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**"A CRITICAL ANALYSIS OF INDIGENOUS KENYAN MUSIC
PROCEDURES: DEVELOPING THE EMBEDDED PATHWAY
APPROACH MODEL FOR INTERACTIVE LEARNING FOR
SECONDARY SCHOOLS IN KENYA"**

BY

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M88/15265/05

**A THESIS SUBMITTED IN FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF DOCTOR OF
PHILOSOPHY IN MUSIC OF KENYATTA UNIVERSITY**

Mushira, Evelyne N.
*A critical analysis
of indigenous Kenyan*



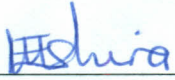
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DECLARATION

This thesis is my original work and has never been presented before for a degree in any other university.



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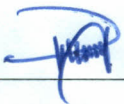
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LIST OF ABBREVIATIONS AND ACRONYMS

- ABRSM: Associated Board of Royal Schools of Music.
- AMEEA: Association of Music Educators in East Africa.
- CCLP Model: Concentric Circles Learning Pyramid Model.
- EP: Embedded Pathway.
- KIE : Kenya Institute of Education.
- KMF : Kenya Music Festival.
- KNEC: Kenya National Examination Council.
- MES : Music Expectancy Schemes.
- MMCP: Manhattanville Music Curriculum Project.
- PASMAE: Pan African Society for Musical Arts Education.
- PPMC: Permanent Presidential Music Commission.
- RIA: Rhythm Interval Approach.
- STMC: Structural Theory of Musical Communication.
- TLM's: Teaching Learning Materials.
- TSF : Theoretical Sampling Framework.
- UNESCO: United Nations Educational Scientific and Cultural Organization.
- 8-4-4 System : Kenyan education system made up of eight years at the primary level, four years of secondary education and four more years for a basic University degree.

OPERATIONAL DEFINITION OF TERMS

The following terms are used in the context of this study and are defined as:

African music: Referring to the music of Sub-Saharan Africa. These are defined as constituting the indigenous expressions of song, dance and instrumental music together with accompanying forms of musical arts such as story-telling, play, poetry, riddles tongue twisters, amongst others.

Audiation: Responsive listening with aesthetic understanding. This is concretized through descriptive analysis using appropriate terms.

Aural-oral process: A procedure that engages intelligent listening and is verbalized through the mouth. Listening skills are concretized in the study through accurate imitation, meaningful singing and improvisation as well as description of music using appropriate terms.

Convergent tasks: Learning activities that guide pupils towards singular solutions to musical problems.

Divergent tasks: Learning activities that guide pupils towards varied solutions to musical problems.

Embedded Pathway: Refers to the internal organization of a work of music which facilitates communication of musical information.

Indigenous music: Music created and practiced by groups of people within a particular culture, reflecting the music's cultural identity through the idiom, language and instruments.

Music education: Impartation of knowledge, development of skills and values through the use of musical sounds.

Musical expectancy: A readiness for structuring, interpreting, remembering, composing and performing music. In the study, this is concretized through idiomatic *performance, composition* as well as an *appreciation* of music that demonstrates understanding of similarity relations.

Musical creativity: The expression of socially valued musical alternatives. The study focuses on adolescents' creative activity as it shows up in their performances, improvisation and compositions, hence process as well as product.

Ostinato: A musical idea that is repeated persistently throughout a performance or composition. This refers both to rhythmic and melodic ideas.

Structural processes: Procedures of music composition and performance. These (procedures) are taken to combine both the horizontal and vertical dimensions of musical form.

Teaching models: This denotes patterns of instruction and resource use in implementing curricular. Models referred to in this study are: teacher versus learner centred; theoretical versus practical; academic versus musical; as well as Western classical versus African music. All these are interrogated in a bid to establishing the pattern of a model that is interactive with regard to the teacher and learner.

ABSTRACT

This study was carried out against a backdrop of current educational process in Kenya which (the process) is heavily grounded on Western education models. These models, unfortunately, were not known for including African music in the general music curriculum, to say nothing of apportioning adequate time for music on the time-table. Such practices have not been successful in yielding musicianship that is vibrant and practical. The aim of the study, therefore, was to explore the instructional promise of selected indigenous Kenyan music processes as possible models for curriculum design and implementation with the objective of developing a formal approach for secondary schools in Kenya. The study was prompted by the need to confirm African music, an oral art, in contemporary formal music education. It was hypothesized that there would be a positive change in music expectancy scores when students are instructed through indigenous Kenyan music processes. The theoretical framework constituted of the socio-cultural and music learning theories. The study was conceived upon a music learning process illustrated as concentric circles learning pyramid model (CCLP model). A combination of documentary and experimental strategies provided the overall study design. The study was piloted and necessary adjustments made on field logistics as well as research instruments. Documentary procedures through literature review identified and re-interpreted indigenous Kenyan music processes. A total of 16 out of 29 articles on indigenous Kenyan music authored from 1954 to 2005 were reviewed, having been drawn out through a process of theoretical sampling. Call and response, through content analysis, emerged as the most prevalent process of indigenous Kenyan music (33; 52.38%). An experiment was designed to test the study hypothesis. Key variables were identified as a) music expectancy achievement (dependent), and b) call and response instruction method (independent). Variables that were manipulated for control purposes included: gender; region; and teacher/learner preparedness among others. Schools from two out of the eight provinces in Kenya constituted the study sample, the population having been defined as students attending secondary schools that offer music as an examinable subject under the 8-4-4 system. Results from both control (n=81) and experimental (n=87) groups yielded t-values of 0.355 and 8.927 respectively. These results upheld the key study hypothesis which had predicted a positive relationship between music expectancy achievement and the call and response process of instruction. The second hypothesis having focussed on a gender based differentiation with regards to music expectancy performance by reason of the new instruction method was similarly upheld. On the contrary, data did not support the third hypothesis that had conjectured the same outcome but with a differentiation between rural and urban regions. Although a positive change in music expectancy scores was noted, the overall differentiation in performance between the two regions was negligible. Interestingly, supplementary data emerging out of the study yielded notable differentiation in tonal and rhythm perception with regards to gender and region. On the whole, implications showed that indeed, indigenous Kenyan music processes have substantial pedagogic value which is either untapped or used sporadically without appropriate instructional guidance. A proposed instructional method based upon the call and response procedure was consequently developed to supplement current music instruction practices. Such an instructional method however, would need to be continually evaluated to maintain currency and appropriateness. The study recommends that universities and teacher training colleges review their music education programs so as to appropriately address indigenous Kenyan music.

CHAPTER ONE

BACKGROUND TO THE STUDY

"When the music changes so does the dance"

African Proverb

1.0. Introduction

This chapter begins by presenting an overview of the link between the national and educational goals that are contextualised within music education in schools in Kenya. A critical analysis of the application of Western methods of music teaching is made, highlighting the disconnect between these and the tenets of indigenous African music and the potential that the latter holds for music education in local contexts. The statement of the research problem points out the knowledge gap with respect to lack of research based evidence to demonstrate the apparent pedagogic value embedded in the indigenous Kenyan music structural processes for curriculum modelling/design.

1.1. Background Information

Kenya is geographically located on the east coast of Africa being one of the five countries that constitute the eastern regional block. The population is estimated at 38.6 million according to results from the October 2009 census conducted by *Kenya Bureau of Statistics* (Daily Nation, 31st August, 2010). The indigenous peoples fall into three broad categories: Bantus, Nilotes and Cushites. A total of 42 communities comprise these categories. Each community is identified by the practiced culture characterized by a shared language, accompanying artifacts and for purposes of this study, the traditional music and dance.

Music is globally recognized as a language that defies boundaries (Campbell, 2003) and as such is a tool that has capacity for rallying multicultural societies around common goals.

In this respect, together with other equally significant rationales, education programs in Kenya have been developed to take advantage of indigenous Kenyan music. Music in the school curriculum has evolved over time and at some point, was identified as being in an indigenization phase as observed by Eshiwani (1993). This referred to the domestication of curricula that went through earlier phases of adoption, and adaptation. Earlier on in 1981, the *Presidential Working Party on the Second University in Kenya* had made proposals on educational policy that resulted in the current 8-4-4 system. Curriculum developments entailed the inclusion of music, arts and crafts, home science and agriculture at the primary school level as examinable subjects. Music at the secondary school level was maintained as an optional subject. Further developments as a result of the Omondi report (1984) saw the inclusion of a large component of indigenous Kenyan music in the secondary level syllabus. With the inclusion of such music in the curriculum, education was further empowered to articulate culture in the development of the society. The indigenization phase continues to characterize the development of curriculum to date.

A major criticism for some time has been the heavy load of subjects experienced by learners. In response to this, the Ministry of Education in 1991 reduced the load of various syllabuses. Further revisions led to a major drawback on gains previously made. On recommendation by the World Bank, the Ministry of Education merged music with arts and crafts in 2000 and made these components non-examinable in the first cycle of the 8-4-4 system. This is an education system in Kenya comprising: a) eight years at the primary level; b) four years of secondary school education; and c) four years for a basic university degree. Although the consolidated area of study, referred to as 'creative arts', is time-tabled, it is largely neglected in as far as teaching is concerned. Scheduled lessons allocated to the subject area are taken up by other subjects that are examinable.

It is a fact that the secondary level of the system sets off with learners not having adequately grasped fundamental concepts from the previous level. This continues to raise issues of continuity between the first level (primary) and the second (secondary). In this respect, the task for education to deliver culture through music in a progressive manner remains challenged.

A close look at the interplay between the pursuance of national and educational goals in as far as culture is concerned yields some important points that have been beneficial in the translation of educational policy into action. The practice of indigenous music in Kenya continues to take place alongside other genres in the community. Functions such as weddings, celebration of rites of passage (like circumcision), among others, are some of the fora where this music is transmitted and experienced. This cuts across both the rural and urban communities. Concerts hosted by institutions such as the French and Italian cultural centres target mainly urban audiences. Similarly, the *Kenya Cultural Centre* regularly showcases indigenous music. This scenario is replicated at town halls of other urban centres such as Mombasa, Nakuru, and Kisumu. Cultural festivals such as the annual *Kenya Music and Cultural Festival* provide platforms for showcasing this music from different regions of the country. In the same vein, indigenous music continues to be an important part of the national celebrations programme such as: *Labour Day; Madaraka Day; Jamhuri Day and Kenyatta Day.*

The above activities add up towards the celebration and preservation of culture. These programs continue to complement, interface with and extend classroom music. The points of interface could be said to consist of: a) the concern for expressing one's artistry; b) enjoyment of active music-making; and c) pursuing musical excellence and innovation.

In this way, practical examples and experiments in such activities serve as alternative models of curriculum implementation. This holds the potential for working towards widening the framework of the school program in terms of content, methodology and practice.

Music education curriculum in Kenya has for a long time been formed around the knowledge and skill base of the Western canon, even though there are glaring differences in approaches to the two types of music(s). The inception of the 8-4-4 system in 1985 saw a large component of African music being incorporated into the curriculum at the secondary school level. There were, however, no teaching modalities in place. The result has been the superimposition of Western methods on indigenous Kenyan music instruction. This has contributed towards unfavourable attitudes (Wanjala, 1991), misconception (Kavyu, 1998), and generally, a cultural vacuum, whereby the youth continue to have loose connections with indigenous Kenyan music (Akuno, 1999).

The application of Western methods in Kenyan secondary schools wrongly assumes that universal sources of musical expectancies are able to address indigenous Kenyan music (Kavyu, 1988; Mushira, 2005). The important area of conceptual knowledge is presented largely within the Western perspective as evidenced by book resources recommended by the Kenya Institute of Education (Chege, 1990). Musicianship is taught in a dry and theoretical way (Agak, 2002). Thus, instruction hardly makes the important connection between musical concepts and indigenous Kenyan music. Instruction in critical listening receives some attention in secondary schools (Mushira, 2000). It is, however, emphasized in Forms Three and Four, implying that teaching is geared towards examinations.

Invariably, schools invest a great deal of time in the third year to prepare candidates for national examinations which are offered in Form Four (Grade 12 in some countries). Although music education for intelligent listening is prescribed within the idiom of indigenous Kenyan music (KIE, 2002), its mode of delivery tends to encourage passiveness in learners. Prescribed teaching activities are predominantly theoretical, whereby knowledge is imparted in a lecture format (KIE, 2000). This orientation is unfavourable for the formation of musical expectancies, as it does not actively engage learners with the music. Traditional African educational practice is entirely aural-oral (Hyslop, 1954) and as such, employs strategies that permit for the learning process to be permeated with actual music. These strategies ought to be investigated for answers on how musical expectancy may be facilitated in formal settings by incorporating the African pedagogic perspective.

Instruction in compositional studies is intended to provide guidance for learners to apply musical concepts in the creation of their own music in various genres. The principles currently used rely on models of Western compositions (Chege, 1990). The aspect of melody writing is thus misinterpreted and does not provide an appropriate educational footing in a comprehensive and inclusive way. This inhibits learners' creative expressions as they fail to receive the necessary guidance for composing within indigenous Kenyan music idioms. Thus, methods used in teaching indigenous Kenyan music in Kenyan secondary schools portray a gap in terms of teaching approach.

1.2. Context of Indigenous Music Systems as Curriculum Models

The need to make music education on the continent responsive to the needs of African realities remains a persistent matter of concern.

Scholars, curriculum developers, as well as educational agencies continue to voice their concern on music education in Africa and the need to make it responsive to the culture. Masoga (2003) in his key note address at the Pan African Society for Musical Arts Education (PASMAE) conference held in Kisumu, Kenya, themed *Solutions for Music Education in Africa* interrogated existing curriculum structures:

The first key challenge is relevance. Questions undergirding this serious concern are: Does the present music education curriculum reflect the needs of the communities? Does the curriculum help to unleash the inherent potential of the people to think and solve their problems? Does it help the pupil to give his/ her observational capacities? There is need for this continent to find a correlation between what is learnt at school and its ability to transform society into a better place. Otherwise the time spent at school will be a wasted time. (Ibid: 1)

There is consensus that answers to issues of curriculum content and pedagogy lie in indigenous knowledge systems (Mbabi-Katana, 1972; Okafor, 1992; Mans, 2002). The 2005 symposium of the Association of Music Educators in East Africa (AMEEA) was concerned that indigenous knowledge systems are accorded little if any recognition within the practice of formal education. The reason for this was identified as teaching programs and approaches that fail to refocus on indigenous expressions. The claim of indigenous music being the solution to music education challenges on the continent is, however, contested. Scholars who question indigenous knowledge systems maintain that such systems are borne out of a need for survival (Crossman and Devisch, 2002). In their arguments, they suggest that indigenous knowledge systems are local. This position, however, does not provide an explanation as to why generic knowledge in pro-Western curriculum structures continues to marginalize African music. In seeking a mediated position, most scholars have settled on the need to understand past systems and how these could be used for addressing current African problems and challenges (Nketia, 1974; Ekwueme, 1983; Oehrle, 1987; Okafor, 1989; Akuno, 1997; Njooora, 2000).

Such knowledge targets curriculum designs, resources and approaches. All these scholars agree that such systems would have to be dynamic so as to address contemporary formal settings in a functional way.

Conclusions of the UNESCO mounted Regional Conference on Arts Education (2001), re-emphasised creativity as a Pan-African goal in African arts education. It was further stressed that a methodology of arts education that is holistic and demonstrates flexibility should be pursued. This has resulted in the pursuance of re-engineering curricula, integrated ways of handling music and musical arts as well as the development of classroom resources.

There is need to re-define indigenous knowledge systems in order to bring indigenous Kenyan music knowledge into the realm of formal education. Unfortunately, there has been a lack of knowledge on how this can be done at the university level and middle level colleges where teacher training takes place. Akuno (2005) points out the inadequacy of such knowledge at the universities and prescribes one remedy namely:

...the generation, assimilation and dissemination of knowledge. Once accomplished this sets the lecturers free to handle the subject and adapt the system of knowledge, here called indigenous Kenya music to fit into the current formal education curriculum. (Ibid: 65)

The foregoing observations point to the need for research to establish how indigenous Kenyan knowledge systems can be used in music education. Some of the recent studies that have attempted to address this issue include one from Omolo-Ongati (2005), who in reference to Maseno University, looks into and suggests solutions to problems encountered in the teaching and learning of African music in the universities.

Miya (2005) critically examines how the *isukuti* performing arts were used for educational purposes in indigenous context. Based on a study conducted in Nairobi and Kakamega, Kenya, this scholar develops a theoretical framework on how performing arts could be used today for purposes of education. Omolo-Ongati and Miya's initiatives are relevant to the need for research in the use of indigenous music. They represent an obvious challenge of either being generic as in the case of African music practice in Maseno University, or tending towards a component of indigenous Kenyan music as in the case of *isukuti* music. This pattern has characterized twenty-first century music education studies in Kenya. The challenge on how the genre known as 'indigenous Kenyan music' can be attended to poses a challenge. Njooora (2005) and Akuno (2005) based on extensive previous research, report on how indigenous Kenyan music can be integrated into formal education. These reports provide curriculum frames for multicultural and primary school curricula that have influenced the thinking in this study. It is in this regard that the present study views music expectancy as a curriculum paradigm, focusing on the music itself as the central pedagogic tool. The centrality of music is what defines the scope of music concepts and skills.

Music expectancy as a paradigm has been traditionally associated with musicology studies (Sloboda, 1985). Perception in such studies is interpreted using similarity relations of music works. In this way, a demonstration of musical expectancy based on portions of works of art becomes the measurable response. Traditional music education models of perception, on the other hand, engage the properties of rhythm, pitch, harmony and form (Primos, 1999). This practice has constantly come under criticism for apparently being theoretical and undermining music creativity development. Consequently, approaches that are less analytical continue to be sought.

1.3. Statement of the Problem

One of the challenges currently facing music instruction in Kenya lies in the bi-musical nature of the school curriculum. National music curriculum prescribes musical knowledge that is to be imparted through Western and indigenous Kenyan music. Such a curriculum presents the possibility of a rich music education, tapping into a bi-musical knowledge base. Although these two genres contain a wide spectrum of musical knowledge that is appropriate for pedagogic aims, they emanate from different conceptions of music and present different sources of musical expectancies. Music structural processes from the African continent have shown evidence of great integration and musicality in approach due to their oral nature (Dargie, 1998). Consequently, music-making demonstrates dynamic musicianship evidenced by vibrant compositions and performances. It would be expedient for the handling of indigenous Kenyan music in the classroom to draw from African music practice methods. There, however, is a paradox. Whereas on one hand, indigenous Kenyan music structural processes emanate from informal contexts, the teaching of music in secondary schools, on the other hand, takes place within a formal setting, complete with objectives, prescribed content, teaching/learning activities and assessment strategies. How then, can an informal approach facilitate a formal contemporary concern?

Studies in music education in Kenya have not yet addressed the pedagogic value of such processes for formal settings. In response to the foregoing gap, it became necessary to address indigenous Kenyan music structural processes as models of curriculum design and implementation hence the formulation of the study. The ultimate aim was to address the development of a formal approach for secondary schools in Kenya that embodies - in a complementary manner, the indigenous procedures to music pedagogy.

1.4. Research Questions

The following research questions were used in guiding the study:

- a) What are the inherent processes characteristic of indigenous Kenyan music?
- b) Are any of these processes suitable as models for curriculum design and implementation?
- c) How can a formal approach that uses indigenous Kenyan music processes to facilitate music education be developed?

1.5. Hypotheses

The study set out the following hypotheses in line with the second research question:

- a) Ho: There will be an increase in music expectancy scores after students are instructed through call and response;
- b) Ho: There will be a difference in music expectancy scores by gender after students are instructed through call and response; and
- c) Ho: There will be a difference in music expectancy scores by region after students are instructed through call and response.

1.6. Objectives of the Study

The specific objectives were:

- a) To investigate and articulate the inherent processes characteristic of indigenous Kenyan music;
- b) To assess and determine the suitability of any of the processes as models for curriculum design and implementation; and
- c) To develop a formal method for teaching indigenous Kenyan music in secondary schools that is culturally sensitive.

1.7. Assumptions

The assumptions of this study were that:

- a) The subject of music is taught on a regular basis in those schools that offer it;
- b) Indigenous Kenyan music education is dynamic and hence adaptable to contemporary practice;
- c) Indigenous Kenyan music-making is based on underlying principles and methods.

1.8. Rationale and Significance

Firstly, there is need for diverse perspectives of music education practice in the international community. African music, being one of the genres that constitute multicultural music programs is based on theoretical foundations that require methods consistent with its practice. This study is significant because it confirms the place of indigenous African music, an oral art, in contemporary formal education. The study develops: a) an interactive teaching/learning model; b) a music communication method; and c) a culture sensitive approach for secondary schools in Kenya. The generated scholarly products should lead to equipping musicians with skills to handle the elements of indigenous African music in contemporary settings.

Secondly, the pursuit of a musical identity that is distinctly Kenyan remains a challenge. In the last decade, the music industry in Kenya has experienced unprecedented growth, marked by a phenomenal output of musical compositions by local musicians. This study is justified because it is market-oriented and aims at strengthening the musicianship and performing skills of secondary school leavers, empowering them to participate in the music industry.

1.9. Scope and Delimitation

This study focused on music education in Kenya. The Associated Board of Royal Schools of Music (ABRSM) curriculum provides an alternative to the national curriculum offered by music education institutions in Kenya. The curriculum scope in this study was delimited to the national 8-4-4-music education system. Of primary concern to this study was the content, methodology and resources for implementation. Attitudes and values stated abstractly in objectives present considerable difficulties to teachers. Although education as a whole is concerned with changing the attitudes of learners, the study focused upon the aspects of musical knowledge and skills as spelt out in the music curriculum. This was due to the complex nature of attitudinal values and the difficulty of directly measuring them.

The 8-4-4 system of education consists of a) primary, b) secondary and c) university education. The study focused on the second (secondary) cycle of the system, making reference to the primary level only with regard to issues of music education foundation. Whereas there are secondary schools under the national curriculum that do not offer music as an examinable subject, the study recognised that such schools participate in the Kenya Music Festival (KMF) and as such, are involved in a form of music education. The KMF is a co-curricular competitive activity that takes place annually, progressing from the zone to district to province, culminating in the national event. While the study recognized the educative value of this festival, focus was kept on the classroom music lesson due to constraints of time as well as funds.

The secondary school curriculum in Kenya is bi-musical, utilising both Western classical and indigenous Kenyan music resources. The study focused on the indigenous Kenyan music component of the syllabus. The status in Western music was referred to only in so far as it provided information relevant to this study, or if it highlighted relevant aspects of indigenous Kenyan music instruction. Indigenous Kenyan music included both the synchronic (current) and the dychronic (historical) state of the music. This gave opportunity for comparison and analysis.

Finally, in attending to the development of a classroom approach, this study recognized current global education practices. These however were adapted only in as far as they were found to be consistent with indigenous Kenyan music practices.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0. Introduction

This chapter presents the literature that was reviewed in various areas considered to be relevant to this study. Of key importance are views expressed regarding: a) the current state of music education in Kenya; b) viability of indigenous Kenyan music for pedagogic practices; c) the role of creativity in curriculum design, focussing on learning readiness (referred to as expectancy) in music education; and d) the development of a music education theory with a communication import. There is compelling evidence that tokenism is given to indigenous music in the national curriculum as teased out from the literature reviewed. The value entailed in considering African forms of artistic expression within a given African music expression is articulated and use of play, dance, proverbs, sometimes combined with Western classical traditions is illuminated. The role of cultural imprints through music is elucidated. Literature review highlights important implications for music education as well as theoretical and practical gaps with regard to use of African indigenous music as the core raw material for teaching music in African contexts for African students. The nature of musical communication is interrogated by juxtaposing African music-making with Western classical practice. Principles of interactivity between audience and performer as found in musical communication within the African practice are argued as paralleling a desirable teacher-learner classroom engagement. This is viewed as making music education more musical than academic. Consequently, a basis for the development of a music communication theory, which is propounded in a later chapter, is laid. The review of related literature culminates in a theoretical and conceptual framework that guided this study.

2.1. Classroom Use of Multicultural and Multi-ethnic Music

Documentation of the term “Multicultural Education” captures North America as one of the earliest settings said to have developed the concept (Mark, 1998). The impetus was the necessity of knowing about the beliefs and values as well as environments of a culture in order to understand people from that culture (Volk, 1998). Additionally, the emergence of multicultural music education is reported to have emerged around the mid-1960s legitimized by the “Ethnic Heritage Program” law in 1972 (Mark, 1998). Fung (1996) observes that American music education programs serve as a gateway to transmit *World Music*, a term commonly used to refer to music other than that from the West. The American models handle classroom experiences of such music within cultural contexts. Several scholars have written on how *World Music* can serve the curriculum without advancing the cultural identity or agenda of any particular group against others (Campbell, 2004; Eliot, 1989, among others). African indigenous music holds a significant place in *World Music* curricula and continues to provide opportunity for research. The extent to which musical and cultural authenticity is attained remains a concern to music educators wishing to use African music in their classrooms. One of the criticisms on the American multicultural experience is said to be one that is westernised. Bowman (1993:8) asserts:

Singing is usually in a Eurocentric style and from printed Western notation. While it may be argued that such experiences broaden the child’s worldview, the experiences are mere token gestures to teach multiculturalism as a part of music education.

Whereas this indictment may sound a little harsh it carries some truth. A truth perhaps shared with some scholars in Sub-Saharan Africa in reference to the educational programs of: a) Ghana (Flolu, 1993); b) Kenya (Kilonzi, 1998); c) South Africa (Hauptfleisch, 1998); and d) Nigeria (Okafor, 1999).

Towards these programs, Akrofi (2005:10) pronounces the same judgment of tokenism in saying:

...in... African countries, traditional African music and dance have been made part of school curricula at the formal scholastic level. However the performance of African music and dance is treated more as an extra-curricular activity with focus on participation on festivals and competitions. This is mainly due to the fact that most sub-Saharan African classrooms have little or no background in traditional African music and are therefore reticent to teach it.

What seems to come out of this tendency for tokenism in both the North American and Sub-Saharan African models is the absence of appropriate procedures in handling African indigenous music in contemporary settings. A review of multicultural models is helpful in understanding the issue of methodology with regard to the development of a method for secondary schools in Kenya. Two models significant in the promotion of multicultural music education are identified as being: a) the ethnomusicology model (Small, 1977); and b) the intercultural model (Nketia, 1988; Swanwick, 1988).

Whereas an analysis of the ethnomusicology model indicates that it is best suited for musical understanding within social settings, it seems to be the least desirable for the development of practical musicianship. The model is limited in that its main thrust is the provision of a general survey of *World Music* or contact with a number of musical cultures. Few cases take this further to address music learning issues and even when they do, such instances do not examine how the traditional approaches may be contemporized. Further, the ethnomusicology model focuses on the acquisition of knowledge rather than musicality (intelligent listening, composition and performance) and the development of personal perspective (a sense of aesthetics).

The intercultural model (Nketia, 1988; Swanwick, 1988) seeks to derive universals that help to interpret different musics with the aim of making music education pluralistic. The advantage of this approach is that it introduces learners to other knowledge systems through which they can know, create, perform, and experience music. The model attempts to create bridges by emphasizing differences and similarities of music. This perspective on music education seems to view indigenous African music as providing windows into the Western tradition (and vice versa) hence, deepening musical understanding. Nketia (1988:53) identifies this as the "...discovery of common principals, usages and behavioural patterns that enable a synthesis of intercultural understanding". This accounts for musical expectancy development, a concept that is at the root of understanding musical structures in African music. This approach to music education, however, falls short of addressing certain issues that are at the heart of music with regard to African music. Addressing universals and generalities may provide breadth with regard to music education. What, however, is questionable (in as far as the development of musical skills is concerned) is whether learners are able to acquire an expectancy of music as well as grasp performance and composition techniques with mastery of music. Both models suggest different ways that educationists can go about in realizing classroom music. The development of a method for secondary schools in Kenya needs to be guided by a model that accounts for both the cultural and pedagogic aspects of music.

Morford (2007) in a study on the pedagogy of selected non-Western musical traditions in collegiate *World Music* ensembles in the United States found that the development of a broadly applicable *World Music* pedagogy is not appropriate. The study was initiated to explore the relationship between existing pedagogic practices and the pedagogical practices found in the cultures from which the music originates.

The data showed that certain teaching strategies were found to be inconsistent with those that occur in some West-African countries. Others like Balinese music ensembles did not show any relationship at all with the source culture. This, argues the scholar, was necessitated by the changing ensemble dynamics. Morford (2007) recommends further investigation into pedagogic practices in other *World Music* ensemble types. The development of a method for indigenous music instruction for secondary schools in Kenya is a response to that recommendation.

Most African scholars have decried the methods and tools used in African music as being Eurocentric and therefore unsuitable, and advocate for procedures that are appropriate. A number of these scholars seem to uphold the creation of an authentic learning environment by adopting procedures from the source culture (Nettle, 1992; Hookey, 1994). Campbell (2004) advances the philosophy of expressionism and conservationism with regard to the application of *World Music* in the classroom. In as much as conservationism may provide an answer to authentic classroom experiences, the practicability of the matter with regard to African music is that it is almost impossible to replicate musical experiences tied to extra-musical ones, in the classroom. The more important issue, however, lies in contemporizing such methods. Expressionism may be the approach for the African practice as it denotes creativity that integrates with other world cultures to create new world practice. Admittedly this is taking place in Kenya to a large extent, with labels such as 'Afro-fusion' being used in reference to such genres. It needs to be emphasized here that in as much as the spirit of African music-making is dynamic, such dynamism seeks to create expressions that preserve the recognizable tonal, rhythmic and functional elements of African music. Implications for the classroom therefore tie in well with what Quesada (2002) refers to as pedagogic compromise.

A close examination of the issue of approaches on the African continent can be seen in the emergence of what is being referred to as 'Musical Arts' and subsequently, 'Musical Arts Education'. This views the African musical experience in totality seeking to address all those other arts that come into play in such an experience (Nzewi, 2007). The inclusion of other arts related to music such as play, dance, proverbs, tongue twisters and narrative requires a rethinking of classroom models bearing in mind that these models are borrowed from the Western classical tradition. Whereas the concept of African music is best termed as 'Musical Arts' in order to capture the entire concept, Western classical tradition considers music as being a separate entity from such other arts mentioned above. Even when these arts occur in the same context with music as is the case where dance is concerned, one art form is taken as accompaniment to the other. On the contrary, Mans (2000) in a report on a study on dance and music provides possibilities in the way arts education can be reformed. These include an integrated approach whereby musical arts are handled as one entity.

Curricula objectives of multicultural programs seem to gear towards facilitating students in gaining new insights as well as helping them make connections that enhance understanding of music. Anderson and Campbell (1989:1) articulate this in saying "In a multicultural education program students develop understanding of different but equally valid forms of musical and artistic expression. Addressing African music as 'multicultural' on the continent provides a new way of thinking since the label *'African Music'* seems to be what is documented. The advantage of looking at African music as multicultural music enhances scholarship as it requires that a closer scrutiny be made.

Multiculturalism in this respect recognizes that due to the sheer size and diversity of African music, meaning and relevance of music education can only be realized in relation to contexts. With regard to the Kenyan context, a multicultural approach provides visibility to the various musics of the 42 indigenous communities. This is a crucial view that enriches this study since it accounts for inclusivity and furthermore, provides music education with a rich and varied resource base from which it can draw. Ogot and Ochieng' (1995) view Kenyan indigenous music as being a collective name for dozens of musics that belong to the different indigenous ethnic groups in Kenya. Such a view accords respect to each genre, calling upon this study to devise ways of inclusivity in the development of a classroom method for secondary schools in Kenya.

Music education in a multicultural or multiethnic society immediately raises certain basic issues about culture and ethnicity that must be kept in mind by music educators when developing curriculum and using it in schools. In concurrence, Katuli (2005) explores the challenges that face the effort towards providing a 'national music education' in a multicultural society. In grappling with the issue of inclusion the scholar says:

In a multicultural society like Kenya, the issue of what music genre and from which community is to be included in the curriculum poses a challenge to the music educators. In Kenya we find co-existence of indigenous African, Asian and European peoples. Among the indigenous Africans there are more than forty-two different cultural groups whose roots are found in the Kenyan soil, and people who moved in from other African countries. Each of the groups has several music genres that reflect not only their environmental challenges but also their history and daily activities. Therefore, when one talks of Kenyan traditional music it is difficult to tell which of the many music tradition[s] is referred to. (Ibid: 19)

Agawu (2003) and Mushira (2005) advocate a bottom-up approach to curriculum in reiteration of the old educational principle of "from the known to the unknown".

Students start with their own music as the core of learning and move from there to explore parallels with and divergences from other African musics and beyond, focusing on what is closest to their lives.

Akuno (1997) is a study demonstrating how a primary school music curriculum based on indigenous Kenyan children's songs can be developed for Kenya. The study presents a contemporary approach to music education that draws resources and tools from both African and Western practice. Children's songs are investigated and found suitable as a basis for the curriculum. The study further demonstrates how models, methods, and tools from contemporary Western practice can be adapted for the Kenyan scenario. The significance of the resultant *Rhythm Interval Approach* (RIA) to classroom music is in its sensitivity to the cultural environment of Kenya. The scholar identifies this as being crucial for the development of cultural identity. This study is groundbreaking with regard to music curriculum development in Kenya. Current text book series for Creative Arts (the subject area within which music education at the primary level occurs) reflect the use of indigenous Kenyan children's songs). Further, RIA principles can be adapted to the secondary and post-secondary levels of education.

In articulating a culture sensitive curriculum, Akuno (ibid) does not, however, extend itself to how music enculturation through the classroom addresses issues of equity and how such issues impinge on musical development. One such a concern from the educational point of view has to do with learners' development with respect to the concept of self. Further, the issue of whether education is providing the environment to mitigate factors that would otherwise impinge on the development of such a concept becomes focal.

Since it is at the adolescent stage that pre-occupation with personal identity is most critical, it becomes necessary for a study on classroom instruction to address the issue of gender. Chege (2006) in “Exploring the African Traditional Pedagogy of Differentiation and Contemporary Education” advocates for the need to address gender in classroom settings in Kenya. The scholar contends:

Unfortunately while a lot of gender programs have been carried out, not much research has been done in the classroom in the continent. I would like to argue that there is always a cultural angle in studies of social practices. As such there is need to conduct studies within Africa and in classrooms so as to keep an eye on what is culture specific. (Ibid: 4)

In the vein of culturally sensitive pedagogy, the development of a method for secondary school music in Kenya therefore needs to take into account gender music stereotypes and consider how these can be mitigated or even taken advantage of to work towards appropriate classroom experiences that promote gender sensitivity and responsiveness. This is important, more so since, as pointed out earlier, it is at the adolescent stage that learners are seeking to define their personal identities. Such a method would have to consider media used in the classroom and strive to de-emphasize certain cultural norms that are inhibitive, such as taboos surrounding which gender handles what musical instruments or even lyrics that tend to humiliate either gender.

In an intercultural thesis, Njooa (2000) presents an investigation that provides possibilities for instructional links to traditional culture using Kenyan folksongs in exploring areas like: a) comparative studies (between Kenyan art music and art music from other parts of the world); b) cultural sensitivity; c) relationship of music to historical development; and d) the multicultural /multidimensional role of music. The musical text provides the main link.

Since indigenous Kenyan music conveys messages not only through the lyrical content but also through its form and practice, it would also be useful to understand the place of musical expectancy in intradisciplinary, interdisciplinary and transdisciplinary contexts. The concept of expectancy in the Kenyan music schema is a significant aspect of the development of a secondary school method and is investigated for purposes of establishing how this instructional link may be used to enhance intradisciplinary applications in composition, performance and audiation.

2.2. Music Education in Kenya

Omondi (1984) is a report on the state of music and dance education in post-independent Kenya. The document reviews music programs offered at all tiers of the educational system with the aim of enhancing indigenous music through the provision of education. Many of these problems have, however, since been addressed through the 8-4-4 system. Current curricula documents reflect objectives that are comparatively better focused and relatively achievable (KIE, 2002 (a) and (b)). The intended content is coherently spelt out; musical skills and concepts are laid out and presented in sequential fashion. Further, a large component of indigenous Kenyan music is integrated into these programs in line with Oehrle's recommendation (1989:50) that "Music syllabuses should emphasize the theory and practice of traditional African music with an awareness of cross-cultural interaction".

There is need to illuminate teacher preparedness as it is this readiness that is key in implementing such a curriculum. In this regard, Wanjala (2004) addresses the interface of music literacy and experience of secondary school music teachers in Kenya.

The study was prompted by an apparent absence of music models by which students could be enabled to develop musicianship. Kilonzi (1998) earlier observed that music teachers in Kenyan schools are handicapped as far as teaching of Kenyan traditional music and dance is concerned because they are not skilful on traditional instruments and also find it difficult to demonstrate dances. With regard to attitude, Kilonzo (ibid: 275) laments:

When it comes to the indigenous music, first there is the assumption that it is simple, and since it is also local it is taken to be of low standard and one does not need time on it to pass.

Njui (1989) in a study on teacher-student music interaction patterns of secondary schools in Kenya established that immediate feedback from students improved teachers' performance. Teachers' acceptance of students' ideas lead to students' initiation of ideas in class. The study highlights reciprocal classroom transactions and defines the teacher as playing a central role. The development of musical expectancy in the classroom interrogates teacher-learner interactions. Teachers' approval at the lower levels is considered to be of great importance. Njui (ibid) does not, however, address the nature of such dependence and how learners may gradually achieve musical independence for creative work. This is addressed in the development of a classroom method for secondary schools in the form of a guiding philosophy as well as a defined continuum of classroom activities for purposes of establishing a balance of teacher-learner roles.

Akuno (2005) provides analyses of the philosophies and methodologies of: a) Kodály; b) Orff-Schulwerk; and c) Dalcroze Eurhythmics. The study focuses on principles, areas emphasized by the methods, the teaching-learning sequences, and implementation as well as the tools. Miller (1999) in a critique on the use of Kodály philosophy and methodology in Kenya compares musical creativity as expressed within the traditional aural-oral practice against its expression in formal education.

The educator testifies:

Personally, I have found the Kodály philosophy and methodology useful in Kenya as a bridge between African and Western music, geared for those interested in learning Western musical notation. Kodály's emphasis on folk music as foundational to music literacy mitigates, potentially, the cultural dominance of the West ... in its present form musical education cannot and does not facilitate entrée into the African musical cosmos. (Ibid: 27).

Both scholars seem to concur that the methods on the whole are found to be more concerned with pedagogy than with the preservation of cultural values. Miller raises a further concern of creativity. In adapting Kodály philosophy for the Kenyan context, the educator seems to have focused upon folksongs. The learning sequence is, therefore, wholly adopted without taking into account the music-making process inherent in indigenous Kenyan folksongs. Thus, the emphasis on literacy skills impinges on the nurturing of creative expression. This provides a classic example of the teaching of indigenous music after it was fully incorporated into the curriculum. The development of musical creativity as the core factor in the creation of a classroom method for secondary schools in Kenya would need to review the learning-teaching sequence with the intention of developing strategies that integrate aural-oral processes with music literacy.

In further resolving the issue raised by Miller (1999) and Akuno (2005) on the Kenyan context, it is noteworthy that Akuno (ibid) illuminates the Kenyan cultural needs and gives recommendations on how the methods can be adopted to help meet the country's overall education goals. It would be useful to see how a national education system based on Akuno's adaptations of these methods interfaces with the ethnic-based musical education.

There is need to strategically place the environment of communities (in which children first encounter music) in modern music education programs to bridge the rural-urban divide. Classroom strategies for the development of musical expectancy take advantage of similarities and differences of the two systems with the intention of establishing how they complement each other.

Literature on transmission of musical knowledge and skills is reviewed to understand the dichotomy of learning processes and instructional methods. Green (2001) in a study on the relationship between music-making and teaching found that contemporary songwriters exhibit highly flexible ways of working through many pathways of compositional choices and processes. The scholar outlines a set of principles that can be directly applied in classroom procedure. The study does not, however, address ways of adapting these principles so as to counter mechanisms of dominance inherent in formal environments. The conventional practice in schools in Kenya centres on the teacher as the custodian of knowledge. At a certain stage of the teaching-learning process, this practice becomes a hindrance to the development of the creative process. In an effort to find classroom strategies that can enhance the development of musical creativity, the development of a classroom method for Kenya interrogates the formal-informal dichotomy. The significance of this is that it attempts to bridge the gap between formal and informal music-making and by so doing, goes a long way in fostering continuity of the adolescent musical experience. Additionally, Green (ibid) advances a process that combines the oral process with music literacy for documentation purposes. This is useful as it is necessary to illuminate the oral-literacy process for purposes of contextualising the transmission process in the Kenyan classroom settings. It needs to be mentioned here that the mode of musical experience of indigenous Kenyan music is primarily aural-oral.

In a similar study, Keeler (2003) broadly outlines the key elements in the transmission of aural-oral music traditions with the purpose of considering ways in which knowledge of this transmission process can be applied to the teaching of non-Western arts. Informative as it is, the study does not illuminate a straightforward systemization on how learnt concepts are assimilated into the creative language of the learner. It is necessary to investigate Kenyan music processes for embedded learning sequences with the aim of providing specific principles for guiding instruction design.

The status of resources in classrooms in Kenya is a point of concern. Kavyu (1974), Omondi (1984) and Mwangi (2000) all observe a general lack of music resources in music learning institutions of Kenya. Other than textbooks, Digolo (1997) additionally presents statistics that show a general neglect of existing resources in a study of Nairobi secondary schools. The findings seem to also point to general malpractice. The scholar observes:

There is little co-operation between the schools and community...Teachers and students make almost no use of African indigenous instruments which are cheaper, easier to acquire and readily available in our locality as compared to expensive imported musical instruments. (Ibid: 131).

Floyd (2003) is a case study in the development of textbooks in Kenya. The scholar traces the process of developing the "Music Makers" series of standards 5, 6, 7 (upper primary), contextualising the process within a cultural perspective. Floyd (ibid) looks at how the following areas of the primary school syllabus were captured by the authors: a) dancing; b) patriotic /national songs and singing exercises; c) playing musical instruments; and d) reading and writing music. In examining the place of the music textbook, the scholar opines:

Teaching the reading, and particularly the writing of music is a task to which a text book is suited. But even this is not without its problems, as the increase in the amount of material required can change the books philosophy. From being a practice-based experiential course from which appropriate theoretical constructs are drawn and it becomes focused on theory, with the written versions of songs there as examples of writing, not of song, all reinforced by tests to be completed on paper thus removing the young musician further from the source-music itself.(Floyd 2003: 303).

This position is upheld by a number of scholars both within and without the African continent (Swanwick, 1988; Anyanwu, 1987; among others). In making the development of music expectancy the central paradigm rather than music concepts (as is the case in the way curriculum is interpreted in music education in Kenya), it becomes possible to focus on music (the art form) as the central pedagogic tool.

2.3. Indigenous Kenyan Music

Merriam (1964) views music as reflecting the values and behaviour of a given culture such as the analytical and logical mind of the culture. This view is provoking with regard to indigenous Kenyan music processes and their structural make-up. It was interesting to investigate these for embedded learning pathways with a view of understanding the way learning within the indigenous Kenyan knowledge system unfolds. This is useful as it indicates the sequential and logical requirements of the curriculum for purposes of understanding how such processes can be used for organizing and structuring instruction.

Senoga-Zake (1990) identifies one of the characteristics of indigenous Kenyan music as being 'repetitive'. The text views this as a way of organizing music. It is necessary to investigate the instructional opportunity presented by each cycle of repetition as an occasion for re-organization and re-allocation of resources. Subsequent principles would provide guidance in the organization of classroom instruction.

Other music processes such as: a) co-operation (Akuno, 1997); b) participation (Kidula, 1999); and c) co-construction (Njooora, 2000) are all modes of organization identifiable in indigenous Kenyan music-making. Their significance as classroom models need investigation so as to organize teaching in ways sustained by frameworks from indigenous Kenyan music.

Call and response is identified as a process of indigenous African music (Digolo, 2003; Mulindi, 2002; Nketia, 1979; Smitherman, 1977). Hodges (1992) further describes how percussion music is taught and learnt using call and response. Musical knowledge and skills are described as being imparted through demonstration, group-work and part-learning within the gestalt of actual performances. The study shows how call and response as a teaching strategy, integrates music learning with music-making. Hodges (ibid) does not, however, discuss how learning is monitored beyond the concept acquisition stage. Once learners are able to imitate the patterns satisfactorily, they are encouraged to improvise and indulge their creative geniuses within the framework of real musical performances. The development of a classroom method for secondary schools in Kenya addresses clear structures for monitoring and evaluating musical development.

2.4. Development of Musical Expectancy

The concept of musical expectancy is explained as a way of exploring the process and the knowledge used to structure, interpret, remember and perform music (Eerola, 2003). The role of expectancy is acknowledged as a fundamental musical process and has received much attention in psychology of music (Meyer 1956; Carlsen, 1981; Jones and Boltz, 1989). These studies have examined the role of the perceptual system in organizing the structural characteristics of music.

Expectancies can be categorized as either veridical i.e. anticipation of specific music events, or schematic (Trehub, 1985). Schematic expectancies result from processing biases that are brought to the musical experience. These studies are important because they provide details for understanding the music learning process. This approach, however, is largely psychological and does not pay attention to the role of the structured external environment in music learning. The view of indigenous Kenyan music processes as pathways of music expectancy development takes into account a music learning sequence and how musical training based upon such a sequence builds upon the base of enculturation.

It has been established that structural properties of familiar songs affect melodic expectancies in children (Cowan, 1985). This structural aspect forms an important basis for the use of expectancy as a curriculum paradigm as it implies a connection between schematic perception and music. Andrews and Dowling (1991) observe that familiarity with style-specific musical structures gives rise to learned expectancies. It is, however, reported that musical training, i.e. ear training, does not significantly affect the ability to group musical concepts (Cook, 1994). The development of classroom strategies based on indigenous Kenyan music systems considers strategies of using discriminatory skills in ways that enhance associative learning.

Empirical studies on melodic expectations have been carried out from developmental and cross-cultural perspectives (Magill and Pressing, 1997; Stobart and Cross, 2000). Developmental cross-cultural psychology approach may be used to uncover the sources of expectations in music.

Music perception from this perspective shows that there are universal core musical principles such as pitch perception and preference for the octave and perfect fifth (Trehub, 1985). Other culture-specific musical concepts that emerge later in childhood include specific scales and tonal hierarchies. Studies of acquired culture demonstrate how children acquire sensitivity to tonal hierarchical relations (Krumhansl and Keil, 1982). Results of a subsequent study (Lamont and Cross, 1994) suggest that formal music education, rather than simply maturation with increasing age, affects the acquisition of tonal organization. Also, Lynch and Eilers (1991) observe that many of the features of music perception that appear early in development are also found in the universal features of music across cultures and that differences become apparent in late childhood, accelerating with formal music training. Implied therein is the significance of music (work of art) as a source of musical expectancy. The thesis gives further elucidation of the indigenous Kenyan music knowledge systems that give rise to such expectancies.

Expectations are, on the whole, reflected in the expressive dynamics of music (Palmer, 1996). The scholar further observes that lyrics and other extra-musical phenomena such as socio-cultural events connected with the music do generate expectations. This study underscores the significance of extra-musical aspects in musical development. These variables are, however, difficult to directly reproduce and measure objectively in the classroom. The development of a classroom method in Kenya focuses on musical expectancies as they operate in the melodic domain (pitch and rhythm). Expectancy of musical instruments, timbre, and expressive dynamics would be developed in the context of pitch and rhythmic expectancies of different songs.

2.5. Measurement

In its traditional form, music expectancy measurement is defined within the dimension of similarity relations of music art forms. Studies have demonstrated how similarity relations of music excerpts can be statistically determined. This is done by computing frequency profiles of pitch, interval and rhythmic properties of music under comparison. Music expectancy perception is referenced from the music art form and is measured as aptitude. Sensitivity to the frequency of occurrence of tones, intervals and rhythm has been shown to influence formation of melodic expectations (Cuddy, 1993). Although no reports have been made with African cultures, these event frequency dimensions have been proved to transcend cultures (Eerola, 2003). Cross-cultural studies have demonstrated the effect of statistical information for learning and perception (Castellano et al., 1984; Oram and Cuddy, 1995). Such studies have further successfully measured similarity perceptions by regressing subjects' similarity ratings upon the statistical properties of selected excerpts (Eerola, 2003).

For music expectancy to be useful as an educational paradigm, measurement strategies need to possess a learning achievement component. Similarity measures by themselves do not have this. A testing strategy that combines the aptitude approach with achievement methods is adapted in this study. Music similarity measurement is adapted for its value in determining learners' entering behaviour at any one given level of instruction for purposes of placement. Achievement strategies are further applied to determine learning performance within the level. Thus, measurement of musical expectancy is here re-defined to explain both a readiness and developmental perspective to learning.

2.6. Theory for Music Education

Different justifications for using curriculum approaches that are culture sensitive have been advanced by music scholars and educationists (Kodály, 1974; Freire, 1982; Ekwueme, 1983). Some of the principles underlying this move are those based on natural learning (Nzewi, 2003). Consequently, studies have put forward curricula, pedagogy, methods, teaching and learning strategies in an attempt to provide appropriate means of realizing culture sensitive teaching (Akuno, 1998; Mans, 2000). Views about indigenous knowledge systems and its significance in music education have helped shape content as well as teaching and learning strategies. Due to the functional nature of the indigenous Kenyan music experience, issues pertaining to messages/content sent and received in such experiences become focal. Consequently, the view of 'music-as-communication' provides a useful way of giving perspective to these experiences.

This section interrogates the notion of music as a communicative activity with embedded learning channels. This interrogation together with a subsequent definition of music and musical communication helps to establish the role of music in engaging the individual with the musical experience. The functional nature of indigenous Kenyan music requires that those who experience it find it meaningful. This is enhanced when the message is conveyed with clarity. Such clarity in communication is dependent on pathway/s through which the message is sent and received. Structures of indigenous Kenyan music serve to show the significance of such pathways in the experience of music. The natural way through which the individual experiences music becomes the justification for the use of these structures in designing and implementing curriculum.

The process through which music is composed, performed and experienced on the whole, influences the manner in which it is taught and in this study, will lead to a theory, curriculum model and pedagogy that rely on musical knowledge and skills to facilitate education. An interrogation of music as a communicative art becomes a useful place to begin.

2.6.1. Music as Communication

Communication scholars have struggled overtime with the notion of music as a type of communication that does not conform to linguistic or sender-receiver models of communication (Hinde, 1975; Mehrabian, 2000; Riggio and Feldman, 2004, among others). This has been taken a step forward by a growing interest among music scholars in questions of communication evidenced by media studies among some ethnomusicologists (Digolo, 2003, among others). These studies have given rise to empirical data, theories and models that are useful in guiding discourse and practice. The view of music as a communicative activity requires that the nature of messages sent and received be defined. In treating music as a message, the concern becomes that one of meaning. Whereas absolutists maintain that meaning lies exclusively within the context of the work itself, the referential position holds that such meanings refer to extra-musical parameters. Meaning in African music draws from both views whereby meaningfulness of sonic elements integrates with meaning derived from cultural contexts (Akuno, 1997). Similarly, this dichotomy implies that musical information draws both from sonic and non-sonic parameters. What then is this information?

Sonic contents of music consist of shared elements such as pitch, rhythm, harmony, texture, timbre and form, among others, according to information theory.

Further, consensus among scholars of African music (Senoga-Zake, 1990; Akuno, 1997; Nzewi, 2003, among others) has it that non-sonic musical content occurs in the form of concepts, actions, events, emotional states, symbols, and characters. This then is what constitutes the message in musical communication.

2.6.2. Shannon and Weaver's Transmission Model

Much of music communication research is guided by a transmission-reception paradigm that depends on the simple principles of stimulus and response. The belief is that a sender's message causes a similar (or exact) response (message reception) in a receiver. According to this view, communication is a means of transmitting ideas from one mind to another to achieve understanding and influence (Shannon and Weaver, 1949). The model was developed in response to communication engineering challenges that faced the *Bell Telephone Labs* in the United States, the goal being to ensure maximum efficiency of cables and radio waves. The theory led to a new thinking referred to as the 'information theory'. Shannon and Weaver's transmission model has been the most influential model of communication which has been developed and is one of the most widely applied theories on human communication.

Critiques of this model, however, find the mechanical approach to communication disturbing. The general observation is that the contextual element of communication is lacking (Baines and Haslam, 2005; Frentz and Farrel, 1976). This observation remains true in as far as the discipline of music and music education is concerned, since musical context is core to the communication of meaning (Nketia, 1979). The transmission model in its generic form ignores the social context of the sender and receiver.

This is under the assumption that the message is both unambiguous and ineffective in producing an appropriate reaction from the receiver. Therefore, there remains the need for critical reframing of Shannon and Weaver's model for it to be beneficial to the disciplines of music and music education. Such work has given rise to the social communication model (Brown and Volgsten, 2006), the lens and the extended lens models (Juslin and Sloboda, 2001) and the emotional communication model (Juslin, 2005). These models are useful in explaining designated areas of the music discipline. Their expansion to include the component of context offers some guidance to music and music education. However, they do not account for the role of musical structure in the communication process hence the need for further review.

A review of Shannon and Weaver's transmission model is carried out here with the aim of advancing a structural theory of musical communication. This model consists of five elements namely: a) an information source that produces the message; b) a transmitter which encodes messages into signals; c) a receiver who decodes the message; d) a destination at which the message arrives; and e) noise, a component that interferes with the transmission. The model can be summed up as a 'sender-receiver' model. Figure 2.1 below is an illustration of the model.

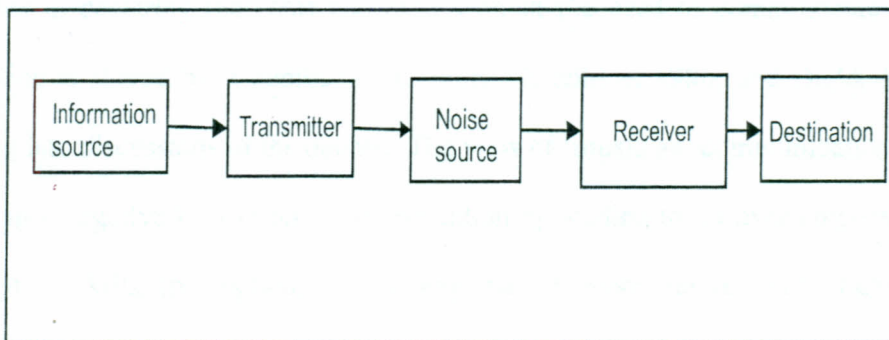


Figure 2.1: Shannon and Weaver's Transmission Model
(Source: Shannon and Weaver, 1949)

The strength of this model is in its simplicity and that it is general and quantifiable. The linear arrangement of the transmission model fixes and separates the roles of the sender and receiver. The source is seen as the active decision-maker who determines the message whereas the receiver is a passive target. The linear arrangement of the transmission model, however, supports mechanisms of dominance whereby the sender is the active decision-maker who determines the content and mode of the message. This one way flow sees the receiver absorbing the message. In this way, the model resonates with the Western classical music tradition where audiences passively listen to concert hall music such as in operas and symphonies (Sloboda, 1985). A comparison with the transmission process in African music-making offers a contrary approach to this presentational mode. African societies tend to share a participatory ethic in their musical experiences in contexts such as community festivals, weddings and funerals, engaging both sender and receiver (Nketia, 1979). In these contexts, no offence is taken whenever the audience gets moved to participate in the performance.

When focused on the classroom, these two approaches present different implications. The sender-receiver model assigns the learner a passive role of simply absorbing information. This has led to objections of 'music-as-communication'. Goehr (1992: 131) takes this further in declaring that "Art can exist without the need to communicate at all". This position is shared by a number of scholars (Seraphine, 1980; and Budd, 1989) without going into discussions of the debate. The view of 'music-as-communication' is argued as having a negative impact on music education by leading to an over emphasis on passive receptive skills (perception) at the expense of more active skills like composition (Seraphine, 1989).

Without negating 'music-as-communication', other practitioners are in agreement that there is need for music education to be more musical than academic (Swanwick, 1979). The participatory practice in African music provides a resolution for this challenge thus enhancing the sender-receiver model in a more interactive/inclusive fashion.

In fixing the roles of sender- receiver, the transmission model assumes that the sender and receiver cannot switch roles at some point in the course of communication. Carey (1989) notes that communicators simultaneously send and receive messages. Therefore, when one person speaks, the others are listening. In line with this, an examination of an African musical experience would show a soloist calling out to the audience. The listening audience in turn reciprocates with choral responses, body movements as well as ululations. According to Nketia (1974), musical performance other than solo performance is a corporate affair demanding the collaboration of different people sharing a common musical tradition. Similarly, Pfeffinger (1999) observes that at some point during community events, everyone is dancing and singing and that the move from being a spectator to being a performer is done with ease. This is in line with assertions that African music experiences do not distinguish between performer and audience. Such an assertion would suggest an absence of clear communication structures. However, this is not the case since both performer and audience maintain a certain sensitivity and responsiveness to messages communicated by each party with the unfolding of the musical experience. The performer initiates the entire experience and in this respect assumes the role of sender. The sender thus receives feedback and makes further musical decisions such as adjusting volume or tempo, to enrich the musical experience. Both sender and receiver have opportunities to take up the alternative roles.

This interactive process can be adapted for the classroom whereby the teacher/music master and learner of apprenticeship programmes engage in alternating sender-receiver roles.

For a theory of musical communication, there is need to shift from a transmission-reception model to an interactive one. The transmission-reception model is linear with each component transpiring in a linear sequence at the initiation of the sender (see Figure 2.1: 36). In contrast, an interactive model suggests dynamism with all parties influencing the sequence and outcomes of each communication event or action. An interactive paradigm therefore, addresses the music classroom or apprenticeship programme where there is need for nurturing and expression of varied ideas. Such divergent thinking is what leads to musical creativity (Webster, 1990).

Due to its linear arrangement, the transmission-reception model does not reflect on a feedback component. Feedback enables senders such as music artists to adjust their performance to the needs of the audience. Similarly, the music teacher uses feedback to adjust their strategies so as to meet intended learning objectives. For Shannon and Weaver's model to address the needs of music and music education, there is need of integrating a feedback loop into the model.

Shannon and Weaver's transmission-reception model equates content and meaning. There is no place for this differentiation in the model as seen in the framing of content as message (see Figure 2.1: 36). The thinking behind this disregard is telling:

The fundamental problem of communication is that of reproducing at one point either exactly or approximately a message selected at another point. Frequently the messages have *meaning*; that is they refer to or are correlated according to some system with certain physical or conceptual entities. These semantic aspects of communication are irrelevant to the engineering problem. (Shannon and Weaver 1948: 45)

The transmission-reception model tends to project a message as something that is sent rather than shared. Meaning cannot be transmitted but rather is arrived at by the receiver through decoding (Fiske, 1982). Njooora (2005) further clarifies this in maintaining that a musical composition allows the listener to assign meaning based on their personal previous experience. This view treats message as something that a receiver constructs rather than as something that a source sends. Transmission models treat decoding as a mirror image of encoding, allowing no room for engagement of receiver's interpretative frames of reference. Where the message is recorded in some form, 'senders' may well have little idea of who the 'receivers' may be. To sum up the point, meaning-making is not central in transmission model. Contrary to Shannon and Weaver's model, meaning is core in musical communication, going by the emphasis on appreciating music within its cultural context. There is no mention in the transmission model of the importance of context: a) situational; b) social; c) institutional; d) political; e) cultural; and f) historical. Meaning in music is wholly determined by contexts of 'production' or 'reception' and cannot be independent of such contexts. Indigenous Kenyan music comes with labels such as: a) war songs; b) children's lullabies; c) harvest songs; d) funeral dirges; and e) courtship songs, among others. This is because the music is functional, intended for a socio-cultural event, its significance being in facilitating that event (Akuno, 2007). Since African music by reason of its functional nature, is best understood only when experienced and studied with reference to such context, there is necessity of a meaning paradigm in modelling musical communication.

Shannon and Weaver's model falls short of this provision. Furthermore, the application of Shannon and Weaver's model in music education translates into a transmissive process of teaching and learning, reflecting the naive 'realist' notion that meanings exist in the world awaiting only decoding by the passive spectator. In all these contexts, such a model underestimates the creativity of the act of interpretation.

In the transmission model, participants are treated as isolated individuals. Contemporary communication theorists treat communication as a shared social system. We are all social beings, and our communicative acts cannot be said to represent the expression of purely individual thoughts and feelings. The way an audience responds to a jazz concert represents emotions born out of a shared value system. Such thoughts and feelings are socio-culturally patterned (Carey, 1989). Transmission models of communication reduce human communication to the transmission of messages, whereas, as the linguists maintain, there is more to communication than this. They refer, for instance, to phatic communication (Reddy, 1979), which is a way of maintaining relationships. In Kenya, talking about the weather is far more a matter of phatic communication than of 'transmitting information'. In models such as Shannon and Weaver's no allowance is made for relationships between people as communicators. In African music practice, performers in an ensemble possess amongst them a certain type of bonding whereby everyone understands the musical language of the other and is able to interpret subtle nuances during the performance and give back an expected rendition. In this way, musical performance is never only about the art but is reliant on underlying relationships. This consciousness of others is extended to the audience so that every performance is about giving music to the people, who are part of the musical experience.

It needs to be clarified that within such a communal framework, information is what is conveyed and that meaning is constructed by the individual.

Finally, the model is indifferent to the nature of the medium. And yet whether you learn a piece of music from a score or directly from a master musician, or from a textbook, for instance, can have major implications for the acquisition of technique. A concert hall experience of live musical performance, a CD, VCD recording of the same music all have different impacts. At a theoretical level, the concept of multiple intelligence (Gardner, 1983) maintains that there are seven different intelligences through which people perceive reality. These are: a) kinaesthetic; b) musical; c) interpersonal; d) linguistic; e) logical-mathematical; f) intrapersonal; and g) spatial. Within the multiple intelligence logic, receivers have multiplicities of channels through which they can receive the message. Additionally, Njooa (2000) has coined the term 'learning windows' in reference to different learning portals that an individual can take advantage of. Although the transmission model does not highlight channels of communication, such channels remain a significant aspect of the communication process.

2.6.3. Music and Transmission Channels

Music has been described as sound and form (Lundquist, 2002). When looked at as structure, music shows an 'embodied technology' that can be used in communication to change the way messages are sent and received. Jamie (1993:45) refers to this as a "...pattern of coherent understanding through which the world may be perceived". Music has acted as templates for organizing knowledge. Songs have been used to develop science concepts in children (Baum, 1995). Studies have also been carried out to show how musical information is perceived and taken in (Ballas, 1994).

With regard to musical information, studies show that there are certain paths within music that facilitate cognition. Polyphonic and polyrhythmic structures have been reported to engage awareness and memory (Dowling and Harwood, 1986). Repetition and similarity relations reinforce the perception of structure (Baum, 1995).

Structure is central to perception. The lack of structure affects time perception (Dowling and Harwood, 1986). A coherent structure facilitates the generation of musical expectancies (Magill and Pressing, 1997) and that musical structure affects emotional response (Lomax, 1970). It has also been established that the understanding of structure can be enhanced by using similarity and repetition ((Dowling and Harwood, 1986).

This empirical evidence of the value of music structure provokes a curiosity to examine other musical contexts besides the Western tradition. The African context is examined with a view to finding out the communicative value of music in terms of communication channels. The significance of this is in shedding more light towards the development of the structural theory of musical communication.

Call and response is identified as one of the commonest processes of music-making in Kenya, together with the fact that other studies have reported its use in didactic settings (Hodges, 1992). Akuno (1998) cites the feature in indigenous Kenyan children's songs with: a) 100% imitation of calls; b) short calls and long responses; c) long calls and short responses. At a basic level, the structure reflects a linear path of communication. The second and third levels whereby each rendition is repeated gives rise to an underlying cyclic process of communication. The layered process of music-making consists of such processes as monophony, polyphony, and polyrhythm.

The various layers of music denote varying levels of communication. The single line music as in dirges, solo songs and unison performances, depend on its thin texture to communicate important messages that show off the aesthetics of the performer. In this way, the audience is able to follow the unfolding of the communication in a linear manner. The predominance of song in Kenya as the basic expression of music adds to this linear communication in that text is an indispensable part of song. The texture thickens with the addition of more lines as in the case of the parallel thirds amongst Kalenjin and polyphony of the Maasai people groups for example. The communicators have to work through more layers of music. This layering of music affords depth in communication engaging with both the linear and vertical channels.

The process of improvisation is identified as one that grows from a simple idea to expanded expressions of the same (Anku, 1997). This process revisits material hitherto heard and allows for more clarity in the communication process. The receiver is exposed to numerous cycles of encountering and interacting with the music. Thus, indigenous Kenyan music processes imply a cyclic pattern of interaction in the musical experience. Due to their facilitatory nature, these processes can be referred to as channels of musical communication.

Channels are here defined as the means by which people perceive the world around them. The implication is that the medium is the message. Going by the notion that a medium is a message, we find that mediated channels convey information differently. The linear presentation of solo and other related modes of presentation engage the listener in perceiving big portions of the music. In this way, this channel allows for breadth in the communication process.

A concert attendee may leave the concert hall whistling entire melodies of items presented based on this channel of reception. On the other hand, layered music processes reflect a vertical pathway. The sender presents music in a thick texture challenging the receiver to engage both the linear and vertical perceptions. This arrangement allows for depth of musical understanding. In the cyclic process, musical perception improves with each cycle since this channel engages multisensory perception (Agawu, 2003). One important implication for music apprenticeship programs as well as contemporary music classes is that divergent thinking is encouraged. Such an environment is supportive of the development of musical creativity.

The foregoing analysis shows a multiplicity of channels through which African music engages communication. It also shows that a message conveyed through different pathways has varying impacts. For instance, the combination of the linear and vertical shows that each time a pathway is added, the message in the listener's mind is enriched. This is best portrayed in the cyclic process where literally all three channels, linear, vertical and cyclic are engaged.

2.7. Theoretical and Conceptual Framework

Three theoretical positions selected to guide this study were: a) theory of structural organization of rhythm in African music (Anku, 1997); b) music learning theory (Gordon, 1997); and c) socio-cultural theory (Hargreaves, 1999). Anku (1997) maintains that the concept of time in African music is circular rather than linear, owing to the cyclic nature of music-making processes. A structural set (a germ) in the music provides an idea with which performers can interact in deriving improvisations.

Events in musical performances are repetitive and unfold within a circular structure with clearly prescribed cues for progression of these events. This theory was important in providing guidance for the critical analysis of indigenous Kenyan music processes. Further, the circular import provided the foundational model for developing the formal approach for secondary schools in Kenya. This theory explains music in the contexts of composition and performance. It does not, however, extend itself to how musical learning occurs within these contexts, hence recourse was taken to another theory.

Music learning theory (Gordon, 1997) postulates that the ability to hear and comprehend musical concepts (tonal and rhythmic) in the mind is acquired and developed sequentially. This development occurs within specific modes, from birth through adulthood. Three music-learning sequences outlined in the theory are: a) skill learning sequence; b) tonal learning sequence; and c) rhythm content learning sequence. At any given time during learning sequence activities, a level of skill learning is combined with a level of either tonal or rhythm content learning sequence. Musical creativity is demonstrated through composition and performance as a result of internalized content. Such creativity becomes increasingly individualized as the scope of assimilated content increases, pointing to a maturing musical expectancy. The theory guided the selection of study song materials as well as the development of testing tools. Similarly, the concept of sequence was applied in the development of specific objectives for the teaching schemes that were used in the study (see Appendix Three: 198). On the whole, the music learning theory provided direction in the final development of the classroom approach. Having accounted for African music processes together with sequential musical development, there remained the need to address the human factor with regard to its role in music learning and creative expression.

Socio-cultural theory (Hargreaves, 1999) argues that an individual is socialized into an on-going social system, whose a) values, b) institutions and c) culture are considered important in shaping musical actions and roles. The theory goes on to say that although the individual is influenced by the music system, his [her] behaviour is equally determined by personal initiatives. Learners do not just get socialised or acculturated as passive beings but as actors with urgency to contest, negotiate and construct themselves and their environments through music-making and learning. The learner's context, the theory maintains, constitutes social sub-systems into which learners are socialized at particular stages of their musical development.

The social import illuminated both informal and formal contexts of musicianship. The study clarified the sub-systems of these contexts as being a) family, b) school and c) the macro-community. The home environment, relationships at school as well as relationships within the macro-community were all considered significant in their impact on learning. These relationships determined the nature of teaching and learning activities in the development of the classroom approach. The import of the individual learner's role addressed the learner's musical agency as manifested in the creative products of composition and performance. The cultural import in socio-cultural theory referred to indigenous Kenyan music as a codified cultural schema with its own syntax, form, procedures and practice. Music processes were analyzed in the framework of the indigenous Kenyan music idiom. Both formal and informal music learning systems were viewed as forms of music enculturation and an attempt was made to integrate procedures from both contexts in the development of a classroom approach. Finally, factors affecting learners' attitudes to indigenous Kenyan music were considered as being of cultural significance and provided guidance in selection of suitable song resources.

The compromised position of a) the theory of structural organization of rhythm in African music, b) music learning theory and c) the socio-cultural theory viewed music learning as proceeding in a sequential manner and that it is supported by curriculum structures that are cyclic in design. Since music education is a form of music enculturation, the curriculum is based on a) the knowledge, b) procedures and c) value system of the community. Such learning is facilitated through social sub-systems made up of relationships that impact the learner at various stages of their musical development. The goal of this is an individual with acquired knowledge, skills and values for musical creativity within the context of his immediate environment as well as any other socio-cultural context he [she] may come into contact with.

A conceptual framework for illustrating music teaching and learning through a cyclic indigenous Kenyan music process was conceived as Concentric Circles Learning Pyramid (CCLP) model. The following is an outline of the framework's variables:

Depended Variable

The depended variable was identified as music expectancy development. The variable operationalized as music expectancy scores, was hypothesized to increase when students are instructed through the developed method.

Independent Variable

The instruction method introduced into the study was hypothesized to cause a positive change in musical expectancy scores. This method was based on a cyclic procedure of delivery characteristic of indigenous Kenyan music. The first component of the cyclic process is a three-part instruction strategy organized to respond to three learning stages namely: a) imitation, b) transfer of learning and c) creative work.

This three-part strategy occurs at different levels in concurrence with sequential music expectancy development, which in the secondary school curriculum, is operationalized as the different levels of knowledge and skills (Form One to Four). The second component of, this cyclic process is a musical experience sequenced upon musical concepts and skills. Embedded within this musical experience is a call and response interaction that characterizes teaching and learning activities. The balance of these activities becomes increasingly centred on the learner as instruction proceeds along the imitation-creativity continuum. The cyclic instruction method was thus identified as the independent variable.

Besides the independent variables, a variety of other context variables that affect music expectancy achievement were identified in the domains of a) family, b) school and c) macro-community.

Extraneous Variables

These were characterized as variables that were not under investigation yet would unintentionally influence music expectancy achievement. Musical expectancy achievement in secondary schools in Kenya is affected by various factors and conditions.

The following is an outline of identified variables:

i) Past achievement.

This is viewed as the cumulative learning that is reflected in the four academic aptitude levels of the secondary school curriculum. Past achievement in secondary schools is seen in a wide range of behaviours that the learner manifests along the curriculum continuum. Entry behaviour on one hand comprises of activities/ responses of learners prior to instruction. This consists of their interests, attitudes and abilities.

Terminal behaviour on the other hand comprises the activities and responses displayed at the end of the four year programme.

ii) Teacher preparedness.

The teacher is viewed as an important imparter of knowledge. The efficacy of a teacher is mainly determined by the teacher's competencies in music and music education. Music teachers of the 8-4-4 curriculum are trained at both university and diploma colleges. More often than not, these two categories of teachers exhibit varying competencies, a factor that shows up in students' performance.

ii) Content.

As a variable, content is seen as being transacted in different ways depending on the stage of the secondary school learner. These stages are not only in regard to the four years of the curriculum but are also in tandem with the imitation-creativity continuum. Music with different concepts and skills is used as the basis of instruction implying a varied repertoire of indigenous Kenyan music resources

iii) Gender

Music expectancy development is seen as being dependent on gender. Being a cultural variable, gender is understood to influence learning activities in secondary schools settings. Musical instruments in Kenyan communities are gendered, meaning that men and women are expected to handle specified instruments in line with their social roles. Since indigenous music in the classrooms is expected to reflect the culture from where the music is derived, boys and girls to a large extent tend to show preferences for musical instruments that are specific to their gender. Additionally, lyrics within songs serve to augment gender.

Songs for example, will be found to single out a lady who ‘sung sweetly’ or a man in the community who ‘beat the drum with the strength of a bull’. Learning activities in this way are seen as reflecting such values.

iv) Regional differences.

Since music learning amongst adolescents occurs by reason of their involvement in both formal and informal settings, the region within which schools are located is identified as a variable. Secondary schools in Kenya are distributed in both urban and rural settings. The urban environment on one hand is characterized by contemporary styles of music besides the indigenous Kenyan music idiom. On the other hand, schools in rural settings are in close proximity to the way indigenous music is traditionally made and experienced. It is because of this, that region is identified as a variable affecting the development of musical expectancy. Figure 2.2 is an illustration of interactions amongst variables of the concentric circles learning pyramid model:

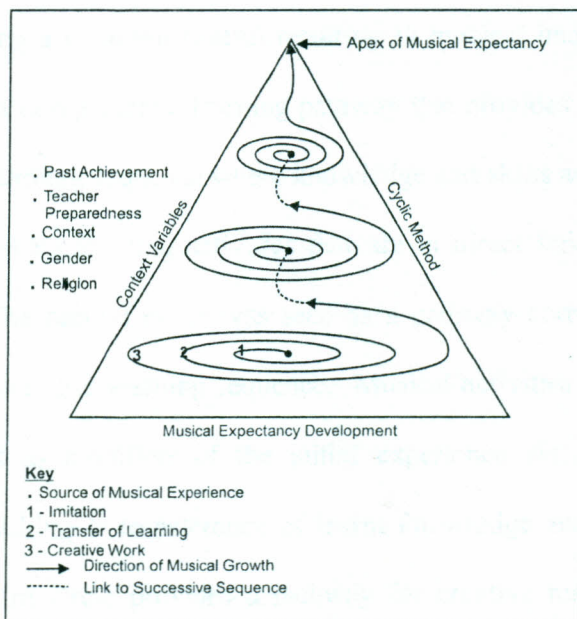


Figure 2.2: Concentric Circles Learning Pyramid (CCLP) Model

(Source: Researcher)

Whereas on one hand the base of the pyramid represents the beginning of music expectancy development, the apex of the pyramid on the other hand was seen as pointing to a mature musical expectancy. The tapering of the pyramid in between these two levels of music expectancy represents the developmental stages. The stages were seen to be mediated by a) context variables and b) the cyclic method of instruction. Context variables of a) past achievement b) teacher preparedness c) content d) gender and e) region, were viewed as interacting with the instruction method towards the development of musical expectancy.

The instruction method and musical expectancy development were viewed as interacting with each other in a cyclic and pyramidal fashion. The base/foundation for learning was conceived upon a horizontal plane. It is upon this horizontal pathway that music expectancy development and the instruction approach were seen to occur in three consecutive circles (sharing a common centre) resulting in musical understanding. The outermost circle was taken to represent a learning pathway that provides for the first stage of the music expectancy learning sequence where knowledge and skills are acquired. This interaction is characterized by learning activities that are in direct imitation to what is offered by instruction. The second circle was seen as a pathway corresponding to the stage of assimilation in the music learning sequence. Musical activities occurring within this circle were regarded as modifiers of the initial experience since it is here that internalization occurs, resulting in transference of learnt knowledge and skills into new musical realities. The third circle provides a pathway for creative music-making as a response to previously assimilated musical concepts and skills. Each of the three circles is a function of preceding ones and signifies sequenced learning activities.

The broken lines of the model show that layers are recursive so that when learners encounter new music, they are likely to find themselves once again at the start of the process, engaging with the sensory impact (experience of sound) or seeking manipulative control. This three-stage process demonstrates the interactions between musical expectancy development and instruction approach. Learning and teaching objectives are hinged upon the resultant imitation-creativity continuum.

The second nature of interaction combines both horizontal and vertical dimensions. The horizontal dimension on one hand is a layered pathway with interconnections amongst the concentric circles. The vertical dimension on the other hand provides continuity of the learning experience from the base to the apex of the pyramid. This dual interaction results in upward mobility, pointing to a cumulative process that integrates a) concept and skill acquisition and b) music making in the form of composition and performance. As music expectancy development interacts with new cycles of musical experience that are broader, learning increases in both scope and breadth. The instruction approach is further extended as sequenced music that runs at the core of the model, constituting the learning experience. Each set of concentric circles is connected to this column of sequenced music by a musical experience, which in the model is represented by the black dot representing 'source of music'. In this respect it typifies a call, providing a stimulus for related musical activities for the development of musical expectancy. This development is sequenced on the basis of concepts and skills to reflect the cumulative and developmental aspects of learning. The interaction between the instruction method and music expectancy development runs from the base to the apex of the pyramid. The implication is that learning of concepts and skills takes place simultaneously with performance, composition, and audiation.

The base of the pyramid represents the beginning level of interactions between the instruction approach and the music learning experience. As this interaction progresses along the continuum, the learner ruminates on previous ideas and learning continues often away/apart from the initial stimulus. This process is a composite of the vertical interaction that extends at the core of the pyramid. The progressive reduction of the size of circles is indicative of attainment and realization of musicianship. The tip of the pyramid cannot therefore, accommodate any more circles since learning and music-making at this level are fully integrated and simultaneously interacting within an audiation, performance and composition matrix. At its smallest size, the learning circle indicates a negligible disparity between conceptual understanding and music-making ability, pointing to a mature musicianship.

The final interaction between the instruction approach and music expectancy learning is seen in the recursive circles portrayed in the model. This indicates that learning cycles are repeated in response to the musical experience until the desirable objective at every level is achieved. New sets of learning circles are layered upon preceding ones, indicating the acquisition of higher musical concepts and skills. The concentric circles are interconnected through the common thread of the sequenced music running to the apex of the pyramid. As pointed out earlier, the radius of these circles progressively shortens towards the apex indicating that the integration of learning and music-making are taking place. The larger the circle, the more amounts of music to be experienced. This translates into an increased achievement in learning/familiarity/assimilation of concept and skill development. With more skills and knowledge (upward mobility on the pyramid), there is closer correlation between music experience, through music-making and learning.

CHAPTER THREE

METHODOLOGY

3.0. Introduction

This chapter describes the following: a) research design; b) the population and study sample; c) study variables; d) research instruments and equipment; e) the pilot study; f) validity and reliability of research instruments; g) data collection procedures; h) data organization and analysis; and i) ethical considerations.

3.1. Research Design

The study combined both documentary (Mehra, 1992) and quasi-experimental study designs (Gay, 1987) in a strategy to investigate indigenous Kenyan music processes for their value in supporting classroom instruction.

Documentary design

Documentary study reviews different forms of documents with the purpose of re-interpreting data (Holsti, 1969). Literature review as defined by McMillan and Schumacher (1984) became the adopted strategy of documentary study. They state:

A literature review provides a researcher with the opportunity to improve the understanding of a certain problem and can help to increase the body of knowledge that exists in their field so that future researchers can benefit from their findings. (Ibid: 14).

The primary goal of the study was to identify the inherent processes characteristic of indigenous Kenyan music with the view of extracting and defining conceptually such procedural characteristics that can be incorporated meaningfully in the general music curriculum. Content analysis was built into the literature review to provide a frame for going beyond the descriptive and engaging the analytical.

In outlining content analysis, Mugenda and Mugenda (1999: 174) say that “The main purpose of content analysis is to study the existing documents...in order to explain the factors that explain a specific phenomenon.” This strategy was applied to literature review with the aim of understanding the structural processes of indigenous Kenyan music. Investigation of these structures shed light on their pedagogic value. This, however, did not necessarily indicate whether such structures can support formal music education.

Experimental design

To test the pedagogic value of indigenous Kenyan music processes, a quasi-experiment was formulated and executed. A true experimental design reflects a) randomisation of subjects, b) manipulation of the independent variable and c) a control group (Best, 1977). Best (ibid) continues to say that quasi-experimental designs are adaptations of the experimental model where one of the three elements is missing. These alternative designs are intended to provide means for examining causality in situations which are not conducive to experimental control. The testing of indigenous Kenyan music processes as a pedagogic tool was a naturalistic study in that it used groups which had evolved naturally (intact classes) rather than randomly selected students. Further, the pre-test post-test type of experimental design was used to allow investigation of a cause and effect relationship between the depended and independent variables. This allowed for the study to compare results of the two groups and account for reasonable explanations guiding/ defining the phenomena.

3.2. Population and Sampling

Different sampling techniques were employed in combining the documentary and experimental studies in a bid to capture the required data. The strategy combined a) theoretical, b) purposive and c) simple random sampling techniques.

Literature Review Scope and Sample

The target population of publications that were reviewed under the documentary study was defined as publications on indigenous Kenyan music. The starting point in identifying such publications was from bibliographic material. This gave the researcher an indication of some of the earliest and commonly cited documents. The bibliographic data pointed to two broad periods and provided this study with a basis for classification. These are a) colonial and b) post-independence eras. In this way, one publication, Hyslop (1954), was identified from the colonial era whereas 28 other documents emerged from the post independent period. Table 3.1 shows a breakdown of these documents.

Table 3.1: Documents on indigenous Kenyan Music Processes from 1954-2005
(Source: Researcher)

Documents	Number	Percentage
Academic books	7	24.14%
Dissertations	3	10.34%
Journal articles	3	10.34%
Government reports	3	10.34%
Policy statements	2	6.90%
Conference papers	7	24.14%
Popular press	4	13.79%
Total	29	100%

It was crucial that the selected material reflect guiding principles in keeping with current standards of scholarly literary practice.

The documents were assessed for their relevance and value in order to determine the usefulness of the contributions to this study. Annotated bibliographies for all the documents were developed to reflect: i) purpose of the work; ii) brief description of the content; iii) theoretical basis of arguments presented; iv) academic credentials of the author; and v) the intended audience. Through this process, themes from the daily newspapers were found to largely focus on the entertainment value of the music, the content targeting mainly the music industry audience. These were found to have little relevance to this study and 4 such articles were discarded. Annotated bibliographies of the remaining 25 articles yielded the following dimensions:

- a) Policy;
- b) Construction, handling and classification of musical instruments;
- c) Kenyan Communities and their music;
- d) Quasi-linguistic content of music; and
- e) Music in education.

Through a process of comparing the above dimensions with content pertaining to indigenous Kenyan music procedures, the dimensions were revised to two, as follows:

- a) Kenyan Communities and their music; and
- b) Music in education.

Theoretical sampling was used to approximate the centre of the population of documents (Strauss, 1994). This technique is an active process in which discoveries made during literature review, observation, and data gathering direct the researcher to their next area of potential data source. Sampling runs throughout the data collection period and sample size is, therefore, arrived at when new categories cease to emerge and saturation level is attained (Glaser, 1992). Through the process of theoretical sampling a total of 16 items on indigenous Kenyan music were found amenable to the above two dimensions.

Table 3.2 shows the sample in relation to the population of documents on indigenous Kenyan music authored between 1964 and 2005.

Table 3.2: Record of Reviewed Documents
(Source: Researcher)

Articles	Sample Number	Population	Sample Percentage
Academic books	5	7	17.24%
Dissertations	1	3	3.45%
Conference papers	7	7	24.14%
Journal articles	3	3	10.34%
Government reports	0	3	0%
Policy statements	0	2	0%
Popular press	0	4	0%
Total	16	29	55.17%

Table 3.2 shows the sample size as being 16; 55.17% of documents on indigenous Kenyan music between 1954 and 2005. This sample is representative as it was arrived at in line with the saturation threshold of theoretical sampling, a process that estimates the mid-point of the population (Glaser, 1992).

Experimental Study

The target population for the experimental study was students in secondary schools in Kenya under the 8-4-4 system. Table 3.3 is a sampling frame showing the distribution of schools that offer music as an examinable subject in the provinces of Kenya.

Table 3.3: Distribution of Secondary Schools Offering Music as Examinable Subject

(Source: Kenya National Examinations Council)

Province	Centre Code Series	Number of schools in 2006	Percentage
Coast	100000	10	4.44%
Central	200000	40	17.77%
Eastern	300000	34	15.11%
Nairobi	400000	19	8.44%
Rift valley	500000	34	15.11%
Western	600000	52	23.11%
Nyanza	700000	36	16%
North Eastern	800000	00	0%
Total		225	100%

Table 3.3 shows that there was no school registered in North Eastern Province and this issue is addressed in a recommendation (see Chapter Seven: 180). Three provinces with the highest number of schools are identified as:

- a) Western Province 23.11%
- b) Central Province 17.77%
- c) Nyanza Province 16%

Sample

The sampling technique was based on the quasi-experimental design which in accordance with Best (1977), built the variables of gender and region into the design. The region variable was in reference to a) settings reflecting cosmopolitan environments and b) settings with a close proximity to traditional music-making. As it was not possible to carry out the study all over the country, a study sample of 25%; 2 provinces in line with Gay (1987) was computed (see Table 3.3: 60). Purposive sampling identified a) Nairobi Province as being a cosmopolitan setting and b) Western Province as an environment where schools are in close proximity to traditional music-making. Table 3.4 shows a breakdown of the proportions of schools within the gender and region variable.

Table 3.4: Proportions of Secondary Schools

School type		Number of schools	Ratio
Gender	Boys	110	1:1
	Girls	115	
Region	Urban	107	1:1
	Rural	118	

Table 3.4 shows the ratios of 1:1 between a) boys and girls and b) urban and rural regions. Since the study was a naturalistic one, it became practical to make use of intact classrooms. Form Two was purposively sampled. Music being an elective subject under the 8-4-4 system, schools that offer it as an examinable subject give students the opportunity to either continue with or drop the subject at the end of this class. By selecting Form Two, the study captured one of the two classes (Forms One and Two) with the highest possible numbers. With regard to the readiness to participate in the study, Form One was found to be relatively unsuitable.

It was argued that this class would require more experimental time given that the class directly emerges from primary school, a level where music instruction is neglected by reason of it being a non-examinable subject. Conversely, Form Two had the benefit of a year (Form One) of continuous instruction prior to the experiment, and thus provided the more ready group. It is important to point out that the size of the study sample in this kind of study (quasi-experimental) is based on the number of subjects rather than schools in line with Gay (1987: 115) who observes:

“For causal-comparative studies and many experimental studies, a minimum of 30 subjects per group is generally recommended.”

This resonates with the policy guideline on classroom size in Kenya which is set at 40 students per classroom. Consequently, the study had the opportunity of involving a total of 80 subjects or more, engaging: on one hand, a) a control group and b) an experimental group on the other hand. Two groups would have been satisfactory as pointed out earlier (Gay, *ibid*). However, since this study needed to focus its findings beyond the earlier isolated variables of a) region and b) gender, control and experimental groups were further clarified as: a) two control groups reflecting region; and b) two groups reflecting gender. Consequently, a total of four groups were required to carry out the study. Having determined the sample size, and again, since, this study required intact classrooms rather than randomised assignment of subjects to the four groups, it followed that four schools be sampled for participation. Furthermore, this sample size corresponds to the 1:1 ratio of a) boys and girls schools; and b) rural and urban schools as shown in Table 3.4: 61.

The procedure for selecting specific schools for the study involved the assigning of an arbitrary number to each school in the sampling frame using the Table of Random Numbers (see Appendix Two: 197).

Schools whose numbers corresponded to the randomly selected numbers were drawn by picking out respective schools from Nairobi and Western Provinces. Mukumu Girls, Musingu Boys, Ngara Girls and Moi Forces Academy schools were selected in this manner. Table 3.5 shows the actual numbers of students.

Table 3.5: Numbers of Students within Study Sample
(Source: Researcher)

Group	School	Number of Students in Form Two	Total
Experimental	Ngara Girls	43	87
	Musingu Boys	44	
Control	Mukumu Girls	41	81
	Moi Forces Academy	40	
	Total	168	168

3.3. Study Variables

To determine a cause and effect relationship between musical expectancy achievement and the instruction method it was necessary to identify other variables associated with the teaching and learning process.

Depended Variable

Music expectancy achievement was identified as being depended on an instruction method developed from indigenous Kenyan music processes. The depended variable was operationalized as music expectancy scores. These scores were derived from a pre-test and post-test developed to measure the perception of i) rhythm, ii)) interval and iii) similarity relations. Musical expectancy achievement in secondary schools in Kenya is affected by different factors and conditions.

The study hypothesized that the introduction of a method based on indigenous Kenyan music processes would result in a positive difference in music expectancy scores.

Independent Variable

The instruction method introduced into the study was hypothesized to cause a positive change in musical expectancy achievement. This method was developed on a call and response principle derived from the literature review (see Chapter Two: 43). The method was therefore identified as the independent variable and was manipulated by introducing controls into the study to determine whatever relationship the variable may have with music expectancy achievement.

Extraneous Variables

These were characterized as variables that were not under investigation yet would unintentionally influence music expectancy achievement. Different strategies were used to control the variables so that a direct relationship between musical achievement and the instruction method could be determined. The following is an outline of these variables together with control strategies:

v) *Past achievement.*

By using subjects from only one academic aptitude level in the study, the researcher was able to control for this variable.

vi) *Teacher preparedness.*

Both experimental and control groups were instructed by the researcher. This eliminated the variable of different instructors with varying skills and the effect it would have upon students' achievement.

vii) *Task order.*

Items in the pre-test were sequenced differently from those in the post-test although the content remained the same. Such re-organization served to control for familiarity (test interaction between the pre-test and post-test).

viii) *Gender and Urban-Rural differences.*

These were both identified as affecting the relationship between music expectancy achievement and the instruction method. Boys, girls, rural and urban regions factors were built into the study design at the sampling stage in order to control for these variables.

3.4. Research Instruments and Equipment

It was necessary to develop as well as adopt data collecting instruments in the context of this study. This sub-section presents the instruments together with: a) identified variables; b) concepts; c) performance indicators; d) measurement scales; as well as e) the procedures of development.

3.4.1. Content Analysis Coding Scheme (see Appendix One: 196)

It was necessary to define a categorical coding system for indigenous Kenyan music. Such a coding system needed to show forth the underlying structures of the compositions. Through a process of literature review of articles authored by ethnomusicologists and music educationists whose research work targeted indigenous Kenyan music, such a coding set was developed. First, it was necessary to clarify the concept of 'indigenous Kenyan music'. Senoga-Zake (1990: 1) observes that "In Kenya as in many other African countries, song is the characteristic musical expression...." Song was, therefore, identified as the expression of indigenous Kenyan music.

Literature review further established that indigenous Kenyan songs fall into given categories and that the compositional format is consistent within each category. Merriam (1964) hints at a classification mode for African music by outlining 10 functions that the music serves in community. Senoga-Zake's (1990) classification of indigenous Kenyan music seems to concretize and confirm Merriam's observations by setting out 15 categories. These outlines were helpful in the way they distinguish the numerous categories providing a detailed review. For purposes of this study, however, classification was guided by rites of passage. Literature review shows that indigenous Kenyan music is integrated with various aspects of life (Kavyu, 1977). The basis for a comprehensive coding system was based on the view that a journey through the rites of passage captures the total musical creativity and life experience of the community. The resultant categories of song are therefore: a) birth and naming songs; b) children's songs; c) initiation songs; d) courtship and marriage songs; and e) funeral songs. The structures underlying the songs were used to derive a set of categories of structural processes that was used to code the data (see Appendix One: 196).

3.4.2. Similarity Relations Test Tools

Two excerpts from selected indigenous Kenyan songs were used as stimuli for deriving similarity relations. These were selected on the basis of rhythm and pitch content of the national Form Two music syllabus (see Appendix Eight: 210-213), the class that participated in the experimental study. Figures 3.1 is a transcription of the two indigenous Kenyan song excerpts.

Gogo - Tugen Folk Tune (Original)

Transcribed by:
Mushira E.

Solo Go-go go-go, eh! go-go Che - mu-ta-i!

All i - ye-i-ya i - ye-i-ya nyo-ngo-ro-ge Che-san-gi

5
ma-bwa-bun ma-bwa-bu-eh! ku-to-che-lele-go

ti-gin i - ye-i-ya i - ye-i-ya nyo-ngo-ro-ge - che-san-gi ti-gin

Mama Mbe Tsimbindi - Luhya Folk Tune (Original)

Transcribed by
Mushira E.

Voice Ma - ma mbe-tsi-mbi-ndi nzie khu-mi - tsa Nzie, nzie, nzie, nzie khu-mi - tsa shi -

5
ra - vu-la - shi-rie - tso kha - ni - nza-la ya-khwi - ra nu - ku-li kha-nya-ma u -

8
sie - tsa-nga nu-ko - nga nzie, nzie, nzie, nzie khu - mi - tsa.

Figure 3.1: Excerpts of *Gogo* and *Mama Mbe Tsimbindi* Folk Tunes

Two further excerpts were derived by modifying melodic intervals and rhythmic patterns.

Figure 3.2 shows the first variation on *Gogo* (the first excerpt).

Gogo-Variation One

Developed By:
Mushira E.

Solo Go-go go-go, eh! go Chem-tai!

All I-ye-i-ya i-yei-ya nyo-san-ti-gin

ma-bwa-bun, ma-bwa-bun eh! ku-tom-che

i-ye-i-ya i-yei-ya nyo-san-ti-gin

Figure 3.2: First Variation of *Gogo* Folk Tune

The variation in Figure 3.2 is based mainly on the intervals. These were generally transposed a third downwards. Below is Figure 3.3 showing the first variation on *Mama Mbe Tsimbindi*.

Mama Mbe Tsimbindi-Variation One

Developed by:
Mushira E.

Ma - ma mbe-tsi-mbi-ndi nzie-mi-tsa nzie, nzie, nzie, nzie, nzie

nzie khu-mi-tsa shi-ra-vu-la shi-rie-tso kha-ni in-za-la ya khwi-ra

nu-ku-li kha-nya-ma u-sie-tsa-nga-nu ko-nga nzie nzie nzie nzie khu-mi-tsa.

Figure 3.3: First Variation of *Mama Mbe Tsimbindi* Folk Tune

The variation in Figure 3.3 is based mainly on the rhythms, with passing notes being incorporated into the main melodic idea. Figure 3.4 below is a transcription of the second variation on *Gogo*

Gogo-Variation Two

Developed by:
Mushira E.

Solo Go - go go - go, eh! Chem - tai

All i - ya! i - ye - i - ya nyo - ngo - ro - ge che - san - gi

5
ma - bwa - bun ma - bwa - bun Chem - tai

ti - gin i - ya! i - ye - i - ya nyo - ngo - ro - ge che - san - gi ti - gin

Figure 3.4: Second Variation on *Gogo* Folk Tune

The variation in Figure 3.4 above introduces the idea of syncopation into the rhythmic structure. Figure 3.5 below is the second variation on *Mama Mbe Tsimbindi*.

Mama Mbe Tsimbindi-Variation Two

Developed by:
Mushira E.

Voice

Ma - ma mbe - tsi - mbi - ndi nzie khu - mi - tsa nzie, nzie, nzie khu - mi - tsa shi -

5
ra - vu - la shi - rie - tso kha - ni - i - nza - la ya khwi - ra nu - ku - li kha - nya - ma u -

8
sie - tsa - nga nu - ko - nga nzie, nzie, nzie, nzie khu - mi - tsa.

Figure 3.5: Second Variation of *Mama Mbe Tsimbindi* Folk Tune

Figure 3.5 mainly varies the intervals of the folk tune.

3.4.3. Music Similarity Test (see Appendix Four: 205)

A five-point likert scale was adapted to determine subjects' similarity perception of indigenous Kenyan music excerpts. Music expectancy was initially conceived in terms of melodic similarity. The single questionnaire item of the scale allows for respondents to express both the direction and strength of their perceptions. The tool yielded data on the perception of two indigenous Kenyan songs together with their variants (see Figures: 3.1; 3.2; 3.3; 3.4; and 3.5: 67-69). Five similarity coding categories were adopted from music expectation literature. The response alternatives were intended to tap into the similarity categories of the different pairs of music excerpts. The continuum ranges from 'strongly similar' to 'strongly dissimilar'. Each response was associated with a point value and an individual score was determined by summing the point values of each score. A high total score on the test was indicative of a positive perception whereas the reverse was true for a low total score.

3.4.4. Rhythm Pattern Test (see Appendix Five: 206)

The rhythm pattern test was adapted from music achievement tests. These tests are constructed to measure the auditory discrimination of melodic and rhythmic elements. The test, consisting of ten items, was adapted to measure subjects' discrimination of beats within rhythmic patterns. Material for the test was derived from the song excerpts (see Figures: 3.1; 3.2; 3.3; 3.4; and 3.5: 67-69). These were synthesized to include all the different beats contained in the music. Patterning was not done in the order it occurs in the music so as to control for familiarity. The mode of responding to test questions was by clapping back a given rhythm.

Although the initial strategy was to administer the test through a tape recording, complications from subjects' responses, by reason of such responses not being made in real time, made it prudent to administer the test by rote in the final experiment. Rote method involved the researcher clapping rhythms to individual students, who would listen, internalize and clap back the exact rhythm in response.

3.4.5. Interval Test (see Appendix Six: 207-208)

The interval test consisting of ten test items was adapted similar to the rhythm pattern test above. This test was, however, adapted to measure the aural discrimination of intervals. The initial stage of its development was to generate an item pool of melodic intervals by selecting intervals from the music used in the study. The next stage was to determine whether selected items tapped into all the intervallic dimensions of the music (see Figures: 3.1; 3.2; 3.3; 3.4; and 3.5: 67-69). The Form Two music syllabus was used as a checklist (see Appendix Eight: 210-213). Subjects made responses onto the answer sheet, indicating intervals heard.

3.4.6. Music Expectancy Schemes (see Appendix Three: 198-204)

MES was developed by the researcher for use as the experimental treatment. These schemes were based on the call and response music process emerging from the documentary study. The schemes were developed to reflect three forms of call and response, pointing to a learning sequence that proceeded as: a) imitation; b) assimilation; and c) creative work (see Chapter Two: 43). MES was used in teaching songs to subjects through listening, performance and composition. The aim was to develop musical expectancies in selected songs by imparting appropriate musical knowledge and skills as well as facilitating enjoyment, understanding and interest in indigenous music. The experiment was set out to test both the learning sequence and instruction strategy.

3.4.7. Equipment

Research equipment included a battery powered portable cassette player together with audiocassettes. A camera and cassettes were used for recording purposes.

3.5. Pilot study

A pilot study was carried out by the researcher between January to March 2007 with the objective of trying out the tests as well as the teaching schemes. Form Two music students from schools outside the study sample participated in the exercise. The following was the procedure:

- a) Briefing students on the mode of response to the tests;
- b) Administration of pre-test;
- c) A 10 week instruction programme using the developed teaching schemes;
- d) Administration of post-test;
- e) Scoring of students' scores and analysis with regard to test validity.

The pilot study revealed certain logistical issues that had not been anticipated. The first challenge had to do with time constraint. Scheduled sessions would occasionally be interrupted, calling upon the researcher to devise contingency plans. Fortunately the content was covered within the projected time-line. The second challenge had to do with the administration of the rhythm pattern test which proved to be rather ambiguous. The test was intended to be delivered in the form of a recording, requiring individual students to clap back rhythmic patterns in response to test items. It emerged that students did not maintain real time responses necessitating the researcher to constantly stop the play-back system to allow for responses in the course of the pre-test.

This became time consuming and after the first three students, a decision was made to administer the test to the remaining students by rote. This proved to be a better mode and was later used in the real experiment. Thirdly, the researcher realized that students were not familiar with certain technical terms although they are part of the Form Two syllabus. Teaching schemes, therefore, had to be re-worded so as to enhance classroom communication.

3.6. Validity and Reliability

Since a number of tools were developed within the theoretical and conceptual framework of the study and others adapted, it became necessary to validate the draft tools so as to improve on them in readiness for data collection.

Validity

A determination of how well tests measured the perception of similarity relations, rhythm pattern and interval, was made. The researcher initially relied on the judgement of university lecturers who supervised this study, assuming the role of experts. These experts carefully reviewed the process used in developing the tools as well as the tools themselves to determine how well they represented the intended content area. The process entailed a comparison between what needed to be included in the test given the intended purpose and what was actually included. Their judgement identified sub-areas in the tests as well as teaching schemes that had not been included in the right proportions. Based on these findings, the items were restructured to validate the tests by ensuring internal consistency between the content and the instructional music. There remained the need to carry out a statistical analysis. Results from the pilot study were statistically analysed to establish the validity of the calibration of tests as well as the content validity of teaching schemes.

Factor analysis was carried out on the tests to examine how data derived from subjects' responses to the items was consistent with the selected music used in the instruction procedure. Additionally, analysis of covariance was carried out to assess how well the tests described the co-variation between the items of all the respective instruments. Each of the items was separately loaded into single rhythm, interval, and similarity factors of the music as they operate in the study. Inter-item correlations were then worked out to determine content validity of the instruments. Correlations of above .80 were arrived at and this was accepted as a demonstration of validity (Gay, 1987).

Reliability

A Reliability test was carried out to determine the degree to which tests consistently measured the perception of similarity relations, rhythm pattern and interval. Test-retest reliability was carried out on pre-test and post-test scores derived from the pilot study. The two sets of scores were correlated using the Spearman-Brown formula in line with Gay (1987). A coefficient of .85 and was accepted as a demonstration of reliability.

3.7. Data Collection

Documentary study

The researcher reviewed one piece of literature at a time and highlighted concepts units of between 1-2 sentences long in pencil. After reviewing each piece of literature in this way, each unit would be re-written verbatim after which the pencil highlights would then be erased. Whenever any descriptions of concept units seemed to raise issues of misconception and were therefore in doubt, corroboration from other sources was sought before making a decision to discard them. This occurred only in one instance.

Additionally, the researcher would refer to the context of respective literature for clarification whenever a concept unit appeared ambiguous. Concept units of indigenous Kenyan music processes were then tallied and recorded.

Experimental data

Data from the trial of the MES intervention was in the form of pre-test and post-test scores. The researcher administered the pre-test to both control and experimental groups on different occasions. Each group was briefed on answering procedures before taking the test. The pre-test consisted of two response modes: the written; and the verbal. The researcher demonstrated on the blackboard the mode of responding to the first two tests. Subjects were to complete the similarity test by ticking against one response alternative (see Appendix Four: 205). To complete the interval test, subjects were to enter their responses in pencil onto individual interval test response sheets (see Appendix Six: 207-208). The rhythm pattern test (see Appendix Five: 206) was to be responded to in a verbal mode. This was to be administered aurally to individual subjects. The subject was to respond to the test items by clapping back exactly what the researcher had clapped in a call and response pattern. This would be done in succession until all the ten items of the test had been covered. A brief lapse between the researcher's call would be followed by the students' response. The class was divided into two groups and rhythms outside the test material used to demonstrate the call and response test format. The researcher emphasized that there would be no repetitions of rhythms but rather that students were encouraged to clap back whatever initial impressions they heard. After clarifying issues raised by the students, it was time to carry out the actual pre-test.

Similarity and interval test answer sheets were distributed to all students. Students then entered their names, school and the date of the test. When this was completed, the researcher played the recording containing the first part of the test. This part of the pre-test was completed within 20 minutes.

All subjects were asked to leave the room and wait in a separate room that had been set aside, as preparation for the second part of the pre-test. This ensured that they did not hear the proceedings of the next phase of the test so as to control for familiarity. Each subject was given a number that indicated their order in taking the test. After the particulars of an individual student were confirmed, the researcher would then clap the rhythms in succession with a brief lapse for the response. Some students would request for a particular rhythm to be repeated but the researcher would encourage them to clap back whatever impression they had initially heard. All ten items were covered in this way. The researcher scored each student immediately after completion of the test. This phase of the test lasted between 30 minutes to 1 hour as each school had varying numbers of subjects.

Instruction commenced on the third week and ran over a period of eleven weeks. Instructional content was in the form of rhythmic patterns, pitch and interval discrimination, as well as song learning/performance, improvisation and listening activities. MES (see Appendix Three: 198-204), constituting a learning sequence together with teaching/learning procedures developed from the call and response structural process was administered to the experimental groups as treatment for purposes of stimulating the development of musical expectancies. Plate 3.1 captures one of the sessions.



Plate 3.1: A Section of the Experimental Group Prepares for a Musical Task

Control groups were instructed through conventional procedures used in the instruction of indigenous Kenyan music. KIE (2000) identifies these as being: a) lecture formats; b) note-taking; c) listening; d) discussion; e) singing/playing of instruments/dancing; and f) project work. Plate 3.2 shows an activity during one of the sessions.

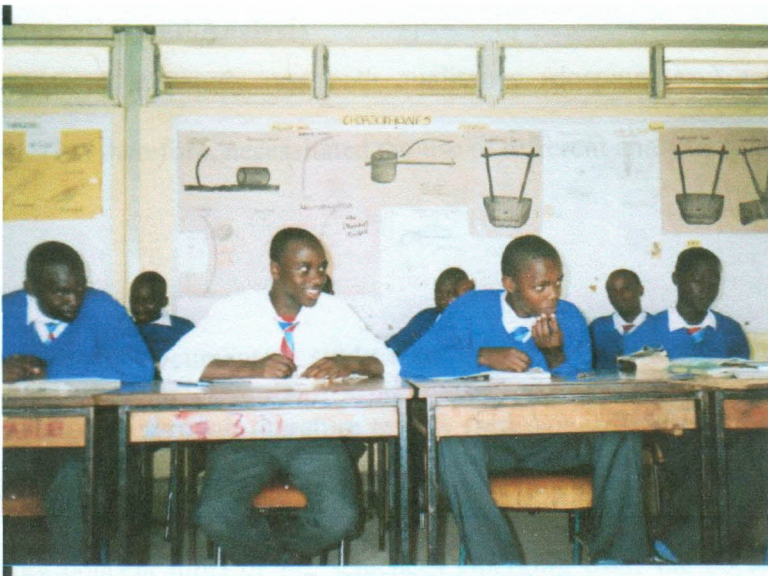


Plate 3.2: Students in the Control Group Listen Keenly to a Lecture

This program ran over a total of eleven weeks, each session lasting 35-40 minutes. Subjects seemed to look forward to the weekly encounters and participated with enthusiasm. The researcher noted that all assignments were ready on time as well as low absenteeism rates. All four groups were then post-tested at the end of the 12 weeks. The pre-test treatment interaction was ruled out as testing is a normal part of subjects' classroom experience.

3.8. Ethical Considerations

Since the experiment involved students, the researcher ensured that participation was by informed consent. Students were briefed on the objectives of the study after which they voluntarily indicated their interest to participate. At the end of the study, students were debriefed as well as given the opportunity to air their views on how the experiment had gone. Finally, the researcher observed confidentiality by not indicating the identity of participants when reporting on the study's proceedings.

3.9. Data Organization and Analysis

Data that arose from the study was both qualitative (documentary) and quantitative (experimental). This therefore, necessitated the use of different analysis techniques.

Content Analysis

Key concepts from the documentary study were coded in accordance with the scheme developed by this study through literature review (see Appendix One: 196). The codes were: a) monophony; b) polyphony; c) call and response; d) cyclic pattern; and e) parallelism. Key concept units of 1-2 sentences emerging from the documentary study were entered under respective codes, each entry receiving one score.

Using *Word stats 5.1* computer package, scores were tallied and tabulated as frequencies, making the data amenable for analysis. This tool is a text processing kit that focuses mainly on key words, phrases, categories and concepts. Content analysis involves quantifying and tallying the presence of identified concepts (conceptual analysis). The aim was to focus on the occurrence of selected terms within the text. Findings were tabulated to show a summary of reviewed key concepts. Consequently, percentages were computed and tabulated to show a weighting pattern of these concepts. A process of synthesis was then carried out to integrate key concepts with coding categories so as to re-interpret indigenous Kenyan music structural processes. These findings were presented in the form of a Venn diagram.

Hypotheses Testing

The depended variable was operationalized as music expectancy scores. Data for testing hypotheses (See Chapter One: 10) were collected through pre-test and post-test scores. Raw ratings collected from music similarity test were converted into scores using reverse coding. Overall individual similarity scores were derived in this way. These scores were summed up together with scores from the rhythm pattern and interval test components to derive a consolidated score for each student. Test scores for both experimental and control groups were then tallied and presented as frequencies. Pie charts were generated to provide insight into students' performance on a) music similarity, b) rhythm pattern, and c) interval tests components of the pre-test. Pre-test and post-test means for all groups were computed and tabulated using the *Statistical Package for the Social Sciences (SPSS)* in readiness for the test of significance

On the whole, the parameters that were taken into consideration for the analysis of the data were based on dependent groups. The following principles guided the choice of the test of significance as elucidated by Cohen (1988):

- The scores in the two groups were related since the same participants (in either control or experimental group) contributed to both the pre-test and post-test scores. Since the two means were based on the same sample, they are dependent;
- The scale of measurement was considered on the basis of there being a rational zero in the scores. This was identified as the ratio scale;
- The final parameter was the shape of the distribution. The shape assumption is that different scores are normally distributed. Both samples had normal distributions. Since the t-test was two-tailed it allowed for both positive and negative aspects of the distribution to be studied. The formula for the *t* test that was used is:

$$t\text{-test} = \frac{\text{mean difference}}{\text{standard error of the difference}}$$

The paired t-test was used to analyse means for both experimental and control groups. Results of this tool indicate not only whether group membership is significantly related to post-test performance, but also the magnitude of this performance (Gay, 1987). t- tests assess whether the means of two groups are statistically different from each other (Holsti, 1969). The paired t-test was selected since measurements were related, meaning that they were taken from the same subject before and after the manipulation. Results were then presented in the form of tables.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0. Introduction

This chapter presents the results and analysis consistent with the first two objectives of the study (see Chapter One: 10). The first objective focused on processes inherent in indigenous Kenyan music, to identify what they are as well as establish their conceptual relationships. The second objective analyzed these processes for their suitability as models of curriculum design and implementation. The analysis was based on data collected through documentary and experimental study. The third objective was to develop a formal method for teaching indigenous Kenyan music in the classroom. Findings from the first two objectives were instructive in addressing the third objective.

4.1. Structural Processes of Indigenous Kenyan Music

This section presents data in line with the documentary study. An annotated bibliography is presented, using a numbering system that corresponded to the coding system used in data collection. The profile states which category [ies] are present and introduces the key concepts used in the study. Where the documentary article is in the form of music scores, the researcher has provided the wording for the structural processes based on a score review of the material. Where, as earlier pointed out, the material appeared inconsistent with the rest of the body of literature, the researcher made a decision to discard such material altogether.

Indigenous Kenyan Music Document Profiles

Article No. 1

Mundy, P. (1984). *Fifty Kenyan Folk Songs*. Nairobi: Kenya Conservatoire of Music.

Annotation

Fifty folksongs demonstrating the traditional music culture of Kenya. The songs are arranged according to pentatonic or diatonic scale. Melodies are notated in standard notation with the original language and translation given. Several of the songs are games and the descriptions of the games are included. Western notation system is used to capture the sonic aspect of the music and hence upholds the structural processes of the compositions.

Profile of Key Concepts

1. Monophony

- a) "Solo melodies"
- b) "Chants"

2. Call and response

- a) "Short calls and long responses"
- b) "Response echoes calls"
- c) "Calls overlap with responses"

Article No.2

Miller, A. (1987). *Lets Learn Music*. Nairobi: International Publication Services.

Annotation

Textbook presents a sequential approach to teaching music concepts using Kenyan folksongs. The text engages Kenyan folksongs in cross-cultural pedagogy with the Western Kodály method.

Profile of Key Concepts

1. Call and response

- a) "Responses an exact echo of calls"
- b) "Calls overlap with responses"
- c) "Exact repetition"

2. Monophony

a) "Unison"

Article No.3

Wahome, J. (1987). *Songs of Kenya*. Nairobi: Jemisik Cultural Books Ltd.

Annotation

A collection of forty songs in the Kikuyu language. Standard notation of each melody given along with solfege and text. Translation of each song is found at the end of the music notation. Western notation system is used to capture the sonic aspect of the music and hence upholds the structural processes of the compositions.

Profile of Key Concepts

- | | |
|---|----------------------------------|
| 1. "Call and response" | c) "Call overlaps with response" |
| a) "Equal length of call and response" | 2. Monophony |
| b) "Varied response to a consistent call" | a) "Solo's melody with drone" |
| | b) "All voices sing the same". |

Article No.4

Senoga-Zake, G. (1990). *Folk Music of Kenya*. Nairobi: Uzima Press.

Annotation

Provides an in-depth study of indigenous Kenyan music. Areas include the classification of different music[s] within multiethnic frames. Looks at modes of learning as well as presentation. Discusses structural frameworks together with functions and roles of the music. Provides profiles of notable contributors alongside their works. Gives an ethnomusicological view of indigenous Kenyan music.

Profile of Key Concepts

1. Monophony

- a) "Most Kenyan singing is in unison, and can be in octaves when women and children are singing together with men".

2. Polyphony/ polyrhythm

- a) "It is noticeable that in a number of ethnic groups authentic polyphony and harmony are used, and there is apparently no possibility of their having been derived from external influences".
- b) "In the Maasai, the Kalenjin and songs of other communities akin to them, one can clearly hear choruses sung in parts".
- c) "Kenya's indigenous music is rich in rhythm. Its structure may be defined as polyrhythmic-having many rhythms at once".
- d) "There is cross- rhythm or playing of one rhythm against another".
- e) "Form is made up of complex overlapping phrases which may not be connected".

3. Call and Response

- a) "In many instances, the chorus line begins while the soloist is still singing. The soloist takes up his part before the chorus end their phrase, thus causing an overlap".
- b) Sometimes when the chorus comes in, it either restates, continues or amplifies the thought expressed by the soloist".

4. Cyclic Pattern

- a) "Sometimes the whole song is only four bars long and the one line of words is used throughout the performance, yet this and the rhythm urge people to dance for hours on end".

5. Parallelism

- a) "In the Maasai two parts are heard... they begin in unison...they descend into two branches to a major second below and remain there forming a perfect fourth with the second voice. Occasionally one hears thirds, fifths or even sixths".

Article No.5

Hopton- Jones, P. (1998). "Introducing the Music of East Africa" in *Music Educators Journal*. Vol 82 No.3 Nov. 1998.

Annotation

Looks at the way music is conceived, created, performed and transmitted in East Africa with special references to Kenya. Provides an analysis of the Western classical model alongside the Kenyan music-making and learning traditions. Provides a cross cultural approach by looking at East African music from the standpoint of Western genres and argues that students can gain a broader perspective from both traditions.

Profile of Key concepts

1. Monophony

- a) "How the music is produced may help us think of the music structure. The texts of Kenyan music are produced in linear fashion with one word or syllable following another".
- b) "Kenyans tend to think of music horizontally focussing on the melody as a single line largely unrelated to other musical lines that might make up harmony".

*The above statement (b) was found to be inconsistent with the body of knowledge on Kenyan musicianship.

Kidula (1999) in describing Kenyan musicianship speaks of musicians that are highly conscious of different layers of musical activity that are polyphonic in nature, and that during dancing, musicians interact with interlocking rhythms, musical instruments, lyrics, amongst a myriad of other musical expressions. Kidula (ibid) brings out the fact that Kenyans are highly conscious of different musical activity around them and respond to these through dance. The researcher therefore, considered Hopton-Jones' statement as opinion rather than fact and consequently, excluded it from the final analysis.

Article No.6

Akuno, E.A. (1999). "African Traditional Music in Modern Education at the Primary, Secondary and Tertiary Levels- Lessons from Kenya" in *School Music and Teacher Education: A Global Perspective in the New Century*. Pp 69-81.

Annotation

Surveys the place of indigenous Kenyan music in the curriculum. Outlines the music's socio-cultural advantages to the curriculum and gives recommendation for further use of this music in formal music education. Approaches the issues from a philosophical view which argues that indigenous music develops an analytical, articulate and creative person who is an independent problem solver, able to positively impact others.

Profile of Key Concepts

1. Call and response

- a) "The predominant form of Kenyan music (song) is call and response".
- b) "When the soloist repeats the whole of the soloist's line... the two lines appear to produce an echo effect".
- c) "Where the solo has a short call, and the chorus has a long response, the soloists' portion carries little weight".
- d) "Finally there are long elaborate solo lines eliciting short often monosyllabic choral responses".

Article No.7

Miller, A. (1999). "Music Making: Survival and Celebration" in *Exploring the Wisdom of Africa*. MCC Occasional Paper, No 26 April 1999.

Annotation

An article that looks at the effect of Western notation on African music with reference to the Kodály methodology. The scholar approaches discussions from a broad African perspective and eventually narrows to the case of Kenya. Advocates for cross-culturalism arguing that the benefits of Kodály can provide a bridge (literacy) into Western music.

Profile of Key Concepts

1. Cyclic

- a) "Time moves in cyclical fashion. It is not reckoned as distance. Time is organized primarily in terms of the past and the present".
- b) "Notation places at risk the participatory mode of music-making... and tends to superimpose linear Western acoustical-harmonic patterns onto a cyclical musical cosmos".

2. Polyphony/ Polyrhythm

- a) "The complexities of poly-rhythms and cross-rhythms can hardly be overstated".
- b) "The most common cross-rhythms are the three against two".

Article No.8

Kidula, J.N. (1999). "Where Is Your Tradition? On the Problematics of An African Ethnomusicologist Research On Christian Musics" A Paper Presented To *The SERSAS Fall Conference*. Savannah G.A. October 15-16, 1999.

Annotation

An article on the genre of gospel music in Kenya, focusing on the outcomes of the interface between indigenous Kenyan music systems and contemporary performance and compositional models that have shaped the genre. Advances the concept of indigenous Kenyan musicianship and defines it as being different from the West. The emergence of contemporary Kenyan musicians and musicianship as a product of the traditional systems interacting with other systems.

Profile of Key Concepts

1. Polyphony/Polyrhythm

- a) "Acknowledged and adopted other aspects of their cultural musicianship that included interlocking structures"

Article No.9

Digolo, B.A.O. (2003). "Indigenous Music and the Communication of Innovative Social Concerns; Synchronic Analysis of Selected Dodo and Nyatiti Songs in Siaya District, Kenya". Unpublished Ph.D Thesis, Kenyatta University.

Annotation

Analysis of selected songs in Siaya district, Kenya for study as media for communicating messages among members of the rural community. An ethnomusicological study of indigenous music with a view of music-as-communication.

Profile of Key Concepts

1. Call and response

- a) "The *dodo* songs for instance are structurally based on call and response pattern that alternates between the soloist and the chorus".
- b) "The second category where the *nyatiti* performer sings the lead part while assisted by a chorus for the response sections, is generally associated with less serious contents".

2. Monophony

- a) "The *nyatiti* melodies under analysis portray various styles of performance. The most outstanding one being where the performer sings alone without an assisting chorus".

Article No.10

Nyakiti, C.O. (2004). *Music Traditions of the Suba*. Kisumu: Lake Publishers and Enterprises Ltd.

Annotation

A geographical Definition of Suba District of Kenya, its people groups, culture and music traditions. An ethnomusicological view of Suba music.

Profile of Key Concepts

1. Call and response

- a) "The people of Suba district have musics which are organized. They employ solo and response..."
- b) "The most common style of singing is that of call and responsorial one in which a soloist plays a leading role as the rest of the performers provide the response. The call-responsorial songs are in various categories".
- c) "The first one is the question answer category in which the soloist sings a part, which sounds incomplete and the response sections sing the complementary section. The soloist thus plays the question role as the chorus does the answering one".
- d) "The second category is where the soloist sings out a complete phrase, which is taken over by the response to restate it. Here the response emphasizes or reinforces the message given by the call".
- e) "In accompanied songs the instruments sometimes imitate the voice. The two sometimes exchange roles antiphonally in an organized manner".

f)“The third form of call–response resembles that of question answer though it differs in that the call comes in with the next phrase a few measures earlier than the end of the response”.

Article No.11

Omolo-Ongati, R, A. (2005) “Performance Practices of Traditional Musical Genres in Contemporary Kenya: The Case of the Orutu” In Akuno et al, (eds) *East Africa Journal of Music*. Issue no1, pp.12-23. Nairobi: Department of Music and Dance, Kenyatta University.

Annotation

An analysis of *orutu* Luo music genre to determine its content and performance context in the contemporary setting. Syncretic (Afro-fusion) approach to the practice of traditional music genres.

Profile of Key Concepts

1. Call and response

- a) “The players of *ong’engo* and *sanduk* doubled as responders to the solo’s call in a call-response form or follower of the leaders call”.
- b) “This exhibited a heterogeneous texture where the response overlaps the call”.
- c) “*Orutu* instrument sometimes took the solo line, but it also responded to the vocal solo call”.

Article no. 12

Miya, F. (2005). “Educational Content in Kenya Performing Arts: The Case of Isukuti Performing Arts” in Akuno et al (eds) *Refocusing Indigenous Music in Music Education*. Pp.80-94. Nairobi: Department of Music and Dance, Kenyatta University.

Annotation

Scrutinizes the music with reference to cultural practices and philosophical underpinnings of the *Isukha* community of western Kenya. Provides a theoretical framework on the use of performing arts in educational settings.

Profile of Key Concepts

1. Call and response

- a) "The singers are attentive to the soloists section so that they can respond to the soloists call, especially to changes in text or melody".

Article No.13

Njooora, T.K. (2005). "Indigenous Music: Our Critical Social, and Intellectual and Emotional Connections to Humanity and Education" *In East African Journal of Music*. Akuno et al (eds). Issue no.1. Pp.39-44. Nairobi: Department of Music and Dance, Kenyatta University.

Annotation

Discusses musical life of any society around social, intellectual and emotional paradigms. Examines indigenous music in the context of world music. Provides advocacy for multi-ethnic music. A utilitarian view of indigenous music.

Profile of Key Concepts

1. Call and response

- a) "...the use of call and response patterns whereby a chorus repeats what a lead singer performs, while he/she has more freedom to improvise".

Article No. 14

Njooora, T.K (2005) "Music Composition and its Awesome Responsibilities: Some Hard Issues That Frame 'Creativity' and 'Output' in *Refocusing Indigenous Music in Music Education*. Akuno et al (eds) pp.59-62. Nairobi: Department of Music and Dance, Kenyatta University.

Annotation

A framework of thinking about music creativity for the East African region. The construction of personal space as a strategy for channelling a composer's creativity.

Profile of Key Concepts

1. Call and response

- a) "The melody is repeated several times partly to emphasize the 'call and response' singing style characteristic of the Embu people and partly consistent with repetitive mode, a feature consistent with many other communities in Kenya".
- b) "This is followed by an 'echo' effect played by the trumpets, suggesting early dawn-wake-up calls for the candidates".

Article No. 15

Pywell, J. (2005). "Composition: Order and Chaos. What's a European Composer Doing in Africa?" in Akuno et al (eds) *Refocusing Indigenous Music in Music Education*. Pp.50-57. Nairobi: Department of Music and Dance, Kenyatta, University.

Annotation

A Briton's description of his compositional work giving personal insight on the impact of living and working in Kenya. A comparative and cross cultural approach to music composition. Juxtaposes the concept of time in African (cyclic) and Western (linear) music, drawing out contrasts and how they affect his personal composition style.

Profile of Key Concepts

1. Call and response

- a) "The pianist is also required to respond to musical cues from the string section".

2. Cyclic

- a) "I have experimented with these African concepts in my compositions before: high energy cyclic forms in my *Sextet and Wind Instruments* (1994)".
- b) "An aural tradition that perceives cyclic forms and continuous time in a very different way to Western thinking".

3. Polyrhythm/Polyrhythm

- a) "Interlocking patterns in the clarinet quartet *Three Beginnings* (1996)".

Article No. 16

Wanyama, M.N. (2005). "How Not to Criticize, Analyse and Appreciate African Music, A Case Of Bukusu Music" in Akuno et al (eds) *Refocusing Indigenous Music in Music Education*. Pp.35-39. Nairobi: Department of Music and Dance, Kenyatta University.

Annotation

Provides a framework for analyzing African music and presents an analysis of Bukusu circumcision songs. Views African music as being a knowledge system complete in itself and not needing to use Western systems of analysis.

Profile of Key Concepts

1. Polyphony/Polyrhythm

a) "Out of the 12 songs, 11 (91.7 %) are characterized by full and or partial overlaps".

2. Monophony

a) "Except at overlapping points, eleven out of twelve songs are sung in unison".

b) "This characteristic is a proof of the fact that Bukusu circumcision music is largely performed in unison".

3. Parallelism

a) "Only one has a section performed in parallel thirds while addressing textual tonal inflection".

4. Call and response

a) "Out of the twelve songs analyzed, only one, representing 8.3 % features balanced solo-response phrases of one bar each".

b) "Most Bukusu circumcision music is built up of imbalanced solo and response phrases".

c) "All Bukusu music is based on the solo and response pattern".

5. Cyclic

- a) "The rest of the songs (66.7%) are based on one section that is repetitive".
- b) Wanyama argues that "in Bukusu circumcision music repetition with the aim of emphasizing the message in the songs is given more prominence than variation in terms of elaborate formal structure".

Table 4.1 presents key concepts collected from the 16 articles reviewed.

Table 4.1: Summary of Reviewed Key Concepts
(Source: Researcher)

Article	Author	Monophony	Polyphony/ Polyrhythm	Call and Response	Cyclic Pattern	Parallelism	Total
1.	Mundy (1984)	2	0	3	0	0	5
2.	Miller (1987)	1	0	3	0	0	4
3.	Wahome (1987)	2	0	3	0	0	5
4.	Senoga-Zake (1990)	1	5	2	1	1	10
5.	Hopton-Jones (1998)	1	0	0	0	0	1
6.	Akuno (1999)	0	0	4	0	0	4
7.	Miller (1999)	0	2	0	2	0	4
8.	Kidula (1999)	1	0	0	0	0	1
9.	Digolo (2003)	1	0	2	0	0	3
10.	Nyakiti (2004)	0	0	6	0	0	6
11.	Omolo-Ongati (2005)	0	0	3	0	0	3

Continued overleaf

Article	Author	Monophony	Polyphony/ Polyrhythm	Call and Response	Cyclic Pattern	Parallelism	Total
12.	Miya (2005)	0	0	1	0	0	1
13.	Njoora (2005)	0	0	1	0	0	1
14.	Njoora (2005)	0	0	2	0	0	2
15.	Pywell (2005)	0	1	1	2	0	4
16.	Wanyama (2005)	2	1	3	2	1	9
Total		12	9	34	7	2	63

The analysis is carried out to identify and determine the presence and frequency of key concepts. The data shows the number of key concepts all aligned with each of the 5 a priori coding categories as well as totals per article. Although the table shows that 63 pieces of data were collected, it needs to be pointed out that some of the key words fit into more than one category and therefore, the total number of entries is reflective of this overlap as shown in Table 4.2.

Table 4.2: Frequency of the Presence of Each Category

Category	No of Occurrences	% of Occurrences
Monophony	12	19.04%
Polyphony	9	14.28%
Call and Response	33	52.38%
Cyclic Pattern	7	11.11%
Parallelism	2	3.17%
Total	63	100%

Table 4.2 shows a summary overview of key concepts looking at the frequencies and percentage of total occurrences. It indicates that the call and response category recorded the highest percentage (52.38%) of key concepts occurring 33 times whereas parallelism registered the least amount of frequency with an occurrence of only 2 (3.17%). To test the significance of these figures, the number of times each category was a main focus of the 16 articles was recorded. The main focus area for each article was aligned with the coding category of the most recorded key concepts. In the event that more than one category had the same number of phrases, intellectual inferences were made to decide which category was paramount. The data once more showed patterns seen in Table 4.2. This information confirmed call and response as the most common structure mentioned in the 16 articles reviewed in the study. As a way to further synthesize this information, the 63 key concepts were once more examined in terms of the number of occurrences in a bid to establish a weighting pattern. Intellectual inferences regarding monophony, polyphony and parallelism categories were made, synthesizing them into one category. The justification for this is that all three are underlined by a vertical theme of arrangement of the lines of music. Through a process of comparison within the five categories, there was found to be overlap of structures and the 63 key concepts were reviewed resulting in identification of three overarching themes that contain the key concepts. The following are brief definitions of each of the overarching categories:

- Call and response: This category refers to a dialogue format of presentation of musical ideas;
- Cyclic: This refers to a format where musical ideas are repeated with or without variations ;
- Sound Layering: This category refers to any features that show one or more horizontal layers of music in terms of melody and/or rhythm.

Figure 4.1 is a Venn diagram showing the relationship between the 63 key concepts and the 3 overarching categories.

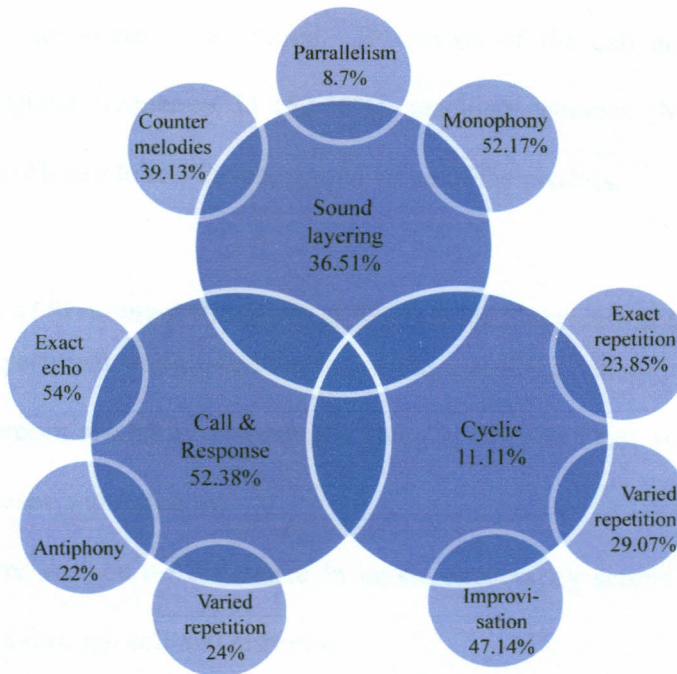


Figure 4.1: Relationship between 63 Key Concepts and 3 Overarching Categories

The different sizes of the circles represent the level of each category. Weight is represented by the category's percentage of the 63 key concepts. Percentages of the 3 overarching categories are also included. Each category's location is indicative of its relationship to the three overarching categories along the circumference of the respective circle. This Venn diagram shows the percentage of the 63 key concepts that fall into each overarching category. The size of the circles is reflective of these percentages but more importantly the circles show how three concepts: sound layering; call and response; and cyclic, do overlap. This factor was important in this study as it called to attention the nature of relationship amongst the three concepts and what it means in respect to indigenous Kenyan music. This is discussed in Chapter Five.

Based on the foregoing data presentation and analysis, the results show a) call and response, b) cyclic and c) sound layering as three overarching features upon which indigenous Kenyan music is structured. By reason of the call and response feature showing the highest frequency 33 (52.38%), teaching schemes (MES) based on the process were developed to test the pedagogic value of the process.

4.2. Suitability of Structural Processes as Models for Curriculum Design

A classroom experiment was carried out to test the use of the call and response structural process in classroom teaching. Hypotheses given in Chapter One: 10 were transformed into null hypotheses and stated as:

- a) Ho: There will be no difference in music expectancy scores after students are instructed through call and response;
- b) Ho: There will be no difference in music expectancy scores by gender after students are instructed through call and response;
- c) Ho: There will be no difference in music expectancy scores by region after students are instructed through call and response.

To test these hypotheses, evidence using statistical tools was gathered

Pre-test

A pre-test was administered to both the control and experimental groups prior to the implementation of the intervention program. This test consisted of three areas organized as: similarity test; rhythm pattern test; interval test. Additionally, the total number of test items in each of the three areas was: 4; 10; and 10 respectively. The pre-test was administered with a break in between the written and aural components. Both similarity and interval tests were completed on paper whereas the rhythm pattern test was completed by rote.

Scoring for the rhythm pattern test was therefore on the spot, the researcher entering each individual student's marks at the end of his/her response. Rhythm pattern and interval test responses were checked and scored after the entire exercise as these were in written form. All responses were scored by the researcher, each student earning 1 mark for each correct answer. In this way, the total possible score was 24 (100%) marks per student. Figure 4.2 is a frequency chart for correct answers given in the pre-test for the control group.

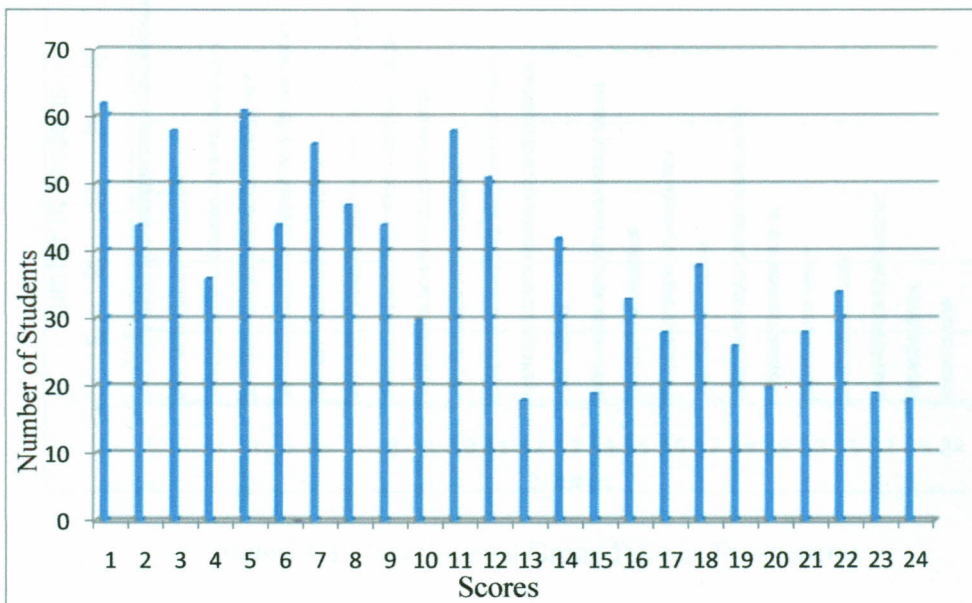


Figure 4.2: Control Group Pre-test Frequencies

The control group comprised 81 students. The data in Figure 4.2 is useful in showing the entering behaviour of subjects. The total number of correct scores obtained was 914 (43.77%). Question 1 had the highest number of correct responses of 62(2.96%) whereas questions 13 and 24 appear to have been the most difficult each having recorded only 18 correct scores (0.86%).

The experimental group comprised 87 students. In a similar pattern to the control group, question 1 recorded the highest number of correct responses of 68(3.49%) whereas question 13 seeming to prove difficult for this group as well, recorded only 14 (0.72%) correct scores. The total number of correct scores obtained by the experimental group was 916 (47.11%). Figure 4.3 is a frequency chart showing correct responses given by the experimental group.

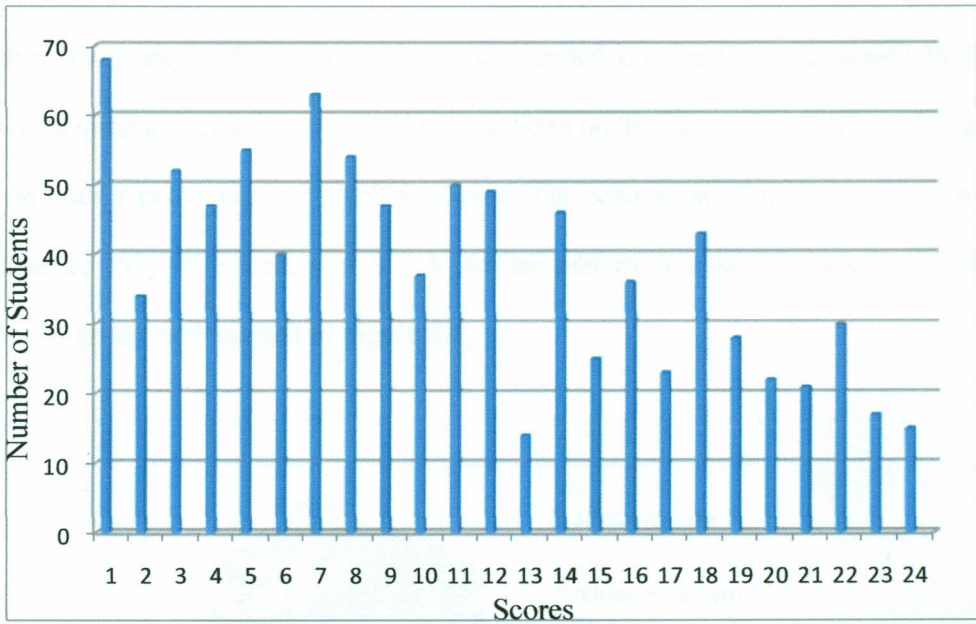


Figure 4.3: Experimental Group Pre-test Frequencies

The similarity in trends of performance on both question 1 and 13 gave a further indication to the researcher that the two groups had set off on the same footing with regard to their readiness for the study. Besides the overall performance, it was important to gain insight into the performance of both groups on the different test components. Figure 4.4 presents a pie chart showing percentages of correct answers as scored on the similarity, rhythm pattern and interval perception components.

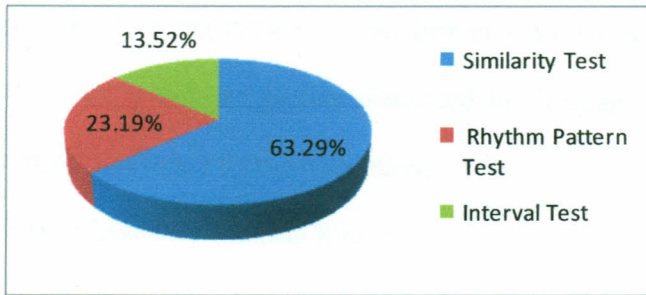


Figure 4.4: Control Group Pre-test Percentages of Correct Responses

The highest percentage of correct scores was recorded on questions pertaining to the perception of similarity relations (63.29%). Questions on the perception of intervals were the lowest with a percentage of 13.52% whereas the perception of rhythm pattern was recorded at 23.19% of correct scores. A similar pattern was seen in results for the experimental group as presented in Figure 4.5.

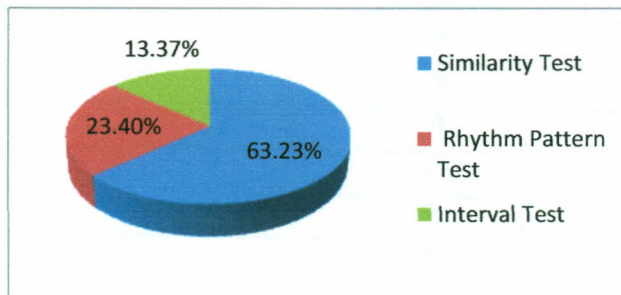


Figure 4.5: Experimental Group Pre-test Percentages of Correct Response

The highest percentage of correct scores was recorded on questions pertaining to the perception of similarity relations (63.29%). Questions on the perception of intervals recorded the lowest value of 13.37% whereas the perception of rhythm pattern was valued at 23.40% of the correct scores.

At this early stage, the emerging patterns of performance on the pre-test by both control and experimental group, which are further discussed in Chapter Five, began shedding light on certain conjectures made by the researcher.

Pos-test Scores in the Context of Pre-test Scores

The experimental group received instruction based on schemes developed on the structural processes of indigenous Kenyan music (see Appendix Three: 198-204). The control group received instruction through conventional approach. Table 4.3 is a comparison between pre-test and post-test frequencies of correct responses at the end of the experiment.

Table 4.3: Control Group Pre-test and Post-test Mean Scores

Question	Pre-test Scores	Post-test Scores
1	62	62
2	44	41
3	58	56
4	36	36
5	61	63
6	44	40
7	56	54
8	47	46
9	44	43
10	30	32
11	58	60
12	51	52
13	18	20
14	42	41
15	19	20
16	33	34
17	28	26
18	38	37
19	26	27

Continued overleaf

...Continued

Question	Pre-test Scores	Post-test Scores
20	20	21
21	28	30
22	34	33
23	19	18
24	18	19
Total	914	911

The pre-test mean score based on the above tally (914) was $\bar{x} = 38.08$ whereas that for the post-test (911) was $\bar{x} = 37.95$. On the whole, the difference in averages for both pre-test and post-test was $\bar{x} = 0.04$ and as such, seemed not to point to any statistic significance. Similarly, Table 4.4 below is a comparison between the pre-test and post-test frequencies of correct responses for the experimental group.

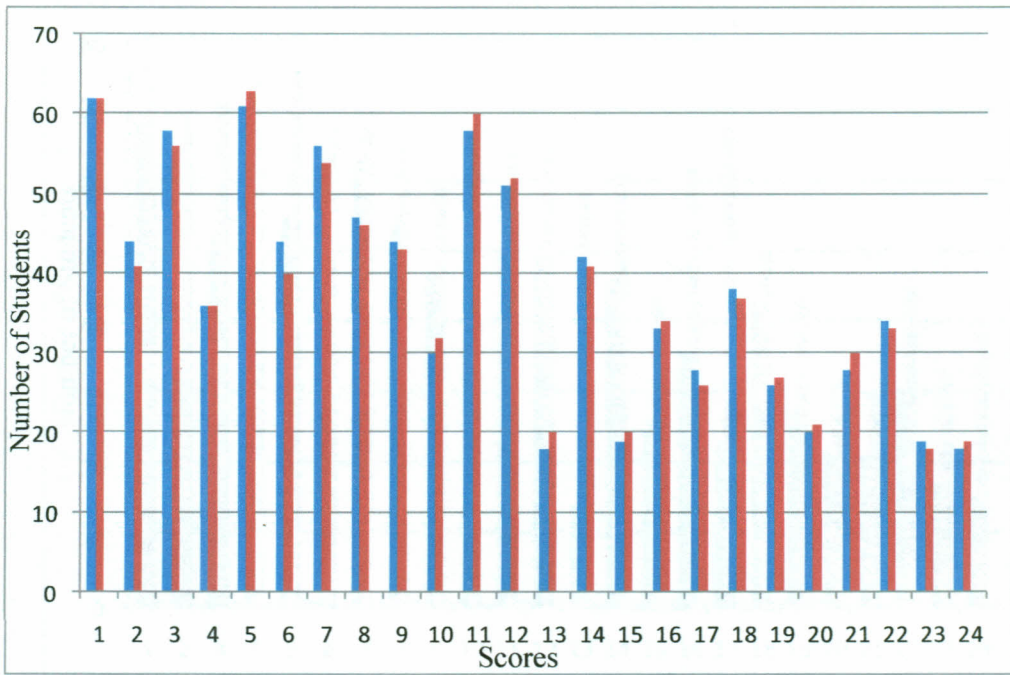
Table 4.4: Experimental Group Pre-test and Post-test Mean Scores

Question	Pre-test Scores	Post-test Scores
1	68	76
2	34	70
3	52	71
4	47	74
5	55	76
6	40	68
7	63	70
8	54	65
9	47	60
10	37	70
11	50	64

Continued overleaf

Question	Pre-test Scores	Post-test Scores
12	49	65
13	14	59
14	46	63
15	25	44
16	36	62
17	23	68
18	43	50
19	28	44
20	22	32
21	21	30
22	30	45
23	17	33
24	15	39
Total	916	1398

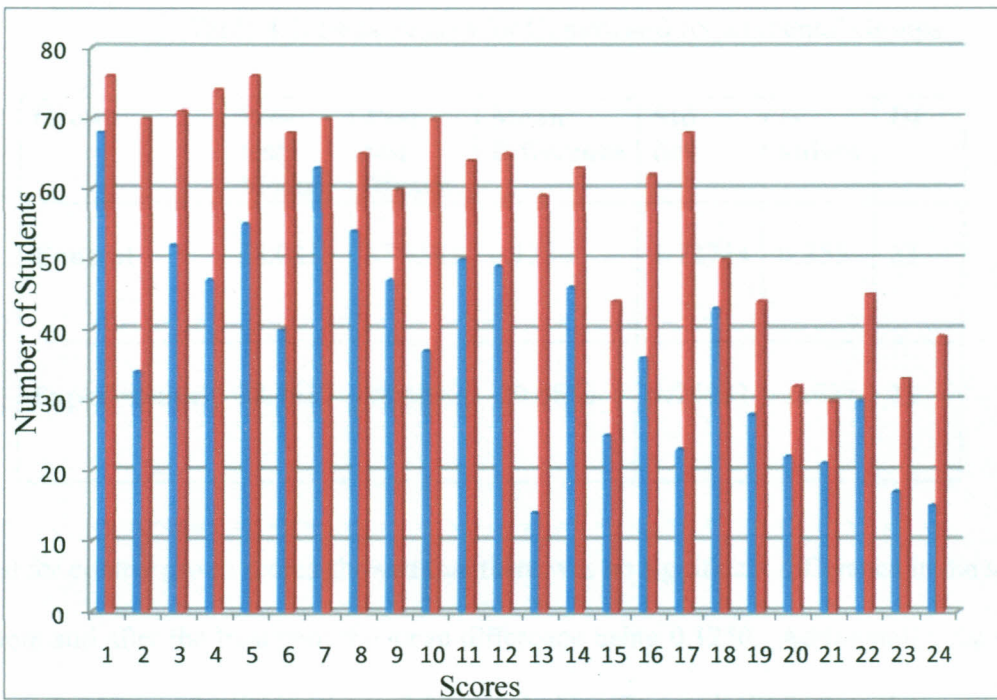
Table 4.4 above shows a marked difference in the sum totals of both pre-test (916) and post test (1398) scores. Consequently, whereas the average for the pre-test was $\bar{x} = 38.16$, that for the post-test was higher $\bar{x} = 58.25$. It was important to gain insight into how students performed on test items. Figure 4.6 below shows frequency charts combining both pre-test and post-test scores for the control group.



Key:
 Blue- Pre-test
 Red-Post-test

Figure 4.6: Pre-test and Post-test Frequencies for the Control Group

Figure 4.6 shows varying patterns with regard to correct responses. Questions one and four registered no change at all in the number of correct responses for both pre-test and post-test. There, however, were marginal increases of between one to three scores in pre-test responses for questions 5, 10, 11, 12, 13, 15, 16, 19, 20, 21 and 24. Decreases of between one to four scores were registered for questions 2, 3, 6, 7, 8, 9, 14, 17, 18, 22 and 23. The positive and negative fluctuations as noted earlier, were marginal.



Key:
 Blue- Pre-test
 Red-Post-test

Figure 4.7: Pre-test and Post-test Frequencies for the Experimental Group

Figure 4.7 shows that 24 (100%) questions all recorded post-test increases of varying degrees. Questions 2, 10, 17, and 13 registered the biggest increases, ranging between forty-five and thirty-three scores. What is phenomenal is the surge in correct responses for all questions for the experimental group.

Paired t- tests were carried out on both control and experimental group scores to further probe the significance of these results. The levels of confidence were set at 95%, the level of significance being $p < 0.05$. Table 4.5 shows t-test results for both groups.

Table 4.5: t-test Results for Control and Experimental Groups

Group	Pre-test Means	Post-test Means	Mean Difference	Std. dev	t-values	Df
Control	38.0833	37.9583	0.1250	1.72734	0.355	23
Experimental	38.1667	58.2500	-20.0883	2.24973	-8.927	23

Test for control group scores showed that there was no significant difference in the scores before and after the treatment the mean difference being 0.1250. Additionally, the value of $t = 0.355$ was less than the $p < 0.05$ threshold. The analysis further shows that the difference between the pre-test and post-test scores for the experimental group was -20.0883. The value of $t = 8.927$ was significant as it was above the $p < 0.05$ threshold. This evidence negates the first null hypothesis which stated that there would be no difference in music expectancy scores after students are instructed through call and response.

Having established the significance in the effect of the treatment upon the experimental group, the study focused on the second hypothesis of the study stated in the null form as:

Ho: There will be no difference in music expectancy scores by gender after students are instructed through call and response.

It was important to first gain insight into the entry behaviours of both boys and girls.

Table 4.6 shows results of the analysis.

Table 4.6: Experimental Group Mean Distributions by Gender

Gender	Pre-test Mean Distribution	Post-test Mean Distribution
Boys	24.125 ± 2.35	35.58 ± 2.68
Girls	13.92 ± 1.5	22.08 ± 1.56.

Table 4.6 shows that the distribution of scores for boys registered a higher mean of 24.125 ± 2.35 compared to the girls mean distribution of 13.92 ± 1.5 at the onset of the experiment. The post-test values present a similar comparison with values of 35.58 ± 2.68 and 22.08 ± 1.56 respectively. The test of significance was carried out to establish the extent to which the treatment was effective on gender. Table 4.7 shows the results.

Table 4.7: Treatment Effect on Gender

Gender	Pre-test means	Post-test means	Mean difference	Std. dev	t- values
Boys	24.1250	35.5833	-11.4583	1.67676	- 6.834
Girls	13.9167	22.0833	- 8.1667	8.11690	-4.929

The level of effect of the treatment upon boys was valued at $t = 6.834$ whereas that upon girls was lower, valued at $t = 4.929$. A shift in boys scores from a mean distribution of 24.125 ± 2.35 to 35.58 ± 2.68 was noted whereas that for girls was indicated by a shift from 13.92 ± 1.56 to 22.08 ± 1.56 . The small standard deviation for boys scores (1.67676) indicated that scores were close together.

There however, was variability in girls' scores as evidenced by the large standard deviation (8.11690), implying that scores were spread out. The test of significant was carried out between results for boys and girls. Table 4.8 shows the results.

Table 4.8: Significance of Gender Difference

Gender	Mean	Std. dev	t- value
Boys	11.04	3.32	2.15
Girls	7.83	6.60	

The difference in the scores of boys and girls was valued at $t = 2.15$. The t value was above the 0.05 threshold and hence significant. This statistic rejects the null hypothesis. Consequently, the call and response instruction method had a different effect on boys and girls.

Results for urban and rural regions were analysed to test the third hypothesis stated in the null form as:

Ho: There will be no difference in music expectancy scores by region after students are instructed through call and response

Table 4.9. shows findings of the treatment interaction by region.

Table 4.9: Experimental Group Mean Distribution by Region

Region	Pre-test Mean Distribution	Post-test Mean Distribution
Rural	23.21 ± 2.49	32.46 ± 2.36
Urban	14.79 ± 1.49	25.33 ± 1.37

Table 4.9 shows that the distribution of scores for the rural region registered a higher mean distribution of 23.21 ± 2.49 compared to the urban 14.79 ± 1.49 distribution at the onset of the experiment. The post-test values present a similar comparison with mean distribution values of 32.46 ± 2.36 and 25.33 ± 1.37 respectively. The analysis of the results significance is presented in Table 4.10.

Table 4.10: Treatment Effect by Region

Region	Pre-test Means	Post-test Means	Mean Difference	Std. dev	t-values
Rural	23.2083	32.4583	-9.2500	13.32509	-6.054
Urban	14.7917	25.3333	-10.5417	7.48477	-10.883

The analysis shows significance valued at $t = 6.054$ for the rural group and $t=10.883$ for the urban group. Both groups registered high standard deviations of 13.32509 (rural region) and 7.484779 (urban region). This indicated to the researcher that scores for both groups were spread out (variability). Table 4.11 below shows results from the test of significance of this difference.

Table 4.11: Significance of Regional Difference

Region	Mean	Std. dev	t- value
Rural	9.25	5.36	0.82
Urban	10.50	7.04	

Table 4.11 shows that the significance of the difference between rural and urban regions was valued at $t= 0.85$. This was found to be lower than the level of significance set at 0.05 hence upholding the null hypothesis.

The finding therefore disapproved the researcher’s conjecture which maintained that the difference brought about in music expectancy scores of rural and urban schools as a result of the call and response method was a significant one. Although the study never set out to find out how the treatment interacted with the perception of a) similarity relations b) rhythm pattern and c) interval, supplementary data emerging from this study could not be overlooked. Table 4.12 presents results by similarity relations perception.

Table 4.12: Analysis of Students’ Mean Scores on Similarity Relations

		Pre-test Group	Post-test Group	t-values
Gender	Boys	26.25	39.50	7.55
	Girls	25.00	33.25	1.301
Region	Urban	26.00	34.25	3.552
	Rural	23.25	36.75	4.251

Results show that boys have a higher significance value ($t=7.55$) than the girls ($t=1.301$) in the perception of similarity relations. In the same vein, the rural region registers a higher significance value ($t=4.251$) than the urban region ($t=3.552$).

Table 4.13: Analysis of Students’ Mean Scores on Rhythm Perception

		Pre-test Group.	Post-test Group.	t-values	df
Gender	Boys	33.5	47.7	4.399	9
	Girls	11.7	17.9	2.447	9
Region	Urban	12.3	25.3	3.478	9
	Rural	33.2	42.4	7.098	9

The perception of rhythm shows a higher significance value for boys ($t= 4.399$) as compared to girls ($t= 2.447$). Additionally, results from the rural region show a higher value ($t=7.098$) than the results from the urban region ($t= 3.478$).

Table 4.14: Analysis of Students' Mean Scores on Tone Perception

		Pre-test Group	Post-test Group	t- values	df
Gender	Boys	14.30	21.90	4.053	9
	Girls	11.70	21.80	4.922	9
Region	Urban	12.80	23.50	7.344	9
	Rural	13.20	20.80	3.443	9

Patterns of tone perception indicate that the level of significance was slightly higher in girls ($t=4.922$) compared to boys ($t= 4.053$). Further, regional differences show that the urban results ($t=7.344$) were higher than results of their rural counterpart ($t=3.443$). Observations made on indigenous Kenyan music processes together with those from the experiment are discussed in detail in the next chapter.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0. Introduction

This section discusses the findings of Chapter Four based on the objectives of the study. The discussions are organized into two levels, with the initial level of discussions directed to the first and second objectives. The study first set out to investigate and articulate the inherent processes of indigenous Kenyan music. Findings from annotations of the content analysis are discussed in the context of the theoretical framework together with related literature. The second objective intended to assess the suitability of these processes as models of curriculum design and implementation. Findings from the experiment are similarly discussed within the theories and conceptual framework of this study as well as findings from previous related studies. The second level of discussions addresses the third objective of the study which set out to find out how a method for teaching indigenous Kenyan music can be developed. These discussions are anchored within the theoretical framework as outlined in Chapter Two: 45-54.

5.1. Structural Processes of Indigenous Kenyan Music

The purpose of content analysis was to determine what structures are found in indigenous Kenyan music and establish existing conceptual relationships as they relate to the given structures. The findings in Chapter Four confirmed the processes and structures inherent in indigenous Kenyan music findings as manifested in 63 key concepts identified in the literature review. Notably some of the phrases fitted into one or more of the five categories culminating in significant overlap (see Table 4.1: 94).

Merriam (1964) implies that the analytical and logical mind-set of a culture can be seen in its music. Overlaps in the 63 key concepts found under the five categories uphold Merriam's view in as far as the analytical mind-set principle that underlies African music and practice is concerned. Further, in drawing out the conceptual relationships of the key concepts and the overlapping themes, there was found to be a tendency towards seamlessness. The final level of analysis which synthesized key concepts under the themes of monophony, parallelism and polyphony showed how these distinct features found a point of convergence under the theme of sound layering (one of the three overarching themes). Additionally, the Venn diagram (see Figure. 4.1: 97) shows that the three big circles in themselves similarly showed overlapping regions. On the whole, the holistic principle is demonstrated in the way the smaller nine circles all find commonality in each of the three overarching themes. The three overarching categories that emerged through a process of synthesis were a) 'call and response', b) 'sound layering' and c) 'cyclic patterns'. These were further weighted as follows: call and response (52.38%); 'sound layering' (36.51%); and 'cyclic pattern' (11.11%). Results of the synthesis process saw 'monophony' and 'polyphony' merge into the 'sound layering' category. It is interesting to note that weighting for the 'cyclic' pattern (11.11%) was maintained as per earlier results (compare Table 4.2: 95 and Figure 4.1: 97).

Findings showed that these key concepts had their highest frequency (33; 52.38%) within the 'call and response' structure. In other words, more than half of the 63 key concepts reflected this structure. The weighting of 'call and response' represented by more than 50% of key concepts corroborates documentation which highlights this structure as a characteristic feature of indigenous Kenyan music (Wanyama, 2005; Mindoti, 2005; Miya, 2005).

A discussion on the weighting of the key concepts under the 'call and response' structure is useful in providing insight. The larger representation seemed to fall under 'exact echo' (54%) compared to 22% and 24% reflecting 'antiphony' and 'varied repetition' respectively. The more than half of the percentage taken by 'exact echo' (54%) resonates with documentation on indigenous Kenyan music which uses the descriptor 'repetition' to describe the music (Oyer, 1987). This, however, raises the question as to why the term 'repetition' was not simply adapted instead of 'exact echo'. Although the descriptor 'repetition' kept on emerging in the literature review as a characteristic feature of indigenous Kenyan music, this by itself does not provide sufficient grounds to raise the label to a conceptual level since 'repetition' is a universal feature of music-making and would need further characterization as an indigenous Kenyan music feature. There is need to attend to certain nuances that give clarity to such characterization. The nature of such repetition becomes helpful in guiding this character as it occurs in indigenous Kenyan music. 'Exact echo' as captured in 'call and response' illustrates a dialogue format that easily finds expression in Kenyan communities as reflected by the 54% weighting.

The descriptors of 'echo' and 'imitative patterns' emerged out of children's songs as modes of music presentation. An initial impression suggested that they are structurally the same. This is partly true if 'echo' is clarified as an exact rendition of a previous section. Key concepts, however, showed that some such renditions were slightly varied or elaborate using some of the material of the previous section. In such cases, the structure was no longer referred to simply as 'echo' but rather as 'varied repetition'. It is further necessary to differentiate 'exact echo' from the descriptor 'antiphony'.

This group of concepts constituted 22% of the total 'call and response' key concepts. The descriptor, 'short phrases with chorus repeating the solo' presents another character consistent with the ethos of 'call and response'. The notion of two forces of performers (solo and chorus) that are in some sort of interaction provides a point of focus in discussion.

Literature on choral music performed in weddings and funerals in the documentary study was characterized to be in formats described as 'parts alternating between the solo music and response'. This seemed to be a broad label that contained a number of descriptors such as: 'short phrases with chorus repeating the solo'; 'chorus answering the solo with new material'. Such a format was captured in children's songs as a dialogue format. The antecedent of this format was not limited to 'solo.' An additional descriptor 'choral singing done in groups of antiphony', suggests a dialogue format, yet one that can be delivered between single and many voices or between two alternate groups of singers. This discussion adopts the label 'call' to refer to the antecedent so as to be all inclusive. This becomes helpful in clarifying colourful descriptors that were encountered in the content analysis such as, 'unleash the song', 'send the song' and 'bring the spirit'. This further explains the occurrence of formats with multiple soloists as well as simultaneous calls. The spirit of the consequent is colourfully captured from the content analysis in phrases such as 'catch the song', 'love it' and 'agree with it'.

The antecedent and the consequent are the major elements that constitute the 'call and response' format. These elements were found to interact in other ways besides 'exact repetition' and 'varied repetition'. Some documents presented short calls answered by relatively longer responses.

Few scores of children's songs showed symmetry where the phrases are of equal length. Literature on ritual music presented short incoherent phrases with chants and mutterings by the leader while the rest of the participants responded in brief responsorial fragments. Documentation on celebratory choral singing such as in weddings (Miya, 2005) provides an additional understanding to the call and response format.

The overarching structure with the second highest occurrence of key concepts was 'sound layering' with a frequency of 36.51%. The constituent processes were as follows: a) monophony (52.17%); b) counter melodies (39.13%); and c) parallelism (8.7%). Content analysis identified 'monophony' as being made up of single line music which includes solo courtship songs and solo recitations in the form of dirges. 'Counter melodies' were described as two or more intersecting tunes. In some instances, more than two independent melodies were encountered to simultaneously thicken the texture. Additions of ululations, chanting, guttural sounds in repetitive fashion, drones as well as instrumental accompaniment further expanded on how sound is organized in indigenous Kenyan music. These contributed to the different layers identifiable in the music. 'Parallelism' described structures that consisted of two or more phrases that unfolded vertically in relation to each other.

It may have seemed rational to differentiate 'monophony' from 'counter melodies' and 'parallelism'. In doing this, the descriptor 'polyphony' could have provided a possible way of conceptualizing 'counter melodies' and 'parallelism'. This would not have captured the understanding of a musical process that proceeds from one to more layers. This conceptualization was necessary as it provided a vertical dimension of indigenous Kenyan music processes.

Further, the descriptor 'polyphony' was found to be inadequate as it is silent on the rhythmic element. Rhythms from movements such as a) the rocking of a baby, b) activities accompanying children's singing games as well as c) dances accompanying fully fledged dances from other song categories interact with the rhythm of these songs to create a layering and interlocking of rhythms. Kidula (1999: 10) observes:

...some of the movements are part of the musical structure in that whether it sounds or not, it interlocks with the sounds from singers and instruments to initiate complete musical phrases.

Such layering was viewed as another way that texture is thickened and hence the vertical component of indigenous Kenyan music further explained. The term 'polyrhythm' was encountered during the content analysis with regard to this feature. Since both the notions of 'polyphony' and 'polyrhythm' basically make reference to the texture, they are here merged to reflect the concept of layering musical sound upon sound. The term 'sound layering' is derived in this discussion to refer to this as a concept of the structural process of indigenous Kenyan music. Further examples of 'sound layering' are possible through the addition of musical instruments as well as word interpolations.

There is need to clarify the unison so as to distinguish between the 'countermelodies/parallelism' and 'monophonic' labels. The unison when performed with two or more voices at the same octave remains single line. When another medium of music production such as instruments, and guttural drones and even harmony are added, it takes on a characteristic of 'either 'parallelism' or 'countermelodies'.

The third and final overarching structure was the 'cyclic' pattern with a frequency of 11.11%. The label 'cyclic' was taken to represent a dimension of layers or phases that grow from one point, building up to proportions that vary from one presentation to another. It needs to be mentioned that both 'call and response' and 'sound layered' modes of presentation presented an aspect of repetition. Phrases from the content analysis such as a) 'singing is repeated over and over', b) 'repetition of key words', c) 'repeated gestures', d) 'repetitive chanting of short phrases', and e) 'goes round and round', are all reducible to the principle of repetition which carries with it the notion of continuity. Growth rather than stagnancy was the way of separating the 'cyclic' mode from these others. This is corroborated by the 47.14% of the key concepts that reflected the term/concept 'improvisation'.

The totality of these three overarching structures of indigenous Kenyan music parallels structures in the Concentric Circle Learning Model (see Figure 2.2: 51). These structures, identified as learning pathways, are clarified as a) horizontal, b) vertical, and c) cyclic paths. Interestingly, these pathways have a basis in contemporary education, in the context of modes of cognitive processes during learning (Brunner, 1960). Since these universals were found to be embedded in indigenous Kenyan music processes, the study confirms these processes as bearing the potential of facilitating breadth, depth and mastery in music education.

5.2. Suitability of Structural Processes as Models for Curriculum Design

The results in Chapter Four indicate that indigenous Kenyan music structures are suitable as models for contemporary music education.

Additionally, statistical evidence from the experiment showed that post-test scores for the experimental group (instructed through a method based on these structures) were significantly higher than the pre-test scores after the intervention. Post-test scores for the control group did not show any significant change. This led to the rejection of the first and second null hypotheses having been stated as:

- a) *Ho*: There will be no difference in music expectancy scores after students are instructed through call and response;
- b) *Ho*: There will be no difference in music expectancy scores by gender after students are instructed through call and response;

Contrariwise, the experimental results upheld the third hypothesis having been stated as:

- c) *Ho*: There will be no difference in music expectancy scores by region after students are instructed through call and response;

The study concluded that the experimental manipulation had a significant effect hereafter becoming the subject of discussion. The surge in correct responses for all the questions was notable (see Figure 4.7: 106). The rejection of the null hypothesis upheld the conjecture that processes in indigenous Kenyan music were suitable for didactic purposes. This resonates with studies that have been carried out regarding African music resources as pedagogic tools (Akuno, 1997; Mans, 2000; Njoora; 2000, among others).

Despite the greater focus having been on the final results of the test of significance of the treatment, findings of the pre-test confirmed the validity of the study sample. Results of correct responses showed 914 (43.77%) for the control group (n=81) and 916 (47.11%) for the experimental group (n=87). Additionally, performance on the three components of the test shows the same pattern for both the control and experimental groups. On the perception of similarity relations, both groups had a score of 63.29%.

Rhythm perception questions registered the lowest scores of 13.52% and 13.37% respectively. Finally, scores for interval perception were recorded as 23.52% and 23.40% respectively. This shows that the entering behaviour of both groups was at par and that no one group had an advantage over the other at the beginning of the study. Findings are, therefore, valid and generalizable to the rest of the population.

Results of both post-test and pre-test registered variability in subjects' performance in the three components of the tests namely a) similarity relations, b) rhythm and c) interval. It was interesting to note that students perceived best when similarity relations were presented. The percentage of correct scores for both the control and experimental groups (see Figures 4.4 and 4.5: 101) showed a) similarity relations, 63.29% for both groups; b) rhythm, 23.19% and 23.40% respectively; and c) interval, 13.52% and 13.37% respectively. The question as to why scores of similarity relations were highest was a provoking one. The answer lies in the fact that similarity relations presented phrases/motifs that can be referred to as 'real'/concrete music while the rhythm and interval tests just had fragments that were obviously tests (see Appendices Five and Six: 206-208). Students most likely related to music material, and in their culture, they recognized music as a gestalt of interval and rhythm. In the same vein, Curwen pedagogy (Zinar, 1983) bases sight reading on phrases from known music to help with identification. Real music is used since the exercise of skill development is to assist in music-making. Additionally, Akuno (2005) mentions musical understanding as gaining meaning in the presence of music stimulus. The similarity relation therefore, occurred as a consequent of musical understanding. Subsequently, students recorded the heard phrase and could distinguish it from others and state to what degree they were related.

The educational principle being upheld by these findings is the need for holistic approaches to music education, whereby the development of perception is based on coherent musical patterns rather than isolated concepts whose methods of instruction tend towards abstraction. The results also confirm patterns of instruction in secondary schools in Kenya whereby rhythm is presented before the tonal aspects of music. It is notable that students' scores were highest when activities that combined both rhythm and melody in the form of similarity relations were presented. This is not strange in as far as African music is concerned. The tendency to handle learning and instruction upon coherent musical structures points to a holistic approach that is characteristic of the way African music is transacted. In line with this, Mushira (2005) suggests musical expectancy as a paradigm for curriculum development. This is based on having music as the central pedagogic tool, music being clarified as tonal and temporal elements (Akuno, 1997; 2005).

Such findings of notable differences in music perception among students in Kenya seem to depart from the principle of holistic music-making in the African music. One would have not expected there to be such a significant demonstration of differentiation in the discrimination of rhythm and interval akin to the Western classical patterns of perception. This is because the African experience does not break down music along the elements of rhythm and tone perception but rather works with fragments of music/ song patterns. The pattern in the experiment's preliminary results is telling of the way in which secondary school students in Kenya are trained. Kidula (1999) speaks of a Kenyan musicianship where rhythm, melody, harmony and dance are inseparable components in the construction of musical phrases and that even when these are 'silent', musicians mentally imagine the music that enhances holistic perception.

This expectation was encountered only in as far as results on the perception of similarity relations was concerned, confirming that learning is optimal when activities involve actual music-making. The differentiation between the performance on rhythm and interval related questions points to an experience of the Western classical pedagogy. One way of doing this is in adapting the Kenyan way of conceptualizing music as a portion of the bigger whole. Plate 5.1 captured a section of students in the experimental group having a holistic experience of music education.



Plate 5.1: Students experiencing musical concepts within a performance matrix

The overall effect of using call and response method is reported to have had a bigger impact on boys (6.834) than girls (4.929). The test of significance, further, showed that this difference is notable, the t value being 2.14 (above the threshold of significance). It is interesting to note that the lower performance of girls in comparison to that of boys contradicts classroom findings outside Africa where studies indicate that singing activities are female stereotypes (Hanley, 1998). In carrying out the MES trial whose medium of engagement was song, high levels of enthusiasm in both the rural and urban boys schools was observed.

This is explained by the fact that like Senoga-Zake (1990), Akuno (2005) observes that Kenya has a song tradition. Song, therefore, is not a domain of some and not others. One interesting point was the spontaneous clapping and stamping of feet as well as slight body movements witnessed from the boys during instruction. This indicated to the researcher the significance of other musical arts which students were naturally imagining as being part of their musical world besides the singing. Such musical arts are inferred here as dance and musical instruments.



Plate 5.2: Students clap hands, click fingers as they dance during classroom tasks

The use of song in the task design of classroom activities seems to have created a performance-based learning environment that provided a holistic music experience for learners to replay an authentic learning environment for this music, where skills and concepts are assimilated during music-making activities.

In comparing the achievement of boys and girls in the Kenya Certificate of Secondary Education Examinations from 1991 to 1995, Agak (2002) found that girls had statistically higher means compared to boys in music practicals, a component of the exam. The study did not find any statistically significant difference in music theory. Findings of Chapter Four (based on aural perception, an aspect tested in the national exams) deviate from Agak (ibid) where boys registered a higher level of significance (7.555) than girls (1.301) in the perception of similarity relations. However, results for rhythm pattern perception (boys, 4.399; girls, 2.447) are not significantly different. So are those for tone perception (boys, 4.053; girls, 4.922). Reasons for deviation may be related to the fact that the study at hand focuses on one music genre (indigenous Kenyan music) whereas findings in Agak (op.cit.) are based on the content of the syllabus, which is quite pro-Western.

The manner in which boys and girls responded to the method is found to be consistent with the conceptual framework, (see Figure 2.2: 51) which related the gender variable to music expectancy development. In a related observation, Agak (op.cit.) points out that stereotyped practices in music education evolved from specific cultural needs in Kenya which are currently largely irrelevant. In reference to the use of specific media, the scholar proposes that boys and girls today should all learn to play instruments of their own choice and abilities. This is in concurrence with contemporary educational principles. Studies have shown that girls and boys engage in different activities within the same lesson (Chege, 2006). These studies indicate that gendered identities are constantly constructed and deconstructed/negotiated within the classroom and that these identities and classroom practices are influenced by what is within and outside the immediate walls of the classroom.

Based on this, there is need for music educators to be proactive in recognizing that such music stereotypes may even limit the learning experience and therefore the need to be strategic. It needs to be mentioned that such differentiation is slowly beginning to be addressed at the curriculum development level. Mushira (2007: 60) observes that:

Formal music education is in a position of redressing this problem...As part of the process of monitoring the current school curriculum, the Kenya Institute of Education initiated activities in 2002, aimed at the development of classroom material. The fourth and final phase has since then been completed. One notable achievement is the inclusion of gender sensitivity as criterion in book evaluation.

The development of a method for secondary schools in Kenya takes into account the fact that music in the classroom unavoidably illuminates gender. For adolescents whose identity is in formative stages, the development of classroom strategies embraces the engendering of learning material/media as a strategy. One question that arises with regard to classroom planning is “How can music stereotypes be masked?” The development of a classroom method addresses this in identifying existing cultural norms in respect to the media in use as well as what must be de-emphasized when instruments are brought into the classroom. A further study needs to be carried out to establish exactly what it is about classroom activities in the MES that brought this differentiation. Such a study would meaningfully synthesize the findings with Agak (2002).

On the whole, Pre-test and post-test findings showed no differentiation between urban and rural schools. The conjecture held by the researcher was therefore nullified. Similarly, this finding was not compatible with the conceptual framework of this study. It had been projected that the performance of learners in the rural areas would be significantly different from that of their counterparts in the urban region. A closer scrutiny, however, showed differentiation with regard only to rhythm perception.

This is consistent with the socio-cultural theory (see Chapter Two: 45) which maintains that learners are socialized into an ongoing social system and are impacted by its culture at various stages of their musical development. The concretization of this finding lies in the predominant music environments from which the two groups come. Western Province is an environment immersed in *isukuti* music whose constant throb provides an environment for learners to absorb and be highly sensitive to rhythmic aspects of the music. Furthermore, student activities such as music and drama festivals are identified as contributing to a rich learning environment. Nairobi Province, on the other hand, is a cosmopolitan environment whose musical traditions are highly syncretic, being a fusion of indigenous and contemporary music, therefore, presenting an environment of modified rhythmic idioms.

5.3. Development of an Approach for Secondary Schools in Kenya

The learning sequence, undergirding this study is a six-part process unfolding as: imitation-experience-exploration-assimilation-improvisation-literacy. It is this process that provided the basis for developing the experimental treatment (see Appendix Three: 198-204). The essence of the learning sequence is based upon the call and response principle as reflected in the CCLP model (see Chapter Two: 51). This six-part learning process spreads across the three circles with two consecutive steps of the sequence being accommodated on each circle. This organization takes into consideration the fact that learning constantly revisits previous stages and that movement from one dimension to the next is gradual (Brunner, 1960). Consequently, each circle is seen as consisting of two equal halves within which each pair of the sequence steps unfolds. Additionally, distribution on each circle is done upon the left and right semi-circles respectively.

At the initial 'call', learners respond by imitation of the music as modelled by the teacher. This may be in the form of singing, playing or dancing to certain portions of the music. Learning at this step of the sequence is sensitive to the basic music elements of rhythm and pitch. Similarly, imitation simultaneously engages learning in an experience of the basic elements of music namely, rhythm and pitch. This gradually moves into the second half of the circle whereby this experience enters into its fullness with the learner becoming sensitive to other elements of music such as harmony, texture, structure and amplitude, among others.

Learning enters into an initial stage of exploration on the second circle where activities are conceived towards the discovery of musical ideas. It is at this step that learners are able to perceive patterns as well as relationships of such patterns within the context of the music. This aspect of analysis is what facilitates the internalization of concepts in a process referred to in the sequence as assimilation, which takes place on the right side of the second circle. Having earlier acquired the requisite knowledge and skills, learning enters into a creative phase on the third circle. The process/ step of improvisation takes place on the left side of the circle and is realized in learners freely expressing their musicianship. Due to the need to document products of learners' creative activities, literacy is sequenced to take place on the right side of the third circle. In this way learning is given the opportunity to review the products of improvisation so as to enhance them.

The experimental treatment (see Appendix Three: 198-204) was developed to reflect the learning sequence resulting in learning outcomes within the three different circles.

The task design constituted: a) experience of sound; b) rhythm exploration; c) pitch exploration; d) rhythm/ pitch synthesis; e) creative work; and f) literacy. The first two steps of the learning sequence (imitation and experience) constituted the first-circle activities and were reflected in the MES activities through the ‘experience of sound’ tasks. This entailed learners listening to songs presented by the teacher and imitating them. Through several experiences of trial and error, learners eventually sang back portions of the new songs accurately from memory. The third and fourth steps of the learning sequence (second-circle process) were facilitated by exploratory and synthesis tasks. This stage of the learning sequence advances exploration and assimilation leading to transfer of learning. Learners were required to explore both rhythm and pitch patterns (analysis) as well as recognize similarity relations in these patterns (synthesis). As subjects experimented with different rhythmic and tonal patterns, the researcher began to notice evidence of concept assimilation. Learners began to produce the beat of the songs as well as accurately clap the songs’ rhythm from memory. Furthermore, learners were able to match sounds from the song as well as discriminate sounds and identify intervals formed in the songs. This exploratory session ended with learners singing short coherent responses to selected phrases from the songs. Plate 5.3 below captured students experimenting with fragments of the song.

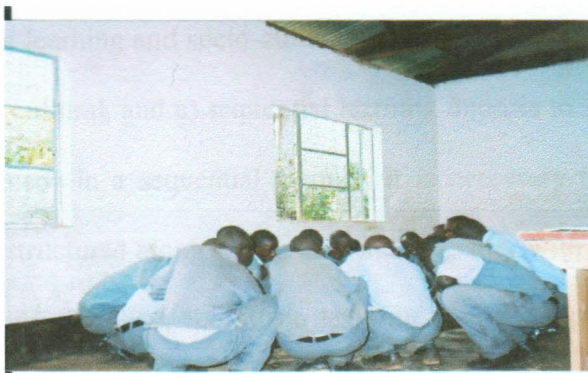


Plate 5.3: Students participating in exploratory tasks

Since it was necessary that learners consolidate concepts explored in previous tasks, MES required learners to undertake synthesis tasks at this point. In this regard, the researcher noted that learning outcomes included the discovery and recognition of similar rhythmic and melodic patterns. Learners also showed an understanding of the contour of the melody through relevant expressive body movements.

The final two steps of the learning sequence (third-circle process) were translated in MES task design as 'creative work' and 'literacy'. The underlying learning principle of these third-circle activities is musical creativity. The researcher observed that in response to MES tasks of this stage, learners invented rhythmic and melodic ostinatos as well as dance movements for accompanying the singing. The creative endeavour would have been lost were learners not enabled to record their inventions. The final part of MES, therefore, consisted of literacy. In line with the treatment at this stage, learners were able to read intervals in the treble clef as well as read simple rhythmic patterns. This culminated in them attempting to notate patterns created out of their previous creative activities.

How would such a method evolve into a music approach with respect to the theories used in this study? Music learning and socio-cultural theories as outlined in Chapter Two: 45 provide a) social, b) cultural, and c) sequential learning imports to such a method. Since music learning proceeds in a sequential manner, it is necessary that its instruction be facilitated by music structured along such a sequence together with the requisite teaching and learning tasks. In this way, the music learning theory would provide the overall guidance to the development of the method.

Furthermore, music instruction is a way of facilitating a form of enculturation and must, therefore, take place within a cultural context. This cultural import would be captured within the indigenous Kenyan music idiom. The overall adolescent experience is one that revolves around relationships and is best seen in music education whereby the dynamics of interdependence are constantly on display. It is this relational component that constitutes the social import of the socio-cultural theory. The method would have to be embedded in relationships whereby teaching and learning tasks are constructed around group-work. Individual activities would be supported and find expression within these corporate endeavours.

The CCLP model bears the notion of learning pathways, further providing guidance on the development of a classroom method. A comparison of these pathways with contemporary education principles of learning shows certain parallels. The linear pathway of music-making (referred to as 'repetition' in works of music) corresponds to the basic stage of encounter with concept. The vertical pathways ('layered' structure) on the other hand, parallels the acquisition of depth. The 'cyclic' notion offers a three dimensional journey in the learning experience that allows for a holistic development in musical creativity. Based on the foregoing results, one way of developing a formal method for secondary schools in Kenya is to take advantage of all these structures investigated in the study. This means the merging of these patterns into a superstructure that draws from indigenous Kenyan music processes. In this way, the development of a classroom method would be responding to learning pathways embedded in Kenyan music processes thus applying an approach that is close to the way music is made and experienced.

CHAPTER SIX

AN APPROACH FOR SECONDARY SCHOOLS IN KENYA

"It takes a whole village to educate a child"

African Proverb

6.0. Introduction

This chapter further addresses the third objective of the study whose aim was to find out how a method for teaching indigenous Kenyan music can be developed. Prompted by an earlier discussion on the necessity of a communication paradigm in the development of a classroom method (pedagogical practice), the chapter begins by articulating the structural theory of musical communication as developed in this study. It is upon the tenets of this theory together with a) music learning, b) socio-cultural and c) CCLP model that the statement of **Embedded Pathway Approach**, an instructional paradigm for formal music education in secondary schools in Kenya, is then made. The approach is accompanied with a curriculum organizing tool and an instructional method.

6.1. The Structural Theory of Musical Communication

Based upon literature review (see Chapter Two: 32-42), the structural theory of musical communication (hereafter referred to as STMC) is developed in this study to define music and musical communication in terms of sonic and non-sonic parameters. Music is viewed as information in the form of sound as well as the context or event for which the communication of such information is intended/ rendered. Since the unfolding of sonic aspects is what provides the design of musical information, communication is seen to take place through pathways/channels that depict such organization. The musical production is therefore seen as being undergirded with three embedded pathways namely: a) linear; b) vertical; and c) cyclic.

The pathways provide links that can be further clarified as facilitating a) breadth, b) depth and c) multisensory perception of musical content and meaning. The structural theory of musical communication views this communication as constituting facilitator and audience. Music is the central medium through which they communicate. 'Music-in-context' is a term developed in this study to capture different contexts through which the facilitator and audience exchange musical information.

STMC converges with other systems theories in that it explains musical communication as a web of relationships in the system. This convergence is on three parameters namely: a) interdependence of elements and their attributes; b) goal seeking; and c) feedback. Further, STMC is advanced upon three tenets. The first tenet borrows from the socio-cultural view (see Chapter Two: 45) on how music is defined. This goes beyond the sonic to include the event or purpose for which the music is created. Consequently music is given a central place and presented as being 'in-context'. Secondly, the constructivist dimension is captured in how meanings are actively constructed by both initiators and interpreters rather than simply 'transmitted'. STMC as developed here stresses the act of making meaning and basing the interpretation of the message upon information contained in the music as well as personal experiences of both facilitator and audience. The final tenet is derived from the CCLP model as developed in this study (see Figure 2.2: 51). This is an interactive paradigm between facilitator and audience and is captured within a cyclic progression. Figures 6.1 and 6.2 below provide graphic illustrations.

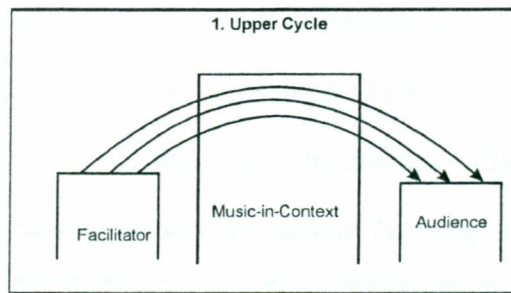


Figure 6.1: An Interactive View of Musical Communication-Upper Cycle

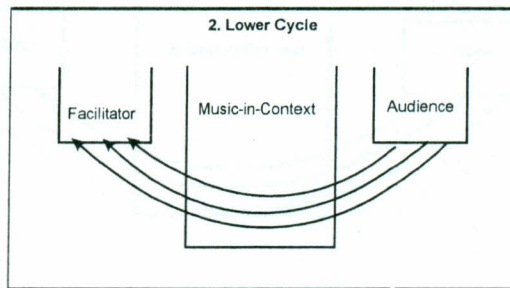


Figure 6.2: An Interactive View of Musical Communication-Lower Cycle

Since communication of musical information ought to be interactive as well as give rise to feedback, the process is seen as being cyclic consisting of upper and lower semi-cycles. The upper cycle represents communication from the initiator whereas the lower one represents that from the audience. In this way, mechanisms of dominance so common in formal settings are countered. Since the facilitator is the initiator of the musical message/experience, communication through embedded pathways originates from him or her and unfolds in a clockwise direction. This left-right communication reaches the audience at half-cycle. It is at this point that the audience decodes the information for musical meaning. The audience then takes up the role of the sender and communicates to the facilitator the interpretation of the message via pathways in the lower cycle. When this reaches the facilitator, he or she decodes it as a receiver and responds by sending another cycle of communication.

The process then starts all over again with the sender-receiver roles being interchanged between facilitator and audience. Since it is the facilitator who sets the agenda through selected aims, it is him or her who determines the duration of the entire communication process. Figure 6.3 is a comprehensive illustration of the foregoing discussion.

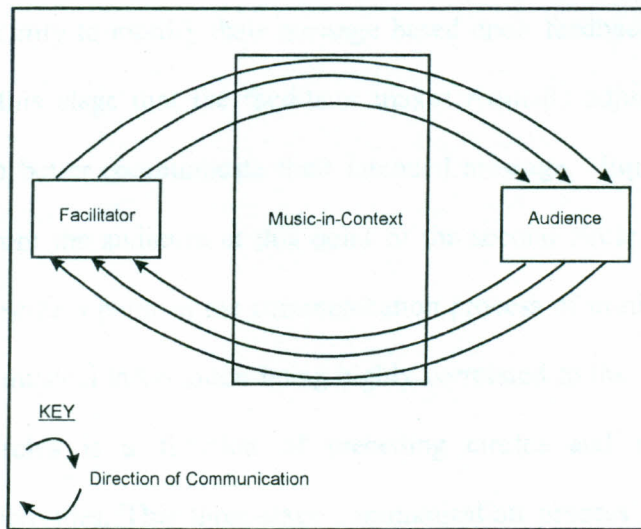


Figure 6.3: The Music Communication Cycle

Since musical communication is interactive, it is viewed here as taking place between a facilitator and an audience. These roles are interchangeable as seen when both facilitator and audience take turns to send and receive musical messages. Interactions resulting in musical communication occur in three concentric circles, sharing a common centre, the musical message. Communicative activities that take place within each circle consist of an initial encoding and sending, receiving, encoding and re-sending of a musical message. Both facilitator and audience engage each other on each level. New sets of communication circles are layered upon preceding ones, indicating progressive interactions between the facilitator and audience. These three circles are representative of a journey through which communication clarity increases. This is understood to mean that the exchange of musical information takes place in three stages.

The facilitator first encodes a message and sends it to the audience at the initiation of the first circle. The audience similarly experiences the initial moment of receiving, decoding and sending back the message on this level. It is also here that feedback makes its first appearance in the form of the response by the audience. The second circle provides the facilitator opportunity to modify their message based upon feedback from the previous circle. It is at this stage that the facilitator makes requisite adjustments in terms of delivery so as to better communicate their intended message. Equilibrium is attained with feedback from the audience at this point of the second circle. Subsequently, the third circle represents a point in the communication process of minimal ambiguity with interpretation of musical information being highly correlated to the sent message. Each of the three circles is a function of preceding circles and signifies interactive communicative activities. This three-stage communication process provides facilitator-audience interactions, within which musical communication proceeds. Ambiguity in the communication process (with regard to musical meaning) is indicated by a high correlation of facilitator-audience interactions. This explains the progressive decrease in the size of the circles so that the highest point in communication with regard to clarity is experienced within the smallest circle.

The foregoing discussions show that meaning in music is based on information contained in the musical experience. This information is exchanged via pathways in the musical process that can be taken advantage of as communication links. These paths are central to the interpretation of musical information and are embedded in the music. Because of this, they open up natural pathways to the individual, engaging them in an interpretive experience.

6.2. Introduction of Embedded Pathway (EP) Approach

The 'embedded pathway' (hereafter EP) Approach is based on the following: a) music learning and socio-cultural theories; b) CCLP model; and c) structural theory of musical communication. The concept of embeddedness emanates from the internal organization of a musical composition, and in this study, is captured in the structural processes inherent in indigenous Kenyan music. EP Approach views this internal organization as a way of designing and implementing curriculum. The name is, therefore, adapted from the overall concept of embeddedness, and is proposed in this study in the form of abbreviation.

6.2.1. Background and Advocacy

Curriculum design in music continues to be modelled entirely upon Western classical patterns with hardly any consideration for the large component of African music which permeates the lives and experiences of Kenyan learners. EP Approach is designed to address this issue by seeking for practical application via indigenous Kenyan music processes. The approach sets to resolve the problem of indigenous processes and their responsiveness to the needs of a formal curriculum setting. The study earlier on established that these processes are based on sound principles of musical communication as advanced in the structural theory of musical communication (see Chapter Six: 133-138) and are thus, suitable for intercultural applications. This justifies the use of the proposed EP Approach in the multicultural context found in Kenyan school settings. In a bid to bridge the formal-informal divide, the approach allows for a holistic experience among adolescent learners.

EP Approach sees the music curriculum document as information of an educational nature. This is because the curriculum itself is a musical process that is guided by communication and musical experience implications. This is a departure from the commonly practiced view in Kenya whereby curriculum is handled simply as academic content. This is reflected by the emphasis teachers and students place on completing the content at the expense of attaining musical understanding (Mushira, 2005). In addressing this matter, EP Approach is intended to make assessment a central component that drives the development of musical expectancy rather than as an end in itself.

EP Approach considers music and the musical experience as the central pedagogic tool. This is in departure from the common practice of focusing on a repertoire of concepts and skills, a practice that endangers the learning experience and can degenerate into a mechanical exercise. Additionally, the pedagogy recognizes the multicultural/multiethnic setting of the country and adopts a bottom-up approach in the selection of music. The principle behind this seeks to give the learner an experience emanating from music that is from their own culture followed by a stream of other music from other cultures (Nzewi, 2003).

The issue of gender sensitivity in as far as music education in Kenya is concerned remains unaddressed. Structures in EP Approach are designed to minimize stereotypes and bring learning into focus so as to open up/generate learning environments where individuals can handle any musical resources irrespective of gender. Further, EP Approach is being proposed at a time when issues of differentiation with regard to urban and rural settings are receiving policy attention. The pedagogy provides flexibility for the teacher so that learning can be responsive to such differentiation.

The approach is developed with the awareness that music education in Kenya is bi-musical, based on Western and African music. In response to this, the method provides pathways for inter-culturalism.

6.2.2. Rationale

The proposed EP Approach is directly derived from indigenous Kenyan music processes. Its adoption for the classroom is highly desirable as it provides a bridge between African music-making experiences and formal education. The study earlier on established that these processes are based on sound principles of musical communication (as advanced in the structural theory of musical communication) and are therefore suitable for intercultural applications. This justifies the use of EP Approach in the curious bi-musical context of the Kenyan school context as well as any other multicultural setting.

6.2.3. Method in Theory: Principles Based on Musical Understanding

The development of EP Approach is informed by the success of a prior trial of teaching schemes whose results showed a notable difference between the pre-test and post-test scores of subjects who received instruction through the schemes. Learners' post-test scores were significantly higher than their pre-test scores, providing statistical evidence of the teaching scheme's effect (see Table 4.5: 107). The essence of these schemes was a six-part learning sequence unfolding as: imitation-experience-exploration-assimilation-improvisation-literacy. The sequence is based on the 'call and response' principle as articulated in the CCLP model (see Figure 2.2: 51). The framework of EP approach is conceived in terms of a) a curriculum design, b) a learning sequence, c) teaching strategies, d) learning modes, e) tools and f) instruction methods.

It (EP Approach) aims at selecting and shaping a) objectives, b) content, c) teaching and learning tasks, d) resources and e) assessment to serve as a means of developing understanding and capacity for transfer performances. The ultimate goal of EP Approach is to cultivate musical understanding measurable through active listening, composition and performance tasks. Curriculum objectives are, therefore, sequenced and set out in a progressive, cyclical manner. This is translated into tasks and assignments that are revisited at each new level. Content is viewed as a resource and is selected and sequenced around performance tasks which act as engines that drive the musical process.

At the core of EP Approach is a learning process that is conceived to stay close to the process of music communication. Akuno (1998) identifies three features of call and response in indigenous Kenyan children's songs as follows: a) has 100% imitation of calls; b) has long calls and short responses; c) has short calls and long responses. EP Approach re-organizes this as 1-2-3 to reflect a learning process on three levels comparatively as: a) imitation; b) transfer of learning; and c) creative work.

The learning experience of this design is developed on the basis of a balance of teaching and learning activities, the guiding principle being that of gradually increasing the scope of activities undertaken by the learner. With an increase in learner-centred activities, it is positive mobility along the imitation-creative work continuum in essence. One hundred percent repeat of calls reflects an even balance of teaching and learning activities. Long calls and short responses are designed to reflect a large scope of learner-centred activities based on selected models. Long calls and short responses imply a classroom structure that relies heavily on modelling of the expected behaviour. Recurring performance tasks are identified at this level and act as engines around which content can be coherently sequenced.

The third level is reflected by the short calls and long responses showing that there is more liberty with regard to learner-activities and less reliance upon the teacher. The scope of these tasks is selected in such a way that they can be easily monitored.

Level one of the call and response principle provides for linear tasks. These are measurable through a display of knowledge and skills. Learners show their knowledge of concepts such as melody, rhythm, harmony and structure through aural exercise. Skills such as the plucking of lyres, drums or bowing of string instruments are similarly visible. Level two of the call and response principle as provided by the balance between the teacher-learner activities allows for such activities as identification of similarity relations and completion of melodies. This level refers to a vertical aspect of learning which reflects depth regarding the development of musical understanding. The third level is a cyclic dimension that carries with it little reliance on the teacher and more of learner initiated activities. This is where musicianship with regard to mastery and creativity is displayed.

The designing of EP Approach is careful to follow the natural pattern of learning. To have a process that results in musical creativity on the part of learners, it becomes necessary to focus on the point at which assimilation (internalisation of music and musical concepts) takes place. This dictates the nature of the foregoing stage as well as that of the stage following such assimilation. Table 6.1 below shows how an outline of a) Gordon's discrimination learning sequence (2001) and b) Keeler's aural oral learning sequence (Keeler, 2003) compares to the EP Approach learning sequence with emphasis on the point at which assimilation occurs.

Table 6.1: Comparative Models of Learning and Teaching Sequences

Learning Sequence Stages	Gordon's Discrimination Learning Sequence	Keeler's Aural-oral Learning Sequence	EP Approach Learning Sequence
Stage one Immersion	<i>Aural-oral.</i> -Students hear and perform music in a wide variety of tonalities and meters.	Hearing new concepts and skills.	<i>Imitation level.</i> -Immersion into musical environment. -100% repeat of calls.
Stage two Assimilation	<i>Verbal association.</i> -Association of rhythm syllables or tonal sol-fa with the music and patterns already heard.	Singing or playing the new song with the new concept.	<i>Internalization.</i> -Short call and long responses- -Transfer of learning.
Stage three Creativity	<i>Synthesis</i> -Patterns are grouped together so that students can synthesize tonality and meter.	Use of learned concepts and songs through: -Improvisation -Singing or playing new songs from memory.	<i>Application/creative work level.</i> -Long calls and short responses

Table 6.1 above shows that assimilation in both Gordon and Keeler's sequences is preceded by a conducive environment created in stage 1, consisting of exposure to music and musical concepts. It corresponds to the study's EP Approach learning sequence stage 1 whereby learners are immersed into a relevant musical environment. Stage 2, where assimilation occurs and is demonstrated, is characterised by behaviour that uses and coordinates musical patterns with some measure of precision. At this stage, EP Approach holds that instructions are short whereas responses (indicating exploratory activities on the part of learners) are long. Although Gordon and Keeler's models do not out-rightly use the term 'assimilation', going by the nature of activities characterised by both sequences in this stage (indicative of transfer learning), one deduces that internalization of music and musical concepts has already taken place. EP Approach refers to this stage as the place where internalization occurs. This is further evidenced by transfer of learning whereby musical material is handled in new contexts. Consequently, stage 3, in all the above learning sequences (Gordon, Keeler and EP Approach), an exhibition of learners' musical creativity, is a culmination of assimilated music and musical concepts. The parallels in the three learning sequences confirm that EP Approach can support the aural-oral learning sequence practiced in indigenous Kenyan music practice. It is noted here that indigenous Kenyan music practice is entirely oral, borne out of a long standing oral tradition. There is need to incorporate literacy for music design to meet the needs of a formal classroom setting. EP Approach sequences music literacy after improvisation because at this stage the music learning cycle has been completed and the acquisition of literacy skills would not hamper the process. Chege (1990: 110) argues:

From the perspective of creativity it is arguable that literacy is secondary to the initial creative moment of a person. A need to document something would naturally arise after the thing has been conceived and given a certain form through the creative endeavour.

Hence a person is capable of responding to a situation in a creative way without being bound to literary demands. Thus a person can compose music, perform songs that have been composed by other people and even appreciate the performance of other musicians. It would therefore be educationally unsound to teach a person to read and write music if he [she] cannot appreciate music, perform simple music or create a few simple tunes.

This developed sequence progresses from imitation-experience-exploration-assimilation-improvisation-literacy. The entire learning experience is conceived in the form of teacher/ learner activities balance. The weight of this balance tends towards the learners as they enter different levels of musical development. Thus, learners' growing musical independence serves as one indicator in tracing growth. The teacher is able to monitor as well as prescribe remedial assignment as the case may be. The EP Approach provides circular learning dimensions on which the content of the syllabus can be anchored. Due to the hierarchical nature of these dimensions, the overall design lends to the experience an imitation-creative continuum. The design is capable of responding to the individual learner's needs as they emerge during the learning experience.

The design is inbuilt with a component of teacher-guidance as far as the setting of objectives is concerned. This is intended to bring the learner to a place of personal expression in their musical development. Such expressions are seen when learners perform, compose and appreciate music within their own interpretations. EP Approach is able to facilitate the development of this personal space by reason of the three-fold manner in which learning is structured. The imitation stage provides a context within which learners are exposed to musical knowledge and skills. These are assimilated in the second stage, providing the learner with material and musical understanding for expressing themselves through creative tasks in the third stage.

These third-level expressions are as a result of the 'call and response' communication characterizing the preceding two levels. EP Approach further captures the notion of self-expression in the music communication cycle (see Figure 6.3: 136) as posited by the structural theory of musical communication. The attainment of a musical language for self-expression in EP Approach's three-fold learning process parallels the three pathways of the music communication cycle with regard to clarity of such languages. First-level learning/teaching activities correspond to learner's musical expressions that are at a formative stage and are not very clear on what the learner desires to communicate. Second-level expressions point to a clearer expression yet one which is yet to gain confidence for creative work. By the third level of communication, learners have attained musical understanding and can express themselves with consistency and confidence. It is this that gives clarity to their communication. Such clarity equips the teacher with additional knowledge on how to further organize learning.

EP Approach organizes the acquisition of knowledge and skills according to the revised Bloom's six-part taxonomy of educational objectives (Morzano, 2000). The underlying principle of the taxonomy guides the designing of instruction in such a way that simpler skills build up to the more complex ones as follows:

Knowledge and Comprehension Skills

These skills are designed to be acquired in the preliminary circle of the CCLP model. Knowledge skills are the simplest of skills and are reflected in actions such as imitating the playing of a lyre when modelled by the teacher. This skill level forms the pre-requisite for comprehension skills. Comprehension skills refer to a level of understanding whereby learners can grasp translation and meaning of material.

These are exemplified by audiation tasks such as where learners are required to interpret the meter of a passage of music they have been exposed to.

Application and Analysis Skills

These skills are acquired in the second circle. Application skills are underlined by the principle of transfer of knowledge whereby learners develop the ability to use acquired knowledge in concrete situations such as: using a given rhythmic pattern in a new composition; providing a completing phrase to an opening melody, among others. Analysis skills involve the ability to pull material apart and examine the components for purposes of understanding relationships between the components as in the case where learners are guided in the study of rhythm and tonal patterns.

Synthesis and Evaluation Skills

The apex of EP Approach is the development of higher order skills. This group of skills is designed for the third-level circle. Synthesis skills require that learners create their own material from what has been learnt. Tasks include: a) creating a composition; b) re-arranging parts in music; c) building a composition from given patterns, among others. Synthesis skills graduate to evaluation skills implying that learners have now reached the level to judge musical compositions, materials, methods and ideas. Classroom tasks include: a) creating criteria for appraising works of music; b) weighing musical performances; c) analyzing and critiquing music from different cultures, among others.

EP Approach sequences the development of knowledge and skills in such a way that acquisition in one area builds on another. The case where a learner is required to describe a given musical pattern requires that he/she had previously acquired the skill of recognizing the construction of such a pattern.

This is because comprehension skills as in the description of a given musical phrase are preceded by knowledge skills with regard to recognition of music patterns. Similarly, application skills require prior skills of comprehension and knowledge. A learner requires to have first learnt to sing a piece of music before being expected to sing it at a higher or lower pitch or at a faster or slower tempo. EP Approach's ultimate goal is for learners to acquire skills for engagements in musical performance, composition and critical appreciation. This is captured in the weight that is given to the increased learner-oriented activities as developed in the third sequence of learning (creative work).

6.2.4. The Essence of EP Approach to Curriculum

Since music education is seen as musical communication whereby musical information is exchanged between a facilitator and a learner, the designing of curricula as well as the learning process must be carried out through channels that are found in the music itself, referred to in the study as 'embedded pathways'. The context must be captured through '*music-in context*', the central instruction tool. The following discussions show how the various components of the curriculum are conceived.

Organization of Curriculum Objectives

EP Approach organization of objectives is designed in accordance with Bloom's taxonomy and corresponds to the three levels of the CCLP model (see Figure 2.2: 51). Curriculum objectives are conceived in a cyclic pattern from one level to another to reflect cumulative learning. Since the overall aim of the design is for learners to attain tools for musical expression, objectives are developed to tap into the cognitive, affective and psycho-motor domains.

Cognitive objectives range from low order skills such as recall and perception-transfer of learning-the higher order that culminates in the creation and evaluation of musical works. Affective domain objectives are organized to result in the development of value judgment and range from awareness of musical phenomenon, to reaction to the phenomenon, to demonstrating a worth of a piece of music, to organizing values according to priorities, to internalizing a value system that controls musical behaviour. Psycho-motor objectives are developed to target the development of manipulative skills such as: a) eye and hand co-ordination; b) ear and hand co-ordination; c) hand dexterity, among others.

Content

Content is conceived in terms of musical knowledge and skills and is similarly sequenced along the cyclic principle allowing for the revisiting of key material. EP Approach organizes content in accordance with the music learning theory (Gordon, 1997) whereby rhythm and tonal patterns together with skill sequences are co-ordinated towards achieving objectives at every level of the CCLP model. It is this content that constitutes the message in the communication process.

Procedures/Implementation

Implementation of the curriculum is seen in terms of musical communication, the participators being the facilitator and the learner. Since classroom communication must be interactive as well as give rise to feedback, the music instruction process is seen as being cyclic consisting of upper and lower semi-cycles (see Figures. 6.1 and 6.2: 135). Through these cycles, the teacher and learner engage in a call and response process. EP Approach's instruction strategy presents material in ways that demonstrate relationships of similarities and differences. By showing relationships such as sounds in a given scale, or beats in a rhythmic pattern, new melodies or rhythmic patterns are structured in a manner that enables learners to easily remember the material.

Further, advanced skills or complex knowledge such as evaluating a musical performance is broken to its most fundamental knowledge and skill since the initial learning of basic knowledge or skills is what forms the foundation for subsequent learning. Additionally, the performance of advanced rhythms is enhanced by not constraining learners in having them read notation. Rather notation is sequenced as the last process in learning. The rote-note approach is used to breakdown an advanced concept into its simplest form. In line with the cyclic principle of the CCLP model, EP Approach tasks are designed to emphasize constant review of material which is structured for different contexts so that transfer of knowledge and skills to new situations can be accomplished.

Tools

In putting forth the notion of 'music-in-context' (see Figure 6.3: 136), the structural theory of musical communication places music as the central pedagogic tool. EP Approach takes advantage of tools that belong to the indigenous Kenyan music experience as follows:

a) Folksong

EP Approach recommends the voice as a primary tool of learning since singing is the most direct way of making a musical response. Not only is this instrument free and portable, but because it is part of the learner's body, anything learned through singing is learned more deeply and thoroughly. Learning through singing is an internal skill and is deeply personal as one makes the sound. Further, singing is vital for developing that essential part of a musician, the inner hearing. Since it is not possible to sing anything which has not first been heard in the inner ear, therefore, singing proves that the music has been assimilated and understood.

EP Approach adapts the use of folksong in line with the Kodály pedagogy (Choksy, 1998), an approach which upholds a way of educating young people through the singing of their native music or the folksong of their country. Folksongs were used in the experiment behind EP Approach (see Appendix Three: 198-204) and were found to be successful in the acquisition of musical expectancy. These results concur with Kodály's views as to which songs are the best-the folksongs. Additionally, since folksong is the basic expression of music in Kenya, EP Approach recommends it as a source of instruction in secondary schools.

b) Sol-fa and Staff Notation System

Given that indigenous Kenyan music practice is oral, and that contemporary education demands the provision of literacy, EP Approach incorporates music literacy in its approach. Towards this end, the strategy adopts both sol-fa and staff notation. Sol-fa is a tool for teaching sight singing, developed by John Curwen in the 1940s (Zinar, 1983). At the base of the tool are two memory aid (mnemonic) components, one for performing pitch (sol-fa) and the other for performing rhythm (time names). The system utilises the first letter in (lower case) of each of the degrees of the scale - doh, ray, me, fah, soh, lah, and te. Additionally, the rhythmic component utilises bar lines and semi-colons, prefixing strong beats, medium beats and weak beats respectively in each measure. Rests are notated by a blank space preceded by a punctuation mark to indicate duration. The key is always specified at the outset. The Curwen method uses the movable doh meaning that the doh is transposable to any scale. There is evidence that in Kenya, the teaching of drums takes place through mnemonic aids (Kavyu, 1977).

This provides an entry point for the use of sol-fa in the classroom. Jorgensen (1994) further observes that in countries where the written language is based on the Roman alphabet, people are already familiar with the alphabetical letters used in the sol-fa representation. Since Kiswahili, the national language of Kenya, is consistent with this, the use of sol-fa notation in secondary schools is further validated. Thirdly, the Curwen method does not require any significant knowledge of music theory. Once an understanding of pitch and rhythmic notation is achieved, no other interpretative information (such as knowledge of time or key signatures) is required for realising the notation. In this way, sol-fa notation is used as a bridge to teach the staff notation.

EP Approach recognises the importance of adopting the classical staff notation system as a tool for teaching music literacy in Kenya. Not only is it used by musicians of many different genres throughout the world, it also enables the learner to explore new music independently, among other benefits. The invention of the classical staff notation is credited to Guido d'Arrezzo (990-1050 AD), a Benedictine monk and boys choir director, who is recognised for his contribution to music education (Miller, 1992). The tool is used in contemporary music education for developing musical concepts, sight singing/ reading as well as in composition. EP Approach, however, adapts it primarily for purposes of developing music literacy, relying on oral strategies for conceptual development and composition. Similar to the pedagogy of Dalcroze, EP Approach sequences literacy as the last activity in its learning sequence. This is in a bid to uphold the music education principle of 'sound to sight', bearing in mind that EP Approach draws its basic structures from an oral music tradition.

The notation system uses a five-line staff, the lines being apart at intervals of thirds. Pitch is shown by placement of notes on the staff and duration is shown with different note values and additional symbols such as dots and ties. Notation is read from left to right. A staff of written music generally begins with a cleff which indicates the range of pitches encompassed by the staff. It uses sol-fa as a means of acquiring sight reading and notation skills. EP Approach first develops confidence by notating separately the two main elements of music-rhythm and pitch-before adapting them in combination. Classical staff notation is especially suitable for schools in Kenya as it easily lends itself to pentatony, a musical concept widely found in indigenous Kenyan songs. Learners ,therefore, are able to easily make connections with the major scale.

6.2.5. Pedagogy

EP Approach is developed upon a six-part learning sequence unfolding as imitation- experience- exploration- assimilation- improvisation- literacy. Consequently, instruction is designed to proceed in three stages drawn from indigenous Kenyan music processes as follows:

- a) Receiving stage is where learners are exposed to and become aware of a musical phenomenon. Since it is at this stage that imitation and experience take place, instruction is designed in such a way that learners actively participate in the music with the aim of acquiring the relevant skills and knowledge. The teacher, therefore, provides instructions, demonstration as well as technique models. The learner on the other hand absorbs this through observation and imitation in a task such as producing a desired tone in singing or on an instrument.

- b) Transfer of learning is dependent on the learner's understanding of musical knowledge and skills. EP Approach facilitates this through the teacher-learner task design that supports exploration and assimilation of musical material. Teaching activities are largely aimed at stimulating learners for further exploration of the underlying musical structures and techniques. So, learning activities are designed to apply learnt ideas in new musical contexts. Activities such as the use of performance techniques in new pieces are outward indicators that transfer of learning is taking place.
- c) Musical creativity is underlined by the improvisation and literacy stages of EP Approach learning sequence. Since it is at this stage that the learner exhibits growing musicianship, instruction places greater focus on the learner rather than the teacher. Learning activities therefore, entail production of music and are varied. Observable indicators include learners' emerging musical language together with growing individuality and independence in musical works and performances. Teaching tasks are largely supervisory, aimed at spurring the learner into creativity.

The above three stages of learning correspond to the way music is made and experienced within the indigenous Kenyan tradition. Figure 6.4 below, shows a six-part learning sequence tracing the process from when learners come into contact with a musical experience to the point where their personal musical language is expressed and documented.

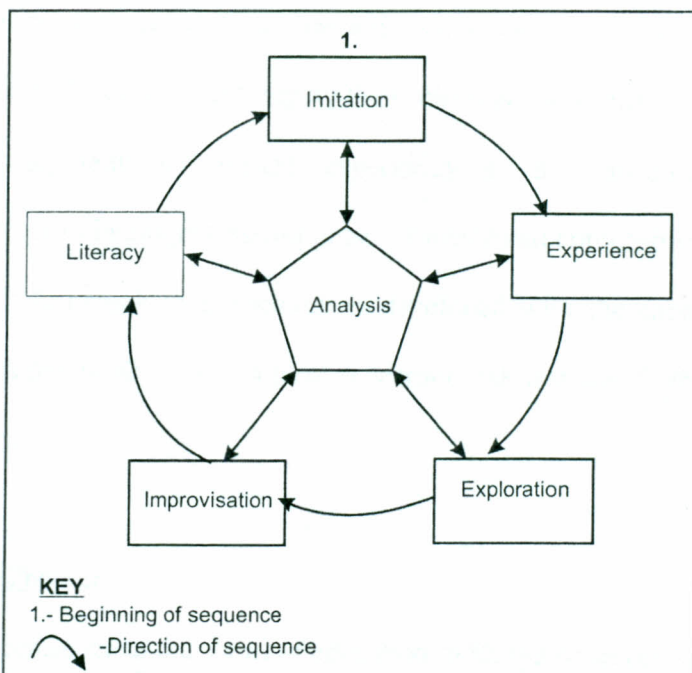


Figure 6.4: EP Approach Learning Sequence

The sequence is a cyclic process unfolding in a clockwise direction. Since analysis takes place continuously and at every stage of the sequence, it is placed at the centre. Music instruction in EP Approach is, therefore, based on the following principles:

- The design and implementation of curriculum which is embedded in linear, vertical and cyclic components;
- A learning process that has fidelity to the way music is made and experienced; and
- Instruction tasks that are organized in a manner where the learner is gradually empowered to steer their own learning.

Among the outcomes of EP Approach would include the following:

- An intercultural experience where learners experience and connect with the music of different cultures;

- A holistic experience where adolescents connect with the music they experience in and out of the classroom bridging their informal and formal experiences;
- The development of musical expectancy as a foundation for learners' engagements in intelligent listening, performance and composition.

Consequently EP Approach to curriculum is developed with the capacity for musical expectancy development as well as a teacher-learner task framework that is flexible for different contexts.

The Approach in Practice

Owuor (2007) in reference to the status of education in Kenya observes that:

...integrating indigenous knowledge and ways of teaching and learning has been de-emphasizing the current curriculum that has been viewed to be too abstract, not relevant, and more examination oriented. (Ibid: 27)

In the same vein, EP Approach seeks to engage music education in a curriculum design that enhances musical understanding and creativity. Since the curriculum is intended to facilitate a musical experience, it makes sense that its architecture parallels processes of music-making. In reference to the construction of curriculum, Brunner (1960), a renowned educational psychologist, states that:

A curriculum as it develops should revisit these basic ideas repeatedly, building upon them until the student has grasped the full formal apparatus that goes with them. (Ibid: 130).

This notion is what underpins the spiral curriculum, a curriculum model that has greatly influenced contemporary music education. Other applications that have followed in the same footsteps are the MMCP Spiral Curriculum (Thomas, 1970) and Swanwick and Tillman's Spiral Curriculum (Swanwick and Tillman, 1986).

The spiral concept in curriculum construction resonates with indigenous Kenya music practices whereby repetition is one of the basic modes of learning music. EP Approach to curriculum design emphasizes this principle of repetition in the aims, content, learning strategies, resources and assessment. Whereas MMCP and Swanwick and Tillman's spiral curricula spell out content among other curriculum components, EP Approach is designed as a curriculum organizing tool and as such does not prescribe content. Rather, EP Approach is anchored in three stages namely: a) framing of objectives; b) instruction; and c) assessment. The design is referred to as cyclic rather than spiral in recognition of the fact that within the larger repetitive theme, there are other processes (linear, vertical) which are equally significant and contribute to the overall infrastructure of the design. EP Approach is, therefore, defined by curriculum objectives, instruction and assessment.

Goal setting

EP Approach as a tool for organizing curriculum aims to develop positive musical behaviour in students and does not focus on imparting factual knowledge. Rather, learning and acquisition of musical information are seen as by-products of the 'doing' in performing and creating music. This goal is concretized in terms of: audiation; composition; and performance. The goal is an important aspect of EP Approach to curriculum organization as it guides the first stage of the process (which is to frame objectives). In articulating the overall aim of the secondary school music program, the Kenya Institute of Education (2002: 48) states that:

The music syllabus is designed to involve the cultural expectation of a student in secondary school. It gives the learner the opportunity to know the music of Kenya and that of the rest of the world. It also provides a chance for the learner to acquire knowledge, skills and attitudes which will be useful in creative faculties, good use of leisure time and use of music as a means of communication.

To achieve this broad aim, the first stage of EP Approach is to merge subsequent secondary school objectives into the following areas: audiation; composition; performance; literacy. This is to make the secondary school objectives amenable to EP Approach dimensions in preparation for patterning the curriculum in a cyclic path.

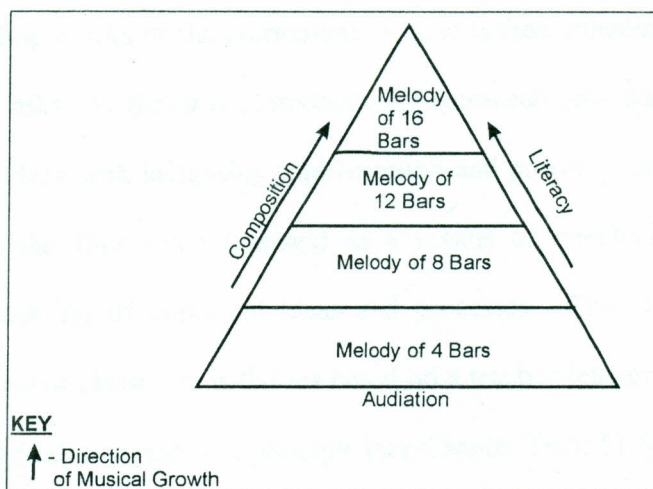


Figure 6.5: Secondary School EP Approach Map of Curriculum Objectives

Figure 6.5 shows the cumulation of musicianship-related objectives in the secondary school program. The objectives are re-stated at each of the four levels of the secondary school cycle and unfold in a sequential manner. The application of the EP Approach converges the curriculum objectives with an intention of integrating related aspects of musicianship. The basis for integrating objectives in the areas of audiation, composition and literacy is the cognitive dimension in which the syllabus expresses such objectives. Music literacy, a supportive skill of musicianship meaningfully fits into this organization. Performance, by reason of it being expressed in the curriculum in psychomotor terms is taken by EP Approach to be a logical consequent of audiation and composition. Objective setting therefore, follows similar lines.

Instruction

The second stage of EP Approach is the instruction phase which designs learning activities to identify recurring music tasks. These are recurring ideas that promote purposeful learning, generalization and connections. These rather than the content provide the building blocks of the curriculum. Music is then coherently selected around the performance tasks. Within this component, EP Approach provides for the learners to show the use of ideas with increasing sophistication and power. The curriculum cycles vertically across the four years (classes) as a means of developing and deepening students' understanding of important ideas and processes. The instructional strategy reflects three levels of classroom activities based on a teacher-learner balance of tasks as provided for in the call and response principle (see Chapter Two: 51-54).

The first level constitutes tasks that are teacher-driven with learners' tasks largely mirroring the teacher's lead. Second level task-strategy focuses on the deepening of musical understanding by engaging learners in explorative activities. Learning tasks show greater freedom and use of musical ideas gained at level one. Third level tasks are underlined by the principle of creative application.

EP Approach applies the 'call' only to prompt learners to respond in creative ways. Teaching activities are, therefore, designed as being supervisory and advisory. It is under this mode that learners' activities are designed to achieve mastery of knowledge and skills and the attainment of an individual musical language. EP Approach provides the options for both individual and group learning tasks in fidelity to the practice of communal musicianship as found in indigenous Kenyan music.

This practice is further employed in a communal strategy of instruction given that communal responsibility of education is found in most Kenyan communities, especially in the rural areas. In illuminating this, Floyd (2003: 298) observes:

It is clear that many schools have been involving traditional musicians in the curriculum, through a variety of methods. In some they are visiting specialists, in others they are friends or relatives or staff or students, and some are employed as non-teaching staff (as grounds men, for example), with some time allocated for music provision. Where this happens students are exposed to expertise and authenticity in one culture (often their own), in addition to a wide range of other cultures from within Kenya and beyond via texts.

EP Approach recommends the use of resource persons especially in the handling of musical instruments and dancing. Classroom activities are scheduled upon a 1:2:2 ratio of lessons in line with the three stages of CCLP model continuum. This is to say that level-one audiation, performance and compositional activities are all assigned one lesson each per week whereas level-two and three activities both receive two lessons each. Instruction takes place through selected sequenced folksongs. Within the 1:2:2 time-line, EP Approach provides the learner with the opportunity of experiencing at least six folksongs per school term-two each through audiation, performance and compositional activities.

a) Audiation procedures are developed to facilitate the process of listening to music in an intelligent way. The following is a sequence of audiation activities:

- Presenting information about the country, people and environment from which the particular music comes. Similarly historical presentations of cultural and historical information about composers, music and instruments are given. This provides a background for learners to meaningfully contextualize the music.
- The music is played in its entirety for students to experience it.

- Discussions where the teacher prompts the learners' appreciation of the experience through questions.
- Analysis and written notation introduced slowly and only after (according to Locke, 2004: 183) '...the music begins to enter their ears and bodies'.

A quick revisit of the CCLP model with regard to the sequence of learning and teaching tasks (see Chapter Two: 51) is defined as tasks in line with:

- Exposure to and experience of musical sound;
- Exploration and internalisation of music and musical concepts;
- Creative music activity and music literacy.

Table 6.2 illustrates the organization of classroom tasks under EP Approach.

Table 6.2: Teacher-Learner Task Design for Audiation

Task Level	Time Line in Number of Lessons	Teacher Tasks	Learner Tasks
One	One	-Presenting of background information; -Playing recorded music.	-Note taking; -Listening to entire music; -Rote learning and memorizing folk songs in portions; -Singing entire songs from memory.
Two	Two	-Posing of questions.	-Identifying different tone colours; -Recognizing musical instruments used; -Recognizing similarity relations and key motifs; -Identifying key rhythmic and melodic structures;

Continued overleaf

Task Level	Time Line in Number of Lessons	Teacher Tasks	Learner Tasks <i>...Continued</i>
Two	Two	-Posing of questions.	-Drawing maps of the form/structure; -Singing learnt folksongs in different tempi and keys.
Three	Two	-Guiding.	-Interpreting simple form and structures; -Comparing with other folksongs from the culture; -Evaluating and giving aesthetic opinions; -Adding simple accompaniments, body movements and costumes to folksongs; -Notating folksongs from memory.

Table 6.2 shows that classroom engagements are dominated by learner-centred musical tasks. Creative and literacy tasks only come in after a demonstrated understanding of the music.

b) Performance tasks broadly constitute singing, playing musical instruments and dancing. As earlier implied, EP Approach recommends a performance program where at least two folksongs of contrasting character/ style are learned and performed every school term. By the end of the four years, a learner should have acquired a repertoire of not less than 24 folksongs reflecting different levels of difficulty and style. EP Approach performance tasks are undergirded with numerous skills and activities and are sequenced as follows:

- Learner listens to and observes models of the music as presented by the teacher/ facilitator in their entirety;

- Learner imitates the melody, tone, skill and technique of presentation in portions. Skills include breathing, articulation of words, sound projection, fingering, plucking, bowing among others;
- Music/ skill/ technique are repeated for learners to identify any similarity relations, underlying structures of rhythm, melody, as well as form;
- Music is fragmented and worked through the stages of CCLP model (see Figure 2.2: 51) until the whole music is learnt without errors in rhythm and pitch.
- Learners attempt to perform the entire music to each other with aesthetic sensitivity.

Table 6.3 below is a mapping of teaching and learning activities for performance.

Table 6.3: Teacher-Learner Task Design for Performance

Task Level	Time Line in Number of Lessons	Teacher Tasks	Learner Tasks
One	One	-Demonstration; -Rote instructions; -Verbal/ mnemonic instructions	-Listening and observing; -Imitating rhythms by tapping, and verbalisation; -Learning melody and harmony by rote; Learning to dance and play musical instruments by imitation; -Memorizing tunes, lyrics, dance steps and choreography;
Two	Two	-Questioning	-Singing, dancing and playing musical instruments with accuracy in pitch, rhythm and dance steps/ choreography;

Continued overleaf

Task Level	Time Line in Number of Lessons	Teacher Tasks	Learner Tasks <i>...Continued</i>
Two	Two	-Interrogating	-Using correct technique in singing, instrument playing as well as dancing; -Transferring key motifs to varying tempi, keys and expressions; -Singing, playing musical instruments and dancing in varying keys, tempi and moods.
Three	Two	-Playing/singing/dancing among learners; -Providing framework for critiquing performances.	-Identifying similarity relations and extemporising on such patterns; -Performing with interpretation and expression; -Notating portions of folksongs using sol-fa; -Evaluating and appraising each other's work.

The table shows an increase of learner-centred activities along the teacher-learner continuum of classroom tasks. EP Approach aims at prompting learners to perform in creative ways. The learner's improvisation is a display of creativity and as Sawyer (1998) observes, it readily takes the form of performance. It is also at this stage that the learner's individual musical language is displayed.

c) Composition

This is an EP Approach avenue for teaching and learning that engages the creative dimension. The process depends on the learners' self-motivation with the teacher giving close and constant supervision. The adolescent musical experience draws from styles within and outside the classroom.

EP Approach therefore, recommends that the frame for classroom composition be flexible to accommodate varied styles from different communities in Kenya. Table 6.4 maps out compositional tasks in the classroom.

Table 6.4: Teacher-Learner Task Design for Composition

Task Level	Time Line in Number of Lessons	Teacher Tasks	Learner Tasks
Prescriptive	One	<ul style="list-style-type: none"> -Modelling of a musical style through selected folksong/ songs; -Teaching of song by rote; -Narration of information regarding the song's context. 	<ul style="list-style-type: none"> -Listening; -Learning and memorizing the song with accuracy in pitch, rhythm and lyrics, through imitation; -Singing back a short theme as counterpoint.
Choice	Two	<ul style="list-style-type: none"> -Observing and Listening to learners; -Questioning; -Intervening to give extra help; 	<ul style="list-style-type: none"> -Identifying overall form; -Recognizing and identifying important patterns; -Providing different answering phrases to such patterns; -Exploring various instrumental and singing tone colours by selecting and combining them; -Experimenting with different musical instruments and combining them in the context of song and dance; -Exploring and combining tempo and dynamics appropriately; -Setting rhythm to given words;

Continued overleaf

Task Level	Time Line in Number of Lessons	Teacher Tasks	<i>...Continued</i> Learner Tasks
Choice	Two	-Discussing ideas	-Using varied rhythmic and melodic motifs.
Freedom	Two	-Providing options for composition; -Prodding; Commenting on and appraising learners' work.	-Combining and arranging rhythmic patterns against an underlying beat or accent; -Improvising rhythm patterns in a number of meters; -Creating melodic patterns in a range of songs; -Combining simple harmonic devices such as drones; -Composing own rhythms; -Composing a 12 bar melody; -Recording compositions and using notation where appropriate; -Providing critiques for each other's work.

Instruction begins with aural activities moving into notated ones. These are performed and evaluated. With regard to improvisation, learning begins with basic patterns which are then explored on a small scale before moving to bigger structures. The design above shows a task continuum that progressively places more emphasis on the learner as explained below:

- Prescriptive-having a high degree of control by the teacher. These act as sources of direct learning;

- Choice-reflecting selection from a range of choices. Ideas are guided rather than governed.
- Freedom-showing independence in decision-making due to the open-ended nature of the task. The teacher provides a variety of tasks to access and challenge learners varied abilities and experiences. Ideas are self-generated and independently worked.

EP Approach emphasizes both individual and group processes in composition tasks. The individual process allows the learner to develop a personal musical language. The group process is especially relevant as it parallels music-making in Kenya. Ottokaroli (1998: 51) captures this in his observation that a work of art created by an individual "... finally manifests itself as a shared functional statement of the community".

Assessment

The third and final stage of EP Approach is assessment, reflecting curriculum based on acceptable evidence of learning. Reframing objectives at the first stage provides standards of the desired musicianship against which teachers and students can measure themselves. The assessment stage shows growth along a fixed novice-expert continuum in which each of the four years represents a key benchmark on the path to the apex (mastery). Assessment is key in the EP Approach as it makes feedback more central to the cycle. According to Scriven (1967), the function of summative assessment occurs after the product has been developed. It is conducted to determine the worth of the final educational outcome or product. On the other hand, Borg and Gall (1989: 764) assert that:

"The function of formative evaluation is to collect data about educational products while they are still being developed.

The evaluative data can be used by developers to design and modify the product”.

These two positions are put into perspective with regard to significant findings in recent educational research establishing that formative assessment causes the greatest gains in student achievement (Black and William, 1998). This is not so with the practice in Kenya which favours summative assessment (Akuno, 1998). Formative assessment allows for revisiting of the same key essential issues and skills. This allows students to stay on course towards accomplishing what could never be mastered in one single try, a factor important in building competence. Additionally, the call and response relationship as articulated in the structural theory of musical communication (see Figure 6.3: 136) holds that the response motivates a new call. When call is the teacher and response learners, then feedback from learners leads the teacher to set new tasks in line with the set objectives. EP Approach adopts summative and formative approaches since assessment of both process and product is essential in music education. Additionally, pre-instructional assessment is included, its significance being in the provision of indicators of how learners measure against the desired end goals. Table 6.5 provides guidance for the teacher in carrying out assessment.

Table 6.5: EP Approach Assessment Timeline

When	Assessment Strategy
At the start	Pre-test against the desired result.
Each month	1 major assessment against desired result.
Each term	1 major assessment against desired result.
At year's end	1 assessment against the desired results for the year; Thorough report on students' weakness and strengths with action plan for improvement.

EP Approach assessment combines aptitude and achievement methods. Since aptitude tests look at a learners' potential for success with a given experience, teachers can use it for diagnosing learners' musical strength and weakness for purposes of adapting instruction to meet individual music needs and abilities. EP Approach aptitude test profile is adapted from Gordon's *Music Aptitude Profile* (Gordon, 2001) and consists of a) tonal imagery (melody and harmony), b) rhythm imagery (tempo and meter) and c) musical sensitivity (phrasing and balance). Achievement tests on the other hand measure development/growth against set objectives and outcomes and as such, provide the teacher with a means of collecting data on learners' performance. Since achievement standards include diverse skills and knowledge, EP Approach recommends diverse assessment strategies as illustrated in Figure 6.6.

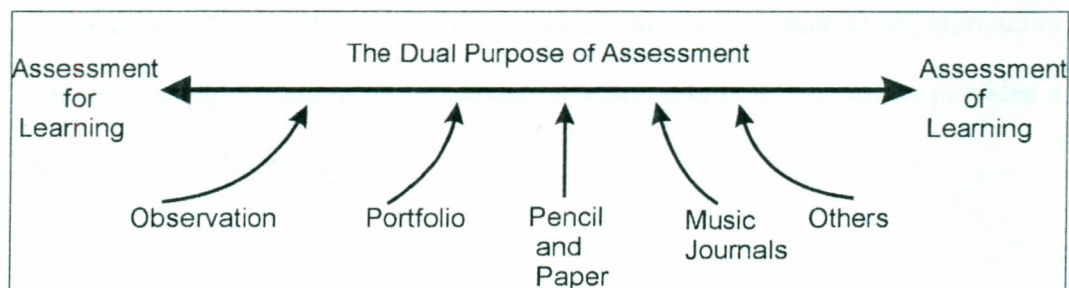


Figure 6.6: EP Approach Assessment Strategy

- a) *Pencil and paper assessments* are effective for assessing comprehension of key knowledge, facts skills and procedures. They include: multiple choice; alternate response; matching; short answer; and extended response, among others.
- b) *Music journals* provide opportunities to record learners' experiences. They consist of brief entries by the learner, woven into the routines of the classroom.

- c) Journals can be carried to performances or field trips, to record information. Entries include learners' personal reflection and response to musical activities or events whereby key ideas from learning are recorded. Their place in assessment is in providing the teacher with material for purposes of determining how much a student has understood about a concept or learning event.
- d) *Portfolios* contain samples of student work over a given period of time. They are a means of documenting and organizing student work for purposes of continuous assessment. This compiled material provides an authentic source of information on projects and efforts. Samples of work include: compositions; musical dictations; quizzes; personal comments about a piece of music or musical performance; responses to own work; explanations of steps or procedures used and difficulties and solutions. Students' projects are continually tracked by themselves and teachers and hence any problem envisaged in the course of learning is immediately addressed.
- e) *Observation* of students with teacher's focus on specific aspects of curriculum outcome during classroom performances, whether solo or in ensemble, provides a rich source of information.

Learning Materials and Resources

Learning materials and resources are a necessary part of the EP Approach implementation. A central factor in the choice of these materials is the intercultural consideration for music education in Kenya whose significance lies in the multiple pathways for learners to make transfers, generalizations and connections across cultures. This is necessitated by the multicultural aspect of the Kenyan society. A second consideration refers to the contemporization of materials from indigenous Kenyan music processes to make them relevant and functional in classroom settings.

EP Approach, therefore, envisions selections of teaching/learning materials (TLMs) that would include the following:

a) Folksongs

EP Approach emphasizes that if folksongs are matched with sensitivity to the changing physiological developments in adolescents, they hold the potential of making all of them continue to sing. The literature review revealed that Kenya has folksong categories that are specific to adolescents and which entail educative categories appropriate to young people such as work, courtship, marriage, among others.

b) Musical instruments and dance

It was observed in the trial of MES intervention that learners spontaneously clapped their hands and tapped on their desks as well as swayed as they sang folksongs (see plate 5.2: 124). This indicated to the researcher that such responses serve as entry points to active participation through playing musical instruments and dance. Consequently, musical instruments and dance are adapted as part of EP Approach. Their usage is two-fold: reinforcing musical understanding and as an expression of indigenous Kenyan music. Besides reinforcing musical understanding, movements such as clapping hands, body swaying, feet tapping, and holding of hands help foster group learning. As an art form, dance and choreography are an integral part of indigenous Kenyan music and its use in the proposed EP Approach completes the concept.

CHAPTER SEVEN

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

7.0. Introduction

This chapter summarizes the research activity and draws conclusions from findings with respect to each research question. Contribution to knowledge is outlined giving way to recommendations.

7.1. Summary

The study sought to develop a culture sensitive method for secondary schools in Kenya, the central argument being that such a method ought to be based upon approaches that are consistent with indigenous African music practice. Review of related literature showed that these approaches have proven to facilitate dynamic and vibrant musicianship, evidenced by musical compositions and performances. This study, however, was faced with a paradox. Whereas on one hand these approaches which are oral in nature emanate from informal settings, the teaching and learning of music in secondary schools on the other hand occurs within formal contexts. These contexts constitute a) curriculum objectives, b) a prescribed content, c) teaching/learning activities together with d) assessment strategies. This study therefore set out to answer three questions posed as:

- a) What are the inherent characteristics of indigenous Kenyan music?
- b) Are any of these processes suitable as models for curriculum design and implementation?
- c) How can a teaching method that uses indigenous Kenyan music processes to facilitate music education be developed?

To answer the three questions, this inquiry combined both documentary and experimental study designs. A pool of documents on indigenous Kenyan music targeted sources authored between 1954 and 2005. This timeline was arrived at through literature review which identified one of the earliest articles as being authored in 1954, whereas 2005 marked articles written by the time this study began. Documents constituted the following sources: a) academic books; b) dissertations; c) journal articles; d) government reports; e) policy statements; f) conference papers; and g) articles from the popular press. The documents that were actually reviewed were derived through a process of theoretical sampling. They comprised scholarly items whose annotated bibliographies reflected i) purpose of the work, ii) brief description of the content, iii) theoretical basis of arguments presented and iv) the intended audience. Content analysis based on an a priori coding scheme of: i) monophony; ii) polyphony; iii) call and response; iv) cyclic pattern; and v) parallelism, was carried out to identify key concepts of indigenous Kenyan music structural processes. Frequency counts of these key concepts were tallied and tabulated using *Word stats 5.1* computer software. Key concepts emerging out of the content analysis were tabulated after which inter-relations amongst emergent concepts together with a priori categories were synthesized and presented in a Venn diagram.

Findings from the documentary study were applied in an experiment to test the suitability of indigenous Kenyan music processes as curriculum models. The quasi-experimental pre-test post-test design was used. Students from secondary schools in Kenyan that offer music as an examinable subject under the 8-4-4 curriculum were targeted. Secondary schools were purposively derived from Nairobi and Western Provinces intended to capture a) multicultural educational contexts and b) educational contexts in close proximity to traditional music making.

The sample, further, captured the gender variable, comprising both boys and girls through random sampling of schools. A pre-test was administered to both experimental and control groups after which the experimental group received instruction through teaching schemes based on indigenous Kenyan music processes (see Appendix Three: 198-204). Conversely, the control group was instructed through conventional procedures. At the end of 12 weeks both groups were post-tested. Pre-test and post-test responses were scored, tallied and presented as means, frequencies, ranges and percentages. Findings were analysed using the paired t-test and tabulated. Findings for both documentary and experimental studies were discussed in the context of the theoretical and conceptual framework as well as in relation to literature reviewed in this inquiry.

7.2. Conclusions

This section addresses the three study objectives in a bid to provide answers and conclusions arising from the findings.

7.2.1. Investigation and Articulation of Indigenous Kenyan Music Processes

Investigation of indigenous Kenyan music processes responded to the query, 'What are the inherent processes characteristic of indigenous Kenyan music?' (See Chapter One: 10), requiring such processes to be identified. Findings from an intensive documentary study found that indigenous Kenyan music structural processes is based on three overarching categories namely: a) call and response; b) cyclic; and c) sound layering. A weighting process showed that 'call and response' registered 52.38% of constituent concepts (see Table 4.2: 95). The more than 50 percentage finding confirmed 'call and response' as a significant music process of indigenous Kenyan music.

This finding is indicative of the dialogue tradition that characterizes indigenous Kenyan music and calls for an interactive approach when applying the music to contemporary settings.

A sum total of 63 key concepts emerged from the content analysis, under the three overarching categories. These were further identified as: i) counter melodies; ii) parallelism; iii) monophony; iv) exact repetition; v) varied repetition; vi) improvisation; vii) antiphony; and viii) exact echo. A closer scrutiny showed that one or more of these phrases fitted into one or more of the three key categories pointing to relationships across the categories. This overlap within the structure was a significantly overriding observation. The finding pointed to the analytical and logical mindset that underlies African music (Merriam, 1964). Besides being able to clearly delineate sub-structures that underlie processes of indigenous Kenyan music, the study confirmed the principle of seamlessness and holistic music-making said to characterize African music practice (Anku, 1997; Senoga-Zake 1990; Mans, 2007, amongst others).

7.2.2. Music Processes as Models for Curriculum Design

Since it was necessary to articulate the structures in pedagogic terms, the question ‘Are any of these processes suitable as models for curriculum design and implementation?’ (see Chapter One: 10) remained to be answered. Call and response, the most frequently occurring process, was reflected within the CCLP model (see Figure 2.2: 51) in a bid to inquire into its pedagogic value. Three learning pathways emerged identified as a) linear, b) vertical and c) cyclic.

Results from the experimental study yielded a t value of 0.355 for the control group. With the threshold of significance being 0.05, the result was not found to be important. Results for the experimental group, however, were found to be significantly different after the call and response method had been used. A value of $t=8.927$ for the experimental group was arrived at, negating the first null hypothesis. This hypothesis had maintained that there would be no difference in students' music expectancy scores after using the call and response method in instruction.

Findings in relation to the interaction of the call and response method by gender showed a significance value of $t=2.15$ between boys and girls scores. The second null hypothesis, maintaining that there would be no difference between boys and girls scores, was similarly rejected. The final null hypothesis maintained that there, similarly, would be no difference in music expectancy scores between rural and urban regions. The t value was found to be 0.82, falling below the threshold of significance. The null hypothesis was therefore upheld.

These findings validated indigenous Kenyan music processes as suitable models for curriculum design and implementation. The resolution of this second research question, once more speaks of the potential inherent in indigenous Kenyan music. Ultimately, this provided a basis for the development of a formal method for secondary schools in Kenya. In many ways, such an approach validates the now acceptable method of teaching from "known" to "unknown", thereby building on indigenous knowledge.

7.2.3. The Development of a Formal Method

The main focus of the study is captured in the final research question, 'How can a formal approach that uses indigenous Kenyan music processes to facilitate music education be developed?' (See Chapter One: 10). The study was driven by the prevailing need for a culture sensitive method as advocated by Freire (1982), Njooora (2000), Ekwueme (1983).

Answers and conclusions from preceding research questions (see 7.2.1 and 7.2.2 above) were instructive in answering the final research question that sought to establish how such a method can be developed. These answers defined processes of indigenous Kenyan music and indicated that yes, they are suitable for curriculum purposes. Further guidance was drawn from the music learning and socio-cultural theories as well as CCLP model (see Chapter Two: 45-54). These positions provided a) music sequence, b) social and cultural as well as d) cyclic imports to the development of a classroom method. There was, however, need for a communication paradigm since the development of a classroom method ought to be guided by sound delivery and feedback principles. It was argued that since music education was viewed as a form of musical communication, then the designing of curricula as well as learning process ought to be carried out taking advantage of learning pathways embedded in music.

While there are some examples of curricula based on indigenous music in many parts of the world, this study took the view that learners gain maximum benefit by tapping into music which they are familiar with. In addressing the final research question, the study demonstrates that indigenous Kenyan music has such power and potential to supplement existing instructional practices and in some cases providing fresh approaches based on age-old proven methods.

These age-old methods include: a) apprenticeship; b) cyclic structures; c) call and response; and d) improvisatory processes. The resultant guiding principles are hoped to facilitate the use of indigenous Kenyan music.

In conclusion this thesis has addressed the intended issues. The three questions that were raised at the beginning of the study have been successfully answered. The processes that underlie indigenous Kenyan music were identified and defined in pedagogic terms. Subsequently, their suitability as models of curriculum design and implementation were established. Parameters for developing a classroom method for secondary schools in Kenya are finally defined, resulting in instructional guidelines and pedagogic principles.

7.3. Contribution to Knowledge

CCLP model (see Figure 2.2: 51) is a framework for music teaching and learning, developed in this study. The essence of the model is in the cyclic procedure of experiencing music, a notion informed by an initial review of literature that indicated the repetitive nature of indigenous Kenyan music. The cyclic notion further holds that each repetition points to musical material of varying levels of difficulty, suggestive of a learning sequence. This framework confirms the relevance of African music, an oral art, in contemporary formal settings. It provides a reference point for further inquiry.

Since one of the important functions in music and music education is to convey ideas, it is imperative that inquiry into these disciplines be understood from a communication perspective. With this in mind, a review of existing theories by this study found a gap with regard to theories that address the indigenous African music experience.

This resulted in the development of the structural theory of musical communication (see Chapter Six: 133-137). The position holds that structures within music/ musical experience provide channels through which the exchange of musical information occurs. It goes on to state that such exchange takes place between facilitator/s and audience and that it is highly interactive. In this way, roles of both facilitator/s and audience interchange between 'sender' and 'receiver'.

EP Approach is the ultimate contribution to knowledge by this study (see Chapter Six: 138-171). This is a pedagogy and instructional paradigm, having its essence in a cyclic process according to the CCLP model. The proposal for a classroom method was based on a paradigm of musical expectancy whose main focus is the centrality of music and the musical experience as a pedagogic parameter which permeates other areas of learning including higher order analysis, teamwork, individual learning and co-operative learning. Literature review revealed research activity in music expectancy as being linked directly to music which is practiced within cultural settings. The gist of EP Approach is in structures that provide for constant interactions between given learning cycles, which continually inform the learning processes. Curriculum objectives, teaching and learning tasks as well as assessment strategies are conceived and implemented in a cyclic pattern. The strategy is to continuously re-visit concepts and skills with the intention of bringing learning to a place of assimilation for purposes of transfer as well as creative application. Additionally, teaching and learning tasks are interactive as outlined in the structural theory of musical communication.

7.4. Recommendations

Certain issues emerged in the course of this study, whose scope was beyond the task at hand. The following are recommended:

7.4.1. Research

- i) In the course of establishing schools that offer music as an examinable subject under the 8-4-4 system, it was found that no single school from North Eastern Province had registered candidates for the KNEC examination in 2006. The status remained the same throughout the course of this study. The Ministry of Education ought to carry out an inquiry in this province with regard to factors affecting secondary school education in general, and music education in particular;
- ii) Kenya Institute of Education (KIE) needs to carry out a study with a content issue that will lead to material as well as content development. The use of song as a tool for instruction will require a collection, transcription of the same and sequencing these along the needs of Forms, One to Four. Such a study will require that a syllabus be drawn from the content of the songs as well as musical content that states what concepts and skills are developed at different chronological and experiential stages. The study needs to be multicultural in approach, taking into account the different communities in Kenya;
- iii) The university community in Kenya needs to research on Kenyan dance as a musical art with an aim of providing empirical data for the development of music curriculum in educational institutions;
- iv) Issues of dominance and the ownership of knowledge in indigenous Kenyan music systems kept on emerging in the course of the study. These included taboos and prohibitions that were in favour of boys and men as traditional music practitioners.

There is need for scholars and educators in consultation with the Department of Culture to carry out studies on how a gender blind pedagogy can be developed as well as mainstreaming resources especially with regard to musical instruments;

- v) Since indigenous Kenyan music is intertwined with other musical arts not reflected in the Western classical tradition, there is need for scholars to carry out research on Kenyan folklore traditions/knowledge and how these ideals can be used in secondary school instruction.

7.4.2. Action

- i) In a world where cultural knowledge and traditions are gradually fading away, there is need for the Permanent Presidential Music Commission (PPMC) to document, systemize existing traditional music and traditions for posterity and use in Kenyan schools, for indeed this is a sure way of sustaining information and knowledge on these established indigenous resources;
- ii) The inclusion of a large component of African music in the curriculum was accompanied with workshops sensitizing teachers on how to handle the subject. This, however, was not nationwide and such programs have since then not been sustained. KIE needs to conduct workshops on a regular basis with the aim of building capacities of music teachers in better handling of the elements of music in the curriculum;
- iii) Universities and teacher training colleges need to review their music education programs so as to appropriately address indigenous Kenyan music. Three different areas that need to be looked into are:
- *Models* that are heavily ethnomusicological and silent on pedagogy in as far African music is concerned. There is need to rethink such models with the classroom in mind;
 - *Content* of teacher training programs tends to lean towards information about music rather than that which is music itself.

This emphasis is especially reflected in the area of literacy, music history as well as analysis. There needs to be greater emphasis on musical knowledge leading to growth in audiation, performance, and composition

- *Approaches* to music instruction in Kenya as earlier mentioned in the body of this thesis, are largely theoretical, having borrowed heavily from the Western tradition. The level at which this malpractice ought to be addressed is at teacher training. Instruction methods need to be practical in orientation so that theory translates into practical musicianship (audiation, performance and composition).

7.4.3. Policy

- i) There is need for the Ministry of Education to develop a policy framework for alternative delivery modes to guide education practice in general. This will greatly benefit the discipline of music as there are useful informal methods that ought to be integrated into conventional practice.
- ii) Existing secondary school textbooks are heavily biased towards Western classical music tradition. Few books that touch on indigenous Kenyan music are developed and these along ethnomusicology models. There is need for the Ministry of Education to develop a responsive policy on textbook content in the context of revised curriculum.

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APPENDICES
APPENDIX ONE
CONTENT ANALYSIS CODING SCHEME

A priori set	Recording units of 1-2 sentence
Categories	long phrases
Monophony	
Polyphony	
Call and response	
Cyclic pattern	
Parallelism	

APPENDIX TWO

TABLE OF RANDOM NUMBERS

7951	3476	2354	0242	7152	8674	5448	0195	8622	9247	7281	9578	0902	6694	3963
2257	4938	6217	7111	4503	0361	3932	9936	2115	3019	7885	2588	3444	7845	8453
3713	3030	6397	8223	4104	6652	2042	5426	2095	3527	5968	6639	1865	6977	2635
2251	1040	4452	6214	3607	0446	0669	6163	3945	7094	0933	0837	0817	2494	4288
8787	7821	8636	9296	5164	3064	0730	6308	5851	6336	7984	2435	2664	6370	7338
0475	8732	1291	4380	1690	6299	9695	6222	9531	6141	0072	1674	3265	3960	6199
1806	0890	4708	4885	9877	1841	1405	6989	8145	4270	0986	6491	9238	6446	0123
4328	0539	8747	5385	6536	8833	5741	4217	5798	8019	6746	7476	3982,	5761	1688
0394	0386	6045	0352	5113	2724	4885	8397	8519	2283	7654	9462	9620	7348	4832
5752	0229	4629	3626	2852	0735	9212	7608	0361	1068	2351	3399	4769	2963	5658
9546	4020	4887	5649	5873	0429	5631	5562	9972	7485	4140	7713	2699	9372	2938
6241	6210	4279	3898	8499	8684	0068	2550	7441	7301	3014	8569	8218	2594	0149
6391	8989	1324	6182	0452	7512	2163	6124	1017	1168	0576	6936	0757	9246	2963
6881	4264	1153	4164	0417	5118	7377	6646	3108	6489	9320	2455	2816	5777	7342
2013	8738	6073	9660	1987	7745	4841	4251	6730	8338	9674	5686	4790	3427	6971

APPENDIX THREE

MUSIC EXPECTANCY TEACHING SCHEMES

Song Title: _____

Resources: Kenyan folk tunes, R.I.A Time Names, Tonic Sol-fa, Curwen Hand Signs, Tape recorder, Audio recording, pencils, pens, writing piper

Task 1-Experience of Sound

Objectives: to enable subjects to:

- a) Experience indigenous Kenyan song through listening;
- b) Reproduce the new song with the text from memory through singing.

Procedure

- i. Play the recording to subjects and ask them to listen carefully to the text. Ask the subjects to respond by discussing the song, place of origin and function as well as pertinent socio-cultural information.
- ii. Play a recording of the new song once more at a slow speed and confirm that it has been internalised then ask individual subjects to sing back what they have heard. Eventually call for a group response.
- iii. Present (new) unfamiliar rhythmic patterns in the context of the learnt sections of the song. Transform aspects of these patterns into familiar patterns. Let subjects participate through clapping of the patterns
- iv. Gradually rework and modify the familiar form of the pattern until it corresponds to the first unfamiliar pattern. Ask for a response.
- v. Let the subjects sing the song once more, this time using 'lah' syllables.

- vi. Give instructions on the making of simple percussion instruments for use in later sessions.

Task 2 -Rhythm Exploration

Objectives: to enable students to:

- a) Produce the beat of the song on percussive/ idiophone instruments; Represent the accent on an instrument;
- b) Accurately clap the song's rhythm from memory;
- c) Orally represent sound duration.

Procedure

- i. Ask subjects to listen to the recording of the song and note the strong beat.
- ii. Let them repeat the exercise but this time punctuating the beat on percussive instruments. Caution them against exaggerating the accents.
- iii. Ask the subjects to accompany the song recording with simple percussive Instruments.
 - Let them sing and accompany the song with claps and percussions, with the beats and accents. Divide song activities among three groups whereby one group sings, a second maintains the beat, while the third provides accented beats.
- iv. Alternate the activities of the three groups to ensure full participation in each musical element. Let them:
 - Sing the song
 - Provide percussion part by clapping or using other percussions
- v. Take segments of the song and derive rhythm patterns for subjects to clap in echo fashion.

- vi. Ask them to create gestures to mirror the shape of the melody
- vii. Demonstrate how to vocalize the beat and its subdivisions using R.I.A syllables.
Give subjects exercises to practice this.
- viii. Ask them to repeat the exercise in v) above, this time while saying the respective time names (syllables)

Task 3- Pitch Exploration

Objectives: to enable students to:

- a) Explore the melody by matching sounds that are similar in pitch;
- b) Discriminate sounds and identify intervals formed in the song;
- c) Transfer learnt patterns by singing short coherent responses as continuations of selected sections in the song;
- d) Lead learners to discover new sounds through handling available percussion instruments.

Procedure

- i. Let the subjects get into small groups and practice singing the learnt song. Ask them to identify any sounds that are of the same pitch by matching the text with respective sounds.
- ii. At the end of this exercise ask them to sing the intervals of the song.
- iii. Let subjects sing sequenced exercises containing sounds of small and large distances, in echo form. Give the same exercises at random and ask subjects to raise up their hands each time they hear a specified distance.
- iv. Give the tonal centre of the song. In reference to this, ask subjects to identify the pitches that constitute the rest of the song. Use hand signs in this exercise.

- v. Vocalize small portions of the song using sol-fa and determine the interval of the leaps using conventional terminology.
- vi. Assign different intervals to different groups of subjects. Dictate one interval at a time by humming. The (corresponding) groups to raise up their hands when they hear their assigned interval. Carry out this activity until all the
- vii. intervals in the song are covered. Finally let them sing the song paying attention to the intervals.
- viii. Select phrases in the song and ask subjects to make up short patterns based on these sections and sing them.
- ix. Let the subjects explore the sounds of available percussion instruments and other sound generating material. Let them perform the song accompanied with these instruments.

Task 4 -Rhythm/Pitch Synthesis

Objectives: to enable subjects to:

- a) Discover and recognize similar rhythmic and melodic patterns;
- b) Experience the pattern in the song by accurately imitating them;
- c) Experience the contour of the melody through expressive body movements;
- d) Recognize short motifs through accurate imitation.

Procedure

- i. Play the recording and guide subjects to discover sections in the music that are similar and dissimilar. Ask them to draw simple diagrams illustrating a general map of the song based on such similarities. Let them memorize patterns that are dominant.

- ii. Ask the subjects to sing and move to the song. Ask them to identify the common beat and clap to it. Let them explore this beat through different changes of speed. Ask for responses.
- iii. Carry out an activity similar to task 3 (vi) above but instead of intervals use patterns/ phrases. This time ask each group to stand when their phrases is heard.
- iv. Ask them to suggest short rhythmic motifs for their companions to imitate. Let them gain confidence then go on to demand precision and variety
- v. Ask for different motifs (melodic and rhythmic) from two children. First ask A then B. Carry out auditory recognition. Propose one of the two motifs then ask for them to clap while vocalizing the R.I.A syllables with their eyes closed.
- vi. Select phrases in the song and ask subjects to sing new short musically complete (coherent) patterns based on these sections.

Task 5 -Creative Work

Objectives: to enable subjects to:

- a) Invent rhythmic and melodic ostinatos and dance patterns for accompanying singing;
- b) Display an independent and musical response to given examples.

Procedure

- i. Sing the song. Determine time through clapping or identifying beat and accent. Ask the subjects to clap the rhythm of the melody.
- ii. Let them create a rhythmic ostinato or motif to run through the song. These initial ostinati should be short and simple.

- iii. Ask them to superimpose these for call and response purposes and ask them to clap them in groups. Let them perform the song with at least two of the new ostinati, accompanied on the tuned percussion/ idiophone instruments they made.
- iv. Let them carry out ii) and iii) above this time creating melodic motifs. Guide the subjects in working out appropriate dance movements and simple instrumental accompaniments. Let them in groups, present performances of the song to the rest of the class.
- v. Give instructions on an assignment in which subjects are to individually choose lyrics and compose a simple song in the style of the music used in the classroom. These compositions are to be presented within one week. Students to evaluate each others' compositions by giving comments during the presentations.

Task 6-Literacy

Objectives: to enable subjects to:

- a) Read intervals in treble cleff;
- b) Read simple rhythmic patterns;
- c) Write their created ostinati/ patterns.

Procedure

- i. Give a transcript of a short sequence of notes based on intervals found in the song previously studied. Ask subjects to read the score. Let them exercise to improve the recognition of the name and sound of each note by giving regular time lapses in between. Let them clap to create a regular space of time for thinking. Shorten the time as reading improves.
- ii. Ask them to read fluently always singing and keeping the correct intonation.

- iii. Provide a rhythmic pattern in duple meter. Determine the meter and the unit of time.
- iv. Ask subjects to vocally reproduce the pattern.
- v. Divide into groups with some vocalising the beat and others the accent. Ask a third group to vocalise the rhythm.
- vi. Ask subjects to transcribe the above rhythm as well as the ostinati patterns created in previous lessons.
- vii. Let them interpret each other's transcriptions and give corrections.

APPENDIX FOUR

MUSIC SIMILARITY TEST AND ANSWER SHEET

Eight pairs of tunes will be played. Each pair will be repeated. Listen carefully and tick in the box you agree with on the answer sheet provided after the repetition of each pair.

Name: _____ Date: _____

School: _____

Strongly Similar	Similar	Undecided	Dissimilar	Strongly dissimilar
5	4	3	2	1

Excerpt

1a)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Excerpt

2a)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX FIVE

RHYTHM PATTERN TEST

Instruction:

Ten rhythm patterns will be clapped with a pause after each repetition. Listen carefully and clap back each pattern after its repetition.

Developed by:
Mushira E.

1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

APPENDIX SIX

INTERVAL TEST AND ANSWER SHEET

Instruction:

A recording of ten intervals will be played with a pause after each repetition. Listen carefully and write down the size of each interval on the answer sheet provided.

10 numbered musical staves, each with a treble clef and a key signature of one flat (Bb). Each staff contains two notes: a starting note on the first line (F4) and a second note on a higher line. The intervals between the notes are: 1. Major 2nd (G4), 2. Major 3rd (A4), 3. Major 4th (B4), 4. Major 5th (C5), 5. Major 6th (D5), 6. Major 7th (E5), 7. Octave (F5), 8. Minor 2nd (Gb4), 9. Minor 3rd (Ab4), and 10. Minor 4th (Bb4).

Name.....

School.....

Date.....

Interval

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____
- g) _____
- h) _____
- i) _____
- j) _____

APPENDIX EIGHT

FORM TWO MUSIC SYLLABUS

11.00 BASIC SKILLS

11.1.0 Specific Objectives





By the end of the sub-topic, the learner should be able to:

- Clap and tap rhythms
- Write note values and their corresponding rests
- Read and sing melodies
- Beat time
- Group notes
- Compose own rhythms

11.2.0 Content

11.2.1 Rhythm

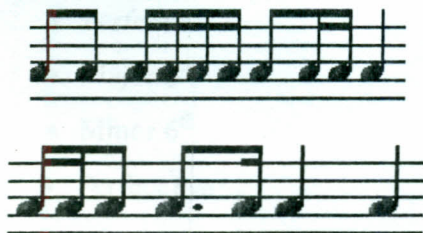
- Note values

Note value	Symbol	Rest
Semi quaver		
Dotted quaver		

11.2.2 Time signatures

- Simple time 2 3 4
4 4 4
- Compound time 6
8

➤ Rhythms in simple time



Rhythms in compound time



12.0.0 Melody

12.1.0 Specific Objectives

By the end of the sub-topic, the learner should be able to

- Construct the major scale of F and A flat ascending and descending
- Construct the ascending and descending harmonic and melodic minor scales of A, D and E.
- Compose 8-bar melodies involving intervals of perfect 4th, major 6th, minor 6th and perfect octaves
- Transpose melodies up or down to another key.
- Sing and write melodies in solfa notation
- Sight sing /read composed melodies
- Write melodies to given lyrics

12.2.0 Content

12.2.1 Pitch

- Major scales of E and A flat
- Minor scales of A, D and E
- Transposition of 8 bar melodies
- Solfa notation
- Melodies to given lyrics

13.0.0 Harmony

13.1.0 Specific Objectives

By the end of the sub-topic, the learner should be able to:

- a) Describe intervals
- b) Write primary triads in root position and their inversions in major and minor keys
- c) Describe primary triads in root positions and their inversions in major and minor keys

13.2.0 Content

13.2.1 Intervals

- Major 2nd
- Minor 2nd
- Major 3rd
- Minor 3rd
- Perfect 4th
- Perfect 5th
- Major 6th
- Minor 6th
- Perfect 8^{ve}

13.2.2 Triads

- Primary triads I, IV, V in major keys
- Primary triads I, IV, V in minor keys

14.0.0 AURALS

14.1.0 Specific Objectives

By the end of the sub-topic, the learner should be able to:

- a) Write rhythms on monotone
- b) Write time signatures
- c) Group notes and their corresponding rest appropriately and according to the beat.
- d) Imitate rhythms

14.2.0 Content

14.2.1 Rhythmic dictation

- Semi quaver



- Dotted quaver



- Semi quaver rest



- Dotted quaver rest



- Time signature 2 3 4 and 6
4 4 4 8

- Rhythms



15.0.0 Melody

15.1.0 Specific Objectives

By the end of the sub-topic, the learner should be able to write four bar melodies including leaps of perfect 4th, major and minor 3rd, perfect 5th and an octave in major and minor keys.

15.0.0 Content

15.2.1 Semi quaver



15.2.2 Dotted quaver



15.2.3 Simple time 2 3 4 4 4 4

15.2.4 Compound time 6 8

15.2.5 Songs

16.0.0 HARMONIC INTERVALS

16.1.0 Specific Objective

By the end of the sub-topic, the learner should be able to name intervals played harmonically

16.2.0 Content

16.2.1 Perfect 4th, 5th and octave

16.2.2 Major 6th

17.0.0 HISTORY AND ANALYSIS

17.1.0 Specific Objectives

By the end of the sub-topic, the learner should be able to:

- Explain and describe effects of religion and modern technology on African music.
- Classify traditional African instruments and their distribution.
- Name and describe Kenyan traditional musicians and their works
- Describe the design and shape of a given folk song
- Describe the role of the instruments in the performance.

17.2.0 Content

17.2.1 African Music

- Music in society
- ✓ Effects of formal education
- ✓ Effects of religion
- ✓ Effects of modern technology
- ✓ Classification and distribution of traditional African instruments
- ✓ Traditional musicians

17.2.2 Analysis of African music

- Types of melodies
- Scale of melodies
- Ornaments
- Vocal and instrumental
- Ensemble

18.0.0 Western music

18.1.0 Specific Objectives

By the end of the sub-topic, the learner should be able to:

- a) Describe vocal and instrumental forms.
- b) Describe baroque orchestra
- c) Explain scales used during the era
- d) Compose secular and sacred music during this period
- e) Analyze melodies of different designs
- f) Explain manner of performance.

18.2.0 Content

18.2.1 Baroque era

- Characteristics
- Composers
- Forms
- Orchestra
- Secular and sacred music

18.2.2 Analysis of Western Music (Melodies analysis)

- AABA Shape
- ABCD Shape
- Melodies curve
- Phrase marks
- Dynamics
- Terms and signs

19.0.0 Practical

19.1.0 Specific Objectives

By the end of the sub-topic, the learner should be able to:

- a) Sing or play major and minor scales
- b) Sing and play arpeggios in major and minor keys
- c) Sight read/sing melodies of given scores.
- d) Perform a selected Kenyan traditional melody.
- e) Play an African piece or a selected African instrument.

Or

- f) Sing a selected African folk song.
- g) Play a selected western piece on a western instrument.

Or

- h) Sing a selected western song.

19.2.0 Content

19.2.1 Technical exercise

- Major scales ascending and descending
- Minor scales ascending and descending
- Major arpeggios ascending and descending
- Minor arpeggios ascending and descending

19.2.2 Sight singing/reading

- 8-bar melodies in major and minor keys

19.2.3 Dance

- Music
- Soloist
- costume and décor
- Choreography
- Formations

19.2.4 African Instruments/voice

- Any vocal/ instrument
- ✓ Breath control
- ✓ Articulation
- ✓ Phrasing
- ✓ Fingering