KENYATTA UNIVERSITY

FACULTY OF ARTS

MUSIC DEPARTMENT

FACTORS AFFECTING STUDENT PERFORMANCE OF AURAL SKILLS AT KCSE IN NAIROBI SECONDARY SCHOOLS

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE

DEGREE OF MASTER OF ARTS

BY

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DECLARATION

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

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DEDICATION

To my dear parents, Ibrahim Marube Mbeche and Mrs. Monicah Nyabiya Marube.

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I would like to extend my sincere appreciation to the following individuals and institutions for the assistance, encouragement and support that they gave during the writing of this project.

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ABSTRACT

This study investigated the factors affecting the performance of aurals at K.C.S.E. in Nairobi secondary schools.

The study was undertaken because of the continuous poor performance in the aural paper. The study sought to:

a) Find out the extent in which aural training was given to secondary school music students.

b) Find out which resources were used in aural training.

c) Establish the methodology used in the aural training of music students.

d) Determine if students engaged in music making activities that could enhance their aural acuity.

The study focussed on the music teachers and music students. A total of 17 teachers and 69 students participated in the study.

The simple random sampling technique was used in selecting those that participated in the study. Data was collected using four types of instruments. These were opinionnaires, questionnaires, interview schedule and observation schedule. The data was analyzed by using the Likert scales, frequency tables and percentages.

The Likert scales were used in gauging teachers' opinions regarding factors affecting aural performance. Students' questionnaires were analyzed by developing coding frames which indicated the percentage of students who responded to each category of the coding frames.

Information from the interviews and the observation schedule was tabulated resulting into patterns which described factors affecting aural performance.

The study revealed that lack of proper teacher training acted as an impediment to effective teaching of aurals. Lack of adequate resources and regular training also lead to poor aural performance. Commencement of aural training began late which also led to poor performance of aurals.

From the findings of the study, recommendations were made which would enable the music teachers and educators to raise the standard of music education. Some of these were:

(i) Music teachers should undergo proper training where they are taught various musicianship courses. Teacher Training institutions should give adequate courses in musicianship to equip the teachers with the necessary skills which they need for aural training.

(ii) More resources especially text- books should be provided for the teachers which indicate how aural training should be carried out to avoid misinterpretation of the syllabus by teachers.

(iii) Due to lack of time for teaching aurals, students should be given a lot of work to do out of class. There should be a student's workbook which the students can use out of class to ensure continuity in the aural training.

(iv) Teachers need to begin aural training as soon as students arrive in the secondary school so that in four years time, they are adequately prepared to handle the aural section of the practical paper. There is also need to give aural training frequently as this enables students to perceive the various musical sounds.

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CHAPTER ONE: INTRODUCTION

1.1 Background To The Study

Aural training is considered to be a very essential component of music education. This is because it leads to the development of the mental hearing of the 'inner ear' that is, the ability to hear in the mind, the sound that is read on the paper.

According to Lovelock (1978), the reason why people have no difficulty in mentally hearing the words that they read is due to the fact that they are continually dealing with those words from time to time. He asserts that they repeat the words so often that they have no trouble imagining the sounds of those words when they see them either written or printed. He then concludes that the same process is needed in music education especially in aural training. This is because the development of the mental hearing must arise from the normal processes of aural training. This involves the use of memory coupled with an unlimited amount of practice which is repetitive.

Hoffer (1964) has outlined aural experience, which is a necessary antecedent to visual experience as one of the most effective principles of learning and teaching Music. He states that:

> Teaching musical comprehension by proceeding from printed symbols to aural experience is successful only to the degree that listening has preceded the reading. The manner in which a child learns the language is very similar to the way he learns or should learn music. By the time a child enters first grade, he has an understanding vocabulary of about twenty-four thousand words and three or four years' practice in speaking the language. It is after all this experience that he begins to see the printed symbols that represent what he has been saying(1964:156).

Swanwick and Taylor (1982) state that:

> The problems for secondary schools is that pupils arrive with radically different levels of ability and experience and (let it be said) often with diminishing enthusiasm for general music courses in classes of thirty (1982:34)

Domek (1979) also observes that the instructors involved with the teaching of aural skills at the college level continually encounter students who have differences in ear-training skills. Also, in the same class, it's possible to find students who have had two or more years of formalized ear-training and music-reading instruction as well as a large number who have never had any aural training at all.

In Kenya, the government has had a policy on Music Education since independence. The Ominde Report of 1964 recognized the importance of music in the curriculum and stressed the importance of art and musical activities in the school. Digolo (1997) states that:

> The Government of Kenya has made strenuous and continuing effort to provide necessary planning for music in education... Over two thousand candidates, who sit for the Kenya certificate of Secondary Education (KCSE) each year, do music examination. The candidates are tested on practical music, which is contained in Paper 1 and theory of music contained in Paper II, for the KCSE music exam.
>
> Reports prepared by the Kenya National Examinations Council on music from 1989 to 1994 indicate that majority of candidates taking the KCSE music exam. have consistently performed poorly in the practical paper as compared to the theory paper (ibid:1).

This report was verified by an analysis of the performance of music students in both the theory and practicals in KCSE Music Examinations from 1989 to 1994 whereby it was evident that students were performing poorly in music practical examinations as compared to theory. This study was hence designed to investigate factors leading to the poor performance of aurals which is part of the practical paper.

1.2 Statement of the Problem

Langley (n.d:13) states that: "Aural training is essential for musical progress and general musicianship." Swanwick and Taylor (1982:16) suggest five parameters of musical

experience which state ways in which pupils become active in music and the roles that they play.

The first parameter is 'composition' where a student is involved in formulating a musical and notational skills while the object. The second is 'literature studies' where the pupil has knowledge concerning music literature while the third parameter is 'audition' which involves responsive listening on the student's part. The fourth parameter is 'skill acquisition' where a pupil becomes active in music by acquiring aural, instrumental fifth parameter is 'performance' where the student communicates music to others. All these are characteristics which a musician should possess.

According to the Kenya Secondary School Music Syllabus, aural work consists of time, rhythm and pitch. Students are supposed to notate melodies dictated to them, identify different cadences in a piece of music, write down various intervals and rhythmic patterns and identify certain modulations.

Unfortunately year after year, there is a poor performance in this area. Digolo (1997:5) says that:

> The sentiments appear to have been shared by the Kenya National Examinations Council (1994) when it pointed out that the majority of music candidates portray weaknesses in practical and aural music.

This study hence sought to investigate the factors affecting performance of aurals at KCSE in Nairobi Secondary Schools.

1.3 Research Questions

This study was guided by the following research questions:

i) Is aural training given to secondary school music students?

ii) Which music teaching resources are used for aural training?

iii) What methodology do music teachers use in teaching aurals?

iv) What learning activities do students engage in to develop their aural skills?

1.4 Objectives of the Study

The main objective of this study was to identify the factors leading to poor performance in the aural paper at K.C.S.E. The specific objectives were:

a) To find out the extent to which aural training was given to secondary school music students.

b) To find out which resources were used in aural training.

c) To establish the method used in the aural training of music students.

d) To determine if students engaged in music-making activities that could enhance their aural acuity.

1.5 Assumptions

This study was based on the following assumptions:

a) That the 8:4:4 system of education caters adequately for all areas of music education.

b) That music teachers were aware of the syllabus requirements regarding teaching of aurals in Nairobi secondary schools.

1.6 Theoretical Framework

This section deals with the theories which have been developed with regard to perception and this is due to the fact that perception is related to learning.

This study was based on Ausubel's theory of cognitive structure in Peters and Miller (1982) which postulates that perceptions grow and become organised into structures only when they are catalogued and labelled. Thus treated, they are placed in their proper position in the growing cognitive structure.

Meyer (1956) in Peters and Miller (op. cit) supports this theory when he describes two kinds of expectation in musical perception: One expectation grows out of the mode in which the mind organizes and groups data and the other is based on learning. Hence it shows that perceptions form part of the data that is organized and grouped.

This is further supported by Leonhard and House (1959) who define perception as an act by which meaning is gained from the sensory process while a stimulus is present:

> Perception results in the formation of concepts. The data received by the senses are supplemented, interpreted and given meaning as the mind reacts to the sense impressions in terms of past experience, the present situation, and the purposes or goals with which the subject identifies himself (ibid:110).

Ausubel's theory of cognitive structure is applied to music teaching and learning by Peters and Miller (1982) when they link perception with experience and formation of musical concepts. According to them, the totality of musical perception leads to formation of musical concepts in the mind which can be conceived in either the cognitive or the affective domain. Both require the experiencing of musical stimuli throughout the process of learning. Thus, if a student is to develop musical concepts, he must experience music.

In applying this concept in the realm of music education, the aim is not concerned with developing a love of music but, rather, with providing an understanding of art, as stated by Gordon (1971) in Mehr (1985). For him, the purpose of Music Education in the

classroom is to promote the aesthetic response to music by developing immediate and spontaneous perception of the various elements of music.

This study sought to find out factors affecting the performance of aurals in secondary schools because aural training is an essential component of music education. Students ought to attain musical growth in all facets of musical knowledge and skills. The attainment of musical growth only happens if the student has true concept of music which depends upon good aural perception. Therefore, the senses through which these perceptions are formed must be properly trained.

1.7 Rationale and Significance of Study

Gordon (l97l) in Mehr (1985) suggests that the purpose of music education is to promote the aesthetic response to music complex. The purpose can only be achieved if the student's aural skills are highly developed.

This study was undertaken because of the continuous poor performance in aurals in secondary schools (Digolo, 1997 and KNEC, 1994). Its was hoped that this study would establish the factors leading to the poor performance in an effort to make improvements in aural training and in music education as a whole.

This research was necessary because it would create an awareness of the importance of aurals as far as a student's musicality is concerned. Music is sound and if musicians cannot translate the concepts that they learn in theory into practice, then music education would not have achieved its intended purpose.

This research also hoped to reveal the current situation in Nairobi Secondary Schools regarding aural performance, which would enable the music teachers and educators to improve on their teaching while at the same time, raise the standard of Music Education as a whole.

1.8 Scope and Limitation of the Study

The study was conducted in Nairobi secondary schools in which music was taught. The respondents were music teachers and music students within Nairobi province.

Nairobi province was selected because it had a cross-section of schools, which represented the various types of schools found in the country. These included national schools, provincial schools, as well as private schools. All these categories of schools provided a rich background for conducting the study.

This study had limitations due to the fact that not much research had been done specifically on the teaching of aurals in Nairobi secondary schools. Although there are materials that are available on other aspects of music teaching in secondary schools, nothing specifically addresses aurals. Due to lack of time and finances, the researcher was unable to conduct the research in other provinces. It is hoped that other researchers interested in this particular field would use the findings of this study to develop music education in this country.

CHAPTER TWO: LITERATURE REVIEW

2.1 History of Music Education

Leonhard and House (1959), in talking about the origins of Music Education state that no human society has been found which has not practised the art of music and music education. In primitive societies music fulfilled a basic function in tribal ceremonies where there was music and dance in which everyone participated. Thus, music understanding and skill were passed on with all other elements for the sake of social continuity. This was done by simple educational methods, which included imitating those who were more proficient in that area when some musical activity was going on and practising more done later on.

Prince (1974) suggests that two types of emphases have dominated the history of Music Education in the USA. These are music education as a product and music education as a process and that one or the other has dominated music teaching in schools at various times. In looking at music education as a product, he continues to say that some of the goals for an individual included learning to play an instrument, acquisition of such skills as sight-reading and obtaining knowledge about music signs and symbols. Thus, the final product was better singing and playing in church services which was also the goal of the early singing schools.

With this kind of approach, the music programme aimed at producing in students the ability to sight-sing and teachers expected students to gain some knowledge about the facts of music theory like clef signs, key signatures and tempo markings.

However in the 1930's music began to be centered on process and Mursell (1948) deployed teaching practices that were sequential. The teaching of music became an activity-based process emphasizing individual growth and development. The goal was to enable students to engage in a number of music activities. Prince (1974:28) states that:

> These processes were to be experienced repeatedly in a cyclical format in which the experiences became increasingly complex and incorporated a greater degree of difficulty of both a technical and a conceptual nature. Proponents of this type of teaching expected a "natural" musical growth to be fostered, through which the development of each individual would be commensurate with his innate ability. Every one would not achieve the same goals to the same degree. Rather, each would attain musical growth in all facets of music knowledge and skills to the degree that his potential would allow. Thus such skills as performance, music reading and singing were expected to develop as a normal result of the music experience. They were to be consciously developed only when there was a need growing out of the flow of the experiences with music.

It can therefore be seen that the two strong forces which developed in Music Education (as a product and a process) created a dilemma. But Prince (ibid) goes on to conclude that music education cannot maintain a split personality. Product and process must be combined to create music experiences which are rich and which will have an impact on the students' later lives. He concludes that:

> If students are not introduced to the broad scope of music experience available in our world and are not given the tools and incentive to explore music and to extend their own music horizons independently, we have failed to meet the broad aims of our profession (1974:74).

Having seen the importance of music education, it is imperative to look at the objectives of Music Education for they are the foundation of a strong and consistent music programme. Leonhard and House(1959:143) outline the importance of objectives in music education. They serve as reference points for every professional decision and action. More specifically they serve to:

i) Assure positive relation of musical instruction to the broader aims of the school.
ii) They form the basis for planning educative experiences.
iii) They control the daily adjustment of methods and materials.
iv) They provide criteria for evaluation of instruction.

Hoffer (1986) talks about the usefulness of standards and guidelines in music education. thus:

> A set of standards helps to inform people about the scope and nature of a comprehensive music program. Sometimes people who are not music educators assume that a school music program is adequate if the children sing a few songs and the high school band marches at football games. Standards let people know how much more there is to a quality music program and that music is an area of the school curriculum to be taken seriously (1986:50).

He equally states that when a set of standards is developed, certain guidelines should be followed to ensure that the standards help in achieving quality music programs.

Jordan-Decarbo (1986) talks about the state of music education and says that despite the survival of music education on a national scale (referring to the United States), the major objectives, that is, training students to be musically sensitive and literate, are not met:

> Perhaps the fault does not lie in knowing what to teach or how to teach, but in knowing when to teach – the sequence of learning (1986:39)

Looking at the situation in Kenya, the KCSE Music Syllabus outlines specific objectives for acquisition of basic skills in music (under which the aural section falls) These objectives are that the learner should be able to:

a) Sight read music

b) Sight sing music

c) Translate music from staff to sol-fa-notation

d) Translate music from sol-fa to staff notation

e) Transpose music

f) Write music

Thus it can be seen that the objectives are aimed at training students to be musically sensitive.

The Kenya Secondary School Music Syllabus has four main sections. These are Basic skills, History and Analysis, practicals and a project. Below is an analysis of the aural section of the syllabus for each class, from Form one to Form four.

Table 2.1.1: A Section of the Secondary School Music Syllabus

CLASS	SECTION	SUB-SECTION
FORM ONE	a) RHYTHM	i) Monotone rhythms using the following note values ii) Time Signatures 2 3 4 6 4 4 4 8
	b) MELODY	i) Melodic intervals up to a leap of a third ii) Harmonic and Melodic Major 2nd, minor 2nd,
	c) INTERVALS	i) Major 3rd, Minor 3rd and Perfect 5th
	d) CADENCES	
FORM TWO	a) RHYTHM	i) Note Values: ii) Time Signature 2 3 4 6 4 4 4 8
	b) MELODY	Melodic intervals up to a leap of a perfect 5th and an octave
	c) INTERVALS	i) Harmonic diatonic; perfect 4th, major 6th and perfect octave
	d) CADENCES	i) Perfect, plagal and interrupted
FORM THREE	a) RHYTHM	i) Triplets ii) Time signature 3 9 6 2 3 8 8 4 2 2 iii) Grouping of notes
	b) MELODY	i) Major, minor and perfect intervals in both major and minor keys
	c) INTERVALS	i) Harmonic intervals; Major, minor and perfect
	d) CADENCES	i) Perfect, plagal, imperfect and interrupted in Major keys
FORM FOUR	a) RHYTHM	i) Syncopation ii) Duplets
	b) MELODY	i) Modulation to related keys
	c) INTERVALS	i) Harmonic intervals; Major, minor and perfect
	d) CADENCES	i) Perfect, plagal, imperfect and interrupted in Major and minor keys

The table above shows the aural section of the syllabus. The topics to

Be covered are as follows:

a) Rhythm in $\frac{2}{4}$ $\frac{2}{2}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{6}{8}$ $\frac{3}{8}$ $\frac{9}{8}$ $\frac{6}{4}$ $\frac{3}{2}$

b) i) Melody in Major and minor keys.

ii) Modulation to related keys.

c) Harmonic intervals, Major, minor and perfect.

d) Cadences, perfect, plagal, imperfect and interrupted in Major and minor keys.

The 1993 and 1994 Examination Report Issued by KNEC (1996) shows the questions which the students are expected to answer in the aurals section.

Question one: Rhythm on Monotone

This question requires candidates to:

i. Listen to a repetitive drum rhythmic pattern in simple time and to write the rhythm on monotone.

ii. Listen to a melody and then write the rhythm on monotone

iii. Listen to a melody in compound time and then write it on monotone.

Question two: Melody

Here candidates are required to listen to:

i. A melody in a major key and then write it on staff

ii. A melody in a minor key and then write it on staff

Question Three: Intervals

This question expects candidates to listen to two harmonic intervals and describe each of them.

Question Four: Cadences

Here candidates are required to demonstrate skill in recognizing and describing cadences as perfect, imperfect, interrupted and plagal.

Question five: Modulation

The question requires candidates to listen to two melodies and then identify the modulations. KNEC (1996) report attributed the poor performance in some questions in this paper to:

i) Lack of teaching facilities eg instruments and books.

ii) Inadequate ear-training exercises

iii) The inability by some teachers to listen, hear and write what they hear. This leads to theoretical teaching.

Swanwick and Taylor (1982:35) refer to rhythm as "the life force of music, the power to transform a dull or mechanistic interpretation into a musically expressive and vital experience". Boberg (1975) states that the most basic of music relationships exists in rhythm hence he says that:

> Without rhythm, music, life and all experience cease to be. The three fundamental aspects of rhythm that are experienced can be identified as a beat/tempo, meter and rhythm pattern (1975: 34)

Gordon (1971) in Mehr (1985) looks at the process involved in developing melodic perception. He says that for a melody to be perceived as a melody, it must fulfill certain requirements, which are built up through training and experience. According to Gordon (1971) in Mehr (1985), another important element of melodic perception is a feeling for tonal centre. He states that the musical mind organizes sound to produce meaning according to the implications of tonality, thus the sense of tonality is basic to singing in tune and remembering melodies. Mehr (op. Cit) also adds that:

> Another element of melodic perception that must be developed is more explicitly awareness of pitch direction and melodic contour. Children must know when a melody goes up or down and must react to this behaviorally in some manner.(op.cit:31)

Mehr (1985) notes that research in melodic perception has brought out several points useful to teaching this skill. One is that a child before training can sing only the general shape of the melody as he or she is not conscious of specific pitches. It is therefore the duty of the teachers to train the pupil to be conscious of pitch and interval differences. Teachers must train for pitch perception as an element of melodic perception.

The other point that Mehr (ibid) puts across is that mistakes which are made in reproducing a melody are due to failure in grasping the whole phrase (melody is perceived weakly), not to forgetting individual tones. This reiterates the importance of teaching songs by phrases since this also helps in development of melodic perception.

The last factor in training for melodic perception according to Mehr (ibid) is by extending the memory span for tones. This is done by asking students to reproduce two-measure phrases by singing. When this is achieved, the number of bars is extended as the students reproduce the phrases. He concludes by saying that training in melodic memory through singing only is insufficient and too indefinite and it cannot develop the cognitive and the behavioural skills which are involved.

2.2 Musicianship

According to Elliot (1995), musicianship is a form of practical knowledge or reflective practice which is demonstrated in action and not in words. It is a matter of procedural knowledge and he further names four other kinds of musical knowledge, which constitute musicianship. These are formal musical knowledge, informal musical

knowledge, impressionistic musical knowledge and supervisory musical knowledge. He then looks at each component in turn.

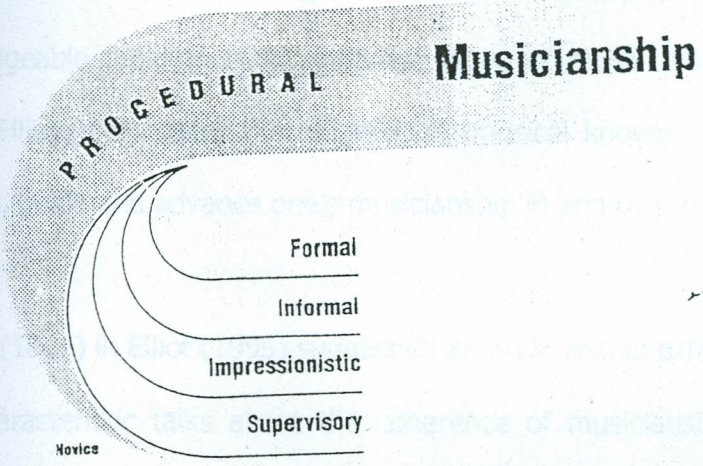

Fig. 2.1 Musicianship Model (Elliot, 1995:54)

Starting with procedural musical knowledge, he says that an understanding of the procedural nature of musicianship is essential for one to have an understanding of musicianship. This idea has its base in the old dualistic view whereby actions flow from verbal thoughts in a two step sequence. The first event is mental (speaking silently to oneself) and the other is physical (bodily movement). This view is further supported by Boberg (1975) who states that the best way of producing or singing a note is by first hearing it either directly or indirectly through inner-ear recognition and then singing it.

Formal musical knowledge includes verbal facts, concepts, descriptions, theories and all textbook-type of information about music which is referred to during most musical practices because they guide, shape and refine a learner's musical thinking in action

.

Impressionist musical knowledge is where musicianship is seen as having educated or knowledgeable feelings about different types of music making in different cultures. Lastly, Elliot (ibid) states that supervisory musical knowledge means knowing how to manage, guide and advance one's musicianship in and over time.

Perkins (1988) in Elliot (1995) suggests that musicianship exhibits a few characteristics. One characteristic talks about the coherence of musicianship where musicianship is unified and effective in making achievements in the practical ends of musical excellence. Musicianship also includes 'standings of practice' where standards serve to guide the development of musicianship. As various components of musicianship grow and weave together, music-makers are directed toward new goals and new possibilities of music-making by their knowledge of musical criteria.

The other characteristic is that musicianship is a productive form of knowledge which indicates that the relevant test of musicianship is the way it 'plays out in action in response to the demands and opportunities of the moment. Lastly, musicianship is open, meaning that it is not an end but a continuous process. It has been likened to the growing of web which weaves inward and outward, thus it develops as its five knowledge components mature and interweave with each other.

Elliot (ibid) further indicates that music-making is a matter of musical knowledge-in-action, a musicianship. Music Education's main concern should be teaching and learning

of musicianship. He further outlines some principles, which apply to the development of musicianship as manifested in all forms of music making.

The first one is the teaching-learning context, which concerns the teaching learning environment. He says that musicianship develops only through active music making, thus, musical authenticity of the teaching- learning situation determines the depth of what music students learn. In this regard, Nursell (1943) in Jordan Decarbo (1986) firmly believes that musicianship depends on musical content being taught in a cyclical sequence in which the experience of sound occurs before notation.

Another principle relating to musicianship as outlined by Elliot (1995) is progressive musical problem solving which states that musicianship advances and integrates to the degree that teachers require students to meet musical challenges on a continuous basis. Teachers have an important role to play in developing their students' musicianship. Carefully chosen musical challenges expose what students don't yet know how to achieve. With the guidance of music teachers who have achieved competent, proficient or expert levels of musicianship themselves, music students learn how to meet successive musical challenges by drawing upon and developing various dimensions of their own musicianship.

In conclusion, Elliot (ibid) states that improving musicianship does not depend on the slavish repetition of isolated movements or the memorization of verbal concepts. Moving from beginning to advanced levels of musicianship depends on learning to target and solve significant problems in the music one is making.The ways in which one makes music is through performing, improvising, composing, arranging or conducting.

2.3 Aural Training and the Importance of Aural Perception

Aural training is basically a cognitive process. According to Bloom's (1956) taxonomy, the cognitive domain of learning can be divided into six levels. These are Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation. For learners to achieve the highest level of cognitive development, they must go systematically through all the three levels. For purposes of this study, only the first three levels will be looked at.

Knowledge, which is the first level of cognition involves such behaviours as remembering, recognizing and recalling ideas, materials or phenomena. In Music learning Peters and Miller (1982) state that this involves remembering musical terms, composers' names and their works and memorizing various periods of Music History.

At comprehension level, Peters and Miller (ibid) note that, students are expected to translate a musical line of notation into a performance, translate marks on a printed page to musical sounds and complete a piece of music after hearing the antecedent phrase.

According to Peters and Miller (ibid: 143),

> Analysis is the level at which students divide cognitive information into elements, relationships and organizational principles - Each subcategory is sequential; mastery over analysis of elements is prerequisite to analysis of the relationships among those elements, and so forth

They refer to this hierarchy of categories as a framework which can be used by teachers to establish objectives in a sequential manner in order to guide instruction and evaluation. When the material to be taught is sequenced, methods for evaluating the effects of instruction present themselves easily. This also helps an evaluator to determine at what level of cognition the students are operating at any point in the instruction.

2.3.1 Hearing and Perception

Ear-training is very essential for musicianship because it is through this training that students cultivate musical perception. It is therefore important to look at the structure of the ear and its functioning.

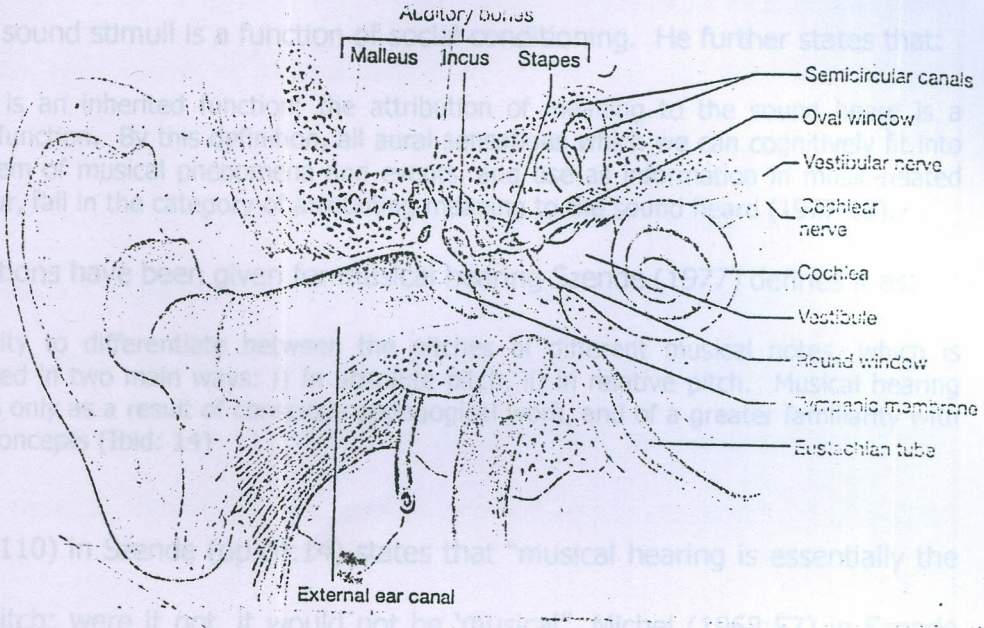

Fig. 2.2: Structure of the Ear (Solomon et al, 1985:868)

Solomon et al (1985) describe the functioning of the human ear. They say that in the human ear, sound waves pass through the *external auditory meatus* (external ear canal) and set the *tympanic membrane,* or ear drum (the membrane separating the outer ear and the middle ear), vibrating. The vibrations are transmitted across the middle ear by three tiny bones, the *malleus*, *incus* and *stapes* (or hammer, anvil, and stirrup). The hammer is in contact with the eardrum, and the stirrup is in contact with the membrane at the opening of the inner ear called the *oval window.* The hammer, anvil and stirrup

act as levers that amplify the vibrations. The vibrations pass through the oval window to the fluid in the vestibular canal. The human ear is equipped to register sound frequencies between 20 and 20,000 cycles per second although individuals vary greatly.

Hearing is one of the most important sources of information. Szende (1977) describes hearing as a physiologically inherited faculty whose recognition of information transmitted by sound stimuli is a function of social conditioning. He further states that:

> Hearing is an inherited function; the attribution of meaning to the sound heard is a learned function. By this definition, all aural sensations which we can cognitively fit into the system of musical phenomena and events, and use as information in music-related behaviour, fall in the category of attributing meaning to the sound heard (1977:13).

Different definitions have been given for musical hearing Szende (1977) defines it as:

> The ability to differentiate between the pitches of different musical notes, which is manifested in two main ways: i) In absolute pitch, ii) in relative pitch. Musical hearing develops only as a result of conscious pedagogical work, and of a greater familiarity with certain concepts (Ibid: 14)

Teplove (1960:110) in Szende (op.cit:14) states that "musical hearing is essentially the perception of pitch; were it not, it would not be 'musical". Michel (1968:57) in Szende (Op.cit: 14) defines musical hearing as follows:

> By musical hearing, we mean the perception, differentiation, recognition, and activation of acoustical —musical condition

Seashore (1967) points out that there are four fundamental things to be learnt in musical hearing. These are the hearing of pitch, intensity, time and timbre, and he says that unless this is recognized, the teaching task may seem endless and unreasonable.

He further advises teachers to keep the pupils' ears constantly alert to these four factors in all training since they reveal the importance in the hearing of beauty in music. After these four elements have been identified, the other complex processes of hearing, such

as consonance, rhythm, melody, harmony and movement should be treated in the same way.

Perception, as defined by Leonhard and House (op.cit:110):

> is an act by which meaning is gained from the sensory processes while a stimulus is present, and that musical perception is the act of gaining meaning in the presence of musical stimuli.

In deriving meaning from a musical-experience, Reimer (1970) in Peters and Miller (1982) states that the process of musical experience is divided into two parts namely, perception and reaction. During the perception phase, the listener becomes aware of the parts of the musical composition and their relationship to one another. This awareness comes as a result of the development of mental hearing. The development of the parts of the musical composition or musical stimulus is sensed aurally, hence there is need for development of aural skills and an emphasis on aural training. The awareness of a musical stimulus also comes as a result of the development of mental hearing.

The development of mental hearing according Lovelock (1978) must arise from the normal processes of aural training which involves memory and unlimited amount of repetitive practice. The underdevelopment of mental hearing therefore leads to a lack of awareness of different parts of a musical composition, hence no meaning can be derived from the music and therefore no perception takes place.

Thus it can be seen that perception is an active process as stated by Davies (1978:99):

> Perception of tonal sequences or tunes is essentially an active process of construction on the part of the listener; tunes are only tuneful when a listener is able to group and organize the material in a particular way.

For the development of perception, students must be exposed to a variety of musical experiences regularly and continuously. Prince (1974:31) asserts that:

> Attention must be given to the fact that the most common forms of experiences – performing, composing, listening – are all processes that require the passage of time for their consummation. In performing or listening, the products are the cause of the experience; in composing, they are the result. But ultimate vitality is realized only through the processes of performing, listening to or composing a piece of music. In the classroom, a conscious effort to learn about and experience those processes and the music material involved is essential. "Music classes should be saturated with music experiences. Central to these experiences are the sounds of music which should dominate.

According to him, music instruction, whether in the general music or in the performance class, should help students sharpen their perception of music, increase their ability to conceptualize these perceptions, broaden their acquaintance with various styles, encourage feelingful responses, help to clarify student conceptions of how and why feelings are an integral part of music experiences, and set the stage for the making of judgements about music.

Perrin et al (1970) talk about the importance of laying a firm foundation in teaching music:

> As in the teaching of language skills, the nature of the music experience in the beginning years is of vital importance to progressive development throughout succeeding years. Here, readiness for the acquisition of formal skills is fundamental. A prerequisite for the reading and writing of a language is the ability to speak and to communicate ideas. Similarly in music, a child must have the ability to sing songs in order to express musical ideas (ibid:xi)

Leonhard and House (op.cit) have formulated some principles of learning one of which is that learning depends upon the impressions received by the senses. What is involved in musical learning are hearing, sight and kinesthetic feel, although it appears that much musical learning is carried on without sufficient attention to musical hearing. Therefore:

> Aural awareness is the key to all musical learning, and the musical-learning situation should be constantly focused on ear training. Sight and kinesthetic feel are important but properly come into play only after aural concepts are well established (op.cit:134).

Various authors have likened musical learning to the learning of a language.Jordan Decarbo (1986) says that language development has been linked to musical learning in the sense that both learning and musical development deal with oral stimuli. Music instructors tend to think of music as a series of dots on a page rather than sounds of self expression and communication. She further states that just as a child's earliest experiences with language are aural, so also must music literacy begin with sound. Because of the unique nature of memory, patterns of sound must be dealt with.

Perrin et al (1970) state that in any language, the key to expanding one's involvement and pleasure in literature is the ability to read and write. Without this faculty, the student lacks a motivating intellectual challenge. His ability to understand musical ideas already expressed on paper is limited, so is his capacity to express his own ideas in any permanent form to be shared with others:

> Although he can always react to music and learn more and more about it, the student's full potential and greatest pleasure can be realized only when he has gained a knowledge and understanding of the elements of music notation (ibid: xii).

Gordon (l97l) in Mehr (1985) states that music education is not concerned with developing a love of music but rather with providing an understanding of art. The purpose of music education in the classroom is to promote the aesthetic response to music by developing immediate and spontaneous perception of the various elements of music. This statement is supported by Leonhard and House (op.cit) when they talk about Pestalozzi (one of the early educationists) who stated that no activity offered more direct opportunities for sense impression and the development of individual talents like music. They further outlined some of the principles formulated by Pestalozzi on music teaching, namely teaching sounds before signs and helping children to learn how to sing before they can learn how to write the musical notes.

On the question of whether aural training has any value for pupils and whether it is considered useful for musicianship, Langley (n.d) comments that aural training is most essential for a student's musical progress and general musicianship. He further says that a pupil whose ear has not been trained cannot be self-critical in listening to his own results when playing, or to appreciate the performance of others in an intelligent way. Such a student is not capable of progressing beyond a certain standard. Therefore, ear training for general musicianship is necessary and it involves and cultivates keen musical perception and criticism and the genuine 'art of listening'.

Langley (ibid) further indicates that ear training is essential especially in the case of a dull pupil because most of his errors are caused by his inability to hear them. He observes that ear training would help to cultivate general musicianship, a higher standard of work and the ability to detect inaccuracies in such students. Thus the eye must be trained simultaneously with the ear so that one may help the other.

He further stresses the importance of ear tests and rhythms in the examination syllabus, noting that since music is based upon three fundamentals (time, tune and rhythm), it follows that to have a true conception of music; a good training must be given under each of these heads, since conception depends upon true perception. It follows again that the senses through which these perceptions are formed must be properly trained:

> The ear tests are of special value because they exercise the mental capacity (in each division) to the fullest extent and prepare the mind for the practical application of this acquired training, and consequently, for the more intelligent performance of the music. Therefore, a sound aural training is essential for all music students (n.d: 13).

Boberg (1975) says that experience is actually living through an event, and that event then makes a direct and personal impression on our judgement and our feelings. Experiences with music are direct and personal involvement with sounds and their

relationships. He further states that through these experiences, we become increasingly aware of and sensitive to sounds, so that we are able to make judgements about them and be aware of the feelings they produce. Since the essence of music experiences and music expression is in the relationships of sounds to each other, teachers must continually develop for themselves and for their students an awareness of and sensitivity to these relationships.

Macpherson and Read (n-d) say that two matters are essential in any scheme of ear training work and these are pitch and time. They state that, in the past, if the pupil was able to recognize these two and had the ability to sight sing passages in which these two elements were taken both separately and in combination, then the goal of music teaching was met. Furthermore, there is more to aural training than pitch and time. These are the development of the rhythmic sense and the cultivation of the aesthetic perception of the music. In the opinion of Macpherson and Read, all ear training work must be based upon musical appreciation, the technical and the aesthetic side must not be separated since the whole aim is to foster real musical perception in the pupil.

Lament (1976:126) states that:

> Music, then (of which melody is a part), must be experienced to be understood. If the interaction of the elements of music can be experienced by everyone exploring and discovering for himself, under skilled leadership, the learning process will have been set in motion; concepts, no longer abstract ideas, will become realities. The numerous strategies and manipulative devices available to teachers and students provide a challenge to creative ingenuity.

He asserts that the basis for understanding what melody is and its retention is the aural recognition of intervals. If one is able to recognize a familiar melody, he is able to comprehend intervals since a melody is a series of intervals within a rhythmic framework. He says that the best way of experiencing an interval is not by producing it

directly through the body senses but by hearing it and then singing it. To sing it, a person must first hear it either directly or indirectly through inner-ear recognition.

Perrin et al (1970:xii) also state that:

> Because of the complex nature of music, the acquisition of reading skills demands a carefully graduated sequence of musical experiences. In essence, music reading involves simultaneous recognition of time and pitch. In the learning process, these two elements are usually isolated, mastered separately and then combined. However, the ear should always be trained in conjunction with the eye and the mind. Music reading should never be treated as an isolated, fact-learning situation, whether it be in the first or the third year of a spiral curriculum. It is essential that sequence of presentation be maintained so that a continuing variety of meaningful aural, visual and experimental experiences serve as motivating factors for musical appreciation and expression.

Lawrence (1978) says that it is not the aim of musical education to provide virtuoso instrumentalists though the possibility of producing such a performer cannot be excluded from the total musical education pattern. He asserts that the continuing aim of music education is the development of general musical skills which includes the development of performing skills alongside all other musical skills.

2.4 Summary

This chapter reviewed some of the literature focussing on the origins of Music Education and its development through the years and its current status. Review was also done on musicianship and on the aural aspect of Music Education and its importance in the development of a music student.

The above literature therefore implies that, despite the fact that music education has undergone a few changes since it's inception, it is still a very important part of the secondary school curriculum and it should be taken seriously. As it has been emphasized by several authors, music is like a language and music teaching and learning must begin early enough for students to get accustomed to the various musical

sounds before they can notate the music.

Though the literature reviewed was mainly from sources outside Kenya, the information also applies to the situation in Kenya. What comes out clearly is that students must have an experience with music to develop their aural perception. This needs to begin early enough so that they can become more proficient as they meet new challenges in their musical experiences.

CHAPTER THREE: METHODOLOGY

This study employed the descriptive method of research due to its suitability in investigating educational problems and in defining what is already in existence. The data collected was used in answering questions regarding the factors affecting the performance of aurals. The subjects were selected from Nairobi secondary schools and the population consisted of music students and teachers from provincial, national and private schools.

3.1 Population and Sampling

The population consisted of twenty secondary schools in Nairobi which offer Music as a subject. Thirty per cent of these schools were randomly selected as a sample. All members of the population were listed down and assigned a number from zero to twenty. An arbitrary number was selected from the table of random numbers and the corresponding school was noted as part of the sample. The process was repeated until the required sample size was obtained. Within that sample schools 30% of students from each class (form one to form four) were randomly selected using a table of random numbers. This ensured fair representation from all the classes.

3.2 Research Instruments and Equipment

The researcher used the following research instruments in collecting data:

i) Opinionnaires: These were distributed to the Music teachers of the 20 Nairobi secondary schools that offer music as a subject. The opinionnaires sought information regarding factors affecting aural performance. A total of. 21 opinionnaires were given out.

ii) Questionnaires: The sampled students were given questionnaires with close-ended and open-ended items. The questionnaires were intended to elicit information about frequency of aural training, the resources and methodology used in aural training.

iii) Interview schedule: Teachers from the sampled schools were interviewed by means of an interview schedule. The information gathered was compared with that of the opinionnaires to establish factors which led to poor aural performance.

iv) Observation schedule: Teachers were observed during the teaching of aurals, and resources and methodology used in aural training were noted.

The other basic equipment was a cassette tape recorder, which was used in recording the proceedings during the interviews.

3.3 Data Collection

The following techniques were used in data collection:

i) Observation: The researcher made a forty-minute observation of teachers and students in their respective schools during an aural lesson. A total of four out of six selected teachers were observed.

ii) Interviews: Interviews with the six teachers were conducted within the schools during aural lessons. The interviews took place within the music rooms and a cassette tape recorder was used to record the proceedings.

iii) Questionnaires: Seventy-two questionnaires were distributed to the Students by the researcher. They were then collected after one week. Sixty-nine questionnaires were completed and returned.

iv) Opinionnaires: Twenty-one opinionnaires were constructed. Out of these, fourteen were distributed by hand and seven were mailed. All those that were distributed by hand and three out of the seven that were mailed, were returned.

3.4 Data Analysis

The data collected was analyzed as follows:

a) Teachers' opinionnaires were analyzed by using the Likert scales, which were used to gauge the teacher's opinions regarding factors affecting aural performance. Information from the opinionnaires was tabulated and the table indicated the percentage of teachers who responded to each item and how they responded.

b) Student's questionnaires were analysed using two methods; information obtained from the close-ended items was tabulated and the table indicated the percentage of students who responded to each item. For the open-ended items, a sample of the questionnaires was taken and students' responses were studied. Coding frames were then developed and used for all the questionnaires. Information obtained was then tabulated; indicating the percentage of students who responded to each category of the coding frames.

c) Information from the interviews and the observation schedule was tabulated resulting into patterns which described factors affecting aural performance.

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

The following section deals with presentation and analysis of data gathered from secondary school music teachers and music students.

4.1 Music Teachers as Respondents

Music teachers play an important role in helping students to develop their aural skills. They should be conversant with the music syllabus and the objectives of Music Education as a whole and ways in which these objectives can be achieved.

The following section focuses on the analysis of data provided by the teachers concerning factors affecting aural performance.

The Likert scales were used to gauge the teachers' opinions regarding factors affecting this performance.

Table 4.1.2: Factors Affecting Aural Performance

	SA		A		U		D		SD		TOTAL	
STATEMENT	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%
S1	3	17.65	11	64.7	0	0	2	11.76	1	5.88	17	100
S2	1	5.88	6	35.29	0	0	5	29.41	5	29.41	17	100
S3	5	29.41	8	47.06	0	0	2	11.76	2	11.76	17	100
S4	7	41.18	6	35.29	0	0	3	17.65	1	5.88	17	100
S5	2	11.76	9	52.94	0	0	5	29.41	1	5.88	17	100
S6	13	76.47	3	17.65	1	5.88	0	0	0	0	17	100
S7	6	35.29	5	29.41	0	0	2	11.76	4	23.52	17	100
S8	4	23.52	4	23.52	2	11.76	6	35.29	1	5.88	17	100

The table above is an analysis of statements showing teachers' opinions regarding factors affecting aural performance. The table shows the percentage of teachers who responded to each item and how they responded.

The following initials used in the table have the following meanings:

Key 1	Key 2
SA - Strongly Agree	S1 - Statement No.1
A – Agree	S2 - Statement No.2
U – Undecided	S3 - Statement No.
D – Disagree	Etc.
SD - Strongly Disagree	

The following procedure was used to score the responses on the Likert scale. Seven statements showed favourable opinions and they were scored as shown below:

Opinion		Scale Value
a)	SA – Strong Agree	5
b)	A – Agree	4
c)	U – Undecided	3
d)	D - Disagree	2
e)	SD – Strongly Disagree	1

One statement advocated a negative response and it was scored as below:

Opinion		Scale Value
a)	SA – Strongly Agree	1
b)	A – Agree	2
c)	U – Undecided	3
d)	D – Disagree	4
e)	SD – Strongly Disagree	5

The following are observations made on the statements whose responses are represented on the table 4.1.2 above.

4.1.1 S1 Teachers are Uncertain About Which Methodology to Use in Aural Teaching.

Statement 1 required teachers to give their own opinion regarding aural training and whether they were certain about aural training methodology.

Three (17.6%) teachers strongly agreed with this statement. Eleven (64.7%) agreed, 2 (11.76) disagreed and only 1 (5.88) strongly disagreed. This implies that a majority of the teachers are not sure as to how they should teach aurals.

4.1.2 S2: Aural training is not given to music students

This statement required teachers to give an opinion as to whether aural training was given to music students.

For this statement, 1 (5.88%) teacher strongly agreed, 6 (35.29%) agreed, 5 (29.41) disagreed and another 5 (29.41%) teachers strongly agreed. This shows that most teachers disagreed with this statement.

4.1.3 S3: There is a lack of adequate resources outlining the principles to be used in aural training

For this statement, teachers' opinions were sought concerning availability of adequate resources, which outline the principles of aural training. Five (29.41) teachers strongly agreed with this statement while 8 (47.06%) agreed, 2 (11.76%) disagreed and 2 (11.76%) others strongly disagreed. The percentages therefore reveal that most

teachers agreed with this statement that there was a lack of adequate resources which should enable them to impart aural skills to their students.

4.1.4 S4: Lack of Proper Training on The Part of Teachers Hinders Effective Teaching of Aurals.

In statement 4, teachers were required to state whether their lack of proper training was a draw back to teaching aurals effectively.

For this statement, 7 (41.8%) teachers strongly agreed while 6 (5.29%) agreed. 3 (17.65%) disagreed while 1 (5.88%) strongly disagreed. This shows that more than half of the teachers agreed with this statement. It is therefore evident that proper training is not given to teachers hence, they're unsure of what methodology to use in imparting aural skills.

4.1.5 S5 Teaching Resources that are Available are Rarely Used in Aural Training by Teachers

This statement required teachers to state their opinions regarding the availability of teaching resources for aural training and their utilization.

Two (11.76%) teachers agreed strongly while 9 (52.94%) agreed. 5 (9.41%) disagreed and 1(5.88%) strongly disagreed.Thus, majority of teachers agreed with this statement. The implication here is that the teachers are unable to use some of these resources due to their lack of training.

4.1.6 S6: Aural training is indispensable as far as a student's musicality is concerned

Teachers were required to given an opinion as to the usefulness of aural-training to a music student.

Thirteen (76.47%) strongly agreed while 3 (17.65%) agreed, and only 1 (5.88%) was undecided. Most of the teachers agreed with this statement. It therefore reveals that teachers are fully aware of the importance of aural training in the musical growth of a student.

4.1.7 S7: The KSCE Music Syllabus Caters for All Areas of Music Education

For this statement teachers responded to the statement concerning the KSCE Music Syllabus and its adequate provision for all areas of Music Education.

For this statement, 6 (35.29%) teachers strongly agreed with it. 5 (29.41%) agreed, 2 (11.76%) disagreed while 4 (23.52%) strongly disagreed. Therefore, a high percentage agreed that the syllabus caters for music education.

4.1.8 S8: Teachers are Fully Aware of the Syllabus Regarding the Teaching of Aurals.

This statement sought teachers' opinions about their awareness of the syllabus regarding aural training.

Four (23.52%) teachers strongly agreed and another 4 (23.52%) agreed. Six (35.29%) disagreed and only 1 (5.88%) disagreed strongly. However, 2 (11.76%) were undecided. A higher percentage responded positively to this statement.

4.2 Music Students as Respondents

Music students need to have aural skills as this is most essential for a student's musical and general musicianship. Those who have not undergone aural training cannot progress beyond a certain standard.

This section focuses on the analysis of the data provided by students regarding aural training. The data was analyzed by using coding frames. A sample of the completed questionnaires was taken and students' responses were examined after which coding frames were made, based on the responses from the sample. The coding frames were then used to analyse all the questionnaires. Out of the 75 questionnaires that were sent, 69 (92%) were completed and returned.

Question 1: When did you start receiving aural training?

Table 4.2.1: When Students Learn Aurals

Response	Number of students	Percentage
a) Form 1	37	53.62%
b) From 2	9	13.04%
c) Form 3	1	1.45%
d) Form 4	0	0.0%
e) Primary School	11	15.94%
f) Other responses	4	5.80%
g) No training	2	2.89%
h) Non-respondents	5	7.25%
TOTAL	**69**	**100**

On this question, 37(53.62%) students answered that aural training was begun in Form 1; 9 (13.04) began in Form 2, 1 (14.97) began in Form 3 and no student began in Form

Four; Eleven (15.94%) replied that they began earlier in primary school; 4 (5.8%) gave answers un-related to aural training while 5 (7.25) did not respond at all. It therefore shows that a higher percentage of students began aurals in Form 1.

Question 2: Explain briefly how you learn Aurals?

Table 4.2.2: How Students Learn Aurals

Responses	No. of students	Percentage
a) Listening to various elements like melodies, rhythms and intervals and writing them down.	18	26.09%
b) Listening to audio-tapes and noting the music	7	10.14%
c) Sight-singing and sight reading	8	11.60%
d) Different elements are played or sung; students sing or clap before writing down the melodies or rhythms.	11	15.94%
e) Other answers	20	28.99%
f) Non-respondents	5	7.25
TOTAL	**69**	**100**

Eighteen (26.09%) students responded by writing that they listened to various elements, for example, melodies and rhythmic patterns as dictated to them by the teacher after which they wrote down what they had heard. Seven (10.14%) wrote that they listened to the music in audio-tapes and then they notated the music. Those that learnt aurals by sight singing and sight-reading were 8 (11.5%) while 11 (15.94%) responded that melodies and rhythms were played to them. They sang or clapped after which they wrote down the notation. Five (7.25%) students failed to respond and the highest percentage of 20 (28.99%) students responded by giving answers completely un-related to aural training. A conflict arose here because 37 students (53.62%)

claimed to have begun aurals in Form 1 and yet a good number seemed unaware of what aural training was all about.

Question 3: Number the following aspects of the music curriculum according to the priority given to them (in term of time taken) by the teacher. The one with the greatest priority should be first on the list.

Table 4.2.3: Aspects of Music Curriculum

	Aurals		History of Western Music		Practicals		African Music		Theory of Music	
Response	No.	%	No.	%	No.	%	No.	%	No.	%
First priority	9	13.04	6	8.69	10	15.94	2	2.89	29	42.03
Second	16	23.19	9	13.04	20	28.99	5	8.70	9	13.3
Third	8	11.65	12	17.40	10	14.49	16	23.19	11	15.94
Fourth	21	30.43	4	7.24	9	13.04	13	18.84	7	10.14
Fifth	3	4.35	16	23.19	11	7.25	14	20.29	3	4.35
Non-respondents	12	17.39	12	30.61	14	20.29	14	20.29	10	14.49
TOTAL	**69**	**100**	**69**	**100**	**69**	**100**	**69**	**100**	**69**	**100**

For this question, only 9 students (13.04%) answered that aurals took first priority. Sixteen students (23.19) responded that aural work was second in priority while 8 (11.6%) rated it in third position; 21 (30.43%) rated it in the fourth position and only 3 students (4.35%) responded that aural work received the least priority. This reveals that time taken for aural training is not adequate since a higher percentage of the students rated aural work in the fourth position.

Question 4: How can you rate the frequency of aural training given to you?

Table 4.2.4: Frequency of Aural Training

Response	No. of students	Percentage
a) One lesson per week	55	79.71%
b) One lesson per fortnight	2	2.89%
c) One lesson per month	4	5.79%
d) One lesson per term	1	1.40%
e) None	2	2.89%
Non-respondents	5	7.4%
TOTAL	**69**	**100%**

Fifty-five students (79.7%) had one lesson per week, two (2.89%) had an aural lesson once per fortnight, 4 students (5.79%) had it once per month and 1 (1.4%) had it once per term. Two of the students (2.24%) didn't have any lesson while 5 (7.24%) of them failed to respond to the question. These responses therefore collaborated the previous responses in question 3 regarding the time taken for aural training.

Question 5: Name the instruments that are used in aural training in your school?

Table 4.2.5: Instruments for Aural Training

Response	No. of students	Percentage
a) Piano only	21	30.43%
b) Recorder only	4	5.80%
c) Piano, drum and recorder	2	2.89%
d) Piano, drum and any others	6	8.69%
e) Piano and recorder	5	7.25%
f) Piano and other types of instruments e.g. Trumpets & flutes	3	4.35%
g) Piano, recorder and any others	9	13.04%
h) Piano and drum	9	13.04%
i) Other instruments without piano	5	7.25%
Non-respondents	5	7.25%
Total	**69**	**100%**

Various responses were given and in some students noted down a combination of instruments. Twenty-one students (30.43%) replied that only the piano was used while 4 (5.8%) of them cited the recorder as the only instrument used. Two students (2.89%) responded that a combination of piano, drum and recorder was used while 6

(8.69%) of them mentioned a combination of the piano, drum and other types of instruments. Five students (7.25%) wrote down a combination of the piano and the recorder while 9 others (13.04%) gave other instruments in combination with the piano and the recorder. Three students (4.33%) cited the piano and other types of instruments like flutes and trumpets as being used for aural training while 9 (13.04%) mentioned piano and drum only. Five students (7.25%) responded by saying that other instruments were used without the piano while 5 (7.25%) of them gave no response.

It can therefore be seen that 30% of the responses indicated the use of only one instrument for aural training. A small percentage indicated that a combination of instruments was rarely used for the same purpose.

Question 6(a): What music-making activities do you engage in (in school)?

Table 4.2.6: Music-Making Activities in School

Response	No. of students	Percentage
a) school choir alone	20	28.99%
b) school band alone	3	4.35%
c) school choir and school band	2	2.89%
d) playing instruments and singing in the choir	14	20.29%
e) playing instruments only	7	10.14%
f) singing (not necessarily in a choir)	16	23.19%
g) non-respondents	7	10.14%
Total	**69**	**100%**

Twenty students (28.99%) participated in singing in the school choir and 3 (4.35%) were members of the school band. Seven students (10.14%) played instruments and 16 others (23.19%) were involved in singing although not necessarily in a choir: Fourteen students (20.29%) played instruments and sung in the choir while 2 of them (2.89%) were members of both the school choir and the school band. Seven students (10.14%) failed to respond.

This reveals that for all the students who responded, all of them were involved in one

kind of music-making activity or another while in school.

Question 6(b): What music-making activities do you engage in out of school?

Table 4.2.7: Music Making Activities out of School

Response	No. of Students	Percentage
a) Singing in a choir only	28	40.55%
b) Playing instruments only	14	20.29%
c) Singing in a choir and playing instruments	9	13.04%
d) Composing songs	1	1.45%
e) Other responses	6	8.68%
f) No activity	5	7.25%
g) Non-respondents	6	8.69%

Those that sang in a choir were 28 (20.29%); 1 student (14.45%) composed songs while 9 students (13.04%) played instruments and sang in the choir. Six students (8.69%) gave un-related responses while 5 students (5.25%) did not participate in any music-making activity, outside the school. Six students (8.69%) failed to respond

A percentage (8.06%) of those who were engaged in music-making activities in the school did not participate in any other activity outside the school.

4.3 Teachers' Responses to Interview

Six teachers were interviewed and the following were their responses to an interview conducted to establish methodology and teaching resources used in aural training. Coding frames were used and the percentage of teachers who responded to each item was noted. Below are the questions and the responses:

Question 1: How long have you taught?

Table 4.3.1: Teaching Experience

Response	No. of teachers	Percentage
a) 0-5 years	2	33.3%
b) 5-10 years	2	33.3%
c) 10-15 years	1	16.7%
d) 15-20 years	1	16.7%

Two thirds of the teachers had taught for less than 10 years and the rest had more than 10 years teaching experience.

The table shows that 2 (33.3%) teachers have a two-year teaching experience of between 0-5 years while 2 (33.3%) others have taught for between 5-10 years. One (16.7%) has taught for 15 years and another one (16.7%) for over twenty years respectively.

Question 2: When do you start teaching aurals to students?

Table 4.3.2: Commencement of Aural Training

Response	No of teachers	Percentage
a) Form 1	6	100%
b) Form II	0	0%
c) Form III	0	0%
d) Form IV	0	0%

All six teachers (100%) responded that aural training began in Form I, although from the students' questionnaire, 9 (13.04%) students stated that aural training began in Form 2 while 1 student (1.45%) began in Form three. Only 37 (53.62%) students began aural training in Form 1. 100% of the teachers responded that aural training was important for student's general musicianship. Therefore, it was essential to begin teaching it early enough. They all responded that they taught aurals once a week.

Question 3: What teaching resources are available for aural training?

Table 4.3.3: Teaching Resources for Aural Training

Response	No of teachers	Percentage
a) Use of one melodic instrument and one rhythmic instrument	3	50%
b) Use of one melodic instrument and improvisation of a rhythmic instrument (e.g. clapping)	1	16.7%
c) Use of more than one melodic instrument and improvisation of a rhythmic instrument (clapping)	2	33.3%

For this question, 3 (50%) teachers responded that they have one melodic and one rhythmic instrument. The melodic instrument was either a piano, keyboard, clavino, melodica or recorder while the rhythmic instrument was a drum. One (16.7%) teacher used a melodic instrument (piano) but improvised on rhythm because there were no drums; thus he used his hands in clapping rhythms. Two (33.3%) teachers used more than one melodic instrument and this included the piano, flutes and saxophones. Clapping of hands or tapping the table was used to give rhythm.

3b) Which ones among them do you use?

Table 4.3.4 Utilisation of available resources

Response	No. of teachers	Percentage
a) One	0	0%
b) two	0	0%
c) three	0	0%
d) all	6	100%

All the six teachers (100%) responded that they made use of all the available teaching resources. This was in contrast to opinionnaire statement No.5 (teaching resources that are available are rarely used in aural training by teachers) where 75% of teachers agreed with the statement.

3c) How effective are they?

Table 4.3.5 Effectiveness of resources

Response	No of teachers	Percentage
a) Very effective	2	33.3%
b) Effective	3	50%
c) Not effective	1	16.7%

This question had several responses in that 2 (33.3%) teachers said that the instruments they used were very effective in aural training and they had no problems, because the students were able to write down what they heard. Three (50%) teachers responded that the instruments (e.g. piano and keyboard) differed greatly in terms of

timbre and that students were able to notate easily using one melodic instrument than the other. However, 1 (16.7%) teacher attributed the lack of effectiveness of an instrument to his own inability to use it.

4. What difficulties do you face in aural training in terms of

(a) Teaching resources?

Table 4.3.6: Difficulties faced in aural training.

Response	No of teachers	Percentage
a) Resources are adequate	5	83.3%
b) More resources are needed	1	16.7%

Five (83.3%) teachers had no difficulties since the resources were adequate. However, 1 teacher (16.7%) needed more resources because the available ones were inadequate.

4b) Methodology?

Table 4.3.7: Aural training methodology.

Response	No of teachers	Percentage
a) No difficulty	2	33.3%
b) Difficulty in the approach	4	66.7%

Two (33.3%) teachers didn't have difficulties in this area but 4 (66.7%) of them admitted to facing some difficulties and this arose from the fact that teachers were unable to use some of the instruments effectively since the instruments required a great deal of time in learning. Two teachers (50%) were unsure of the methodology to use since their students had differences in musical ability.

4c) Time?

Table 4.3.8 Time for aural training.

Response	No of teachers	Percentage
a) Time is adequate	0	0%
b) Time is inadequate	6	100%

All the 6 teachers (100%) agreed that there was no adequate time for aural training.

5. How do you train the following aspects of aural work?

(a) Notation of melodies

Table 4.3.9 Melodic notation.

Response	No of teachers	Percentage
a) Using a familiar song and assigning tonic sol-fas to the various pitches	4	66.7%
b) Preparation done by introducing intervals using hand signs	1	16.7%
c) Giving the tonic sol-fa and students trying to find out the other pitches in relation to the tonic.	1	16.7%

Different teachers used different methods. Four of them (66.7%) used a song known to the students who then assigned various pitches to the notes. One (16.70) teacher used hand signs to show the different pitches and 1 (16.7%) gave the tonic key, then the melody, and the students found out the other pitches.

In contrast to this, 26.09% of students learnt about melodic dictation by writing down whatever melody was played by the teacher.

5b) Notation of rhythmic patterns

Table 4.3.10 Rhythmic patterns.

Response	No of teachers	Percentage
a) use of a familiar song (where students clap the rhythm)	4	66.7%
b) using music theory to introduce different note values to students	2	33.3%

Four (66.7%) teachers used familiar songs where students were involved in clapping the rhythm of the song while 2 (33.3%) started with the music theory, introducing different note values, and asking the students to clap them, and, finally, giving a rhythmic pattern for the students to notate.

5c) Identification of intervals

Table 4.3.11 Interval identification.

Response	No of teachers	Percentage
a) using familiar songs to teach the difference in various pitches	3	50%
b) use of hand signs	1	16.7
c) playing two notes on a melodic instrument and asking students to identify the notes	2	33.2

Familiar songs were used in teaching intervals by 3 (50%) teachers.1 (16.7%) teacher used hand signs while 2 (33.3%) of them played two notes on a melodic instrument and asked students to identify the notes.

5d) Identification of cadences

Table 4.3.12 Cadence identification.

Response	No of teachers.	Percentage
a) Use of music with phrases to show location of a cadence	2	33.3%
b) Use of recorded music	1	16.7%
c) Students participation in singing the cadences	2	33.3%
d) Use of keyboard to play the cadences	1	16.7%

For this question, two (33.3%) teachers responded that they used a piece of music with clear phrases to show the location of a cadence. Two (33.3%) others involved the students in singing the cadences while One (16.7%) teacher used recorded music. Another (16.7%) played the cadences on the keyboard and asked students to identify them.

5(e) Identifying modulations

Table 4.3.13 Identification of modulation.

Response	No of teachers	Percentage
a) Music is played and students asked to note where modulation occurs	4	66.7%
b) Not much teaching has taken place	2	33.3%

Four (66.7%) teachers played some music for their students to identify where the modulations occurred. The other 2 (33.3%) acknowledged the fact that in this area, no teaching had taken place.

4.4 Observation Schedule

Four schools were observed in order to establish the methods used in aural training. At the time of observation, different teachers used different methods in teaching different aspects. The following is a record of what was observed by the researcher in terms of the resources and the methods used.

4.4.1 Resources

The resources used for teaching aurals were the keyboard, piano, drum, and in cases where there was no drum, the teacher clapped or tapped the table using a stick. All the four schools had music rooms which had a few other instruments like the clavino, trombone, flutes, saxophones and a melodica.

4.4.2. Method

The method used in aural training differed from teacher to teacher and the following is an observation made regarding the methodology used in various activities.

4.4.1.1 Notation of melodies

Two different kinds of methods were used. One was introducing the students to melodic notation by using a familiar song which they sang several times after which they assigned tonic sol-fas to the song. This was followed by clapping the rhythm of the song and writing out the rhythm of each note which was finally followed by writing out the song on the staff.

The other method was done by the teacher giving the tonic key, tonic chord and the pulse of the piece of music. This was followed by playing the melody four times. The melody was played through once, followed by playing of the first and second sections respectively. It was then played through once again. Each time the melody was played, students were given a few minutes to notate what they had heard.

4.4.1.2 Notation of Rhythmic Patterns

The first method was where students sang a song and got the rhythm of the song by clapping as they sang along. They were then given time to write down the rhythm of the song.

The second method was where the teacher gave students a rhythm on monotone and then stated the time signature and gave the pulse. The whole exercise was played four times. Once through the whole section followed by playing of the first and second section respectively. The whole section was played through once again and students were given time to notate what they had heard.

The third method involved the students in clapping. Previously learnt rhythms were clapped before the introduction of new ones. Another note value was introduced and rhythmic exercises based on it were given. Students clapped that particular rhythm and further exercises on rhythm were given to reinforce the understanding of the note value.

4.4.1.3 Identification of intervals

Two methods were used: in one of the methods, the students were involved in singing a song after which they tried to identify the intervals within the song. Particular songs were also used to teach specific intervals.

In the second method, the teacher played the intervals on an instrument, first melodically, then harmonically, after which the students tried to identify the higher note, since the lower note given was treated as the tonic. However, observation was not done on the teaching of modulation and cadences as this did not take place.

4.5 Summary

This section dealt with teachers' responses to the interviews. Aural training is demanding and it requires a lot of creativity and a careful interpretation of the syllabus on the part of the teachers. What comes out clearly is that aural training methodology differed from teacher to teacher and that teachers needed a clear guide-line as far as the approach to aural training is concerned.

Another fact is that teachers who studied Music are not musically gifted; hence they had a difficult task in training their students. Furthermore, some students came into secondary school with a distorted concept of music theory and the teachers took some time to assist them to adjust before they could proceed with the music learning. This view is supported by Seashore (1967) who states that:

> Musical intelligence is like philosophical, mathematical or scientific intelligence. Intelligence is musical when its background is a storehouse of musical knowledge, a dynamo of musical interests, an outlet in musical tasks and a warmth of musical experiences and responses. Here as in the case of imagination, the type and the degree of intelligence may characterize or set limits for the musical achievement. (ibid: 8)

CHAPTER FIVE: DISCUSSION OF RESULTS

This chapter deals with discussion of results represented in Chapter Four of the study. Discussion of the data provided by the music teachers will come first, followed by the data provided by the music students. The observations made and interviews conducted will be incorporated into the discussion to support the opinions given by the teachers. The tables presented in Chapter Four will be referred to in this discussion.

5.1 Discussion of the results of data provided by secondary school music teachers

The following is a discussion of data provided by the teachers. The teachers' opinions will be discussed in connection with the various statements that they responded to. There will be cases whereby the statements in the teachers' opinionnaire relate to items in the students' questionnaire. This will be discussed together for the purpose of avoiding repetition.

5.1.1. Teachers are uncertain about which methodology to use in aural training

Table 4.1 shows the percentage of teachers who responded to this statement of which 82.3% agreed with the statement while 17.64% disagreed. Further responses from the interviews and from the observations made indicated that different teachers used different methods. For instance, 92.8% of the teachers who agreed that they were unsure about aural training methodology also agreed with statement 4 which states that lack of proper training on the teacher's part hindered effective aural training. Similarly, 75% of those who disagreed with statement 1 also disagreed with statement four.

In relating this statement with statement 3 (there is lack of adequate resources outlining the principles to be used in aural training), 11 (82.3%) teachers agreed with both statements, 4 (23.52%) agreed with statement 1 and disagreed with the third statement while only two (11.76%) teachers disagreed with statement 1 and agreed with statement 3.

This, therefore, implies that there's a strong relation between these two statements concerning methodology and the training of teachers and this is verified by Akuno (1997) who states that:

> For the teachers to fully and successfully play the roles expected of them, they need to have necessary qualifications... the training provided should equip the teacher with the skills to provide for pupils' education, resources notwithstanding" (1997:53).

It can therefore be seen that teachers were uncertain about the methodology for aural training due to their lack of proper training. Those that underwent proper training had no problem with aural training methodology. However, the researcher did not establish the specific academic qualifications of the teachers.

This also implies that teachers are uncertain of aural training methodology and this is attributed to lack of adequate resources outlining the principles to be used in aural training.

5.1.2 Aural training is not given to music students

The table shows that 58.82% of the teachers disagreed with this statement and 41.17% agreed with it. However 82.3% of the teachers agreed with both statements 1 and 2.

This deduction was further supported by statement 9 (aural training is indispensable as far as a student's musicality is concerned) where 94.12% of the teachers agreed that aural training is indispensable. Further responses from the interview indicated that teachers regard aural training to be very important and this is further supported by Boberg (1975) who stated that aural training is an important aspect in a student's musical progress and musicianship.

5.1.3 There is lack of adequate resources outlining the principles to be used in aural training.

Here, teaching resources refer to music instruments, music literature and teaching facilities like music rooms.

As per table 4.1.2, 13 (76.47%) teachers agreed with the statement while 4 (23.52%) disagreed with it. However, responses from the interview revealed that 83.3% of the teachers indicated that they had no difficulties with teaching resources for aural training and that whatever was available was effective.

Further responses from the interviews regarding what teaching resources were available for aural training revealed that teaching resources were inadequate and it required a lot of creativity on the teacher's part to use what was available in teaching aurals. Music instruments differed from one school to another although there were some instruments that were common in all the schools. Every school had a piano or a keyboard which was used in dictation of melodies, intervals, cadences and modulations. Three (50%) schools had rhythmic instruments like drums which were used in dictating rhythmic patterns and in cases where there were no drums, the teachers improvised by tapping rhythms on the table.

Other teaching resources involved pre-recorded cassettes and additional instruments like flutes and saxophones and the use of familiar songs in teaching different aspects of aural work.

The observations made show that different teachers used different teaching resources (this is in reference to textbooks) and there was no standard text which was used. Teachers used any material which had some exercises on aural work. In terms of teaching facilities, 75% of the schools had proper music rooms with the instruments which have been mentioned above.

Digolo (1997) in her research on `Availability and Use of Teaching and Learning Resources for Music Education in Kenya made several conclusions and one of them was that there was an acute lack of teachers' reference books and students reading materials in schools and this trend was partly caused by relying heavily on foreign publications which were too expensive for most schools to acquire.

This therefore shows that there is a lack of adequate resources (in terms of books) outlining how aural training should be carried out.

5.1.4 Lack of proper training on the part of teachers hinders their effective teaching of aurals

Table 4.1.2 shows that 13 (76.47%) teachers agreed with this statement while 3 (23.53%) disagreed. It was also noted that 35.29% of the teachers agreed with both statement 2 (aural training is not given to music students) and statement 4 (lack of proper training on the part of teachers hinders effective teaching of aurals).

This then implied that 6 (35.29%) teachers did not give aural training to their students because they lacked proper training. Three (17.65) teachers disagreed with both statements 2 and 4 and this also implied that these teachers were properly trained and gave aural training to their students. So the statement about lack of proper training did not apply to them.

It was also noted that 7 (41.8%) teachers disagreed with statement 2 (aural training is not given to music students) but agreed with statement 4 (lack of proper training on the part of teachers hinders effective teaching of aurals). It can therefore be concluded from these statements that 7 (41.18%) teachers give some kind of aural training to their students even though they lack the proper training.

Looking at statement 1 (Teachers are uncertain about which methodology to use in aural training) and statement 3 (there is lack of adequate resources outlining the principles to be used in aural training), 11 (64.7%) teachers agreed with both statements: 3 (17.65%) teachers agreed with statement 1 and disagreed with statement 3; 2 (11.76%) teachers disagreed with statement 1 but agreed with statement 3. One (5.88%) teacher disagreed with both statements.

It can therefore be deduced that 64.7% of the teachers lack adequate resources outlining the principles to be used in aural training which makes them uncertain about which methodology to use.

Concerning those two particular statements (1 and 3), 3 (17.65%) teachers disagreed with statement 1 but agreed with statement 3. This was a bit ironical because the teachers agreed that they were not sure of aural training methodology but disagreed

that there was lack of adequate resources outlining the principles to be used in aural training. Thus, the teachers agree that the resources are adequate yet say that they're unsure of the methodology. This could be attributed to negligence on the part of the teachers.

Two (11.76%) teachers disagreed with statement 1 about aural training methodology and agreed with statement 3 about lack of adequate resources. This implies that these teachers could teach aurals effectively if there were adequate resources outlining principles to be used in teaching it. Further responses from the interviews indicate that 50% of those who are in this category have, over time, (coupled with many years of the teaching experience) developed a methodology for aural training which is effective because their students have been performing well in aurals.

In the last category is 1 (5.88%) teacher who disagreed with both statements 1 and 3. This implies that this teacher is certain about the methodology (through many years of teaching music) and that there are adequate resources outlining the principles to be used, in the training of aurals.

5.1.5 Teaching resources that are available are rarely used in aural training by teachers

From the table, 64.7% of the teachers (11) agreed with this statement while 6 (35.29%) disagreed. Responses from the interview indicated that 100% of the teachers responded that they made use of all available instruments. Other responses from the interview revealed that some instruments (for example, the piano) were not used effectively because they were out of tune and needed repair. Other reasons were that the school, rather than the teacher, was in -charge of the instruments, and getting the

instruments required a long process. This discouraged the teachers. Another reason was that some aspects of aural work (for example, identification of cadences) needed prior and adequate preparation and this demanded a lot of skill and time on the part of the teacher. Hence lack of instrumental skills led to the under-utilization of the instruments.

This, therefore, implies that the reasons why the available teaching resources are rarely used is because they don't function properly. Another reason is that teachers are not very competent in handling the instruments. The instruments are also not within the teachers' reach.

5.1.6 Aural training is indispensable as far as a student's musicality is concerned

Most teachers (94.12%) agreed with this statement. This was further supported by responses from the interviews where 100% of the teachers agreed that aural training was important because students were able to perceive and get accustomed to the sounds which, in turn, enabled them to identify the different musical elements played to them. The responses from the interviews also indicated that 100% of the teachers taught aurals once a week due to lack of time which showed that they regarded aural training as important.

5.1.7 The K.C.S.E. Music Syllabus caters for all areas of Music Education

Table 4.1 shows that 64.7% of the teachers agreed with this statement while 35.28% disagreed with it. Further responses from the interview revealed that the syllabus caters for all areas of music education but that there are no resources which deal specifically with aural training. This poses a challenge to the teacher who needs to be very creative in the approach. so that every time the students have a music lesson, they begin with a bit of aurals. Teaching aurals once a week is not enough; students tend to forget easily what they have learnt if it is not taught frequently. Apart from learning a bit of aurals in each music lesson, one lesson is set aside specifically for aural training.

The 35.28% of the teachers who disagreed with this statement said that there were other areas not covered by the syllabus, an example being the topic of 'orchestration'. These teachers tended to interpret the question within a wider perspective although such a topic is beyond the scope of the KCSE Music Syllabus.

5.1.8 Teachers are aware of the syllabus regarding the teaching of aurals

In response to this question, 47.04% of the teachers agreed with the statement while 41.17% disagreed: and 11.76% were undecided. Responses from the interview revealed that teachers were aware of the syllabus regarding aural training but had difficulties as to which methodology they should use due to the fact that the students had varying musical abilities. This is further supported by the fact that 35.29% of the teachers agreed that they were not sure of the methodology in aural training while at the same time, agreeing that they were aware of the syllabus regarding aural training. This is also backed up by the fact that 76.47% of the teachers agreed that there lacked adequate resources outlining the principles to be used in aural training while at the same time, agreeing that they were aware of the syllabus regarding aural training. In

response to statements 3 and 8, 35.29% of the teachers agreed with these statements. This therefore implies that teachers were fully aware of the syllabus regarding aural training but lacked the resources for carrying out the training. About 29.41% of the teachers agreed with statement 3 and disagreed with statement 8.There arose a conflict here because these two statements are not related, meaning that it is possible for a teacher to know about the music syllabus but lack the resources to implement it.

5.2 Discussion of the Results of data provided by the secondary school music students

Data collected from music students and analysed in the previous chapter is discussed below.

3.2.1 Discussion on when students start receiving aural training

Here a number of students gave different answers: 37 (53.62) students began aurals in Form 1, 9 (13.04%) began in Form 2 and 1 (1.45%) began in Form 3. However, 100% of the teachers responded that they began aural training in form 1.

Responses from the interviews indicated that some teachers engaged students in aural training activities as early as Form 1 but did not mention to the students that they were undergoing aural training. They only did this later on when the students were already familiar with the various musical sounds. This partly explains the discrepancy between the teachers' and the students' answers.

This discrepancy could also be attributed to the fact that the research was undertaken in the first term when the Form one students were still reporting to schools hence not much learning had taken place with them. Another reason is that teachers gave the

ideal situation (that is aural training should begin in Form 1) instead of stating what actually takes place.

5.2.2. Explain briefly how you learn aurals

Responses to this question were intended to reveal the methods used in the aural training of music students. Aural work consists of melody writing or notation of melodies, notation of rhythmic patterns, and identification of intervals, cadences and modulations.

For this question, 18 (26.09%) students answered that they learnt aurals by first listening to what the teacher was playing on an instrument and then putting it down on paper after a given interval. Seven (10.14%) students noted that they listened to pre-recorded music and then wrote it down; 8 (11.60%) learnt aurals by sight reading and sight singing while 11 (15.94%) students participated in singing melodies or clapping rhythms before writing them down.

The observations made showed that the method used in aural training differed from teacher to teacher. In melody writing, two different kinds of methods were used. The first was by introducing the students to melodic notation by using a familiar song which they sang several times after which they assigned tonic solfas to the various pitches.
The other method was done by the teacher giving the tonic key chord and the pulse of the melody. This was followed by playing the melody four times and in two sections. Students were given time to notate what they had heard each time the melody was played.

In the notation of rhythmic patterns, three methods were observed. The first one was

where students sang a song and got the rhythm of the song by clapping as they sang along. They were then given time to write down the rhythm of the song. The second method was where the teacher gave the students a monotone rhythm, stated the time signature and then gave the pulse. The whole exercise was played four times and sections of the exercise were played during the second and third time and students were given time to notate what they had heard.

The third method involved students in clapping previously learnt rhythms before the introduction of new note values. Rhythmic exercises were then given based on the new notes and students clapped that particular rhythm after the teacher. Further rhythmic exercises based on the new note were given for more understanding.

In the teaching of intervals, two methods were used. In one of the methods, the students were involved in singing a song after which they tried to identify the intervals within the song. Particular songs were also used to teach specific intervals on an instrument, melodically, then harmonically after which the students tried to identify those intervals.

Identification of cadences was taught using different methods; one method was by using a piece of music with clear phrases to show the location of a cadence. Another method was by involving the students in singing the cadences so that they could experience the notes which form a cadence and the third method was by using pre-recorded cassettes. The other method used by the teachers was playing the cadences on the piano or keyboard and asking students to identify them.

Modulations were taught by playing some music (with modulations) to students and

asking them to identify where the modulations occurred.

5.2.3. Number the following aspects of the music curriculum according to the priority given to them (in terms of time taken) by the teacher. The one with the greatest priority should be first on the list.

This question sought to ascertain whether aural training was done by the teachers. The students were supposed to list down in descending order., the amount of time taken for each aspect of the curriculum. These aspects were History of Western Music, African Music, Theory of Music, aural work and practical work.

From Table 4.2.3, nine(13.04%) students responded that aural work was given more time than the others. Sixteen (23.19%) students rated it second while 8 (11.6%) students rated it third. 21 (30.43%) students rated it fourth while 3 (4.35%) students placed it fifth. This therefore confirmed that aural training took place although in varying frequencies.

A survey of the students' questionnaires showed that those who responded that teachers gave first priority to aurals were those whose teachers responded that a bit of aural training took place at the start of every music lesson.

From the responses given, it was clear that aural training took place.. One hundred per cent of the teachers and 79.71% of the students agreed that aural training took place once a week. The importance of aurals is noted by Leonhard and House (1959) when they state that:

> Aural awareness is the key to all musical learning, and the music-learning situation should be constantly focused on ear-training. (ibid:134).

5.2.4. How can you rate the Frequency of aural training given to you?

This question was to determine the frequency with which aurals was taught. Table 4.2.4 showed that 79.71% of the students received aural training once a week. In contrast, all teachers responded that they taught aurals once in a week. The difference between the teachers' and the students' responses could be attributed to the inconsistency on the teachers' part in aural training. Responses from the interview indicated that 16.66% of the teachers did not give aurals regularly to students and this explains why a percentage of the students had different answers to this question.

It was also revealed that 33.3% of the teachers had problems in teaching aurals due to absence of electrical power. This made it difficult for them to teach aurals since the instruments used were electrical and there were certain days of the week when there was no electricity, hence aural training did not take place. However, 16.6% of the teachers used other melodic instruments when there was power failure although they noted that some of these instruments were not as effective as the electric keyboard, or the piano.

5.2.5 Name the instruments used in aural training in your school

Here the students gave a variety of instruments that were used for aural training. 30.43% of the students responded that only the piano was used. In contrast, no teacher quoted piano as being the only instrument in use, but observation of the teaching revealed that 33.3% of the teachers interviewed used piano only in dictating melodies and intervals to the students and they tapped the table in order to give rhythmic exercises.

5.8% of the students responded that only the recorder was used and 33.3% of the

teachers interviewed agreed that there was no piano or keyboard in the school; students had to be taken to other schools to hear how the piano or keyboard sounds and to do aurals there although this did not happen very frequently.

5.2.5a What music-making activities do you engage in your school?

According to Table 4.2.6, all the students who responded to this question were involved in music-making activities while 66.67% were involved in more than one music-making activity.

5.2.5b What music-making activities do you engage in out of school?

In Table 4.2.7 it was indicated that most of the respondents (73.36%) engaged in music-making activities while 7.25% did not engage in any music-making activity outside the school.

Music-making activities help in enhancing the aural skills of the students. Among the students who took part in music-making activities, particularly singing in a choir, the extent of their participation was not established. It was not clear whether the students learnt the songs by rote or sight singing.

Peters and Miller (1982) underscore the importance of sight singing. For them sight-singing is a skill that is directly useful in the life of every musician. If one cannot sight sing, then there's doubt whether he can hear well enough to be called a true musician. Though the students engaged in music-making activities like playing instruments, it was also not established whether they're able to sight-read. It is important that students learn not only to play by ear but also to sight read as this improves their instrumental skills and performance.

CHAPTER SIX

6.0 SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

6.1 Summary

This study focused on the factors affecting the performance of aurals at KCSE in Nairobi secondary schools. The study sought to investigate the factors which affect aural performance, because year after year, students continue to perform poorly in aurals.

In particular, the study sought to determine the following:

a) Whether aural training was given to secondary school music students.
b) Which music teaching resources were used for aural training.
c) What methodology was used in teaching aurals.
d) What music-making activities the students engaged in to develop their aural skills.

The study focused on Nairobi secondary schools which teach Music as a subject, and the descriptive method of research was used. The study was selected by simple random sampling technique. Data was collected from the selected sample using questionnaires, opinionnaires, interviews and observation. Data was analysed using frequency tables, percentages and Likert scales.

6.2 Conclusions

The following are the conclusions drawn from the study: The study revealed a number of factors affecting aural performance at KCSE in the secondary schools. The factors are given below.

i) Though aural training is given to secondary school music students, it is not a regular and continuous activity, hence students are inadequately prepared. This leads to poor aural performance.

ii) Resources that are available for aural training are under-utilised by the teachers, hence students are not exposed to adequate musical experiences and this in turn leads to their poor performance.

iii) Methods used in aural training are not sufficient to meet the needs of students. Music-teaching and learning entails concentration of one aspect at a time so that it is properly grasped by the student. Failure to do this leads to poor grasping of concepts on the students part and subsequent failure

iv) Music-making activities in which the students engage in are inadequate to enhance or develop their aural skills. This leads to poor performance in aurals.

v) Lack of proper teacher training acts as an impediment to effective teaching of aurals. For proper guidance of the students' musical activities, teachers ought to have achieved competent and expert levels of musicianship in order to impart aural skills to the students. This doesn't happen due to improper training on the teacher's part.

vi) Aural training is important and should begin immediately the students begin High School. Poor performance in aurals is due to the fact that teachers begin aural training much later. The students have little time to familiarise themselves with the various musical sounds hence their perception is weak and this leads to poor performance.

vii) Lack of regular training leads to poor aural performance. For proper acquisition of aural skills, students need to be exposed to aural training regularly and continuously.

viii) Lack of adequate resources (music literature) outlining how aural training should be carried out leads to poor performance because teachers are unsure about what methodology to use. Hence, they are left to design their own methods which may not be appropriate for aural training.

ix) Students who pursue Music as a subject lack musical intelligence, hence making it difficult for the teacher to impart aural skills to them.

6.3 Recommendations

From the findings of the study, the following recommendations were made:

(ii) Music teachers should undergo proper training where they are taught various musicianship courses. Teacher Training institutions should give adequate courses in musicianship to equip the teachers with the necessary skills which they need for aural training.

(v) More resources especially text- books should be provided for the teachers which indicate how aural training should be carried out to avoid misinterpretation of the syllabus by teachers.

(vi) Due to lack of time for teaching aurals, students should be given a lot of work to do out of class. There should be a student's workbook which the students can use out of class to ensure continuity in the aural training.

(vii) Teachers need to begin aural training as soon as students arrive in the secondary school so that in four years time, they are adequately prepared to handle the aural section of the practical paper. There is also need to give aural training frequently as this enables students to perceive the various musical sounds.

(viii) Students' music-making activities should be guided by the teachers so that the students are able to move from simple to complex activities, which would

enhance their aural acuity.

(ix) Heads of institutions should endeavour to obtain more resources in terms of music instruments so that more students are able to play music instruments, guided by their teachers, hence improving their aural skills. Head teachers should also see to it that damaged instruments are repaired so that they can be used effectively in aural training.

(x) Music teacher-training should be expanded to cater for the rising population doing music. More than one teacher should be posted to schools offering music so that all students can be catered for adequately. Usually there is only one teacher for music who gets so over worked that he or she cannot consider individualized training for weak students.

(xi) Teachers should be given in-service training where they are given aural training and equipped with other skills which will enable them to cope with the demands of the KCSE Music Syllabus.

(xii) A more practical approach towards music teaching should be taken right from primary school to develop children musically, thus, laying a firm foundation in music for later studies.

(xiii) Since pre-recorded is used during the exam, teachers should use it more regularly during aural training. This will enable the students to get used to this music and they will be more prepared for the aural exam.

6.4 Suggested Topics for Further Research.

The study was not exhaustive due to the fact that the academic field, especially in the area of Music Education, is wide. In the course of the research, very many gaps emerged that needed to be filled. The following are areas that need further research:

(i) An investigation into the effectiveness of students music-making activities in enhancing their aural acuity.

(ii) Utilization of African musical instruments in the aural training of secondary school music students

(iii) The effect of regular and consistent aural training on performance of aurals by secondary school music students.

BIBLIOGRAPHY

Akuno, E A (1997): "The use of indigenous Kenyan children's songs for the development of a primary school music curriculum for Kenya" Unpublished *Ph.D. Thesis*, School of Music, Kingston University.

Arnold, D. (1996): *The New Oxford Companion To Music*, New York, Oxford University Press.

Bennet, P. (1986): "When Method Becomes Authority" *Music Educators Journal*, May Vol.72 No.9:38-40.

Bloom, B S et al (1956): *Taxonomy of Educational objectives: The classification of Educational Goals, Handbook I: Cognitive Domain*, New York, David Mckay Company, inc.

Boberg, R.M. (1975): "Ear-Opening Experiences With Rhythm And Pitch" *Music Educators' Journal,* Dec, Vol.62 No.4:33-34.

Borg W R and Gall, M. (1989): *Educational Research: An introduction*, New York, Pitman Publishing Inc.

Digolo, B A O (1997): "Availability and use of Teaching and Learning Resources for Music Education in Kenya: A survey of secondary schools in Nairobi Province" Unpublished *MA Thesis, Kenyatta University.*

Domek, R.C. (1979): "Teaching Aural Skills to High School Students*: Music Educators' Journal.* Jan, vol. 65, No. 5:54-55.

Elliot, D J (1995): *Music Matters: A New Philosophy of Music Education*, New York, Oxford University Press.

Fish, A. (1972): *Fundamentals of Sight-Singing and Ear-Training.*" New York, Dodd, Mead and Co.

Gay, L. R (1987): *Educational Research: competencies for Analysis and Application* 3rd Edition, USA, Merill Publishing Company

Gelineau, R.P. (1976): *Experiences in Music*, McGraw Hill inc., USA.

Ginsburg, H. (1969*): Piaget's Theory of Intellectual Development,* New Jersey, Prentice Hall inc., Englewood Cliffs.

Hilgard, E.R. (1966): *Theories of Learning*, New York, Meredith Publishing Company.

Hoffer, C.R. (1964): *Teaching Music in the Secondary Schools*, California, Wadsworth Publishing Co-inc.

Irwin, R.B. (1965*): Speech and Hearing Therapy, Clinical and Educational Principles and Practices*, Pittsburg, Stanwix House.

Jordan – Decarbo, J. (1986): "A Sound To Symbol Approach To Learning Music", *Music Educators' Journal*, vol. 72 No. 6:36.

KNEC (1995): *Kenya Certificate of Secondary Education: Regulations and syllabuses*, Nairobi, Kenya National Examinations Council.

KNEC (1996): *1993 and 1994 KCSE Examination Report*, KNEC, Nairobi, Kenya.

Lament, M. M (1976): *Music in Elementary Education*, New York, Macmillan Publishing Co, Inc.

Langley, E. (nd): *Sixty-Three Musical Questions and Answers on the Art of Teaching*, London, A Hammond & Co, New Bond street.

Langley, E. (nd*): Principles of Teaching (as applied to Music*), Norwich, England, William Elkin Services.

Lawrence, I (1978): *Composers and the Nature of Music Education*, London, Western Printing Services.

Leonhard C. and House R.W. (1959): *Foundations and Principles of Music Education*, McGraw Hill, Book Company, New York.

Lovelock, W. (1978*): Commonsense in Music Teaching'* London, Bell and Hyman Ltd.

MacPhersons and Read (Nd): *Aural Culture based upon Musical Appreciation*, London, Lowe and Brydone (Printers Ltd.).

Mehr, N.(1985): 'Helping Children Perceive Melody', *Music Educators' Journal,* April, Vol. 71 No 8:29-31

Mursell, J.L (1948*): Education for Musical Growth*, Boston, Ginn and Company.

Oppenheim, A. N (1982): *Questionnaire design and Attitude Measurement*, London, Heinemann Educational Books Ltd.

Perrin, H et al (1970): *The New Approach to Music: Primary Division*, Canada, Holt, Rinehart and Winston of Canada, Limited

Peters, G.D. and Miller R.F. (l982*): Music Teaching and Learning,* New York and London, Longman

Prince W. F (1974): "Music Education's split personality*" Music Educators' Journal* Nov, Vol 61 No 3:27-33

Seashore, C. E (1967*): Psychology of Music*, New York, Dover publications, inc

Solomon, E. P. et al (1985*): Biology.: Human Anatomy and Physiology* Third Edition, USA, saunders college publishing.

Stow, A (1976*): Music and the Mind*, London, Harpercollins publishers.

Swanwick, K. (l979): *A Basis for Music Education* Nfer – Nelson Publishing Co, Ltd.

Swanwick, K & Taylor, D (1982): *Discovering Music: Developing the Music curriculum in secondary schools*, London. Batsford Academic and Educational Ltd.

Szende, O (1977*): Intervallic Hearing: Its Nature and Pedagogy*, Budapest, Akademiai Kiado.

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March 1, 2000

TO WHOM IT MAY CONCERN

The following are Year II MA (music) students currently on research. Their investigations, part of their academic programme, are in no way designed to malign your institution.

I request that you kindly allow them to carry out their work in your institution. Any assistance given will go along way towards the development of Music Education in this country.

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With gratitude

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APPENDIX I

Questionnaire (For Students)

Please give the correct answer by ticking only ONE of the choices in question 1-4.

1. When did you start receiving aural training?

   a) Form I

   b) Form 11

   c) Form III

   d) Form IV

   e) None of the above

2. How do you learn aurals? _____

3. Number the following aspects of the music curriculum according to the priority given to them (In terms of time taken) by the teacher. The one with the greatest priority should be first on the list.

   a) History of Western Music

   b) African Music

   c) Theory of Music

   d) Aural work

   e) Practicals

4 How can you rate the frequency of aural training given to you?

   a) Once a week

   b) Once a fortnight

   c) Once a month

   d) Once a term

   e) None of the above

5 Name the instruments that are used in aural training in your school.

6 What music making activities do you engage in?

(a) In school

(b) Out of school

APPENDIX II

Oppionnaire (For Teachers)

Consider the following as possible factors that affect the performance of aurals in Nairobi Secondary Schools. Tick the letter (s) that best indicate your feeling in each question.

The letters represent the following:

SA - Strongly Agree

A - Agree

U - Undecided

D - Disagree

SD - Strongly disagree

1. Teachers are uncertain concerning which methodology should be used in aural training.

   (SA) (A) (U) (D) (SD)

2. Aural training is not given to music students

   (SA) (A) (U) (D) (SD)

3. There is lack of adequate resources outlining the principles to be used in aural training

   (SA) (A) (U) (D) (SD)

4. Lack of proper training on the part of teachers hinders effective teaching of aurals.

   (SA) (A) (U) (D) (SD)

5. Teaching facilities that are available are rarely used in aural training by teachers.

(SA) (A) (U) (D) (SD)

6. Aural training is indispensable as far as a student's musicality is concerned.

(SA) (A) (U) (D) (SD)

7 The K.C.S.E. Music Syllabus caters for all areas of music education

(SA) (A) (U) (D) (SD)

8. Teachers are aware of the syllabus regarding the teaching of aurals.

(SA) (A) (U) (D) (SD)

APPENDIX III

Interview Schedule for Teachers

1. How long have you taught?

2. When do you start teaching aurals to students?
   a) Why?
   b) How frequently per year?

3. What difficulties do you face in aural training in terms of:
   a) Teaching resources
   b) Methodology
   c) Time

4. What teaching resources are available for aural training?
   a) Which ones among them do you use?
   b) How effective do you think they are?

5. How do you train the following aspects of aural work?
   a) Notation of melodies
   b) Notation of rhythmic patterns
   c) Identification of intervals
   d) Identification of cadences
   e) Identification of modulations

6. what other challenges do you face in aural training?

APPENDIX IV

OBSERVATION SCHEDULE

NAME OF SCHOOL .....

DATE.....

TOPIC.....

AVAILABLE RESOURCES

Activity e.g. Melody Writing, intervals, Cadences etc	Teacher's activity and methodology used	Students' response	Resources used