

them personally on agreed days from the schools.

The administration of the questionnaires was done directly through the headteachers. The headteachers passed out the questionnaires to the teachers who then filled them at their convenience. In some schools/units, the researcher administered the questionnaire to the teachers herself.

3.6 DATA ANALYSIS

The analysis involved quantitative analysis of data using simple descriptive statistics such as measures of central tendency (mean, mode and median) frequency and percentages. The discussion followed research questions.

The discussion of the data is in two parts. The first includes discussion on the general information such as similarities and dissimilarities of the schools, teachers and the general academic and professional background information. The second part focuses on the data that was used to analyze each question. Consequently, it is organized by the research questions.

TABLE 3
RESPONDENTS ACCORDING TO DISTRIBUTION OF QUESTIONNAIRES

TYPES OF QUESTIONNAIRE	NO. OF QUESTIONNAIRES SENT OUT	NO. OF RETURNS	PERCENT
Questionnaire	3	3	100

DATA ANALYSIS

4.1 INTRODUCTION

The data obtained from the two questionnaire is analyzed in two parts. The data on general information is analyzed in the first part; and the data on factors that teachers perceived as influencing implementation of 8-4-4 curriculum is analyzed in the second part of this Chapter.

4.2 GENERAL INFORMATION

The general information described below was obtained from headteachers in the first questionnaire and headteachers and teachers in the second questionnaire. As was stated in the description of instruments, two types of questionnaires were used for the headteachers and teachers. Table 2 shows the number of questionnaires sent to headteachers and teachers and percent of returns.

TABLE 2

RESPONDENTS ACCORDING TO DISTRIBUTION OF QUESTIONNAIRES

TYPES OF QUESTIONNAIRE	NO. OF QUESTIONNAIRES SENT OUT	NO. OF RETURNS	PERCENT
Questionnaire one - Headteachers	5	5	100
Questionnaire two - Headteachers and teachers	45	39	86.66

A look at Table 2 shows that the percentage of the responses from the two categories of questionnaires were very high for headteachers (100%) and high for headteachers and teachers (87%). The remaining percentage of teachers (13%) who did not respond to the second category of questionnaire were from the two schools.

The following two tables present the details of the responses to the first questionnaire. Table 3 identifies the number of boys and girls in schools and units for the hearing impaired.

T A B L E 3
NUMBER OF BOYS AND GIRLS

SCHOOLS/UNITS	NUMBER OF CHILDREN		TOTAL
	BOYS	GIRLS	
1. Aga Khan Unit for the deaf	14	13	27
2. Dagoretti Unit for the Deaf	6	1	7
3. Race Course Unit for the Deaf	8	4	12
4. Kambui School for the deaf	95	77	172
5. Machakos School for the deaf	49	44	311
	172 (55.30%)	139 (44.70%)	

From Table 3, it can be noted that there are more hearing impaired boys (55%) than girls (45%) in the schools and units that received and responded to the questionnaire.

Table 4 indicate the distribution of pupils according to degree of hearing loss.

T A B L E 4

DISTRIBUTION OF PUPILS ACCORDING TO DEGREE OF HEARING LOSS

SCHOOLS/UNITS	PROFOUNDLY HEARING IMPAIRED	SEVERELY H.I.	MODERATELY SEVERE H.I.	MODERATELY H.I.	MILD H.I.
Dagorreti Unit	3	4	-	-	-
Race Course Unit	4	2	-	6	-
Aga Khan Unit	1	11	9	4	2
Machakos School for the Deaf	90	2	-	1	-
Kambui School for the Deaf	41	71	34	16	10
TOTAL	139	90	43	27	12
PERCENT	44.70	28.93	13.82	8.68	3.85

On Table 4 it can be seen that the highest percentage of the hearing impaired children from the schools and units that received and responded to the questionnaire are profoundly hearing impaired (45%) followed by severely hearing impaired

(29%). The fewest number of children are those with mild hearing impairment (4%).

On the question of admission of hearing impaired pupils to schools and units, four (4) out of five (5) headteachers reported that they admit them through ENT Clinics and Educational Assessment Centres; while the remaining one (1) headteacher reported that the pupils are admitted through Educational Assessment Centres or are brought directly by the parents. Also all the headteachers from the schools and units for the deaf indicated that all pupils in their schools and units came from different parts of the country.

The following seven tables present the details of the responses from both headteachers and teachers on General Information in Part A of the second questionnaire.

On Table 5, the distribution of teachers by sex is noted.

T A B L E 5

DISTRIBUTION OF TEACHERS ACCORDING TO SEX

SEX	NUMBER	PERCENT
Male	17	43.58
Female	20	51.28
Unknown	2	5.12
TOTAL	39	100.00

Table 5 shows that (44%) were male and (51%) were female; whereas (5%) did not indicate whether they were male or female, since they were not required to give their names. The findings therefore indicate that there were more female than male teachers who received and responded to the questionnaire.

Table 6 shows distribution of teachers according to their age.

T A B L E 6

DISTRIBUTION OF TEACHERS ACCORDING TO THEIR AGE

AGE	NUMBER OF RESPONSES	PERCENT
Below 20 years	0	0
21 - 30 years	7	17.94
31 - 40 years	24	61.15
41 - 50 years	8	20.51
TOTAL	39	100.00

This table shows that (18%) were teachers of ages between 21 - 30 years and (61%) shows teachers of ages between 31 - 40 years; while (20%) were teachers of ages between 41 - 50. The mean (x) age of teachers was 40 years whereas the age in which the highest number of teachers had (the median) was 31 - 40 years.

Table 7 indicate distribution of teachers according to their academic qualification.

T A B L E 7

DISTRIBUTION OF TEACHERS ACCORDING TO THEIR ACADEMIC QUALIFICATION

ACADEMIC QUALIFICATION	NUMBER OF RESPONSES	PERCENT
KAPE/KPE/CPE/KCPE	1	2.56
KJSE	1	2.56
EACE	26	66.66
EAACE	10	25.64
GRADUATE	1	2.56
TOTAL	39	100.00

This table indicate that about 2/3 of the teachers had EACE certificate while over 1/4 of the teachers had EAACE certificate. It should also be noted that though not significant, there is one teacher who had KAPE/KPE/CPE/KCPE, one who had KJSE and one male graduate.

Table 8 shows distribtuion of teachers according to professional qualifications.

T A B L E 8

DISTRIBUTION OF TEACHERS ACCORDING TO PROFESSIONAL QUALIFICATIONS

PROFESSIONAL QUALIFICATION	NUMBER OF RESPONSES	PERCENT
Untrained	0	0
P4	0	0
P3	0	0
P2	1	2.56
P1	14	35.89
S1	12	30.76
Diploma	4	10.25
Approved teacher	6	15.38
Graduate	1	2.56
Technical Instructor	1	2.56
TOTAL	39	100.00

As indicated in Table 8, the majority of the teachers are within three categories namely: P1 (36%), S1(36%), approved and Diploma teachers (15%) and (10%) respectively.

Table 9 identifies distribution of teachers according to the number of years in teaching profession.

T A B L E 9

DISTRUBTION OF TEACHERS ACCORDING TO THE NUMBER OF
YEARS IN TEACHING PROFESSION

YEARS	NUMBER OF RESPONSE	PERCENT
Below 5 years	5	12.82
6 - 10 years	9	23.07
11 - 15 years	10	25.64
16 - 20 years	9	23.07
21 - 25 years	4	10.25
26 - 30 years	2	5.12
	39	100.00

According to Table 9, there is an almost normal distribution curve on the number of teaching experience with a slight skew to the lower number of years of teaching. The mean (\bar{x}) of years of teaching was 18 years whereas the number of years in which the highest number of teachers had (the median) was 11 - 15 years. The mode of years of teaching was between 6 - 10 years and 16 - 10 years.

Table 10 describes distribution of teachers according to training in special education.

T A B L E 10

DISTRIBUTION OF TEACHERS ACCORDING TO TRAINING IN SPECIAL
EDUCATION (EDUCATION OF THE HEARING IMPAIRED)

QUALIFICATION	NUMBER OF RESPONSES	PERCENT
Diploma	6	15.38
S1	14	35.89
P1	0	0
P2	1	2.56
P3	0	0
3 months inservice	5	12.82
Untrained in Special Education	13	33.33

In reference to their training, it is clear from Table 10 that about 1/3 of the teachers have S1 certificate in Special Education. The second major category is that of untrained teachers in special education, but have already been trained in the regular teacher education (33%).

Table 11 usggests distribution of teachers according to the place of training in special education.

T A B L E 11

DISTRIBUTION OF TEACHERS ACCORDING TO THE PLACE OF
TRAINING IN SPECIAL EDUCATION

PLACE OF TRAINING	NUMBER OF RESPONSES	PERCENT
Trained in Kenya	22	56.41
Trained in Kenya and abroad	2	5.12
Trained abroad	2	5.12
No training in special education	13	33.33

According to Table 11, the highest percentage of teachers (56%) have been trained in Kenya. The second highest percent of teachers (33%) are those without any training in special education.

In summarizing this part on general information, it can be seen that the response to the questionnaires sent to both headteachers and teachers was relatively very high. It was found that the number of female teachers were more than male teachers. There was an almost normal distribution curve for teachers' ages. In addition, this normal distribution almost correspond with qualification and teaching experience of teachers. It was also found out that there were two major categories of teachers. The first one being the trained teachers and the second being the untrained teachers in special education.

These findings will be discussed in details in the next Chapter.

4.3 FACTORS THAT TEACHERS PERCEIVE AS INFLUENCING THE IMPLEMENTATION OF 8-4-4 CURRICULUM IN SCHOOLS FOR THE HEARING IMPAIRED

The data presented below was obtained from Part B of the second questionnaire on the various factors that teachers perceived as influencing the implementation of 8-4-4 curriculum in schools for the hearing impaired. The analysis of the results of this part will be discussed in relation to the research questions and the ranking of factors.

4.3.1 RESPONSES TO RESEARCH QUESTIONS

1. Has 8-4-4 curriculum been implemented in your school? The responses to this questions are listed in Table 12.

T A B L E 12

IMPLEMENTATION OF 8-4-4 CURRICULUM

	NUMBER OF RESPONSES	PERCENT
NOT IMPLEMENTED	6	15.38
PARTLY IMPLEMENTED	22	56.41
FULLY IMPLEMENTED	11	28.20
TOTAL	39	100.00

It is clear from Table 12 that over half of the teachers who responded reported that the 8-4-4 curriculum is partly implemented in their schools. This is followed by those who reported that the curriculum is fully implemented (28%). The least percentage of teachers (15%) are those who indicated that the curriculum has not been implemented.

To what extent do teachers of the hearing impaired perceive that the mode of communication and language used in the classrooms are influencing factors in implementing the 8-4-4 curriculum in their schools? The responses to this question are listed in Table 13.

T A B L E 13

MODE AND LANGUAGE OF COMMUNICATION AND PERCENTAGE OF TEACHERS INDICATING MODERATE TO VERY HIGH INFLUENCE

MODE OF LANGUAGE OF COMMUNICATION	EXTENT OF INFLUENCE		
	MODERATE	HIGH	VERY HIGH
i. Spoken language	28.20%	7.69%	7.69%
ii. Written communication	30.76%	23.07%	25.64%
iii. Sign Language	23.97%	23.07%	15.38
iv. Total communication	5.12%	33.33%	46.15

A look at this table suggest that the factor reported

by over 70% of the teachers as being high to very high in influence is "Total Communication". This is followed by "written communication" which is cited as having high to very high influence by about (49%) of teachers; followed by "Sign Language", reported by about (39%) teachers as having high to very high influence. It can also be seen from the table that the factor that was reported by the least percentage of teachers (13%) is "spoken language".

3. To what extent do the teachers of the hearing impaired perceive that academic and professional qualification of both headteachers and teachers of the hearing impaired influence the implementation of 8-4-4 curriculum in their schools? Table 14 highlights the responses to this question.

T A B L E 14

ACADEMIC AND PROFESSIONAL QUALIFICATION AND PERCENTAGE OF
TEACHERS INDICATING MODERATE TO VERY HIGH INFLUENCE

QUALIFICATIONS	EXTENT OF INFLUENCE		
	MODERATE	HIGH	VERY HIGH
i. Academic	17.94	41.02	35.89
ii. Professional	7.69	38.46	48.71
iii. Experience	0	23.07	51.28

A review of the above table suggests that over 3/4 of the teachers reported high influence in all three factors under "qualification". It is important to note that over half of the teachers reported "experience" as having very high influence. However, "professional qualification" was reported by the highest percentage of teachers (89%) as having high to very high influence. This analysis seems to suggest that all three factors are very significant since all have high to very high influence.

4. To what extent do teachers of the hearing impaired perceive that the physical facilities, teaching materials and equipment influence the implementation of the 8-4-4 curriculum in their school? The response to this question are listed in Table 15.

T A B L E 15

PHYSICAL FACILITIES AND PERCENTAGE OF TEACHERS INDICATING
MODERATE TO VERY HIGH INFLUENCE

PHYSICAL FACILITIES	EXTENT OF INFLUENCE		
	MODERATE	HIGH	VERY HIGH
i. School buildings	12.82	28.20	41.02
ii. Furniture	12.82	33.33	35.89
iii. Play ground	23.07	17.94	25.64
iv. School garden	12.82	15.38	33.33
<u>MATERIALS & EQUIPMENT</u>			
i. Syllabuses	12.82	28.20	35.89
ii. Text books	25.64	17.94	43.58
iii. Writing materials	7.69	46.15	33.33
iv. Visual aids	15.38	23.07	51.28
v. Reading materials	15.38	35.89	23.07
vi. Science equipment	5.12	15.38	23.07
vii. Agricultural tools	7.69	17.94	30.76
viii. Home Science equipment	12.82	23.07	38.46
ix. Musical instrument	10.25	5.12	20.51
x. Radio, taperecorders etc.	10.25	17.94	10.25
xi. Typewriters etc.	5.12	20.51	23.07
xii. Individual hearing aids	10.25	30.76	43.58
xiii. Audiometres	20.51	20.51	8.20
xiv. Speech trainers	17.94	15.38	25.64

It is interesting to note that under "physical facilities", "school building" and "furniture" were reported by the same percentage of teachers (69%) as having high to very high influence. It is also noted that both factors were reported as having moderate influence by equal percentage of teachers (13%).

Under "materials and equipment", over 3/4 of the teachers reported that "writing materials" have high to very high influence, followed by "visual aids" and "individual hearing aids," cited by over 70% of teachers as having high to very high influence. It is also important to note that of the two factors, "visual aids" was reported 51% of teachers as having very high influence. Other factors reported by over 34% of teachers as having high to very high influence include: "syllabuses", "Homescience", "equipment" and "text books".

5. To what extent do teachers of the hearing impaired perceive that supervisory services in their classes for the hearing impaired influence the implementation of 8-4-4 curriculum in their schools? The responses to this question are indicated in Table 16.

T A B L E 16

SUPERVISORY SERVICES AND PERCENTAGE OF TEACHERS

INDICATING MODERATE TO VERY HIGH INFLUENCE

SUPERVISORY SERVICES	EXTENT OF INFLUENCE		
	MODERATE	HIGH	VERY HIGH
i. General inspection	20.51	23.07	23.07
ii. Classroom inspection	2.56	30.76	43.58
iii. Inspection for promotion	2.56	25.64	30.76
iv. Giving advice	5.12	30.76	28.20

As far as "supervisory services" are concerned, the majority of the teachers (74%) indicated "classroom inspection" as having high to very high influence; followed by 'giving advice' and "inspection for promotion", reported by over 55% as having high to very high influence.

6. To what extent do teachers of the hearing impaired perceive that their knowledge of the content areas of the various subjects influence the implementation of 8-4-4 curriculum in their schools? The responses to this question are listed on Table 17.

T A B L E 17

KNOWLEDGE OF THE CONTENT AREAS OF THE VARIOUS SUBJECTS
AND PERCENTAGE OF TEACHERS CITING MODERATE TO VERY
HIGH INFLUENCE.

KNOWLEDGE OF CONTENT AREAS	EXTENT OF INFLUENCE		
	MODERATE	HIGH	VERY HIGH
i. Agriculture	17.94	30.76	20.51
ii. Art and Craft	17.94	30.76	17.94
iii. Business Education	15.38	30.76	12.82
iv. English	12.82	28.20	38.46
v. G.H.C.	10.25	30.76	20.51
vi. Home Science	10.25	23.07	17.94
vii. Kiswahili	12.82	5.12	7.94
viii. Maths	7.69	25.64	46.15
ix. Mother tongue	0	2.56	10.25
x. Music	5.12	0	20.51
xi. P.E.	7.19	28.20	10.25
xii. R.E.	7.24	33.33	25.64
xiii. Science	17.94	38.46	17.94
xiv. Pastoral programme	5.12	17.94	23.07

The majority of teachers (about 72%) reported "math" as having high to very high influence; followed by "English" reported by about 67% of teachers. Other

METHOD USED IN TEACHING HEARING IMPAIRED CHILDREN
AND PERCENTAGE OF TEACHERS CITING MODERATE TO VERY HIGH INFLUENCE

subjects reported by over 1/2 of teachers as

having high to very high influence are:

"Religious Education", "Science", "G.H.C." and
"Agriculture".

It is also important to note that on
one hand, three subjects "mother tongue", "music"
and "Kiswahili" were indicated by less than 1/4

of the teachers as having very high influence.

On the other hand, about 56% of the teachers

reported "Mother tongue" and "Music" as having

no influence or very low influence while "Kiswahili"

was reported by about 42% of teachers as having no

influence or very low influence.

7. To what extent do teachers of the hearing impaired
perceive that the method used in teaching hearing
impaired children influences the implementation of
8-4-4 curriculum in their schools? The responses
to this questions are shown in Table 18.

T A B L E 18

METHOD USED IN TEACHING HEARING IMPAIRED CHILDREN
AND PERCENTAGE OF TEACHERS CITING MODERATE TO VERY HIGH INFLUENCE

METHOD	EXTENT OF INFLUENCE		
	MODERATE	HIGH	VERY HIGH
i. Oral/aural	30.76	15.38	5.12
ii. Manual method	17.94	51.28	2.56
iii. Total communication (approach)	10.25	41.02	43.58

From the above table, it is clear that the majority of the teachers (over 75%) reported "Total Communication" approach as having high to very high influences; followed by "manual method", with about 54% of teachers indicating this factor as having high to very high influence "oral/aural method" was cited by less than 1/4 of teachers as having high to very high influence.

8. What other factors do the teachers of the hearing impaired perceive as influencing the implementation of 8-4-4 curriculum in their schools? The responses to this question are listed to Table 19.

T A B L E 19

O T H E R F A C T O R S

OTHER FACTORS	EXTENT OF INFLUENCE		
	MODERATE	HIGH	VERY HIGH
i. Attitudes of teachers towards 8-4-4 curriculum	17.94%	28.20%	35.89%
ii. Time allowed for the course	12.82%	10.25%	38.46%
iii. Too many subjects	10.25%	5.12%	51.28%
iv. Qualification of teachers	20.51%	30.76%	38.46%
v. Too many children in class	10.25%	10.25%	28.20%
vi. Inservicing of teachers of the hearing on materials of 8-4-4 curriculum	7.69%	15.38%	41.02%
vii. Coordination between curriculum developers, inspectors, teacher-trainers and teachers of hearing impaired	2.56%	17.94%	43.58%
viii. Public awareness on the new curriculum	7.69%	12.82%	20.51%
ix. Distribution of teaching materials and equipment	23.07%	23.07%	17.94%
x. Relevant books	7.69%	28.20%	30.76%
xi. Policies on education for hearing impaired	12.82%	12.82%	33.33%
xii. Mode of communication	17.94%	23.07%	33.33%
xiii. Language of instructing the hearing impaired	10.25%	28.20%	38.46%
xiv. Physical facilities	20.51%	25.64%	23.07%
xv. Teaching materials and equipment	25.64%	23.07%	30.76%
xvi. Methods of instructing the hearing impaired	7.69%	30.76%	38.46%
xvii. Onset of hearing impaired	20.51%	38.46%	17.94%
xviii. Degree of hearing impairment	12.82%	38.46%	33.33%
xix. Type of hearing impairment	15.38%	23.07%	30.76%

Table 19 shows the other factors which teachers perceive as influential. It can be seen that almost 3/4 of the factors were reported by the majority of teachers as having high to very high influence. For example, the degree of hearing impairment was reported by over 70% of teachers as having high to very high influence. The following five factors were reported by over 60% of teachers as having high to very high influence: "attitudes of teachers towards 8-4-4 curriculum", "qualification of teachers," "coordination between curriculum developers, teacher trainers, teachers trainers, teachers etc.", "language of instruction" and "method of instruction". Other factors that were reported by more than 1/2 of the teachers as having high to very high influence include; "Too many subjects", "inservicing of teachers", "relevant books", "mode of communication", "teaching materials", "onset of hearing loss" and "type of hearing loss". Although the factor, "too many subjects" is among those factors that were reported by more than half of the teachers as having high to very high influence, about 51% of the teachers indicated it as having very high influence. This suggests that it may be the most influential factor as perceived by these teachers. In fact, out of the nineteen factors listed on Table 18, over half of the teachers reported high to very high influence of seventeen of these factors. It should be noted that other factors that were earlier analyzed

individually in detail are included in the list

except two factors. These are "supervisory services" and "knowledge of the content areas".

Despite the fact that these two factors have not been included, it can be seen from Tables 15 and 16 that their influence is relatively high to very high.

RANKING OF FACTORS

Factors that teachers perceived as influencing the implementation of 8-4-4 curriculum in schools for the hearing impaired are further analyzed by looking at those most frequently ranked as most influential. Out of 39 total number of teachers, who responded to the questionnaire, 35 of them ranked the top ten most influential factors. The results of the teachers' ranking of factors by extent of influence are listed on Table 20.

1. Attitudes of teachers towards 8-4-4 curriculum	44.37%	62.8
2. Time allowed for the course	43.49%	69.71%
3. No. of subjects	34.28%	71.43%
4. Qualification of teachers	31.43%	54.28%
5. No. of children in class	28.57%	28.57%
6. Absenteeism of teachers	2.86%	57.14%
7. Coordination between curriculum development and teachers	0%	88.57%
8. Parents awareness of the school	0%	25.71%
9. Material and equipment	2.86%	4%
10. Reference books	14.28%	68.57%
11. Facilities for education of the hearing impaired children	25.71%	51.43%
12. Mode of communication	51.43%	68.57%
13. Language of instruction	25.71%	51.43%
14. Physical facilities	2.86%	24.28%
15. Teaching materials and equipment	28.57%	48.57%
16. Degree of understanding the hearing impaired children	11.43%	42.85%
17. Degree of hearing impairment	22.85%	4%
18. Degree of hearing impairment	22.85%	52.85%
19. Degree of hearing impairment	22.85%	57.14%

T A B L E 20

PERCENTAGE OF TEACHERS RANKING OF FACTORS IN TOP FIVE OR
TOP TEN OF INFLUENCE

FACTORS	RANKING	
	WITHIN 1-5	WITHIN 1-10
1. Attitudes of teachers towards 8-4-4 curriculum	28.57%	62.85%
2. Time allowed for the course	42.85%	65.71%
3. Too many subjects	54.28%	71.42%
4. Qualification of teachers	37.14%	54.28%
5. Too many children in class	5.71%	28.57%
6. Inservicing of teachers	22.85%	57.14%
7. Coordination between curriculum developers, inspectors, teacher-trainers and teachers	40%	68.57%
8. Public awareness on the new curriculum	5.71%	25.71%
9. Distribution of teaching materials and equipment	5.71%	40%
10. Relevant books	14.28%	68.57%
11. Policies on education of the hearing impaired children	25.71%	51.42%
12. Mode of communication	51.42%	68.57%
13. Language of instruction	25.71%	51.42%
14. Physical facilities	5.71%	34.28%
15. Teaching materials and equipment	28.57%	48.57%
16. Method of instructing the hearing impaired children	31.42%	42.85%
17. Onset of hearing impairment	22.85%	40%
18. Degree of hearing impairment	31.42%	52.28%
19. Type of hearing impairment	20%	34.28%

"Too many subjects" and qualification of teachers were the two factors that were both ranked number one (1) by five (5) teachers; and as can be seen from Table 20, the factor most frequently ranked by teachers as being within both the five most influential and ten most influential factor is "too many subjects". About 71% of the teachers ranked it top ten and about 54% of the teachers ranked it top 5 most influential factor.

The next factor ranked most frequently in both the top five and top ten most influential factor is "mode of communication" with 51% of teachers ranking it top five most influential and about 69% of the teachers ranking it top ten most influential factor.

Other factors that were ranked as the top ten most influential factors by over 50% of the teachers include: "coordination between curriculum developers, inspectors, teacher-trainers etc."; "relevant books", time "allowed for the course"; "attitudes of teachers towards 8-4-4 curriculum"; "qualification of teachers", "inservicing of teachers in 8-4-4 materials", "policies on education of the hearing impaired children", "language of instruction", and "degree of hearing impairment".

The above most influential factors, either within the top five or top ten seem to be consistent with the

extent of influence of factors analyzed in the first part of this section. All these factors were reported by more than half of the teachers as having high to very high extent of influence.

4.4

SUMMARY

In concluding this section of data analysis, attention should be drawn to Tables 18 and 19 which more or less give a summary of these factors which teachers of the hearing impaired in the schools/units that responded to the questionnaire, perceive as influencing the implementation of 8-4-4 curriculum in schools for the hearing impaired. In Table 18 it can be observed that almost all the percentages are proportional. This suggest that almost all of the factors are influential and therefore important when considering the implementation of 8-4-4 curriculum.

On the next Chapter implications of the analysis of data will be discussed. "Mode of communication" was ranked most frequently in both top five and top ten most influential factors, as already identified in literature review, this findings concurs with what Bailey and Kramer (1987) observed when he said that "the major issue in the education of hearing impaired is the lack

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.1 INTRODUCTION

The results of this study suggest factors which influence what teachers of the hearing impaired children perceive as influencing the implementation of 8-4-4 curriculum in their schools. The discussion will still follow the order of research questions.

5.2 DISCUSSION

MODE OF COMMUNICATION AND LANGUAGE USED WITH HEARING IMPAIRED CHILDREN

Under this factor, the data suggest that teachers perceived that "Total Communication" was the most influential factor, as it indicated that it had very high influence. The extent of influence was also found to be consistent with the ranking of the most influential factors. "Mode of Communication" was ranked most frequently in both top five and top ten most influential factors. As already highlighted in Literature review, this findings concurs with what Quigley and Kresmer (1982) observed when he said that "the major issue in the education of hearing impaired is the form

of language and communication that should be used by and with children in School" This seems to imply that if the problem of language and communication that should be used with hearing impaired children could be resolved then most of all problems that are encountered in the education of the hearing impaired children can be minimized.

As for language, teachers indicated that "sign language" was influential although some of them seem to experience some problems with sign language. From their comments, they said that they had problems as to which sign language to use because in recent years some foreign sign languages such as American signs and other have unofficially filtered into some schools for the hearing impaired. These have left teachers and children confused. This therefore, suggests that one sign language to be used in all the school should be decided upon; and if possible it should be Kenyan sign language which is culturally relevant to the users.

QUALIFICATIONS OF TEACHERS

It was very clear from the data that "qualifications of teachers" were a highly influential factor. It was also ranked number one by five teachers as well as the top five and top ten most influential factors. It was however, interesting to note that

those teachers who had been in schools for the hearing impaired for a considerable number of years and had had no training or little training (3 months inservice), was felt that experience in working with the hearing impaired children was the key factor as far as professional qualification was concerned. They even claimed that they were better off in handling the hearing impaired children than those teachers with higher professional qualifications in special education, such as those with SI and diploma. These teachers may have a point in their argument as it is evident from the researchers personal experience as a teacher trainer in the area of special education. She found out that those teachers who have been exposed to hearing impaired children had a better grasp in understanding issues related to hearing impairment than those teachers who were admitted to the course direct from the regular schools. It would take them a considerable amount of time to understand issues that are related to hearing impairment.

This observation therefore suggests that in future those teachers who have been exposed to hearing impaired children in their schools, should be given the first priority when admitting teachers to special education training.

This issue has been expressed in different forums such as in subject panel meetings at Kenya Institute of Education (K.I.E.). For a long time, the complication has been that, in order to admit teachers to take S1 or diploma course in special education, candidates were required to have had EAACE certificate and a minimum of one principle and two subsidiaries. The majority of the teachers who are already in schools for the hearing impaired do not have these qualifications. But now that EAACE certificate has been scrapped, these teachers could be considered for training in special education.

PHYSICAL FACILITIES, MATERIALS AND EQUIPMENT

From the data, two factors "school buildings" and "furniture" were reported by over half of the teachers as being influential. Under "school buildings", most teachers felt that "home science building" and "workshops" were influential. But interestingly, about half of the teachers who commented on this factor expressed that "physical facilities" such as "classrooms" didn't really matter; while the other half felt that it mattered.

As for "teaching materials and equipment", majority of the teachers indicated that visual aids and individual hearing aids were very

influential. This observation make sense when one considers the nature of the impairment of the children in question. Hearing impaired children especially profoundly deaf children use their sense of sight more than any other sense. As for those children who have residual hearing, hearing aids are very essential. From the data on distribution of pupils according to degree of hearing loss, about a quarter of the total number of hearing impaired pupils from the schools and units could comfortably benefit from suitable hearing aids.

Other components under the above factor that were considered very influential include: "writing materials", "syllabuses", "text books" and "home science equipment". These therefore suggest that every effort should be made to provide these things in all the schools for the hearing impaired.

SUPERVISORY SERVICES

While the majority of the teachers indicated that "supervisory services" were very influential, some of them were very bitter about the inadequacy of supervision they get especially the kind of supervision or inspection which is related to promotion. This view was strongly expressed by those teachers in the units. Some of them said that the last time they saw school inspectors

coming to visit was about five years ago. They went on to say that sometimes they feel humiliated when they see their counterparts in the regular classes in the same school, being promoted on merit, while they have never been observed.

KNOWLEDGE OF THE CONTENT SUBJECTS

Interestingly, of all of the content subjects, knowledge of Maths and English were described as very influential. This finding shouldn't be a surprise because the two subjects have been emphasized than other academic subjects in the hearing impaired schools, even prior to the introduction of 8-4-4 curriculum. Infact, in the former curriculum that was used in schools for the hearing impaired, known as "Provisional Curriculum and guidelines", "Maths and "English" seem to have been the only subjects that were given more weight besides specialists subjects.

Other subjects that were cited by over half of the teachers as being influential include "Religious Education (R.E.), "Science", "G.H.C." "Agriculture". In an attempt to give possible explanation in the case of R.E., it can be recalled from historical background that missionaries or churches started most of the schools for the hearing impaired. So it is possible that the influence is still strong. Consequently, this

historical phenomenon may have influenced the teachers in the teaching of this subject.

As for the remaining subjects they are basically practical in orientation. It is possible, therefore, that hearing impaired children are more responsive to these subjects since they involve intensive use of vision and tactile more than other senses; and as a result teachers are motivated to like these subjects. However, it may not be very much the case with G.H.C. Several teachers commented that they dislike teaching this subject, not so much for their inadequate knowledge on the subject but because of lack of relevant books on the subject.

It is also important to highlight on those subjects that were indicated by more than three-quarter of teachers that responded as having no influence or very low influence. These include "mother tongue", "music" and "Kiswahili". A possible explanation for mother tongue having no influence or very low influence can also be traced back to the data obtained from the headteachers on background information. They indicated that they admit hearing impaired children to their schools/units from different parts of the country. For

this reason they found it difficult to decide on which mothertongue to teach. The only alternative would have been Kiswahili as in the case of regular schools in urban areas. But as already mentioned, Kiswahili is one of the subjects that was cited as having low influence. From their comments, about one third of them argued that it is not possible to teach another language, when the children already have problems with English, which is supposed to be the language of instruction, according to the current Policy for Education of the Hearing Impaired. The same teachers suggested that hearing impaired children should be exempted from doing Kiswahili as an examinable subject. The same sentiments have been expressed at Subject Panel meeting at K.I.E. and in the last Annual General meeting for Kenya Society for Deaf Children.

The main argument that teachers had for not teaching music was that it was because of the nature of the children's handicap. They said hearing impaired children especially the profoundly deaf cannot hear and understand music, music theory in particular. On the same issue, Report of the Committee Appointed to Evaluate the Methods of Teaching the Deaf in Kenya (1988) recommended that hearing impaired children (deaf)

should not be taught or examined in Music. The Committee suggested that instead of teaching them music theory, other music oriented subjects such as drama, dancing, pantomime etc. should be taught. The researcher is personally in agreement with this view point, based on her experience.

METHOD USED IN TEACHING THE HEARING IMPAIRED

It was very clear from the data that the majority of the teachers indicated Total Communication approach" as being very influential, followed by "manual method". The mode of communication which total communication falls under was ranked within the top five for 51% teachers as well as the top ten among the most influential factors according to 69% teachers. This therefore suggests that "total communication approach", if followed seriously, can bring about positive results as far as communication; language of instruction are concerned. Several teachers suggested that all teachers in the schools for the hearing impaired should be inserviced on the use of "Total Communication Approach".

OTHER FACTORS

Other factors that teachers cited as very

influential include "too many subjects", coordination amongst professionals working for and with hearing impaired children, "time allowed for the course", "policies on education of the hearing impaired", and "degree of hearing impairment", just to mention a few. However a special mention should be given to three of these factors since majority of the teachers commented and gave suggestions. These are: "too many subjects", "more time needed for the curriculum" and "coordination amongst the professionals".

From the data, "too many subjects" was indicated by majority of the teachers as being very influential. It was also ranked number one by five teachers, as well as the top five by 51% teachers and top ten by 71% teachers. This factor is considered very influential but on the negative side. The total number of subjects in the 8-4-4 curriculum are fourteen; and top of these, hearing impaired children are expected to take specialist subjects. Specialist subjects include speech and language development, speech training and auditory training. These subjects are still emphasized in some schools especially, the units. Infact, out of the six teachers who indicated that 8-4-4 curriculum has not been implemented in their schools, four of them came from the units. This

implies that more weight is still put on the specialist subjects. It can therefore be seen that the teachers had a point in suggesting that the subjects are "too many"; and that some subjects such as "Kiswahili", 'Music' and "mother tongue" should be excluded from the curriculum for the hearing impaired children.

Alternatively, if hearing impaired children must cover the entire 8-4-4 curriculum, plus some specialist subjects, then more time should be accorded to all the schools for the hearing impaired. Infact, two teachers suggested 10-4-4 curriculum instead of 8-4-4. Others suggested that the period for this sort of curriculum should double that of the hearing impaired children. The Evaluation Committee on methods of Teaching the Deaf, that has already been mentioned, also recommended that hearing impaired (deaf) children be given more time in school to attain the same academic level as that attained by hearing children.

Last but not least, the "coordination amongst curriculum developers, inspectors of schools, teacher trainers, teachers of the hearing impaired" was commented by a number of teacher. They expressed that there seem

to be lack of coordination amongst all these people. They would like to see proper coordination in future especially in matters related to curriculum. They rightly feel that they should be consulted on issues related to curriculum development instead of waiting until implementation stage. They argued that they are the people who know more about educational needs of their pupils. This therefore suggests that curriculum developers will have to find ways of involving the classroom teachers in the initial stages of curriculum development upto implementation stages. This view agrees with Bishop (1985) when he observed that the teacher is the key to educational change; and he goes on to say that for curriculum change to succeed or to take root, depends in the teacher in the long run, and that he is the 'adopting unit'.

5.3

CONCLUSION

In concluding the researcher can say that teachers perceived that all the factors that were listed in the data, generally have some influence in one way or another in implementation of 8-4-4 curriculum in schools for the hearing impaired. The following are some recommendation that have been generated as a result of the discussion on the findings of the study:

1. POLICY ON EDUCATION OF THE HEARING IMPAIRED

There is an urgent need for policymakers to update the current policy on education of the Hearing Impaired. This will facilitate or clarify a number of issues that have been pending for a long time, including the following: language of instruction; method of instruction; designation of schools for the hearing impaired based on the onset, degree and type of hearing impairment; which sign language to be used, whether to have separate curriculum for the hearing impaired and others.

2. TRAINING OF TEACHERS

The Ministry of Education should consider training only those teachers that have had some experience in working with the hearing impaired.

3. SUPERVISORY SERVICES

The Ministry of Education should consider inservicing inspectors on matters related to education of the hearing impaired so that when they supervise or inspect them, and they are knowledgeable. The Ministry

should also consider some ways of motivating these teachers, for instance, promotion on merit for those teachers who work hard.

4. CURRICULUM DEVELOPMENT

Curriculum developers should actively involve teachers in curriculum development because, as they rightly say, they are the ones who know more about educational needs of the children they teach.

5. FURTHER RESEARCH

Last but not least, further research could be conducted on factors that influence 8-4-4 curriculum implementation on a larger sample of teachers. In addition, indepth research could be carried out on individual factors.

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Dear Mr. Nyanza,

ASSESSMENT OF YOUR SCHOOL IN A STUDY PROJECT

I am a post-graduate student taking a Masters Degree Course in Primary Special Education at Kenyatta University. I have chosen your school as a sample of schools and teachers to participate in important study project.

The project is an attempt to find out teachers' perception of factors affecting the implementation of the 8-4-4 system of Education in your school.

I would like to begin by that all teachers of the hearing impaired in your school take part in responding to the questionnaire. All the responses will be treated with utmost confidentiality and will only be used for purposes of the study.

I would like to visit your school on _____ to administer a questionnaire.

Thank you for your anticipated co-operation.

APPENDIX A

APPENDIX A

Kenyatta University,
Department of Com-Tech.,
P.O. Box 43844,
NAIROBI.

Date:

The Headmaster,

.....
.....
.....
.....
.....

Dear Sir/Madam,

RE: INVOLVEMENT OF YOUR SCHOOL IN A STUDY PROJECT

I am a post-graduate student taking a Masters Degree Course in Primary Teacher Education at Kenyatta University. I have chosen your school as a sample of schools and teachers to participate in important study project.

The project is an attempt to find out teachers' perception of factors affecting the implementation of the 8-4-4 system of education in your school.

I would like to request that all teachers of the hearing impaired in your school take part in responding to the questionnaire. All the responses will be treated with utmost confidentiality and will only be used for purposes of the study.

I would like to visit your school on in order to administer a questionnaire.

Thank you for your anticipation.

Yours faithfully,

- iii. Private
 - iv. Other (specify)
- (b) Is your school
- i. A unit attached to regular school?
 - ii. A day special school?
 - iii. A residential special school?
 - iv. Other (specify)
- (c) If its a residential special school, where do your children come from?
- i. The local district
 - ii. The province where the school is
 - iii. From all parts of the country
 - iv. Other (specify)

INFORMATION ON THE CHILDREN

1. How do you admit the pupils to your school?
 - (a) Parents bring them
 - (b) Through Ear, Nose and Throat (ENT) clinics
 - (c) Through doctors
 - (d) Through special education assessment centres
 - (e) Other (specify)
2. According to the type of deafness, approximately what number of pupils in your school would you categorize?

NUMBER

- (a) profoundly hearing impaired (91 dB+)
- (b) severely hearing impaired (71-91 dB)
- (c) moderately severe hearing impaired
(56 - 70 dB)
- (d) moderately hearing impaired (41-55 dB)
- (e) mildly hearing impaired (26 - 40 dB)

Are the children making effective use of the hearing aids?

YES

NO

SOMEWHAT

If any, why

INFORMATION ON TEACHERS

1. (a) Number of teachers in your school
- (b) Sex (i) Male
- (ii) Female

2. Number of teachers trained in special education
 - (a) 3 months inservice
 - (b) S1
 - (c) Diploma
 - (d) Graduate
 - (e) Other

3. Number of teachers who have not yet been trained in special education but trained in regular Teachers Course

- | | |
|--------------------|-------------------|
| (a) P4 | (d) P1 |
| (b) P3 | (e) S1 |
| (c) P2 | (f) Diploma |
| (g) Graduate | (h) Other |

4. Number of untrained teachers

Your profession is being required to respond to questions about what you perceive as factors that affect the implementation of e-learning in your school.

Part 1

GENERAL INFORMATION

QUESTIONS

Below you are provided with star pieces. You are kindly requested to give appropriate information either by ticking

or by giving further information or how you would provide.

1. Name of school
2. Sex (for

3. Age

- (a) Below 20 years
- (b) 21 - 30 years
- (c) 31 - 40 years
- (d) 41 - 50 years
- (e) Above 50 years

A P P E N D I X C

QUESTIONNAIRE FOR HEADTEACHERS AND TEACHERS

This questionnaire has two parts: Part A and Part B. Part A requires you to give general information about yourself and your profession. Part B requires you to respond to questions about what you perceive as factors that affect the implementation of 8-4-4 curriculum in your school.

PART A

GENERAL INFORMATION

INSTRUCTIONS

Below you are provided with statements. You are kindly requested to give appropriate information either by ticking or by giving further information on the spaces provided.

1. Name of school
2. Sex (a)
(b)
3. Age
(a) Below 20 years
(b) 21 - 30 years
(c) 31 - 40 years
(d) 41 - 50 years
(e) Above 51 years

4. Your academic qualification Year Duration Grade Attained

- (a) KAPE/KPE/CPE/KCPE
- (b) KJSE
- (c) KACE
- (d) EAACE
- (e) Any other (please specify)

5. Your professional qualification

- (a) Untrained
- (b) P4
- (c) P3
- (d) P2
- (e) P1
- (f) S1
- (g) Diploma
- (h) Approved Teacher
- (i) Graduate teacher
- (j) Any other (please specify)

6. Years of Teaching Experience

- (a) Hearing children - Number of years taught
- (b) Hearing impaired children - Number of years taught
- (c) Your entire teaching career - _____

7. You are a teacher of

- (a) Nursery
- (b) Lower Primary
- (c) Upper Primary
- (d) Both (b) and (c)

8. Place of training

- (a) Pre-service training (Regular Teachers' Course)

College Year Duration Grade Attained

(b) Special Education Course

Place Year Duration Grade Attained

(c) In-Service courses

Place Course Year Duration Grade Attained

PART B

INSTRUCTION

Please respond to all the questions. There are two types of questions. The first one requires you to give appropriate response by circling EITHER a letter e.g.

1. (a) or a number e.g. 1 (i) 0 1 2 3 4 (5)
 b (ii) 0 (1) 2 3 4 5
 c (iii) 0 1 2 (3) 4 5

The numbers represent the extent of influence. For instance,

- 0 = No influence
- 1 = Very low influence
- 2 = Low influence
- 3 = Moderate influence
- 4 = High influence
- 5 = Very high influence

The second one is an open ended type of question which requires you to give should not feel restricted by limited space. Blank

spaces have been provided but you should not feel restricted by limited space. Feel free to continue on a separate piece of paper.

1. Indicate whether the 8-4-4 curriculum has been implemented in your school
 - (a) Fully implemented
 - (b) Partly implemented
 - (c) Not implemented

2. (a) Indicate to what extent the following ways of communicating and the language used with the hearing impaired children influence the implementation of 8-4-4 curriculum in your class.

		<u>Extent of Influence</u>					
i.	Spoken language	0	1	2	3	4	5
ii.	Written communication	0	1	2	3	4	5
iii.	Sign Language:						
	Kenyan Sign Language (KSL)	0	1	2	3	4	5
	American Sign Language (ASL)	0	1	2	3	4	5
	Sign Exact English (SEE)	0	1	2	3	4	5
iv.	Total Communication	0	1	2	3	4	5
v.	Other (please specify)	0	1	2	3	4	5

- (b) Comment on how the above mode of communication and the language used with the hearing impaired children affects the implementation of 8-4-4 curriculum in your class.

(c) To what extent do the following ways of communicating and language used with the hearing impaired children influence the implementation of 8-4-4 curriculum in other classes in your school.

	<u>Extent of Influence</u>					
i. Spoken language	0	1	2	3	4	5
ii. Written communication	0	1	2	3	4	5
iii. Sign languages:	0	1	2	3	4	5
Kenyan Sign Language	0	1	2	3	4	5
American Sign Language	0	1	2	3	4	5
Sign Exact English	0	1	2	3	4	5
iv. Total communication	0	1	2	3	4	5
v. Other (specify)	0	1	2	3	4	5

(d) Comment on how the above mode of communication and language used with hearing impaired children influence the implementation of 8-4-4 curriculum in other classes in your school.

(c) To what extent do the qualifications of teachers of the hearing impaired in your school influence the implementation of 8-4-4 curriculum?

Qualification	Extent of Influence					
i. Academic (course work)	0	1	2	3	4	5
ii. Professional (training)	0	1	2	3	4	5
iii. Experience (In classroom)	0	1	2	3	4	5
iv. Other	0	1	2	3	4	5

3. (a) To what extent do your qualification influence the implementation of 8-4-4 in your class for the hearing impaired in your school?

Qualification	Extent of Influence					
i. Academic (course work)	0	1	2	3	4	5
ii. Professional (Training)	0	1	2	3	4	5
iii. Experience (In classroom)	0	1	2	3	4	5
iv. Other (specify)	0	1	2	3	4	5

- (b) Comment on how your qualifications or experience influence implementation of 8-4-4 curriculum in your class for the hearing impaired in your school.

4. (a) _____

(c) To what extent do the qualifications of teachers of the impaired in other classes influence the implementation of 8-4-4 curriculum

<u>Qualification</u>	<u>Extent of Influence</u>					
i. Academic (course work)	0	1	2	3	4	5
ii. Professional (training)	0	1	2	3	4	5
iii. Experience (in classroom)	0	1	2	3	4	5
iv. Other	0	1	2	3	4	5

(d) Comment on how the qualification of teachers of the hearing impaired in other classes influence the implementation of 8-4-4 curriculum.

4. (a) To what extent do the following physical facilities influence the implementation of 8-4-4 curriculum in your class for the hearing impaired in your school?

Physical facilities

Extent of Influence

i.	School buildings e.g.								
	Classrooms	0	1	2	3	4	5		
	Laboratories	0	1	2	3	4	5		
	Home Science rooms etc.	0	1	2	3	4	5		
ii.	Furniture e.g. desks,								
	tables, and chairs etc.	0	1	2	3	4	5		
iii.	Play ground	0	1	2	3	4	5		
iv.	School garden	0	1	2	3	4	5		
v.	Other (specify)	0	1	2	3	4	5		

(b) Comment on how some of the above physical facilities influence the implementation of 8-4-4 curriculum in your hearing impaired classroom.

(c) To what extent do the following physical facilities influence the implementation of 8-4-4 curriculum in other classes for the hearing impaired in your schools?

Physical facilities

Extent of Influence

i.	School buildings eg.								
	Classrooms	0	1	2	3	4	5		
	laboratories	0	1	2	3	4	5		
	Workshops	0	1	2	3	4	5		
	Home Science rooms	0	1	2	3	4	5		
ii.	Furniture e.g. desks,								
	tables, and chairs	0	1	2	3	4	5		
iii.	Play ground	0	1	2	3	4	5		
iv.	School garden	0	1	2	3	4	5		
v.	Other (specify)	0	1	2	3	4	5		

(d) Comment on how some of the above physical facilities influence the implementation of 8-4-4 curriculum in other hearing impaired classes in your school.

5. (a) To what extent do the following materials and equipment influence 8-4-4 curriculum in your class for the hearing impaired in your school?

iv.	Visual aids e.g. charts, maps, diagrams, photographs, slide films, flashboards, flash cards etc.	0	1	2	3	4	5
v.	Reading materials e.g. reference books, library books, reading games, etc.	0	1	2	3	4	5
vi.	Science equipment e.g. test tubes, magnets, gas burners	0	1	2	3	4	5
vii.	Agricultural tools e.g. 'pangas', 'jembes' etc.	0	1	2	3	4	5
viii.	Homescience equipment e.g. sewing kits, sewing machine etc.	0	1	2	3	4	5
ix.	Musical instruments	0	1	2	3	4	5
x.	Radio, tape recorder and other audio-visual equipment	0	1	2	3	4	5
xi.	Typewriters, duplicators etc.	0	1	2	3	4	5
xii.	Individual hearing aids and group hearing aids	0	1	2	3	4	5
xiii.	Audiometres	0	1	2	3	4	5
xiv.	Speech trainers	0	1	2	3	4	5

(d) Comment on how some of the materials and equipment affect the implementation of 8-4-4 curriculum in other classes for the hearing impaired in your school.

Materials and Equipment

Percent of Influence

- iv. Giving advice e.g. purchasing of new teaching material, use of new teaching material, use of new methods of teaching hearing impaired children etc. 0 1 2 3 4 5
- v. Other (please specify) 0 1 2 3 4 5

(b) Are you satisfied on how supervision on any of the areas mentioned above is done in your class for the hearing impaired?

Comment.

(c) To what extent do these same supervisory services influence the implementation of 8-4-4 curriculum in other classes for the hearing impaired in your school?

- x. Individual hearing aids 0 1 2 3 4 5
- xi. Aides 0 1 2 3 4 5
- xii. Special Trainers 0 1 2 3 4 5

<u>Materials and Equipment</u>		<u>Extent of Influence</u>					
i.	Syllabuses	0	1	2	3	4	5
ii.	Textbooks for both teachers pupils	0	1	2	3	4	5
iii.	Writing material e.g. chalkboard, manilla papers, news prints, exercise books etc	0	1	2	3	4	5
iv.	Visual aids e.g. charts, maps, diagrams, photographs, slides, films, flashboards, flash cards etc.	0	1	2	3	4	5
v.	Reading materials e.g. reference books, library books, reading games etc.	0	1	2	3	4	5
vi.	Science equipment e.g. test tubes, magnets, gas burners etc.	0	1	2	3	4	5
vii.	Agricultural tools e.g. 'pangas', 'jembes' etc.	0	1	2	3	4	5
viii.	Homescience equipment e.g. sewing kits, sewing machine etc.	0	1	2	3	4	5
ix.	Musical instruments	0	1	2	3	4	5
x.	Radio, tape-recorder and other audio-visual equipment	0	1	2	3	4	5
xi.	Typewriters, duplicators etc	0	1	2	3	4	5
xii.	Individual hearing aids	0	1	2	3	4	5
xiii.	Audiometres	0	1	2	3	4	5
xiv.	Speech Trainers	0	1	2	3	4	5

Supervisory services

Extent of Influence

- | | | | | | | | |
|------|---|---|---|---|---|---|---|
| i. | General inspection | 0 | 1 | 2 | 3 | 4 | 5 |
| ii. | Classroom inspection | 0 | 1 | 2 | 3 | 4 | 5 |
| iii. | Inspection of teachers for
the hearing impaired for
promotion | 0 | 1 | 2 | 3 | 4 | 5 |
| iv. | Giving advice | 0 | 1 | 2 | 3 | 4 | 5 |
| v. | Other (please specify) | 0 | 1 | 2 | 3 | 4 | 5 |

(d) Comment on whether teachers of the hearing impaired in other classes are satisfied on how supervision of any of the areas mentioned above is done.

- viii. Mathematics
-
- ix. Foreign Languages - Lower
-
- x. Music
-
- xi. Physical Education
-
- xii. Art Education
-
- xiii. Social Studies
-
- xiv. Health Education
-

Comment on how the knowledge of these subjects that you have indicated as having no influence or little influence affect the implementation of 8-4-4

7. (a) To what extent does your knowledge of the content areas of the following subjects influence the implementation of 8-4-4 curriculum in your class.

<u>Knowledge of Subjects</u>		<u>Extent of Influence</u>					
i.	Agriculture	0	1	2	3	4	5
ii.	Art and Crafts (in upper classes 4 - 8)	0	1	2	3	4	5
iii.	Business Education (Upper Class 4 - 8)	0	1	2	3	4	5
iv.	English	0	1	2	3	4	5
v.	Geography, History and Civics (GHC)	0	1	2	3	4	5
vi.	Home Science (upper classes)	0	1	2	3	4	5
vii.	Kiswahili	0	1	2	3	4	5
viii.	Mathematics	0	1	2	3	4	5
ix.	Mother-Tongue - Lower classes (1 - 3)	0	1	2	3	4	5
x.	Music	0	1	2	3	4	5
xi.	Physical Education	0	1	2	3	4	5
xii.	Religious Education	0	1	2	3	4	5
xiii.	Science	0	1	2	3	4	5
xiv.	Pastoral Programme	0	1	2	3	4	5

(b) Comment on how the knowledge of those subjects that you have indicated as having no influence or high influence affect the implementation of 8-4-4 curriculum in your class for the hearing impaired in your school.

the implementation of 8-4-4 curriculum in your class.

8. (a) To what extent do the following methods of instructing the hearing impaired influence the implementation of 8-4-4 curriculum in your class?

<u>Method of Instruction</u>	<u>Extent of Influence</u>					
i. Oral/aural method	0	1	2	3	4	5
ii. Manual method	0	1	2	3	4	5
iii. Total communication approach	0	1	2	3	4	5
iv. Other (please specify)	0	1	2	3	4	5

- (b) Comment on how the methods you have indicated as having 'no influence' or 'very high influence' affect

Factors Extent of Influence

		0	1	2	3	4	5
xiii.	i. Attitudes of teachers of the hearing impaired towards 8-4-4 curriculum	0	1	2	3	4	5
xiv.	ii. Time allowed for the course	0	1	2	3	4	5
	iii. Too many subjects	0	1	2	3	4	5
xvi.	iv. Qualifications of hearing teachers of the hearing impaired	0	1	2	3	4	5
xvii.	v. Too many children in class	0	1	2	3	4	5
xix.	vi. Inservicing of teachers of the hearing impaired on materials of 8-4-4 curriculum	0	1	2	3	4	5
	vii. Coordination between curriculum developers, inspectors, teacher-trainers and teachers of the hearing impaired	0	1	2	3	4	5
	viii. Public awareness on the curriculum	0	1	2	3	4	5
	ix. Distribution of teaching materials and equipment	0	1	2	3	4	5
	x. Relevant books	0	1	2	3	4	5
	xi. Policies on education for the hearing impaired children	0	1	2	3	4	5

xii.	Mode of communicating with hearing impaired children	0	1	2	3	4	5
xiii.	Language of instructing the hearing impaired children	0	1	2	3	4	5
xiv.	Physical facilities	0	1	2	3	4	5
xv.	Teaching materials and equipment	0	1	2	3	4	5
xvi.	Method of instructing the hearing impaired children	0	1	2	3	4	5
xvii.	Onset of hearing impairment	0	1	2	3	4	5
xviii.	Degree of hearing impairment	0	1	2	3	4	5
xix.	Type of hearing impairment	0	1	2	3	4	5
xx.	Other (please specify)	0	1	2	3	4	5

(b) Below, list the ten most influential factors in the order of their importance as a factor influencing the implementation of 8-4-4 curriculum in your class for the hearing impaired in your school.

i. The most influential factor _____

ii. The 2nd most influential factor _____

iii. The 3rd most influential factor _____

iv. The 4th most influential factor _____

v. The 5th most influential factor _____

vi. The 6th most influential factor _____

vii. The 7th most influential factor _____

viii. The 8th most influential factor _____

ix. The 9th most influential factor _____

x. The 10th most influential factor _____

10. Suggest some way and means of overcoming curriculum implementation problems.

Let me thank you in advance for the time and energy that you use in completing this questionnaire.