STUDENTS’ SELF CONCEPT AND ACADEMIC ACHIEVEMENT IN RELATION TO MUSIC EDUCATION AND MUSIC PERFORMANCE: A CASE OF NAIROBI SECONDARY SCHOOLS, KENYA

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SEPTEMBER 2012

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

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This thesis has been submitted for examination with our approval as University supervisors.

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Department of Educational Psychology

DEDICATION
This thesis is dedicated to my love Joseph Kiema for his continuous support, patience and encouragement. It is also devoted to my three children; Kevin Musyoka, Stephen Matiti and Monica Mwende for their prayers, acceptance and understanding for the time I was undertaking my studies.
ACKNOWLEDGEMENT

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<tbody>
<tr>
<td>ACT</td>
<td>American College Test</td>
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<td>EACE</td>
<td>East African Certificate of Education</td>
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<tr>
<td>ECE</td>
<td>Early Childhood Education</td>
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<td>GPA</td>
<td>Grade Point Average</td>
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<td>HOD</td>
<td>Head of Department</td>
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<td>HYP</td>
<td>Hyper competition</td>
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<tr>
<td>IQ</td>
<td>Intelligence Quotient</td>
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<tr>
<td>KCPE</td>
<td>Kenya Certificate of Primary Education</td>
</tr>
<tr>
<td>KCSE</td>
<td>Kenya Certificate of Secondary Education</td>
</tr>
<tr>
<td>KIE</td>
<td>Kenya Institute of Education</td>
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<tr>
<td>MOE</td>
<td>Ministry of Education</td>
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<td>MOEST</td>
<td>Ministry of Education, science and Technology</td>
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<tr>
<td>SAT</td>
<td>Scholastic Assessment Tests</td>
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<td>SCT</td>
<td>Social Cognitive Theory</td>
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<td>SDS</td>
<td>Semantic Differential Scale</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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ABSTRACT

This Study aimed at investigating the relationships between Music Education, Music Performance and secondary school students’ Self Concept and Academic Achievement. Researchers believe that music helps in enhanced brain activity which increases student’s ability to perform certain academic tasks. There are, however, inconsistencies on how music influences Self Concept and Academic Achievement. The researcher aimed at seeking to establish the relationship between each of the independent variables (music Education and music performance), and the dependent variables (Students’ Self Concept and Academic Achievement) and also to establish inherent gender differences. An ex-post facto survey design was used for the study. Form three students in the sixty Public Provinicial Boarding secondary schools in Nairobi County were used out of which eighty participants were selected through purposive sampling to get the schools that offered music as an examinable subject, stratified sampling to get the two different categories (boys’ and girls’ schools) and simple random sampling to get the required sample. A questionnaire was developed and used to collect data. Students’ Academic Achievement was determined by use of examination records, which were converted (standardized) from raw scores to z then to T scores (T= z (sd) + Mean; T= 10z + 50) for comparability since the students had done different exams, marked by different teachers, using different grading systems. On the other hand, Self Concept was measured by the Modified Semantic Differential Scale (SDS). Statistical Package for Social Sciences (SPSS) was used for data analysis and both descriptive and inferential statistics were used. All the hypotheses were tested at α = 0.05. Chi-square was used to test associations, Spearman correlation coefficient to check intercorrelations, while t-test for independent samples was used to test the difference between means. The findings revealed that the relationship between students’ Self Concept and music education was statistically significant; there was a significant difference in Academic Achievement scores between those who studied music as an examinable subject and those who did not; there was no significant difference in Academic Achievement scores between those who participated in music and those who did not; there existed a very strong and significant relationship between each of the specific domains of self-concept and total Self Concept. The findings concurred with the three theories that guided the study, as they demonstrated that music education had a strong and significant relationship with general Academic Achievement and students’ Self Concept. Thus, the researcher recommends that, music be made an examinable subject at all levels of education and also be made a core subject especially in primary schools. Further research could be done on the relationship between music education and other aspects like discipline and also Academic Achievement of specific subjects. Replications of the Study could also be done in different settings using larger populations.
CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Music education is a field of study associated with the teaching and learning of music. More than merely teaching notes and rhythms, music education seeks to develop the whole person (Petress, 2005). It touches on the development of the affective domain, including music appreciation and sensitivity (Yoon, 2000). It also helps to develop fine motor skills in students who play instruments. Music expands cognitive development through the recognition and interpretation of music symbols and notation (Petress, 2005).

Music performance refers to taking part in music presentation; either in a dance, song and performance of a musical instrument, among others. In secondary schools, students often learn to play instruments such as keyboards, guitars, flutes or recorders; they perform in musical ensemble, such as a choir, orchestra, or school band and learn about the elements of musical sound and the history of music (both African and Western).

Music has always been known to be a great healer. In the Holy Bible (New International Version, 1 Samuel 18: 1-12, 19: 9-10), we learn how David played the harp to help ease King Saul’s severe depression. This shows that music is a significant mood-changer and reliever of stress, working on many levels at once.

Music has been used in medicine for thousands of years. For instance, Ancient Greek philosophers believed that music could heal both the body and the soul. Native Americans have used singing and chanting as part of their healing rituals for millennia.
Traditional African societies on the other hand have used music to accompany most of their traditional healing rituals ranging from political, worship, child birth, initiation, weddings and funerals among others. Here music was used for varied reasons and functions including comforting a bereaved family (in funerals/burials), soothing a baby to sleep (lullabies), education (during initiation) reduction of stress/relaxation (after a long day’s work) and enjoyment (in weddings) among others.

The more formal approach to music therapy began in World War II when US Veterans Administration hospitals began to use music to help treat soldiers suffering from shell shock. In 1944, Michigan State University in the United States of America (USA) established the first music therapy degree program in the world.

Scientific studies have also shown the value of music therapy on the body, mind, and spirit of children and adults. Researchers have found that music therapy used along with anti-nausea drugs for patients receiving high-dose chemotherapy can help ease nausea and vomiting (Dickinson, 1993). A number of clinical trials have shown the benefit of music therapy for short term pain, including pain from cancer. Some studies (e.g. Dickinson, 1993; Orford, 2001 and Petress, 2005, among others) have suggested that, when used with pain-relieving drugs, music may help decrease the overall intensity of the patient's experience of pain. Music therapy can also result in a decreased need for pain medicine in some patients, although studies have shown mixed/ inconsistent results.

According to Makobi (1985), music merits to be taught at all levels of education system in Kenya because of its role in the fulfillment of the overall objectives of education. In developing the curriculum for early childhood education (ECE), the Kenya Institute of
Education (KIE) has emphasized the use of music in teaching young children and it is examinable at that level as ‘Music and Movement’.

Music education and music performance have a great influence on a student’s self concept (Schmidt, Zdzinski, and Ballard, 2006). Brandt, 1980; Martin, 1983; McLendon, 1982; Sarokon, 1986; Sunyak and Kaufman, 1983 (as cited in Reynolds, 1992) argue out that, the popular notion that music has the power to influence general self-concept is firmly established in the educational community.

According to Marsh, 2002 (as cited in Aswani, 2007), the desire to enhance the learners self concept should be of major concern in schools. Marsh and Craven, 1997 (as cited in Aswani, 2007) argued that, the attainment of a positive self concept affects academic behavior, academic choices, educational aspirations and subsequent academic achievement. Yoon (2000) on his part supports the idea that, Music Education and Music Performance have a great influence on a student’s general academic achievement.

Learners undertake tasks which they intend to learn and while learning what they intend to learn (intentional learning), they also acquire and retain other information about other aspects of the situation. This other information acquired is referred to as the material incidentally learned (incidental learning). Music is a very fertile ground for incidental learning. Travers (1982) says that, the learner begins by scanning the material presented to him/her and picks up sundry pieces of incidental information. One suspects that, when a learner is forced to repeat a task he/she has mastered again and again, he/she begins to
explore other aspects of the material. This means that, during music education and performance, learners also get materials related to other subjects and this may lead to improved performance in the other subjects hence improving the general academic performance.

The American National Association for Music Education (as cited in Orford, 2001) suggests in their Music Education, four categories of the benefits of music education. These categories are: success in society, success in school, success in developing intelligence, and success in life.

In the African traditional set up, music was used as a tool to educate young people with an aim of integrating them in the society (Mushira, 2002). The learners experienced different types of music within their cultural environment. The methods of teaching allowed for learning through rote, observation, imitation and slow absorption (Nketia, 1979; Zake, 1986). Few members would further their education to attain their proficiency as skilled performers for the community through the apprenticeship system (Okafor, 1988a).

The onset of colonialism brought with it a new system, where informal education was replaced with formal education. The aim of this system was to equip the African child with literacy and numeracy skills so as to prepare him/her, not for life, but to be of better service to the European masters (Kimui, 1988). Music in the school curriculum consisted of choral activities whereby music, entirely of European repertoire was sung (Akuno, 1997a). It is important to note that music was considered an extra-curricular activity,
merely occupying a peripheral position in the education program. In Kenya, African music was not incorporated in the school system even after independence in 1963. Music started having the status of an examinable subject and a little African music content assimilated into the secondary school syllabus in the late 1970’s (Akuno, 1997a).

In 1985, the then Education System; the East African Certificate of Education (E.A.C.E) syllabus was revised and the current 8-4-4 curriculum was ushered in. Here, a large proportion of Kenyan music was incorporated into the music syllabus, consequently, more schools began to offer the subject and it was examinable at both Kenya Certificate of Primary Education (KCPE) and the Kenya Certificate of Secondary Education (KCSE) levels.

The Kamunge report (1988) found the primary curriculum to be rather overloaded in terms of the subject content and the number of subjects being studied and examined. The report consequently recommended the review of the curriculum with a view to allowing for more time to cover curriculum content more effectively and also reducing the number of subjects being studied and examined. Here, music was combined with art and craft in the primary school curriculum.

The Koech report (1999), also found that the primary curriculum was overloaded in terms of the subject content and the number of subjects that were studied and examined. As a result, it recommended that the primary school curriculum be revised with a view of removing all the overlaps across the subjects and make the syllabus manageable. It
further recommended that, some subjects will not be examinable in KCPE and music was classified among them. The implementation of this report (Koech report) saw the degradation of music among other subjects from an examinable subject to a non-examinable subject in the primary school level. This has led to the limited amount of music education in our primary schools which in essence lay the foundation for the child’s secondary education.

Music performance has also been adversely affected because when District schools are strapped of funds, the programs that seem to get cut first before athletics or anything else are the arts programs. Thus, teachers often go against their personal convictions and passions for liberal arts, by responding to pressures and expectations from school and district administrations who often espouse the importance of reading, writing and arithmetic.

The irony is that, teaching music and other art curriculum enhances and contributes to students’ cognitive performance, such as in reading and mathematics (Orford, 2001; Petress, 2005 and Yoon, 2000) and it also boosts their total self concept (Schmidt, Zdzinski, and Ballard, 2006). Skills learned in music such as creative thought and spatial reasoning abilities, enhance an individual’s concept of abstract thought.

Education in itself is a cultural tool by which societies prosper and flourish. In this perspective, music plays a significant role. It is, after all, music that addresses one’s culture, one’s society, indeed, one’s individuality. Music goes beyond the passive concept of being a language that communicates to a person who can sit back and listen. It
is an external element of one’s individuality which encompasses all that culture is. Music is an important developmental connection to one’s society and to one’s inner self which also connects and integrates all the other arts. Indeed, music is a means by which an individual can assimilate internally the many key concepts of one’s culture and express them personally (Orford, 2001).

In addition, the study of fine arts in which music is an example, enhances motivation and discipline, which are intrinsic ingredients necessary to succeed in the academic arena. Riley (as cited in Yoon, 2000) states that, “just as we are tuning out choirs and orchestras, some new studies suggest that music is a valuable learning tool.”

Despite the importance of music shown in several studies e.g., Dickinson, 1993; Makobi, 1985; Petress, 2005 and Yoon, 2000 among others, other studies like Henderson (1983) have shown that music has no effect on self concept and academic achievement thus the need for more research in the area. There has also been a continuous outcry by music scholars on the continued decline of emphasis in the academic curriculum of many countries in the world.

Recently, in our Kenyan curriculum, the trend has been on the reverse. The arts, particularly music, have been maneuvered, misplaced or totally ignored. Kenyan educators have always been inconsistent in their views of music in education. For the most part, they fail to recognize the research which supports music as a necessary core subject. In so doing, education fails to address the broad concept of a culture which includes music - a culture which is supposed to be the core, the basis of an all-
encompassing education system, hence the need for this study. Hughes (1983) points out that, more serious in the context of music and the average child is the problem of music teaching in primary school, which is not only unsolved but is becoming less popular. The lack of conclusive evidence regarding music education and self-concept may simply reflect the scarcity of research specifically related to this topic, thus the need for the current study.

1.2 Statement of the Problem

Some studies have reported inconsistent results on the relationship between music education, music performance and students’ self-concept and academic achievement. For instance, Schimidt, Zdzinski, and Ballard (2006) reported that undergraduate music majors scored high on the positive scales of Erik Erickson’s model of psychosocial development and low on the negative scales. Henderson (1983) on the other hand reported that, from pre-test to post-test, there were no significant changes in self-esteem for either the control or the experimental groups. This shows some conflict of opinion hence need for more research.

Secondly, most of the studies on this topic were done in the developed (Western/European) countries and there is no study that had been done in a developing country in Africa specifically in Kenya to look at the relationship between music education, music performance and the students’ self concept and academic achievement. The current study was therefore designed to investigate the relationship between music education; performance and secondary school students’ self concept and academic achievement in
Nairobi Kenya. Further, the study explored the possibility of any inherent gender differences in all the study variables (music education, music performance, self concept and academic achievement) and also the relationship between the two assumed independent variables (music education and music performance).

Most of the other studies were either experimental or quasi experimental thus the need to undertake a study with an ex post facto survey design.

1.3 Purpose of the Study

The primary concern of this study was to investigate the relationships between music education and performance and the students’ self concept and academic achievement. It also sought to establish the inherent gender differences in all the study variables. Further, the study in its exploratory part established which independent variable was a major booster of self concept and academic achievement.

1.4 Objectives of the Study

The study sought to determine:

i) The relationships among music education, music performance and self concept.

ii) If there were academic achievement differences between those who studied music as an examinable subject and those who did not.

iii) Whether there were academic achievement differences between those who participated in music and those who did not.
iv) The relationships among the various domains of self concept and the main variables for the study.

v) If there were any gender differences in all the study variables.

1.5 Research Hypotheses

The study was guided by the following research hypotheses;

H$_{a1}$: There is a significant relationship between music education and students’ self concept

H$_{a2}$: There is a significant relationship between music education and the specific domains of self concept.

H$_{a3}$: There is a significant relationship between music performance and students’ self concept.

H$_{a4}$: There is a significant relationship between music performance and the specific domains of self concept.

H$_{a5}$: There are significant differences in academic achievement between the students who study music as an examinable subject and those who do not.

H$_{a6}$: There are significant differences in academic achievement between the students who participate in music and those who do not.
**Hₐ₇**: There are significant academic achievement differences in the specific domains of self concept.

**Hₐ₈**: There are significant gender differences in students’ self concept and students’ academic achievement.

**Hₐ₉**: There are significant gender differences in the specific domains of self concept.

### 1.6 Significance of the Study

The findings of the study might be useful to the curriculum developers because there might be need to make music an examinable subject at all levels of education. It might also be useful to music teachers for motivating them to improve their teaching of performance skills. Further, it might be useful to heads of departments (HODs) careers or career masters in guiding secondary school students during subject selection. The study too might be useful to the music education policy makers and administrators to ensure that schools offer music education and performance. The study might be useful to parents in guiding and motivating their children, to students while making subject selection and finally, the study contributes to the existing literature and knowledge.
1.7 Limitations and Delimitations of the Study

1.7.1 Limitations

The study had the following limitations:

(i) There might have been other factors which no doubt contributed to self concept and academic performance.

(ii) There might be limited generalizability of the results due to time and financial constraints which led to a few schools being sampled for the study.

1.7.2 Delimitations

The following was the scope of the study:

(i) The study was based in Nairobi province and only public provincial secondary schools that offered music were included in the study.

(ii) The study focused mainly on the music student performers but not music student composers.

1.8 Assumptions of the Study

The study assumed that:

(i) Music education and performance have influence on students’ self concept and academic achievement.

(ii) Music education and performance existed in secondary schools in Nairobi province.

(iii) Music education and performance provide the opportunity for experiencing concepts found in other disciplines.
Music enhances interest in school hence liking the school subjects.

1.9 Theoretical Framework and Conceptual Framework

This study drew ideas from three theories; the theory of symbolic interaction by George Mead; the theory of cognitive development by Jean Piaget and the social cognitive learning theory by Albert Bandura.

1.9.1 George Mead’s Theory of Symbolic Interaction

Symbolism is the use of symbols to represent things such as ideas and emotions. Language is highly symbolic, but symbolism refers specifically to totemic symbols that stand on their own. In music education and performance, symbolism is highly used. For instance, symbols like ♪♫ will represent length of a beat in a rhythm.

In his article “A Behavioristic Account of the Significant Symbol” (1922), Mead came up with the theory of Symbolic interactionism which studies the behaviour of individuals and small groups through observation and description, viewing people's appearance, gestures, and language as symbols they use to interact with others in social situations. In Music education and performance symbolism is highly used. The mind uses symbols to form free association, organization and connections between symbols hence boosting academic achievement. The theory takes a perspective of society from within, as created by people themselves.
In Psychoanalysis, Sigmund Freud and Carl Jung envisioned symbols as being not of the mind, but rather the mind's capacity to hold information. The mind uses symbols to form free association, organization, and connections between symbols. A symbol's meaning is based upon factors including mass usage, history, and contextual intent.

1.9.2 Jean Piaget’s Cognitive Development Theory

Swiss biologist and psychologist Jean Piaget (1896-1980) is renowned for constructing a highly influential model of child development and learning. Piaget’s theory is based on the idea that the developing child builds cognitive structures—in other words, mental “maps,” schemes, or networked concepts for understanding and responding to physical experiences within his or her environment (Piaget, 1992b). Piaget further attested to the view that a child’s cognitive structure increases in sophistication with development, moving from a few innate reflexes such as crying and sucking to highly complex mental activities.

Piaget’s theory identifies four developmental stages and the processes by which children progress through them (Piaget, 1953). The four stages are: Sensorimotor stage (birth - 2 years old), Preoperational stage (ages 2-7), Concrete operations (ages 7-11 years old) and formal operations (beginning at ages 11-15).

Piaget outlined several principles for building cognitive structures. During all development stages, the child experiences his or her environment using whatever mental maps he or she has constructed so far. If the experience is repeated once, it fits easily—or is assimilated—into the child’s cognitive structure so that he or she maintains mental
“equilibrium.” If the experience is different or new, the child loses equilibrium, and alters his or her cognitive structure to accommodate the new conditions. This way, the child erects more and more adequate cognitive structures. Music being a subject that emphasizes repetition of concepts which enhance easy assimilation in a child’s cognitive structure, it helps in boosting a child’s general academic achievement.

According to Piaget, all development emerges from action; that is to say, individuals construct and reconstruct their knowledge of the world as a result of interactions with the environment. Piaget’s cognitive theory asserts that mental constructs are developed through experiences in the environment. He believed that the learners construct their own reality or at least interpret it based upon their perceptions or experiences (Piaget, 1953). Piaget suggested that a classroom teacher performs a difficult task: the educator must provide students with opportunities for personal discovery through problem solving, rather than indoctrinating students with norms.

Music being a subject that involves a variety of skills provides the environment for learners to discover, assimilate and accommodate new information. Music education and performance too provides a student with a variety of experiences like theory, singing, dancing, sight reading, sight singing, aurals among others and these as Piaget suggested, enable the children to form ways of thinking through their experiences. Exposing a student to a variety of these experiences helps in improving their cognitive development (Piaget, 1965).

Piaget’s theory has a very big impact on learning in that, on curriculum, he says that educators must plan a developmentally appropriate curriculum that enhances their
students’ logical and conceptual growth. Music emphasizes the conceptual growth in a variety of ways like using the musical notes, staff notation, solfa notation and time signatures among others. On instruction, Piaget argues that teachers must emphasize the critical role that experiences—or interactions with the surrounding environment—play in student learning. For example, instructors have to take into account the role that fundamental concepts such as the permanence of objects play in establishing cognitive structures. Music instruction and performance uses a variety of experiences or interactions with the environment in the various genres like songs, dances and instrumentals.

Piaget also believed that an individual’s knowledge is a function of one’s prior experiences, mental structures and beliefs that are used to interpret objects and events and that, children adapt their thinking to include new ideas through Categorization, Classification and Adaptation (occurs through assimilation; incorporating new information into existing knowledge and accommodation; adjusting to new information). The process through which people interact with the environment remains constant, (Piaget, 1965)

1.9.3 Albert Bandura’s Social Cognitive Learning Theory

The theory of social cognitive learning on the other hand assumes that, people learn social behaviors mainly through observation/modeling or imitation and mental processing of information (Bandura, 1977). Bandura identified three basic models of observational learning: A live model, which involves an actual individual demonstrating or acting out a behavior, a verbal instructional model, which involves descriptions and explanations of a behavior and a symbolic model, which involves real or fictional characters displaying
behaviors in books, films, television programs, or online media. He also noted that external/environmental reinforcement was not the only factor to influence learning and behavior. He described intrinsic reinforcement as a form of internal reward, such as pride, satisfaction and a sense of accomplishment. Music performance provides this internal reward. Bandura believes that, learning guides a person’s behavior so that it is in accordance with societal norms, values and beliefs, thus enabling a person to adjust successfully to the society.

Bandura also believes that behavior learning is ongoing and continuous and that behavior is picked consciously and unconsciously. Within this perspective, one's behavior is constantly under reciprocal influence from cognitive (and other personal factors such as motivation) and environmental influences. He calls this three-way interaction of behavior, cognitive factors, and environmental situations the "Triadic Reciprocality."

Applied to an instructional design perspective, students' academic performances (behavioral factors) are influenced by how learners themselves are affected (cognitive factors) by instructional strategies (environmental factors), which in turn builds on itself in cyclical fashion.

The three factors, environment, people and behavior are constantly influencing each other. Behavior is not simply the result of the environment and the person, just as the environment is not simply the result of the person and behavior (Glanz, K., Rimer, B.K.
& Lewis, F.M., 2002). The environment provides models for behavior. Observational learning occurs when a person watches the actions of another person and the reinforcements that the person receives (Bandura, 1997). The concept of behavior can be viewed in many ways. Behavioral capability means that if a person is to perform a behavior, he/she must know what the behavior is and have the skills to perform it. The dynamic interaction of the person, the behavior, and the environment, in which the behavior is performed, considers multiple avenues to behavioral change, including environmental skills and personal change. Social Cognitive Theory (SCT) describes learning in terms of the interrelationship between behavioral, environmental factors and personal factors. Bandura calls this reciprocal determinism. This is represented in a conceptual model on figure 1.1.

Figure 1.1 Reciprocal Determinism Model

Source: Bandura (1986)
Music provides opportunities for learning through observation/modeling/imitation and mental processing in its widely varied genres (types) such as songs, dances and instrumentals. For instance, a song with a scientific theme can provide an opportunity for the learner to learn scientific concepts either consciously or unconsciously. Bandura also notes that, not all observed behaviors are effectively learned. Factors involving both the model and the learner can play a role in whether social learning is successful. Certain requirements and steps must also be followed. The following steps are involved in the observational learning and modeling process:

1) **Attention:** In order to learn, you need to be paying attention. Anything that detracts your attention is going to have a negative effect on observational learning. Music education and performance too requires a lot of attention.

2) **Retention:** The ability to store information is also an important part of the learning process. Retention can be affected by a number of factors, but the ability to pull up information later and act on it is vital to observational learning. Music education and performance too rely on the ability to retain information.

3) **Reproduction:** Once you have paid attention to the model and retained the information, it is time to actually perform the behavior you observed. Further practice of the learned behavior leads to improvement and skill advancement. Music education and performance emphasize reproduction of the behavior observed.

4) **Motivation:** Finally, in order for observational learning to be successful, you have to be motivated to imitate the behavior that has been modeled. Reinforcement and
punishment play an important role in motivation. While experiencing these, motivators can be highly effective. For example, if a student sees another student being rewarded for performing well in music, for dancing well or for singing well, then he/she could feel motivated to participate too.

In summary, the notion of modeling and vicarious experiences is typically the way human beings learn. In 1986 Bandura refined Social Learning Theory into Social Cognitive Theory. Bandura posits that children and adults operate cognitively on their social experiences; these cognitions then influence behavior and development. The influences of behavior, individual, cognitive, and environmental factors determine how people interact and learn from each other (Bandura, 1986). The main concepts of social cognitive theory explain human behavior as a dynamic and correlated interaction between the person and the environment. Bandura posits that individuals learn from their interactions and observations, and named the dynamics that are vital to this process: reciprocal determinism, symbolizing capability, vicarious capability, forethought capabilities, self-regulatory capabilities, and self-reflective capabilities (Bandura, 1986).

1.9.4 Summary of Theoretical Framework

From the above discussion, it is clear that theoretically, there is a lot of learning that is developed from the environment either through experiences as Piaget puts it or through observation/modeling or imitation as Bandura puts it. In addition, music learning involves the interpretation of many symbols to get meaning out of different situations. For a secondary school student, a good measure of one’s learning is the academic
achievement/performance as evidenced in grades earned in school examinations. An individual’s academic ability is related to self-concept (Aswani, 2007; Bali, 1997).

The rationale derived from the theories stated above is that, music education and performance provides an environment for students to learn either consciously or unconsciously thus they have a positive relationship with academic achievement and self-concept. A conceptual framework is drawn to illustrate the anticipated interrelationships (Figure 1.2).

1.9.5 Conceptual Framework

A conceptual framework illustrating the interrelationships between the main study variables (Students’ self-concept, academic achievement, music education and music performance) is given in Figure 1.2. Further, the anticipated relationships between other study variables like gender are also shown.

A strong interaction was expected between the main independent variables (music education and music performance) and the dependent variables (student’s self concept and academic achievement).
Figure 1.2- Conceptual Framework

**KEY:** 
- Direction where a strong influence is anticipated.
- There is an interactive effect.

(Source: The Researcher)
1.10 Operational Definition of Terms

**Academic achievement** - This was used synonymously with academic performance and it was determined by the points a student obtained at the end of the term examinations.

**General academic achievement** - this was used to refer to the performance in many subjects

**Learning** - Was used to refer to the ability of a student to be able to understand and comprehend new things and ideas.

**Moderate/ average self concept** - this was indicated by a total score of between 67 and 90 on the Modified Semantic Differential Scale.

**Music** – was used to refer to both music education and music performance.

**Music Education** - was used to refer to studying music for academic purposes, that is, an examinable subject.

**Music Genre** - Any type of music, thus it was used synonymously with music type.

**Music Performance** –Taking part in any music presentation either dance, song, playing of musical instrument etc.

**Negative self-concept** - this was indicated by a total score of between 18 and 42 on the Modified Semantic Differential Scale.

**Participating in music** - was used synonymously with music performance.

**Positive self-concept** - this was indicated by a total score of between 43 and 66 on the Modified Semantic Differential Scale.

**Self-concept** - How students view themselves, the way one perceives and evaluates oneself, their thoughts, opinions and attitudes of themselves. The image of oneself is related to specific areas of behavior such as character self, the emotional self, physical
self, academic self, social self and family self. An individual can either have positive or negative self-concept.

**Total Self-concept** was used synonymously with self concept and it was achieved by getting the total score after adding all the scores of each specific domain of self concept and then adding all the scores of the six domains for each participant.
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

Although there is limited literature on the relationship between Music Education and Performance and secondary school students’ Self Concept and general academic achievement, issues related to it have been highlighted by a few scholars. In this chapter, vital information regarding what these scholars have expressed concerning the importance, influence and relationship among music education; music performance and the students’ self concept and general academic achievement was reviewed. Further, the relationships between gender differences and self concept, music education, music performance and academic achievement were also reviewed. Finally, a summary of the reviews was given.

2.1. Relationships among Music Education, Music Performance and Self Concept

Music Education and Music Performance have a great influence on an individual’s total self concept. Several studies have supported this relationship. For instance (Schmidt, Zdzinski, and Ballard, 2006) in their study involving 148 undergraduate music education majors from three American universities showed that, using Erickson’s model of psychosocial development, undergraduate music majors scored high on positive scales such as trust, autonomy and initiative while they scored low on negative scales such as mistrust, inferiority and isolation. Similarly, Wubbernhorst (as cited in Schmidt et al., 2006) found out that, the Jungian personality traits of intuition, (preference for
abstraction and creative endeavors) and feeling (preference for subjective, human values) have been identified as modal traits of pre-service music teachers.

On internal locus of control, Madsen and Coins (as cited in Schmidt et al., 2006) observed that undergraduate music education majors had a significantly greater internal locus of control (attributions of effort or ability rather than luck, chance, or powerful others) than either music performance or music therapy majors. Internal locus of control is germane (important/relevant) in that, it has been related to higher academic achievement and intrinsic motivation as Nowicki and Duke (as cited in Schmidt et al., 2006).

Bergee (as cited in Schmidt et al., 2006) says that, given the history and culture of music education, competitiveness is a value that helps in rating an individual’s self concept. Studies aforementioned showed that pre-service music teachers scored high on command (competitiveness). Hypercompetitive (HYP) individuals tend to be concerned with domination and control over others and score high on narcissism. Ryckman, et al, (as cited in Schmidt, et al., 2006) said that, HYP has been correlated positively with neuroticism, aggression, dominance, exhibitionism, disinhibition, boredom, susceptibility and Machiavellianism. Furthermore, HYP has been found to be correlated negatively with self-esteem and positively with need for power and need to manipulate others.

The findings of Schmidt et al.(2006), revealed that, the sample which comprised of 148 music majors enrolled in three university school/departments of music, scored relatively
high on musical self concept. Likewise the sample had high means for Scholastic Assessment Tests (SAT) - Verbal and SAT- Mathematics. Further, the study revealed that mean differences by university were significant. However, univariate F tests indicated that, self concept in music was the sole variable which differed by university. Correlation between variables revealed that self concept was significantly related to intrinsic motivation for one university 1 (r = .25), but not for the other two university samples. The results indicate that, undergraduate music majors, in general, register tendencies toward mastery, cooperation, and intrinsic motivation orientations. That is, they define their own success by achievement of personal goals, mastery of challenging tasks, and collaboration with others. These orientations seem to boost the student’s positive self concept. The sample as a whole had a relatively internal locus of control, which confirmed the results of Madsen and Coins, 2002 (as cited in Schmidt et al. (2006). These findings were supported by relatively low means for personal development competition and hyper competitiveness in comparison with means of general undergraduate students as stated by Ross et al. (as cited in Schmidt et al., (2006).

Henderson (1983) conducted a study to determine the effect of 18 one-hour music therapy sessions on the self-esteem, awareness of mood in music, and group cohesion of 13 subjects diagnosed with adjustment reaction to adolescence. Subjects were assigned randomly to either an experimental or a control group. Control group subjects received no music therapy. From pre-test to post-test there were no significant changes in self-esteem for either the control or the experimental groups as measured by the Coopersmith Self-
Esteem Inventory (1967). However, anecdotal accounts by the staff members indicated that subjects in the experimental group displayed increased confidence.

Draper and Gayle (1987) surveyed 108 early childhood education textbooks published between 1887-1982, with the majority published between 1973-1982. From these textbooks, the reasons cited for teaching music clustered into 10 categories. Several of these categories implied a connection between self-concept and music study. Eleven percent of the authors believed that music instruction helped a child to feel positively about him/herself. The most commonly cited reason for teaching music, cited by 70% of the authors, was to provide an opportunity for self-expression and creative pleasure.

It is possible that social factors involved in the music experience are responsible for much of the perceived gains in self-concept. Music provides an opportunity for students to participate on a social level through ensemble activities. These increased social opportunities possibly affect students' social self-concepts.

There has not been much effort made to isolate the social factor in self-concept research regarding music students. However, Murdock (1991) found that music students differed significantly from non-music students regarding social self-concept, although it was not possible to conclude, this was the result of the choir experience alone. Hylton (1981) also found that social factors were a significant part of the choral experience.

Kalliopuska, (1989); Sarokon, (1986) and Sunyak & Kaufman, (1983) (as cited in Reynolds, (1992) stated that, literature regarding the relationship between general self-concept and music education is inconclusive. In addition to the lack of empirical data to
support such beliefs regarding music and self-concept, descriptive literature describing the positive relationship between the arts (including music) and general self-concept continue to proliferate. Such literature suggests that there is a discrepancy between common perception and conclusive evidence.

2.1.1 Relationships among Music Education, Music Performance and the Specific Domains of Self Concept

Mutweleli (2009) in his study on the influence of some selected predictor variables on the secondary school students’ occupational aspirations did an intercorrelation of the specific domains of self concept and other main variables for his study. His findings revealed that there existed a relatively strong positive correlation between the various domains of self-concept and that these intercorrelations were significant (p < 0.01). With regard to the relationship between the specific domains and self-concept, Mutweleli reported that there existed a relatively strong relationship, with the highest relationship found between character self and one’s self-concept (r = 0.74, P < 0.01). He also found that, academic self was significantly correlated with academic achievement (r = 0.28, p < 0.01) and one’s occupational aspirations (r = 0.14, p < 0.05). The least positive correlation (r= 0.00, p > 0.05) was found between the student’ physical self and occupational aspirations. Mutweleli also reported that there existed a negative relationship between physical self and academic achievement (r = -0.03, p > 0.05). There also existed a negative relationship between social self and academic achievement (r = -0.02, p > 0.05), character self and knowledge about careers (r = - 0.07, p > 0.05), family self and knowledge about careers (r = -0.01, p > 0.05).
2.2. Relationships among Music Education, Music Performance and Students’ Academic Achievement

A modest number of research articles or literature reviews have been concerned with the effects of music education on what has been called general academic achievement, so called because a variety of disciplines were involved. General academic achievement as measured in these studies usually involves reading and/or language arts and mathematics; occasionally science or other disciplines are included as well. In addition to grade point averages and teacher-designed assessments, the following standardized tests have been used in this body of research.

Subjects in these studies ranged from preschool through college students. Sample sizes ranged from fairly small e.g., $N = 42$ (Huang, 2004) to very large, $N = 17,099$ (Cobb, 1997). A few studies included variables such as gender or race, but most did not. Musical experiences included traditional music education activities such as elementary general music or high school band, as well as special programs such as keyboard instruction. In a few studies, subjects were participants in general arts or extracurricular activities, not music per se. A wide variety of research designs and data analysis strategies were employed.

A number of studies support the contention that students who participate in formal music education have higher academic achievement scores than students who do not participate in formal music education (Babo, 2001; Cardarelli, 2003; Cobb, 1997; Cox, 2001; Frakes, 1984; Huang, 2004; Linch, 1993; Miranda, 2001; Mitchell, 1994; Parrish, 1984; Schneider & Klotz, 2000; Trent, 1996; Underwood, 2000; Zanutto, 1997). Furthermore,
being excused from non-music classes to attend instrumental lessons does not adversely affect academic performance (Corral, 1998; Cox, 2001; Dryden, 1992; Engdahl, 1994; Kvet, 1982).

Three selected studies are briefly reviewed here as illustrations of this type of research. Cardarelli (2003) investigated the effects of instrumental music instruction on standardized test performance of third-grade students. Students were divided into two groups: those participating in an instrumental music training program and those not participating. The music training activity was designed for inner city students who could not financially afford to take music lessons. She found statistically significant differences between the mean scores of the two groups, with a positive effect of the music program on the students’ achievement levels.

Schneider & Klotz (2000) examined the relationship between enrollment in music performance classes and athletic extracurricular activities on academic achievement. Three hundred forty six subjects were divided into three groups: musicians (band or choir), athletes, or non-participants. All three groups were statistically equivalent in fifth and sixth grades. During seventh, eighth, and ninth grades the musicians achieved significantly higher academic achievement scores than the athletes but did not score higher than the non-participants. The authors noted that the musicians showed a tendency to maintain stabilized scores while the athletes and non-participant groups’ scores dropped.
Using records from two area high schools, Trent (1996) determined that those high school seniors who had participated in instrumental music programs from sixth through 12th grades scored significantly higher on standardized tests of language arts and math than their counterparts who had participated in non-music extra-curricular activities or who had not participated in extra-curricular activities. Several authors who conducted literature reviews arrived at conclusions supporting these three studies: those who participate in music have higher academic achievement than those who do not (Arnett-Gary, 1998; Yoon, 2000).

Two researchers (Dryden, 1992; Neuharth, 2000) found that music participants had higher achievement scores in reading but not math. Kluball (2000) found that the study of instrumental music was significantly related to mathematics and science tests but not to language arts, social studies, writing and the SAT verbal and mathematics tests. Other researchers (Holmes, 1997; Sprouse, 1971) have either found no significant difference in the academic achievement of music participants and other students or identified alternative explanations for their apparent superiority (Cox, 2001; Rossini, 2000; Schneider & Klotz, 2000; Shadd, 2002). In reviewing the literature, McIntyre & Cowell (1984) found that findings were unclear and often contradictory.

Only five experimental studies have been identified that tested the effects of music instruction on academic achievement. Three of the five obtained results indicated that music instruction did have a positive effect on academic achievement. Olson (2003) affirmed parallel reading and math concepts through Kodaly music instruction with first,
second and third grade students. Female students at all three grade levels improved math scores and males at the first and second grades improved reading scores. Barr, Dittmar, Roberts, & Sheraden (2002) provided elementary students with 16 weeks of instruction for the improvement of listening skills in addition to music instruction. Results indicated improved academic performance. Hoffman (1995) compared fifth graders who received keyboard instruction with those who received traditional text-based music instruction. After one year of instruction (at the end of fourth grade) the keyboard students had higher scores on only one measure, a subtest of language mechanics. However, after two years of instruction (at the end of fifth grade), the keyboard students outperformed their counterparts on total language, 3 R’s battery, concept of numbers, math computations, math applications, and total math.

In contrast to the positive effects on academic achievement found in the studies mentioned previously, Hines (2000) found that neither reading nor mathematics achievement was affected by the type of instruction students received. She had compared the effects of two types of instruction—motoric music instruction (utilizing movement) and non-motoric music instruction (excluding movement) on the academic achievement of learning disabled students from kindergarten through ninth grades. Likewise, third, fourth and sixth grade students who received music instruction did not show improved academic performance over peers who did not receive similar music instruction (Legette, 1993).
Laycock (1992) reported a low correlation between musical characteristics of students’ original compositions and grade point average (GPA). Haynes (1982) used a 10% random sample (12,343) of 123,400 high school students who took the ACT Assessment in 1980-81. She found that participation in instrumental music was not among the five independent variables that contributed most to the criterion variable (scores achieved on the ACT). The five contributing variables (high school GPA, years studied or planned to study in mathematics and natural sciences, rank in high school graduating class, and gender) accounted for 48% of the variance, while including all 17 variables for which data were gathered only accounted for approximately 50% of the variance. Finally, there was no difference in critical thinking scores among college music, business and nursing students (Money, 1997). There was a low correlation between critical thinking scores and GPA for music students, but not for business or nursing students.

Music education and performance are effective antidotes to low academic performance and students’ behavioral problems. A University of California (Irvine) study showed that after eight months of keyboard lessons, preschoolers showed a 46 percent boost in their spatial reasoning IQ. This is to show that, Music enhances “spatial reasoning” (Orford, 2001).

The term “spatial reasoning” applies to the abstract qualities of mathematics which, like music, is a complex language of patterns and relationships that is pre-dominantly non-verbal. Qualitative spatial reasoning in mathematics uses descriptors like – and + instead of real numbers to do its work. The ability of the human mind to understand these
abstract spatial concepts is the key to designing interfaces, to implementing sophisticated computer technology and even geographic mapping. Spatial reasoning, then, is the human attempt to make structured sense out of an abstract of chaos. Storr (as cited in Orford, 2001) writes:

“Mathematics and music both exemplify the fact that making coherent patterns out of abstract ideas is a deeply significant human achievement which enrthalls and satisfies those who are able to understand such patterns whether or not they are directly related to life as it is ordinarily lived.” (P. 4).

A study was done on the effects of three years of piano instruction based on a sample of 117 fourth-grade children attending public schools in Montreal. The children had never participated in formal music instruction, did not have a piano at home and their annual family income was below $40,000. Children in the experimental group \((n=63)\) received individual piano lessons weekly for three years and were given an acoustic piano at no cost to their families. Children in the control group \((n=54)\) did not participate in formal music instruction. Participants were administered tests of self-esteem, academic achievement, cognitive abilities, musical abilities, and motor proficiency at the beginning of the project and throughout the three years of piano instruction. The results indicated that piano instruction had a positive effect on children’s self-esteem and school music marks but did not affect their academic achievement in mathematics and language as measured by standardized tests and school report cards.

A study done by Lesiuk (2005) on the effect of music listening on work performance showed that music listening positively affects work performance. This study by Lesiuk measured the effect of music listening on state positive affect, work quality and time-on-task of computer information systems developers. Effects of music on work performance,
in this case, software design, may be explained by increases in state positive affect. Data from 56 (male = 41, female = 15) developers were obtained from four different Canadian software companies. Data were collected in the participants’ actual work environments for over five weeks. Results indicated that state positive affect and quality-of-work were lowest with no music, while time-on-task was longest when music was removed. Narrative responses revealed the value of music listening for positive mood change and enhanced perception on design while working. Evidence is provided of the presence of a learning curve in the use of music for positive mood alteration. Overall, the study contributes to the development of a model that aspires to elucidate music and workplace interactions. It also has implications for organizational practice (Costa-Giomi, 2004).

On his part, researcher Amy Graziano, as cited in Orford (2001) studied the effects of piano instruction and mathematics software usage on 237 second graders. The group that took the piano lessons scored 27% higher on proportional mathematics and fractions tests than the children who only used the math software. In agreement with this view, Kosik (as cited in Yoon, 2000) argues that, when a child learns to play the piano, he/she is developing architecture in the brain in the same area used for reading and mathematical skills.

Historically, music has been used as a tool for learning, it has always helped people tell and remember stories (Yoon, 2000). As music helps the brain to develop optimally, the natural beneficial outcomes are evident in the area of academics. Kelstrom, 1998 (as cited in Yoon, 2000) suggests that, music should assume a place in the regular school curriculum as it shows its effects on academic achievement and contributes to students’
education. Several educators and scholars have looked into the influence/importance/relationship between music and learning/academic achievement. For instance, Frank Wilson, a neurologist (as cited in Yoon, 2000) stated that, scan studies indicate that music more fully involves brain functions in both hemispheres than any other activity the researcher studied. He also stated that research indicates that intelligence is increased when a child learns to play a musical instrument.

Music involves coordination of most parts of the body and one needs to be motivated in order to coordinate these parts. Davies, 2000 (as cited in Yoon, 2000) believes that, “once motivated, a person is motivated and actively involved, learning is optimized.”(p.10)

According to Campbell (as cited in Yoon (2000), the planum temporale, an area of the brain associated with language processing located in the left side of the brain is pronounced in musicians. He therefore emphasizes the power of music in brain development.

Music is a way of knowing. According to Harvard psychologist Gardner (1983), music intelligence is equal in importance to logical- mathematical intelligence, spatial intelligence, bodily- kinesthetic intelligence, interpersonal intelligence and intrapersonal intelligence. According to Armstrong (1994), intelligence is galvanized by participation in some kind of culturally valued activity.

It is also believed that, music is a product of the intellect; but it also exerts power over the intellect (Orford, 2001). Canadian educators were speaking out for music in education,
promoting the belief that “music is very properly considered one of the most refined means of elevating our minds.” An educational system that promotes such a cultural development is thus compelled to develop a curriculum that really matters to the students (Orford).

Other studies show that, keyboard instruments in music classrooms may well put young students on the road toward both a greater interest in music and stronger overall academic achievement, as suggested by a study sponsored by Baldwin Piano & Organ Company (Yoon, 2000).

In conclusion, after reviewing several studies on the importance of music in the general academic performance, Dickinson (1993), in his study, ‘Music and the mind’ concluded that, when people listen to melodies with a variety of pitch and timbre, the right hemisphere of the brain is activated. It also "lights up" when people play music by ear. When, however, people learn to read music, understand key signatures, notation, and other details of scores, and are able to follow the sequence of notes, then the left hemisphere "lights up." Significantly, it is activated in the same area that is involved in analytical and mathematical thinking. Thus, studying and performing music helps in mathematical achievement.

2.3 Gender Differences in Students’ Self-Concept

Worldwide, several studies have been carried out on the relationship between self-concept and gender differences. As Juma (2004) argues, historically, gender has been seen as one of the most important contributors to the variance in adolescent’s self-
concepts. Most studies have established a significant gender difference between boys and girls in terms of total self-concept in favor of boys. However, in respect to various domains of self-concept, the results are varied with girls having higher self-concepts in particular domains such as moral self-concept and boys having higher scores on components like physical self-concept.

Calysin and Kenny (1977) did a study among students in grades 13-16 in Britain. The sample consisted of 556 students. They studied gender differences in student’s self-concept among other variables. They concluded that there was convincing evidence that males had higher self-concept of ability compared to females.

Aswani (2007) did a study on an investigation into some selected factors on academic self concept among primary school pupils in Bondo District, Kenya. The sample consisted of 5 head teachers, 29 teachers and 972 pupils (475 girls and 497 boys). She found out that, in the general sample, there were no gender differences in academic self-concept but class by class analysis revealed that at lower classes girls had a relatively higher self concept, though this changed as they moved to upper classes. She also found out that, gender differences were observed in upper classes in academic self concept by subjects. Boys rated themselves significantly higher in mathematics and science while girls rated themselves significantly higher in the two languages (English and Kiswahili) than boys.

Piers (1984) tested her self-concept scale on a sample of 485 adolescents from Los Angeles. She found gender differences in self-concept. In respect to self-concept domains, physical ability and academic self-concepts favored males while verbal self-
concept favored women. In summary, using cluster scales, she found significant gender differences on 33 of the fifty items that appeared consistent with the sex stereotypes. However when analyzing the total self-concept, she found no significant gender differences.

Klein and Zehms (2001) reported the findings of a study whereby they examined the self-concept of a small group of academically gifted adolescents in New Zealand with an aim of exploring gender differences. Using the Tennessee self-concept scale: 2, (a sample of 40 male and female 15 -18 year old students participated). Results indicated significant gender differences: Male scored higher than females on most dimensions with the exception of self-criticism, moral self-concept, and inconsistent responding. In all other areas including identity and satisfaction with themselves and their behavior, males scored higher than females. The mean male score for total self-concept (52.1) was higher than the female score (49.5). Although some of these mean differences between male and female scores were quite large, only the academic/work self-concept was statistically significant. The mean female academic/work self-concept was 50.20

Juma (2004) carried out a study on the relationship between self-concept and vocational aspirations among adolescents in Togaren Division. The study sample was drawn from ten randomly selected secondary schools. Stratified random sampling was used to select a sample of 294 subjects comprising of form one and form four students, out of which 146 were boys and 148 were girls. The semantic differential scale was used to measure self-concept. He also performed a t-test to find out gender difference in self-concept. He found that, the mean self-concept score of boys was 63.35 while that of girls was 61.35.
However, the difference between the mean self-concept scores was not statistically significant at $P < 0.05$.

Austin, 1990; Haladyna & Thomas, 1979 (as cited in Reynolds, 1992) suggested that female students have better attitudes toward music and more positive music self-concept than male students. It is possible that this is a reflection of the societal viewpoint that it is more acceptable for female students to excel in music (Reynolds, 1992).

Mutweleli (2009) performed a t-test to find out whether there were any gender differences in students’ self-concept. He found out that boys had a higher mean self-concept of 74.00 compared to girls who had 73.68. However, this difference showed no significant sex differences in students’ self-concept when subjected to t-test ($t = 0.33$, $df = 238$, $p = .738 = > 0.05$). Thus he concluded that there were no significant sex differences in self-concept. He further explored the sex differences which existed with respect to the specific domains of self-concept and he found that only mean difference in emotional self was significant ($t = 3.56$, $df = 238$, $P = .00 = < 0.05$) and this was in favour of boys.

As many studies that have been reviewed reveal, gender differences in self-concept have been found to be insignificant in most occasions. However, with respect to specific domains of self-concept, significant gender differences have been found. Many studies done locally have addressed themselves to the total self-concept (whether positive or negative). Further, there is need to study how boys and girls differ in terms of the specific domains of self-concept as measured by the Modified Semantic Differential Scale.
2.4 Gender Differences in Academic Achievement

Fennema and Sherman, 1978 (as cited in Lane, Andrew, and Kyprianon, 2004), found that there were no significant differences with gender and mathematics learning, nor with gender and motivation for learning, for 1,300 middle school children. There were, however, significant effects on mathematics confidence and on perceptions of mathematics as a male domain, with boys reportedly averaging higher on both variables. When these results are compared to previous research by the same authors (Sherman and Fennema), using the same design but with high school students the overall results indicate that the gender gap on mathematics confidence and perceptions begins to widen in middle school and increasingly widens in high school. Although these studies did not measure self-efficacy per se, the significant variables of confidence and gender stereotyping of a domain are contributing sources of self-efficacy information. Self efficacy can be defined as the levels of confidence individuals have in their ability to execute certain courses of action, or achieve specific outcomes (Bandura, 1977) and it is known to affect academic achievement/performance.

2.5 Summary of the Reviews

The literature reviewed shows that music is a basic means of expression and communication embraced throughout history by virtually all cultures. In terms of the individual, studies have proven the value of music in developing the whole child, emotionally, physically and intellectually. The review also discussed the importance of music in developing an individual’s self concept and the general academic achievement. From the above literature review, it is observed that:
(a) Several studies are in agreement that, music education and performance have a significant positive relationship with both self concept and academic performance.

(b) Studies have reported inconclusive results as to whether there are significant gender differences with regard to self-concept and academic achievement. While some have found significant difference, others have reported insignificant difference with regard to self-concept, but reported significant gender differences with respect to the specific domains of self-concept. There is need for more studies to provide evidence on gender difference(s) on students’ self concept.

(c) No study has been done to find out whether there is any significant relationship between music education, music performance, self concept and academic performance and thus there is need to explore this area.
CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction
In this chapter, a detailed description of the research design, research variables, location of the study, target population, sampling, research instruments, pilot study, data collection and logical/ethical considerations is provided.

3.1 Research design
The study was an ex post facto survey design. The study used Ex post facto design because it explained about cause and effect relationships which did not permit manipulation of the variables because manifestation had already been done. It was a survey because sampling was done and a questionnaire was the major mode of data collection. The researcher wished to know about relationships that existed between the study variables (music education, music performance, academic achievement and self concept). Kerlinger (1964) defines an ex-post facto research as a systematic enquiry in which the scientist does not have direct control of the independent variables because their manifestation has already occurred or because they are inherently not manipulatable. He adds that, inferences about relations among variables are made without direct interruption from independent and dependent variables. Cohen, Lawrence and Keith (2003) said that, two kinds of designs may be identified in ex post facto research, that is, the correlational study and criterion group study termed as casual research. In the current study, the researcher adopted the correlational design. This design is concerned with identifying the
antecedents of a present condition (Cohen et al. 2003). As its name suggests, it involves the collection of two sets of data, one which is retrospective, with a view of determining the relationship between them. The basic design of such a correlation may be represented as:

\[
\begin{array}{cc}
X & O \\
\text{Treatment (I.V)} & \text{Measured Data (D.V)}
\end{array}
\]

Where a strong relationship is found between the independent and dependent variable(s), three possible interpretations are open to the researcher;

i. That the variable X has caused O;

ii. That the variable O has caused X; or

iii. Some third unidentified, and therefore unmeasured variable has caused X and O.

In this study, treatment was not done but manifestation had already happened because it is a non-experimental research where the researcher had no control of the variables. There was likelihood that either the independent variables (music education and music performance) had an effect on the dependent variables (students’ self concept and academic achievement) or vice versa because they were found to have strong relationships.

### 3.2 Research Variables

The assumed main independent variables for this study were, Music education (studying versus not studying music as an examinable subject) and Music performance
(participation versus non-participation in any music genre). The dependent variables were self concept and academic achievement. With regard to students’ self-concept, the specific domains studied were: physical self, character self, emotional self, academic self, social self and family self. For the academic achievement, students’ raw scores were used after being converted to T-scores. The researcher also decided to explore the influence of the intervening variables, specifically sex, on music education, music performance, students’ self concept and academic achievement; thus, sex differences in relation to music education, music performance, students’ self concept and academic achievement were also examined.

3.3 Location of the Study

The study was carried out in Nairobi province. Nairobi is the capital and largest city in Kenya. It had a total of sixty (60) public secondary schools according to the Ministry of Education (MOE). The province was chosen because it had more schools offering music as an examinable subject than any other province in Kenya (Mushira, 2002). The province also, had students coming from diverse family backgrounds, diverse ethnic/cultural backgrounds, and diverse religious and social economic backgrounds. These variations make Nairobi a heterogeneous group (Kinai, 2002; Waime, 2007), thus it was thought to be more representative than any other area in Kenya. This made the findings a bit more generalizable.
3.4 Target Population

The population of the study consisted of form three (3) students of 2009. Form three students were targeted because at this level, students had chosen the elective subjects to take as examinable subjects in their KCSE. This helped the researcher get a group that studied music as an examinable subject. In form two and form one, the students had not made their subject choices while on the other hand, the form four students were busy preparing for their final examination by the time the researcher collected data and therefore she (researcher) did not want to cause any unnecessary disturbance to them.

3.5 Sampling Techniques and Sample Size

3.5.1 Sampling Techniques

As it was reported in section 3.2, Nairobi province had a total of sixty (60) public secondary schools. To obtain the required sample from this population, three sampling procedures were employed: Purposive sampling was done to get twenty (20) schools which offered music as an examinable subject (10 boys, 9 girls and 1 coeducational); Stratified random sampling was used to have the selected schools into appropriate categories (boys’, girls’ and co-educational). Simple random sampling was used to get two (2) boys’ and two (2) girls’ schools for the main study. This was done by writing the names of all the schools in paper folds and placing them into a basket. Two baskets were used, one for each category. The papers were then mixed up and two paper folds picked at random from each basket. This finally gave a representative sample of four schools for the study (two boys’ and two girls’ schools). This number was twenty percent (20%) of the population (schools that offered music as an examinable subject). According to Gay
and Diehl (1992), a sample should be at least ten percent (10%) of the population. This sample was, therefore, more than the minimum and thus it was thought to be a representative of the group. There was only one provincial coeducational boarding school that offered music as an examinable subject and it was used in the pilot study.

### 3.5.2 Sample Size

From each of the four schools selected, a total of 20 students (ten of whom studied music as an examinable subject and the other ten who did not study music as an examinable subject) were randomly obtained from the form three classes. This was done by getting small papers equivalent to the number of students in form three classes in a particular school who study music. Then, 10 paper folds were written ‘**YES**’ and the rest ‘**NO**’. The papers were then placed into a basket, mixed up and the students were asked each to pick a paper from the basket randomly. This was also done to the students who did not study music as an examinable subject. A sampling frame showing the number of participants is given in Table 3.1. It is important to note that, those who performed music were not sampled by the researcher during sample selection but were established through data analysis. It was only after data analysis that it became possible for the researcher to know (from their responses) the number of participants who performed music. All the participants who studied music as an examinable subject automatically participated in music because of the practical nature of the subject. From the analysis therefore, it was found that out of the eighty (80) participants, fifty seven (57) participated in music and twenty three (23) did not participate. This is shown in Table 4.6 (Chapter Four).
Table 3.1 Sampling Frame

<table>
<thead>
<tr>
<th>POPULATION</th>
<th>SCHOOLS OFFERING MUSIC (Purposive Sampling)</th>
<th>SAMPLED SCHOOLS (Stratified Sampling)</th>
<th>SAMPLE SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Taking Music as an examinable subject?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>60</td>
<td>20</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Boys’(16)</td>
<td>Boys’ (10)</td>
<td>Boys’ (2)</td>
<td>20</td>
</tr>
<tr>
<td>Girls’ (23)</td>
<td>Girls’ (9)</td>
<td>Girls’ (2)</td>
<td>20</td>
</tr>
<tr>
<td>Coed (21)</td>
<td>Coed.(1)- (used in pilot study)</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>TOTAL</td>
<td>40</td>
<td>40</td>
<td>80</td>
</tr>
</tbody>
</table>

Coed; Co-educational

3.6 Construction of Research Instruments

Three (3) research instruments namely: a questionnaire, SDS and document analysis were used in this study. In this section, an explanation of how the research instruments were constructed, their description and the scoring procedures is given. Further details on the reliability and validity of the Modified Semantic Differential Scale are given too.

3.6.1 Questionnaire

A questionnaire constructed by the researcher with the assistance of her supervisors measuring music education and music performance was used. The instrument consisted of three parts; part I, II and III. Part I consisted of questions on the background of the respondents. Part II had the SDS while Part III of the questionnaire had two sections, A; which measured music education and B; which measured music performance.
Music education was measured in two levels, that is, those who did not study music as an examinable subject were coded as 0 and those who did were coded as 1. Similarly, music performance was also measured in two levels, that is, those who did not participate were coded as 0 and those who did were coded as 1.

### 3.6.2 Semantic Differential Scale (SDS)

A Modified Semantic Differential Scale (SDS) was used for measuring students’ self-concept. The researcher modified the SDS by changing the order of the adjectives to fit the scoring procedure from 1-5 instead of 5-1 as used in the original Semantic Differential Scale. Thus the order of the adjectives has changed from starting with positive then negative to starting with negative then positive as shown below:

\[
\begin{array}{cccccc}
1 & 2 & 3 & 4 & 5 \\
\text{Ugly} & & & & \\
\text{Beautiful/Handsome} & & & & \\
\end{array}
\]

Instead of the earlier version shown below:

\[
\begin{array}{cccccc}
5 & 4 & 3 & 2 & 1 \\
\text{Beautiful/Handsome} & & & & \\
\text{Ugly} & & & & \\
\end{array}
\]

This was done in order to retain the numerical order that we use of moving from left to right in the ascending order (1-5 instead of 5-1).
The modified SDS was adapted from Olowu (1982) and Mutweleli (2009) and it covered six self areas. These included academic self, emotional self, social self, physical self, family self and character self, with each of the six self areas represented by two or more items among the eighteen bipolar adjectives and phrases separated by a line. In the instrument found in appendix i, part ii items , 1,2 and 3 (ugly versus beautiful/handsome, unhealthy versus healthy and weak versus strong) were used to measure physical self, items 4-6 (unkind versus kind, dishonest versus honest and disobedient versus obedient) were used to measure character self, 7, 8 and 9 (fearful versus fearless, unsympathetic versus sympathetic and sorrowful versus joyful) emotional self, 10-12 (stupid versus clever, lazy at school versus hardworking at school and poor memory versus good memory) academic self, 13-15 (unfriendly versus friendly, uncooperative versus cooperative, unpopular versus popular) social self while the last three, that is 16-18 (not helpful at home versus helpful at home, not loved at home versus loved at home and lonely at home versus not lonely at home) measured the family self. The respondent was required to check any of the five positions shown along the line separating each pair of phrases or adjectives and rate his or her feelings. A summary is shown in Table 3.2.

Table 3.2: The Six Areas Used in the Modified Semantic Differential Scale.

<table>
<thead>
<tr>
<th>Self-concept domains/areas</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical self</td>
<td>1 – 3</td>
</tr>
<tr>
<td>Character self</td>
<td>4 – 6</td>
</tr>
<tr>
<td>Emotional self</td>
<td>7 – 9</td>
</tr>
<tr>
<td>Academic self</td>
<td>10 – 12</td>
</tr>
<tr>
<td>Social self</td>
<td>13 – 15</td>
</tr>
<tr>
<td>Family self</td>
<td>16 – 18</td>
</tr>
</tbody>
</table>
The scale consisted of eighteen (18) bipolar adjectives and phrases separated by a line. The respondents were required to check any of the five positions shown along the line separating each pair of phrases of adjectives and rate his or her feelings. To facilitate the scoring, numerical values of 1 – 5 were assigned to each of the five positions on the scale as indicated below:

**Item 1**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ugly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Beautiful/ Handsome</td>
</tr>
</tbody>
</table>

The numerical value against the cross mark made by the respondent was the score for the particular item (that is, 3). The self-concept score for each subject was obtained by adding the numerical values for all the 18 items.

For the various domains of self-concept, an individual student’s score was given by his or her total score in the three items measuring that particular domain. The scores were in five levels, as shown below:

Level one was 1×18= 18,
Level two was 2×18=36
Level three was 3×18= 54
Level four was 4×18=72 and,
Level five was 5×18= 90
Thus, a student was rated as low if his/her total score was between 18 and 42, an average student was rated between 43 and 66 while a student was rated as high if he/she had a total score of between 67 and 90.

Olowu (1982) used this scale in Nigeria and reported a concurrent validity of 0.55 and test retest reliability coefficient of 0.70. In Kenya it has been used by Juma (2004); Mwathi (1998) and Mutweleli (2009). Owing to its reported high validity and reliability, this scale was preferred for the current study.

3.6.3 Document Analysis

Students’ academic achievement was measured by use of school examination records. The mean total score from all the eight or seven subjects taken was used to give the raw score for each student. Each student’s mean total score in the subjects examined at the end of term one 2009 examination was obtained from the school examination records. The mean scores were then transformed to T scores to make them comparable, since the students were from different schools and had done different examinations which were also marked by different teachers using different grading systems. First, the mean scores of students from one school were converted to standard z scores and then from the z to the T score. This was done school by school because each school had a different mean and standard deviation.

1. To change to the z, the following formula was used:

\[ z = \frac{x_i - \bar{x}}{sd_x} \]
Where,

\[ x_i = \text{Student’s raw score (the mean score obtained from school records)}, \]
\[ \bar{x} = \text{Mean for the school and} \]
\[ sd_x = \text{Standard deviation in that school} \]

2. To transform the \( z \) to \( T \) scores, a simple linear transformation formula was used:

\[ T = z \times \text{sd} + \text{Mean}; \quad T = 10z + 50 \]

For instance, a student with a mean score of 64 in a school with a mean of 50 and a standard deviation of 3 had a \( z \) score of 4.666 Which when transformed to \( T \) score became 97 as shown by example 1.

Example 1:

\[ z = \frac{64 - 50}{3} = 14/3 = 4.666 \]

\[ T = 10z + 50 = 10(4.7) + 50 = 47 + 50 = 97 \]

Another student with a mean score of 44 in the same school had a \( z \) score of -2 Which when transformed to \( T \) score became 30 as shown by example 2.

Example 2:

\[ z = \frac{44 - 50}{3} = -6/3 = -2 \]

\[ T = 10z + 50 = 10(-2) + 50 = -20 + 50 = 30 \]

**NB:** The scores were converted to \( T \) scores to avoid the negative \( z \) scores and also to increase their values compared to the \( z \).
3.7 Pilot study

The number of schools offering music as an examinable subject in Nairobi province was twenty and the number of students studying music as an examinable subject was also relatively low. A pilot study was carried out on a random sample of ten students (5 males and 5 females). This number was slightly more than 10% of the sample for the main study and it was drawn from a form three class in the only Nairobi provincial co-educational secondary school which offered music as an examinable subject (the school was not sampled for the main study). Piloting was done in order to pretest the instruments, in order to ensure clarity of instructions and questions and determine their validity and reliability. A test-retest method was used to check on the reliability, and the results showed a relatively high consistency of the responses between the first and the second testing.

3.7.1 Validity

The researcher ensured content validity (both face and logical) of the instruments with the help of her supervisors and peers. Olowu(1983) pre-tested the semantic differential scale (SDS) in Nigeria and reported a concurrent validity of 0.55.

3.7.2 Reliability

A test-retest method was used and Pearson product-moment correlation coefficient used to get the reliability coefficient of the two sets of scores. A reliability index for the questionnaire was 0.79 and that of the SDS was 0.75. Olowu (1983) pre-tested the instrument (SDS) in Nigeria and reported a test retest reliability of 0.70.
3.8 Data Collection

The data was collected during the second school term of the year 2009. The researcher administered the questionnaire to the students with the help of the class teachers or schools’ heads of departments (HODs) for arts as directed by the respective principals or their deputies. The sample of eighty (80) students was selected through simple random sampling method as described in sections 3.3.1 and 3.3.2 and the students were given adequate instructions before filling the questionnaire (This was done to each group in their respective schools).

Students’ academic achievement records were collected from the class teachers and/or the schools’ HOD examination. The data was collected from the students’ end of term one 2009 exam records/results. The raw scores (each student’s mean score in all the eight or seven subjects taken) were collected, then scores from students in each school were transformed separately for comparability before converting the standard score (z) to T scores (10z+50).

Each of the participants was given a code number (See appendix i). This was in an effort to ensure anonymity of the respondents’ information. The code numbers were given after the students signed a consent form given by the researcher (see appendix ii).

3.9 Logistical and Ethical Considerations

The researcher obtained permission to collect data from the Ministry of Education, Science and Technology (MOEST) through the National Council for Science and
Technology (see appendix iii) and a research permit was given (see appendix iv). The principals or deputy principals in the selected schools were contacted before using school records and administering of questionnaires to students.

The purpose of the research was explained to the Ministry of Education (MOE), principals/deputy principals and the respondents in order to ensure that there was full disclosure. Written informed consent was then sought from the respondents by requesting them to sign a letter of acceptance which the researcher had clearly stated the intentions of the study (see appendix ii). Finally, the respondents were assured of confidentiality of their responses in the questionnaire by giving them code numbers (see appendix i).
CHAPTER FOUR
DATA ANALYSIS, PRESENTATION OF RESULTS AND DISCUSSION

4.0 Introduction

In this chapter, the results of the study are presented and discussed. The chapter is divided into three sections. The first section describes and explains the data analysis methods that were used in the study. The second and third sections describe the findings and give the discussions of the same.

4.1 Data Analysis

The data obtained from the questionnaire was coded and entered in the computer for statistical analysis using Statistical Package for Social Sciences (SPSS). Both descriptive and inferential statistical procedures were used in data analysis.

Descriptive statistics were used to summarize and describe the findings. For instance, frequency distributions and percentages were used to describe characteristics of the respondents and summarize the data in reference to a number of related variables such as music education and performance, gender and academic achievement.

Inferential statistics were used to test the hypotheses at $\alpha = 0.05$. The following were the hypotheses:

$H_0$: There is no significant relationship between music education and the students’ self concept. Test: chi-square
H₀₂: There is no significant relationship between music education and the specific domains of self concept. Test: Spearman rank order correlation coefficient

H₀₃: There is no significant relationship between music performance and the students’ self concept. Test: chi-square

H₀₄: There is no significant relationship between music performance and the specific domains of self concept. Test: Spearman rank order correlation coefficient

H₀₅: There are no significant mean differences in academic achievement between the students who study music as an examinable subject and those who do not. Test: t-test for independent samples.

H₀₆: There are no significant mean differences in academic achievement between the students who participate in music and those who do not. Test: t-test for independent samples

H₀₇: There are no significant academic achievement mean differences in the specific domains of self concept. Test: Spearman rank order correlation coefficient

H₀₈: There are no significant gender differences in students’ self concept and students’ academic achievement. Test: t-test for independent samples
**H₀₀:** There are no significant gender differences in the specific domains of self concept.

**Test:** Spearman rank order correlation coefficient

**N.B:** Chi-square ($\chi^2$) was used in $H_{01}$ and $H_{03}$ because the data here was in nominal level and it’s a test statistic ideal for categorical data.

### 4.2: Descriptive Analysis

#### 4.2.1 Students’ age by Sex

The study sample was eighty (80) and it consisted of forty (40) boys and forty (40) girls. The participants’ age distribution was cross tabulated with sex and the results are presented in Table 4.1.

| Table 4.1: Distribution of Students’ Age by Sex |
|---------|---------|---------|---------|---------|---------|
| **Sex** | **Age (Years)** | **Total** |
|         | ≤15 | 16-20 | Freq  | % | Freq  | % |
| Boys    | Freq | % | Freq | % |        |    |
|         | 1   | 1.25 | 39   | 48.75 | 40     | 50  |
| Girls   | 9   | 11.25 | 31 | 38.75 | 40     | 50  |
| Total   | 10  | 12.5 | 70   | 87.5  | 80     | 100 |

N= 80
Freq = Frequencies
Results in Table 4.1 show that 12.5% of all the participants were aged 15 years and below, 1.25% of the participants were boys while 11.25% were girls; 87.5% of the participants were aged between 16 and 20 years of which 48.75% were boys while 38.75% were girls. The study revealed that, more girls than boys were ≤15 years of age and this suggested that most of the girls went to school a little earlier than the boys. The reason as to why the majority of the participants were aged between 16 and 20 is that in most public schools, the entry age in class one is six (6) years and so the entry age in form three is seventeen (6+8+3=17). Majority of the students who studied music as an examinable subject fell in the correct age bracket.

### 4.2.2: Students’ Self Concept

General self concept was put into three categories (low, average and high). Where a participant who was rated as low had self concept scores of between 18 and 42; the average was between 43 and 66 while the highest was between 67 and 90. The descriptive analysis of participant’s self concept is presented in Table 4.2a.

<table>
<thead>
<tr>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>37</td>
<td>90</td>
<td>72.64</td>
<td>13.51</td>
<td>-1.24</td>
<td>.66</td>
</tr>
</tbody>
</table>

The results in Table 4.2a indicate that the mean self-concept score was 72.64. The distribution of self concept scores was negatively skewed (-1.24) and had a positive kurtosis (.66) meaning that the scores bunched up on the high end of the scale with majority of the self concept scores above the mean. Thus majority rated themselves high.
on self concept as shown in Table 4.2b. The Kurtosis of 0.66, indicated that the
distribution of self concept scores had a peak a little flatter than normal. This meant that,
majority of the participants’ self concept was relatively spread out, thus they had similar
perceptions about themselves. This could be due to the equal treatment of students in
schools which meant that no group of students felt more superior to the others. The
standard deviation value was 13.51.

Table 4.2b: Category of Total Self Concept by Sex

<table>
<thead>
<tr>
<th>Category of General Self Concept</th>
<th>Sex</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Freq</td>
<td>%</td>
<td>Freq</td>
<td>%</td>
<td>Freq</td>
</tr>
<tr>
<td>Average</td>
<td>2</td>
<td>2.5</td>
<td>3</td>
<td>3.75</td>
<td>5</td>
</tr>
<tr>
<td>High</td>
<td>7</td>
<td>8.75</td>
<td>5</td>
<td>6.25</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>38.75</td>
<td>32</td>
<td>40</td>
<td>63</td>
</tr>
</tbody>
</table>

N= 80(100)
Freq = Frequency

Results in Table 4.2b show that, out of the 80 participants, majority of them 63 (78.75% )
rated themselves high on self concept while only 5 (6.25%) rated themselves low. Out of
the sixty three (63) participants with high self concept, 32 were girls and 31 were boys
while out of the five (5) participants with a Low self concept, 3 were girls and 2 were
boys. This showed that majority of the participants rated themselves highly. It also
showed that most students (both boys and girls) had high self concept and only a few (6.25%) had low self concept.

### 4.2.3 Students’ Academic Achievement

The researcher did an analysis of the participants’ academic achievement and the descriptive analysis is presented in Table 4.3.

#### Table 4.3: Descriptive Analysis of Students’ Academic Achievement

<table>
<thead>
<tr>
<th>N</th>
<th>Minimum (T-score)</th>
<th>Maximum (T-score)</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Skew ness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>24</td>
<td>69</td>
<td>50.00</td>
<td>9.808</td>
<td>-.77</td>
<td>.489</td>
</tr>
</tbody>
</table>

Table 4.3 shows that, the distribution of the academic achievement scores for the eighty participants was bunched up on the high end of the scale (skew ness=-0.77). Thus majority of the participants were above average on academic achievement. The minimum T score was 24 and the maximum T score was 69. this could be due to the fact that the study was done using students of the same level and the same category (provincial) of school and hence their entry behavior was expected to be the same thus their performance was expected to be relatively the same.

### 4.2.4 Music Education

Music education was divided into two levels, those who studied music as an examinable subject versus those who did not. The percentages are shown in Table 4.4.
Table 4.4: Participants Studying Music as an Examinable Subject by Sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Taking music as an examinable subject?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Boy</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Girl</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>50</td>
</tr>
</tbody>
</table>

N= 80
Freq= Frequency

Results in Table 4.4 show that, out of the eighty participants, only 50% took music as an examinable subject and the other 50% did not take music as an examinable subject. 25% of each group was girls and this was by the design of the study.

4.2.5 Music Performance

Music performance was divided into two levels, those who performed in any music genre versus those who did not.

Results in Table 4.5a show that, out of the eighty (80) participants, 28.75% did not participate in any type of music and 71.25% took part in music performance regardless of whether they took music as an examinable subject or not. This showed that, studying music as an examinable subject was not a pre-requisite to participating in music but due to the nature of examination of music as a subject, it was a must for every student who studied music as an examinable subject to participate in music because of the practical
paper of music which includes aural, sight singing, sight reading and physical performance of African song/dance. Thus the number of those who participated in music was high compared to those who did not.

**Table 4.5a: Music Performance by Sex**

<table>
<thead>
<tr>
<th>Sex</th>
<th>Participating in music?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Freq</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boy</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>13.75</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Girl</td>
<td>11</td>
<td>13.75</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>28.75</td>
</tr>
<tr>
<td></td>
<td>80</td>
<td>80</td>
</tr>
</tbody>
</table>

N= 80
Freq= Frequency

**Table 4.5b: Participation in Selected Music Groups**

<table>
<thead>
<tr>
<th>Group</th>
<th>Participated?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>Freq</td>
<td>%</td>
</tr>
<tr>
<td>School choir</td>
<td>52</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Church choir</td>
<td>65</td>
<td>81.25</td>
</tr>
<tr>
<td></td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Discos</td>
<td>76</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>80</td>
<td>100</td>
</tr>
</tbody>
</table>

N= 80
Freq= Frequency
Results in Table 4.5b show that, out of the eighty (80) participants, 35% said that they had joined the school choir, 18.75% performed in church choirs and only 5% of the entire group had taken part in discos. The table also shows that it was possible for a participant to perform in two or more music genres, thus a student in the school choir was likely to be in church choir and/or discos leading to the large total in relation to the total number of the sample. The small percentage of participation in Discos could have been due to the fact that participants did not want to expose themselves as having attended discos because discos have a negative connotation and thus participants may not want to be associated with it.

Table 4.5c: Other Music Groups Joined

<table>
<thead>
<tr>
<th>Group joined</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Dance troupe</td>
<td>5</td>
<td>6.25</td>
</tr>
<tr>
<td>School band</td>
<td>15</td>
<td>18.75</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>

Results in Table 4.5c show that, 18.75% said they had joined the school band while 6.25% said that they had joined the school dance troupe. In this, there were no cases of overlaps because participating in both the school band and at the same time in the school dance troupe was not possible in all the sampled schools because practice took place at the same time and one could not attend the two at the same time.

Results in Table 4.5d show that, out of the eleven (11) selected music genres, sacred music was the most popular among the participants with 49 (61.25%) out of the 80
participants saying that they like it. Out of these, 28 were girls and 21 were boys. The reason why the number of girls was higher than the boys could be due to the fact that, most girls unlike boys take part in church functions. Oriental music was found to be the most unpopular among the participants with only 10 (12.5%) out of the 80 participants saying that they like it. Out of the ten (10) four were boys and six were girls. Oriental music might have been unpopular because it is not common in media. Asian oriental culture has been safeguarded and so the young people could not get access to it in informal settings.

Table 4.5d: Interests in the Selected Music Genres by Sex.

<table>
<thead>
<tr>
<th>Type of music</th>
<th>Like it?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Boy</td>
<td>Girl</td>
</tr>
<tr>
<td>Sacred</td>
<td>21</td>
<td>28</td>
</tr>
<tr>
<td>Secular</td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td>Bongo</td>
<td>18</td>
<td>26</td>
</tr>
<tr>
<td>Reggae</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>Western</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>Instrumental</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Vocal</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>African</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Pop</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Jazz</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Oriental</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>179</td>
<td>196</td>
</tr>
</tbody>
</table>

N= 80
Participants were asked to give other genres they were interested in. Results in Table 4.5e show that, among these other categories, ragga music was the most popular with 17 (21.25%) out of the 80 participants saying that they liked it. Out of these, 10 were boys and 7 were girls. The least popular was afro-fusion and soul both of which had 1(1.25%). For both, its only one boy in each type who said that he had a liking. For these categories, a good number of participants 15(18.75%) did not give their feedback on this and this could be due to the fact that all these genres were not commonly used in formal settings and thus students may not have been conversant with them.

Table 4.5e: Interest in Other Genres by Sex.

<table>
<thead>
<tr>
<th>Music genres</th>
<th>Sex</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boy</td>
<td>Girl</td>
<td></td>
</tr>
<tr>
<td>Afro-fusion</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Soul</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Local</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Hip-Hop</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Rock</td>
<td>4</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Blues</td>
<td>6</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Ragga</td>
<td>10</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>28</td>
<td>37</td>
<td>65</td>
</tr>
</tbody>
</table>

N= 80
When asked to rank the different genres in the order of priority, results in Table 4.5f show that out of the fourteen (14) selected music genres, sacred music was ranked first with 18 (22.5%) out of the 80 participants ranking it first. Out of these 13 were girls and 5 were boys. This could be due to the fact that in most cases, girls become more active in church activities than boys. The least was Jazz with only 1 (1.25%).

Results in Table 4.5g show that, out of the three reasons (competition, entertainment and academic purposes) for performing music, entertainment was the most popular reason among the participants with 68(85%) choosing it as the reason for their performing or liking music. Out of the 68, 35 were boys and 33 were girls. The least popular reason was
academic purposes with 18 (22.5%); nine of whom were girls and the other nine were boys. Entertainment could have been found to be the most popular reason for performing music because all the participants were teenagers and this age group likes a lot of fun and entertainment.

**Table 4.5g: Reasons for Performing the Different Genres of Music by Sex.**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
<th>Freq</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entertainment</td>
<td>35</td>
<td>33</td>
<td>68</td>
<td>85</td>
<td>85</td>
</tr>
<tr>
<td>Competition</td>
<td>13</td>
<td>9</td>
<td>22</td>
<td>27.5</td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>9</td>
<td>9</td>
<td>18</td>
<td>22.5</td>
<td></td>
</tr>
</tbody>
</table>

N= 80
Freq= Frequency

Results in Table 4.5h show that, out of the twelve selected purposes of performing or liking music, relaxation was chosen as the most popular purpose with 36 (45%) of the participants choosing it. Twenty three (23) of these were girls while only thirteen (13) were boys. The least popular purpose was company/reducing loneliness with only 1(1.25%) participant, a girl mentioning it as one of the purposes for performing in any type of music.

The participants were asked to list down the functions that music plays in their lives and the responses they gave are shown in table 4.5h.
Table 4.5h: Functions Served by Music as Perceived by Students by Sex

<table>
<thead>
<tr>
<th>Purpose of music</th>
<th>Like or perform music for this purpose?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>Relaxation</td>
<td>13</td>
<td>23</td>
</tr>
<tr>
<td>Enjoyment/entertainment</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Educate</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Understanding how to cope with life</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Feeling good/happy</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Nurtures my talent</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Communicate my feelings</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Learn about our society/culture</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Praise God</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Learn history/past</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Reduce stress</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Company/reduce loneliness</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

N= 80
Freq= Frequency

4.2.6 Comparison between Studying Music as an Examinable Subject and Participating in Music

The researcher did an analysis of those who studied music as an examinable subject and those who participated in music. Results in Table 4.6 show that, out of the eighty (80) participants who took part in the study, 50% studied music as an examinable subject and all these participated in music. On the other hand, out of the forty (50%) participants who did not study music as an examinable subject, only 17 (21.25%) performed in any type of music while 23 (28.75%) of these did not participate in any music genre. This therefore, showed that the study had three types of student participants, that is, those who studied music as an examinable subject and thus they performed music; those who never studied
music as examinable subject but they performed music and finally, those who never studied music as an examinable subject and they also did not perform in any type of music. Due to the nature of music as an examinable subject, there was no group that studied music as an examinable subject and never participated in music. This was because the practical paper of music had a lot of practicals. The third category of participants was established during analysis and was not mentioned in the sampling frame.

### Table 4.6 Cross tabulation of Music as an Examinable Subject by Music Performance

<table>
<thead>
<tr>
<th>Performance in music</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq</td>
</tr>
<tr>
<td>Yes</td>
<td>40</td>
</tr>
<tr>
<td>No</td>
<td>17</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>57</td>
</tr>
</tbody>
</table>

N= 80  
Freq= Frequency

### 4.3 Hypothesis Testing

The study was guided by nine hypotheses which were tested at $\alpha = 0.05$. In this section, all the hypotheses were tested with the aim of statistically determining their significance using inferential statistics. Chi-square, Spearman correlation coefficient and t-test for independent samples tests were used.
4.3.1 Intercorrelations

The researcher was also interested in finding out the intercorrelations between the study variables and the domains of self concept to check whether all these measured the same thing. The Spearman correlation coefficient was computed to determine the correlation coefficient among the study variables that is, students’ self- concept, academic achievement, music education and music performance. This analysis also included the specific domains of self concept. The correlation matrix is presented in Table 4.7

The results in Table 4.7 show that there existed strong intercorrelations within the various domains of self-concept showing that they measure the same thing. The highest relationship was found between social self concept and character self concept and it was a strong positive and significant relationship (rho = 0.618, P < 0.01). This implied that, students’ interaction with fellow students had a relationship with their individual character. That is, their being friendly, cooperative and popular dictated their character, as being kind, honest or obedient. This could be due to their upbringing/background. The lowest was the relationship between academic self and social self which had a positive correlation coefficient of rho = 0.446, P < 0.01. This signified that, being cooperative, friendly or popular had a slight positive relationship with one’s academic self as being clever, hardworking or having good memory. These intercorrelations were significant at p < 0.01. These findings concurred with those of Mutweleli (2009) who did an intercorrelation among the six domains of self concept and found out that, there existed a relatively strong positive correlation between the various domains of self-concept and that the intercorrelations were significant (p < 0.01). He however found out that, the
highest relationship was found between character self and family self (r = 0.48, P < 0.01) and the least was between academic self and physical self (r = 0.07, P < 0.01).

With regard to the relationship between the specific domains and the total self-concept, there existed a very strong relationship between each specific domain and the total self-concept, with the highest relationship found between character self and one’s total self-concept (rho = 0.807, P < 0.01) and the lowest was between family self and total self-concept (rho = 0.722, P < 0.01). This therefore meant that all the domains were significantly sufficient predictors of the total self concept and that each trait contributed to the whole self. The results here were in agreement with Mutweleli’s findings that, with regard to the relationship between the specific domains and total self-concept, there existed a relatively strong relationship, with the highest relationship, just like in the current study being found between character self and one’s self-concept (r = 0.74, P < 0.01) and the least between physical self and total self concept (r = 0.47, P < 0.01).

It was found that, academic self concept was positively correlated with academic achievement (rho = 0.119, p > 0.05) and was also positively correlated with both music education and music performance (rho = 0.207, p > 0.05 and rho = 0.210, p > 0.05 respectively). These correlations were however not significant at P < 0.01 and P < 0.05. This finding suggested that a student who considers himself or herself as academically able was more likely to be a high achiever in school and was more likely to study music as an examinable subject and also take part in music performance. These results were consistent with those of Mutweleli (2009) who found that, academic self concept was
significantly correlated with academic achievement \((r = 0.28, p > 0.05)\) and one’s occupational aspirations \((r = 0.14, p > 0.05)\).

### Table 4.7 Intercorrelations Among the Study Variables and the Specific Domains of Self Concept

<table>
<thead>
<tr>
<th></th>
<th>Ps</th>
<th>Cs</th>
<th>Es</th>
<th>As</th>
<th>Ss</th>
<th>Fs</th>
<th>Tsc</th>
<th>Mc ed</th>
<th>Mc perf</th>
<th>Aach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ps</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cs</td>
<td>.617&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Es</td>
<td>.561&quot;</td>
<td>.554&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>As</td>
<td>.535&quot;</td>
<td>.609&quot;</td>
<td>.594&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ss</td>
<td>.590&quot;</td>
<td>.618&quot;</td>
<td>.587&quot;</td>
<td>.446&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fs</td>
<td>.539&quot;</td>
<td>.451&quot;</td>
<td>.567&quot;</td>
<td>.473&quot;</td>
<td>.581&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tsc</td>
<td>.801&quot;</td>
<td>.807&quot;</td>
<td>.798&quot;</td>
<td>.751&quot;</td>
<td>.786&quot;</td>
<td>.722&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mc ed</td>
<td>.291&quot;</td>
<td>.215</td>
<td>.203</td>
<td>.207</td>
<td>.179</td>
<td>.182</td>
<td>.237</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aach</td>
<td>.248&quot;</td>
<td>.113</td>
<td>.136</td>
<td>.119</td>
<td>.162</td>
<td>.164</td>
<td>.193</td>
<td>.458&quot;</td>
<td>.202</td>
<td></td>
</tr>
</tbody>
</table>

**"** significant at 0.01  *"** significant at 0.05

N=80

NB
Ps (Physical self), Cs (Character self), Es (Emotional self), As (academic self), Ss (Social self), Fs (Family self), Tsc (Total self-concept), Mc ed (music education), Mc perf (music performance), Aach (academic achievement).

The least positive correlation \((\rho = 0.083, p > 0.05)\) was found between music education and music performance and was not significant at \(P < 0.01\) and \(P < 0.05\). The correlation implied that for a student to perform in any type of music, he/she did not have to be
studying music as an examinable subject, thus studying music as an examinable subject was therefore not a prerequisite for participating in music hence the results have shown that a number of participants took part in music performance though they did not study music as an examinable subject. These results were consistent with those of Mutweleli (2009) who found that, academic self concept was significantly correlated with academic achievement \( r = 0.28, p < 0.01 \) and one’s occupational aspirations \( r = 0.14, p < 0.05 \).

In contrast to Mutweleli’s findings which showed that there existed a negative relationship between physical self and academic achievement \( r = -0.03, p > 0.05 \) and also between social self and academic achievement \( r = -0.02, p > 0.05 \), the current study found out that student’s physical self had a positive and significant relationship with academic achievement \( \rho = 0.248, p < 0.05 \) and also there was a positive relationship between a student’s social self concept and academic achievement \( \rho = 0.162, p > 0.05 \) though not significant. This implied that, students who considered themselves as physically strong tended to perform relatively high in school examinations and this could have been due to the positive self image they had of being beautiful, healthy or feeling strong hence putting efforts in studies; those who had good interaction with others also performed highly in school examinations probably because they may have learned and got assistance from others during their private discussions hence performing highly in exams.
4.3.2 Relationships between Students’ Total Self Concept and Music Education

The researcher was also interested in finding out the relationship between student’s self concept and music education. To find out this association, two hypotheses were advanced. The first hypothesis stated that:

(a) There is no significant association between the students’ self concept and music education.

To test this hypothesis, a chi-square test of independence of samples was done. The results are shown in Table 4.8a and they reveal that, there was a statistically significant association between students’ self concept and music education ($\chi^2 = 51.44$, df = 34, $p = 0.03$, $P < 0.05$). Thus, the null hypothesis was rejected in favour of the alternative and that there was an association between music education and self concept. The results may be due to the fact that, when one studies music as an examinable subject, he/she has to participate in practical music performance; he/she feels good and develops a high self esteem and hence a high self concept. Music education offers avenues for self expression and this too could boost students’ self concept.

Table 4.8a: Chi-square Statistics for the Relationship between the Students’ Self-Concept and Music Education

<table>
<thead>
<tr>
<th></th>
<th>Self concept</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>Music education</td>
<td>51.44</td>
</tr>
</tbody>
</table>

N= 80
This finding concurred with Bandura’s Social Cognitive Theory (1977). According to Bandura, there is a dynamic interaction of the person, the behavior, and the environment in which the behavior is performed. This interaction enabled the positive relationship between music education and self concept since there was a significant relationship between the students’ self concept and music education. These results were also consistent with Schmidt, Zdzinski, and Ballard (2006) whose study revealed that undergraduate music majors scored high on positive scales (e.g. trust, autonomy, initiative) and low on negative scales (e.g. mistrust, inferiority, isolation).

The second hypothesis to test the relationship between students’ self concept and music education tested the interrelationships between the specific domains of self concept and music education and it stated that:

(b) There is no significant relationship between the specific domains of self concept and music education.

To test this hypothesis, spearman \( \rho \) correlation coefficient was calculated for the relationship and the results are shown in Table 4.8b.

Results in table 4.8b show that, the highest correlation was found between music education and physical self concept. It was a positive and significant relationship (\( \rho = 0.291, P < 0.01 \)). This meant that, the way a student viewed themselves in terms of strength, health and beauty had a relationship with their decision to either study or decline to study music as an examinable subject. This relationship could be two way in that, studying music as an examinable subject could boost physical self concept or having
high physical self concept could boost the decision to study music as an examinable subject. This could also be caused by a third factor e.g. the upbringing of a child, sometimes biological factors could have a role to play etc. The lowest relationship was found between music education and social self concept. It was a positive relationship though not statistically significant (\( \rho = 0.179, P > 0.05 \)). This meant that, a student’s interaction with others least affected their decision to either study or not to study music as an examinable subject. It could also mean that, studying music as an examinable subject could also boost a student’s interaction with fellow students. This finding was consistent with the findings of Mutweleli (2009).

Table 4.8b: Spearman rho Correlation Coefficient for the Relationship Between the Specific Domains of Self Concept and Music Education

<table>
<thead>
<tr>
<th></th>
<th>Ps</th>
<th>Cs</th>
<th>Es</th>
<th>As</th>
<th>Ss</th>
<th>Fs</th>
<th>Mc ed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ps</td>
<td>-</td>
<td>.617**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cs</td>
<td></td>
<td>-</td>
<td>.561**</td>
<td>.554**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Es</td>
<td></td>
<td></td>
<td>-</td>
<td>.535**</td>
<td>.609**</td>
<td>.594**</td>
<td></td>
</tr>
<tr>
<td>As</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>.590**</td>
<td>.618**</td>
<td>.587**</td>
</tr>
<tr>
<td>Ss</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>.587**</td>
<td>.446**</td>
</tr>
<tr>
<td>Fs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>.591**</td>
</tr>
<tr>
<td>Mc ed</td>
<td>.291**</td>
<td>.215</td>
<td>.203</td>
<td>.207</td>
<td>.179</td>
<td>.182</td>
<td>-</td>
</tr>
</tbody>
</table>

** significant at 0.01  * significant at 0.05  
N=80  
NB

Ps (Physical self), Cs (Character self), Es (Emotional self), As (academic self), Ss (Social self), Fs (Family self), Mc ed (music education).
4.3.3 Relationship between Students’ Self Concept and Music Performance

The researcher was also interested in testing the association between student’s self concept and music performance. To find out this relationship, two hypotheses were advanced. The first one predicted that:

a) There is no significant relationship between the students’ self concept and music performance.

To test this hypothesis, a chi-square test of independence of samples was used and the results presented in Table 4.8c revealed that there was no significant relationship between the students’ self concept and music performance ($\chi^2 = 40.47$, df = 34, $p = 0.21$). Thus the null hypothesis was retained against the expectation of the researcher that music performance had a strong relationship with students’ self concept. This could be due to the fact that students could participate in music for various reasons and in varied situations some of which may not permit one to use their discretion like in religious/church settings where one may be forced by circumstances to participate and may not allow a performer to use their self expressions. The findings revealed that music performance did not have any significant relationship with the student’s self concept and this contradicted the arguments of the three theories that guided the study. It also contradicted the findings of Hylton (1981) and Murdock (1991) both of whom found out that music student differed significantly from non-music students regarding social self-concept.

These results, however, were similar to the findings of Henderson (1983) who conducted a study to determine the effect of 18 one-hour music therapy sessions on the self-esteem,
awareness of mood in music, and group cohesion of 13 subjects diagnosed with adjustment reaction to adolescence. His findings revealed that, from pre-test to post-test there were no significant changes in self-esteem for either the control or the experimental groups as measured by the Coopersmith Self-Esteem Inventory (1967).

Table 4.8c: Chi-square Statistics for the Relationship between Students’ Self-Concept and Music Performance

<table>
<thead>
<tr>
<th></th>
<th>Self concept</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\chi^2$</td>
<td>Df</td>
<td>Sig.</td>
</tr>
<tr>
<td>Music performance</td>
<td>40.47</td>
<td>34</td>
<td>.21</td>
</tr>
</tbody>
</table>

N= 80

The second hypothesis to test the relationship between students’ self concept and music performance went into the interrelationships among the various domains of self concept and music performance and it predicted that:

(b) There is no significant relationship between the specific domains of self concept and music performance

To test this hypothesis, a spearman rho correlation coefficient was calculated for the relationship. Table 4.8d shows the results for this relationship.

Table 4.8d shows that the general music performance was significantly related to all domains of self concept. All the relationships were found to be positive and most of them were significant at $\alpha = 0.05$ with the strongest relationship being found between music performance and the student’s emotional self concept ($\rho = 0.371, P < 0.01$). This meant
that, a student’s emotional feelings had positive relationship with his/her decision to participate or decline to participate in music. The lowest relationship was found between music performance and the student’s academic self. This relationship was positive but not significant (rho = 0.210, P > 0.05) meaning that, how a student viewed themselves academically had little relationship with their decision to either participate in music or to decline participation. This implies that, a student who does not perform well in school examination could participate in music and that emotional feelings had a relationship with the decision of either participating or not participating in music.

**Table 4.8d:**  Spearman rho Correlation Coefficient for the Relationship between the Specific Domains of Self Concept and Music Performance

<table>
<thead>
<tr>
<th></th>
<th>Ps</th>
<th>Cs</th>
<th>Es</th>
<th>As</th>
<th>Ss</th>
<th>Fs</th>
<th>Mc perf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ps</td>
<td></td>
<td>.617**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cs</td>
<td>.617**</td>
<td></td>
<td>.554**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Es</td>
<td>.561**</td>
<td>.554**</td>
<td></td>
<td>.594**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>As</td>
<td>.535**</td>
<td>.609**</td>
<td>.594**</td>
<td></td>
<td>.446**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ss</td>
<td>.590**</td>
<td>.618**</td>
<td>.587**</td>
<td>.446**</td>
<td></td>
<td>.446**</td>
<td></td>
</tr>
<tr>
<td>Fs</td>
<td>.539**</td>
<td>.451**</td>
<td>.567**</td>
<td>.473**</td>
<td>.581**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mc perf</td>
<td>.250*</td>
<td>.277*</td>
<td>.371**</td>
<td>.210</td>
<td>.286*</td>
<td>.264*</td>
<td></td>
</tr>
</tbody>
</table>

** significant at 0.01  * significant at 0.05
N=80

Ps (Physical self), Cs (Character self), Es (Emotional self), As (academic self), Ss (Social self), Fs (Family self), Mc perf (music performance)
4.3.4 Relationship Between Music Education and Music Performance

The researcher was also interested in finding out the association between music education and music performance. To find out this relationship, one hypothesis was advanced and it predicted that:

There is no significant relationship between music education and music performance.

To test this hypothesis, a chi-square test of independence of samples was used and the results revealed that, there is no significant relationship between music education and music performance ($\chi^2 = 0.55$, df = 1, $p = 0.459$). Thus the null hypothesis was retained at $\alpha = 0.05$ level of significance. The results are shown in Table 4.9. This means that, studying music as an examinable subject had no relationship with participating in music/music performance. Music education therefore, is not a prerequisite to music performance. Anyone can perform music even if they do not study music as an examinable subject. This could be due to the fact that music performance can be done in informal situations and can be done in and outside school for instance in churches, homes, funerals, thanks giving, social gatherings and other informal gatherings, and thus music performance could be influenced by several other factors like upbringing/parenting, social background of the child, environmental factors and personal factors among other things. This finding contradicts the expectation that studying music has an influence on music performance. The findings also contradict Albert Bandura’s SCT and the findings of Draper and Gayle (1987).
Table 4.9: Chi-square Statistics for the Relationship between Music Education/Performance

<table>
<thead>
<tr>
<th></th>
<th>Music Education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>Music Performance</td>
<td>0.55</td>
</tr>
</tbody>
</table>

N=80

4.3.5 Mean Difference between Academic Achievement and Music Education

The study aimed at finding out the difference in means between academic achievement and music education. To find out this difference, one hypothesis was advanced and it predicted that:

There are no significant mean differences in academic achievement between the students who study music as an examinable subject and those who do not.

To test this hypothesis, t-test for independent samples was used and results are presented in Table 4.10 and they showed that, those who studied music as an examinable subject had a higher mean score (54.13) compared to those who did not whose mean score was 45.87. When this difference was subjected to a t-test, it was found to be statistically significant at $p = 0.00$. According to these results, there was a statistically significant difference in academic achievement scores between those who study music as an examinable subject and those who did not ($t = 4.14$, $df = 78$, $p = 0.00$). Hence, the null hypothesis was rejected in favour of the alternative. This could be due to the diversified
nature of music in that, music borrows widely by using themes from different subjects. As one composes a song about a particular topic, he/she has to do some research and thorough reading in the area in order to compose a meaningful piece of music. This helps in understanding the subject/area/topic and so he/she may be able to comprehend the information when needed in a different setting. These findings supported the argument of the three theories guiding the study. For instance, Social Cognitive Learning Theory describes learning in terms of the interrelationship between behavior, environmental factors, and personal factors; Bandura calls this reciprocal determinism. Through these interrelationships, music education boosts the academic achievement of the students. The findings also supported the hypothesis that, there is a significant relationship between music education and student’s academic achievement. These results were consistent with the results of Arnett-Gary, 1998; Campbell, (as cited in Yoon, 2000); Dickinson (1993); Kelstrom, 1998, (as cited in Yoon, 2000); Orford, 2001 and Yoon, 2000 whose findings supported the idea that, music education has an influence on the brain development of a child and hence music boosts the general academic achievement of a student.

Table 4.10: Independent Sample t-tests for Mean Difference in Academic Achievement and Music Education.

<table>
<thead>
<tr>
<th></th>
<th>t-test for equality of means</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Academic achievement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>t</td>
<td>df</td>
</tr>
<tr>
<td><strong>Music education</strong></td>
<td>Equal variances assumed</td>
<td>4.136</td>
</tr>
</tbody>
</table>

N=80
4.3.6 Mean Difference between Academic Achievement and Music Performance

The study too sought to test the mean difference between academic achievement and music performance. To find out this difference, one hypothesis was advanced and it predicted that:

There are no significant mean differences in academic achievement between the students who participate in music and those who don’t.

To test this hypothesis, t- test for independent samples was used and the results revealed that those who participated in music had a higher mean score (51.33) compared to those who did not (46.70). When this difference was subjected to a t-test, the results were as shown in Table 4.11 and they indicated that, there was no statistically significant difference in academic achievement scores between those who participate in music and those who don’t (t = 1.95, df = 78, p = 0.06). Hence, the null hypothesis was retained.

The findings show that, participation in music is not related to the students’ academic achievement. This may be due to the fact that, music education and performance has been degraded in the current education system and so many students may not take music performance seriously thus they take it for fun. Against the prediction by the hypothesis, the results did not support the theories guiding the study and they contradicted those of Duke, Flowers, & Wolfe (1997) and Haynes (1982). They were, however, consistent with those of Kosik, 1988 (as cited in Yoon, 2000) and Orford (2001) who argued that music
education and performance boosts the brain development and the general academic achievement of the child.

Table 4.11: Independent Sample t-tests for Mean Difference in Academic Achievement and Music Performance.

<table>
<thead>
<tr>
<th>t-test for equality of means</th>
<th>Academic achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Music performance</td>
<td>Equal variances</td>
</tr>
<tr>
<td></td>
<td>assumed</td>
</tr>
<tr>
<td></td>
<td>t</td>
</tr>
<tr>
<td></td>
<td>df</td>
</tr>
<tr>
<td></td>
<td>Sig.(2-tailed)</td>
</tr>
<tr>
<td>1.943</td>
<td>78</td>
</tr>
<tr>
<td>.056</td>
<td></td>
</tr>
</tbody>
</table>

N=80

4.3.7 Sex Difference in Students’ Total Self Concept and Academic Achievement

On gender, the researcher sought to find out the sex differences in student’s total self and academic achievement. To investigate this difference, three supplementary hypotheses were advanced. The first one stated that:

a) There are no significant sex differences in students’ self concept.

To test this hypothesis, t- test for independent samples was used. Compared to the boys who had a mean self of 72.60, the girls had a higher mean self score on total self concept of 72.68. This difference was subjected to t-test and the resultant test statistics are given in Table 4.12. These results reveal that, although a difference was reported in terms of mean between boys and girls in self concept, this difference was not statistically significant at α = 0.05 (t = -.025, df = 78, p = 0.98). Thus the null hypothesis was retained making self concept to be comparable. This could be due to the continued support and
emphasis by the government and non-governmental organizations on the girl child education and motivation which may have helped the girl child to improve their self esteem and hence have a high self concept when they are encouraged to feel that they can make it in life. The findings were consistent with those of Juma (2004); Mutweleli (2009) and Piers (1984) who performed the same tests. Unlike in the current study where the girls had a higher mean in the total self concept, the findings of the other three studies; Juma (2004); Mutweleli (2009) and Piers (1984) showed that boys had a higher mean total self concept than the girls.

Table 4.12: Independent Sample t-tests for Sex Difference in Students’ Self Concept and Academic Achievement

<table>
<thead>
<tr>
<th>t-test for equality of means</th>
<th>Gender</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>t</td>
<td>df</td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td><strong>Self concept</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.025</td>
<td></td>
<td>78</td>
<td>.980</td>
</tr>
<tr>
<td><strong>Academic achievement</strong></td>
<td></td>
<td></td>
<td></td>
<td>1.000</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.000</td>
<td></td>
<td>78</td>
<td></td>
</tr>
</tbody>
</table>

N=80

The second hypothesis investigated the sex differences in students’ academic achievement and it predicted that:

b) There are no significant sex differences in academic achievement.
To test this hypothesis, t-test for independent samples was also used and it revealed that, there was no significant difference in mean for academic achievement between boys and girls and that they both had a mean of 50. Table 4.12 shows the resultant statistics and it reveals that, there was no statistically significant sex differences in academic achievement ($t = 0.00$, $df = 78$, $p = 1.00$). Thus, the null hypothesis was retained. This too could be due to the emphasis by the government and non-governmental organizations on the girl child education and motivation which may have motivated the once disadvantaged girl child to compete on equal basis with the boy child and hence the girl child has equal opportunities in all areas especially in education. These findings were predicted through the argument of the three theories which guided the study in that; none of the three favoured any sex over the other. When these results were compared to previous research, they concurred with those of Fennema and Sherman, 1978 (as cited in Lane et al., 2004), who found that there were no significant gender differences in mathematics learning, nor in motivation for learning, for 1,300 middle school children.

The third hypothesis investigated the relationship between the specific domains of self concept and sex and it stated that:

c) There is no significant relationship between the specific domains of self concept and sex.

To test this hypothesis, a spearman $\rho$ correlation coefficient was calculated for the relationship. Table 4.13 shows the results.
Table 4.13: Spearman rho Correlation Coefficient for the Relationship between the Specific Domains of Self Concept and Sex

<table>
<thead>
<tr>
<th></th>
<th>Ps</th>
<th>Cs</th>
<th>Es</th>
<th>As</th>
<th>Ss</th>
<th>Fs</th>
<th>Sx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ps</td>
<td>-</td>
<td>.617*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cs</td>
<td>.617*</td>
<td>-</td>
<td>.561*</td>
<td>.554*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Es</td>
<td>.561*</td>
<td>.554*</td>
<td>-</td>
<td>.554*</td>
<td>.587*</td>
<td>.446*</td>
<td></td>
</tr>
<tr>
<td>As</td>
<td>.535*</td>
<td>.609*</td>
<td>.594*</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ss</td>
<td>.590*</td>
<td>.618*</td>
<td>.587*</td>
<td>.446*</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fs</td>
<td>.539*</td>
<td>.451*</td>
<td>.567*</td>
<td>.473*</td>
<td>.581*</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Sx</td>
<td>.105</td>
<td>.050</td>
<td>.018</td>
<td>.074</td>
<td>.073</td>
<td>.030</td>
<td>-</td>
</tr>
</tbody>
</table>

** significant at 0.01  * significant at 0.05
N=80

NB

Ps (Physical self), Cs (Character self), Es (Emotional self), As (academic self), Ss (Social self), Fs (Family self), Sx (sex).

Table 4.13 shows that, the highest relationship between sex and the specific domains of self concept was found between sex and physical self concept (rho = 0.105, P < 0.05) and the lowest between sex and the character self; and that, there was no relationship between sex and emotional self and also between sex and social self. The relationship between sex and physical self implies that there was a relationship between a boy and a girl and the view of either being strong, healthy and beautiful. This could have been due to the cultural background of the students because some cultures have stereotypes of how a boy or a girl should perceive or feel about themselves. Unlike in the current study where the findings reveal that sex had a positive relationship with academic self (rho = 0.074, P <
0.05), Aswani (2007) in her study on investigation into some selected factors on academic self concept among primary pupils in Bondo District, Kenya found out that, there were no gender differences in academic self concept. She also observed that, gender differences were observed in upper classes in academic self concept by subjects. This finding concurred with that of Piers (1984) who found out that, in respect to self concept domains, physical concept and academic self concepts favored males while verbal self concept favored females. The finding for the current study could be due to the overwhelming exposure of students through modern technology where by students want to be identified with certain careers and personalities and the imitation of the western culture.

4.4 Summary of Chapter Four

As noted in the results/findings of the study and the subsequent discussions, it was clear that, music education and performance had a very strong and significant relationship with both academic achievement and students’ self concept. This relationship could be either way such that studying music as an examinable subject for instance could boost a student’s academic performance and also a student’s excellent performance could make him/her to feel that he/she can excel in music. On the other hand, a student with a high physical self concept could have learned to be attractive because of exposure or the exposure could also make him/her to have a high physical self concept.
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents a summary, conclusions and recommendations of the study. It is divided into five (5) sections. The first section provides a summary of the findings in the light of the objectives, literature review and methodology; the second section explores the implications of the findings; the third section gives a conclusion drawn by the researcher based on the findings of the study; while the forth section shows the recommendations and the fifth section gives suggestions for further research.

5.1 Summary of the Findings

The inconsistencies and different opinions in the earlier findings prompted the researcher’s interest to investigate the relationships among music education, music performance and students’ self concept and academic achievement. It was evident from the literature reviewed that, different researchers had different findings and given different conclusions on these relationships. The main objectives of the study were to investigate:

i) Relationships among students’ self concept, music education and music performance

ii) Academic achievement differences between those who studied music as an examinable subject and those who did not.

iii) Academic achievement differences between those who participated in music and those who did not.
iv) Relationships among the various domains of self concept and the main variables for the study.

v) Sex differences in music education, music performance, students’ self concept and academic achievement.

vi) Sex differences in the specific domains of self concept.

The sample consisted of eighty (80) form three students from Nairobi provincial boarding schools which offered music as an examinable subject. The schools were categorized as boys’, girls’ and coeducational. There was only one co-educational provincial boarding school that offered music as an examinable subject in the entire population and it was used in the pilot study and only two boys’ and two girls’ schools were used for the main study.

A questionnaire was used to collect data and was issued to the participants to give a self report. The modified semantic differential scale was used to measure six domains of self concept while academic achievement scores were taken from the schools’ records. After the pilot study, necessary adjustments were done to improve the reliability and validity of the instrument. Further improvement was achieved by being cautious during data collection and data analysis phases.

There were three categories of students in this study: those who studied music as an examinable subject and thus they must perform music because of the practical nature of music as a subject; those who did not study music as an examinable subject but they
performed music and those who did not study music as an examinable subject and they also did not perform in any music genre.

From the data collected, the following were the major findings for the study:

(a) There was evidence that there existed a strong positive and significant relationship between students’ self concept and music education. There was also a positive though not significant relationship between the students’ self concept and music performance. In regard to music education and music performance, there was a positive though not significant relationship. This meant that, studying music as an examinable subject did not have any relationship with participating in music (music performance). Thus for one to participate in music, he/she did not have to be studying music as an examinable subject.

(b) In relation to academic achievement, the study revealed that, there were academic achievement differences between the students who studied music as an examinable subject and those who did not. This difference was in favor of those who studied music as an examinable subject such that, those studying music performed relatively better than those who did not. There was also evidence that, from the sampled students, there were no general academic achievement differences between the students who participated in music and those who did not. This means that, just mere participation in music did not have a relationship with the students’ academic achievement but had a relationship with music education.
(c) There were no significant sex differences detected in student’s self-concept. The results showed that, although girls had a relatively higher mean score on the total self concept scale than the boys, this difference was not statistically significant. Further no significant sex differences were detected between boys and girls mean scores in academic achievement.

5.2 Implications of the Findings

From the discussion of the results, many pertinent issues concerning the relationships among music education, music performance and the students’ self concept and academic achievement have been highlighted. In this section, the implications of the study findings are discussed in relation to, education policy makers/curriculum developers and music teachers/career counselors (masters/mistresses).

5.2.1 Implications of the Findings to Educational Policy Makers and Curriculum Developers.

The findings of this study reveal that, there was a significant relationship between students’ academic achievement and music education. This relationship highlights the importance of music education in a student’s general academic achievement. Thus there is need to develop a school curriculum which gives music education the value that it deserves by making it a core subject.

The trend of music education in the current 8-4-4 system has devalued the importance of music education and there is a possibility that music may become extinct if the current
trend is not changed. This is discussed in the background to the study where the curriculum in the primary schools has seen music move from being an examinable subject to an unexamīnable subject hence giving it a lesser value. This is also evident in the number of secondary schools which offer music as an examinable subject and also the number of students who study music as an examinable subject.

As a matter of policy, music education should be encouraged at all levels of education and if possible music should be made a core subject especially at the elementary levels of education.

### 5.2.2 Implications to Music Teachers and Career Counselors

The findings of the study also revealed that, there was a statistically significant relationship between music education and students’ self concept; and also between music education and students’ general academic achievement. This shows that there was a positive relationship between music and the students’ self concept and also between music and academic achievement. Thus, music teachers need to encourage students to have intrinsic motivation and appreciate music and also encourage them to enjoy and take music as one of their leisure activities.

Further, career masters need to encourage secondary school students to choose music during subject selection in form three by explaining the importance of music education and performance and also by explaining the prospects of music as a career. Music has a very fertile ground for self employment through music composition and performance in different situations among many other career opportunities.
5.3 Conclusions

(a) This study demonstrated that there was a statistically significant positive relationship between music education and the students’ self concept and their general academic achievement. Therefore, owing to the fact that self concept is very vital to a student and the fact that music education is essential for nurturing the children’s talents as well as creating an all round human being, the researcher thus concludes that music education is a vital tool in our schools and the entire education system. History has it that, music has been used to simplify complicated concepts in science. For instance, the use of rhymes to learn the periodic table and colours of the rainbow among others has been used to help in quick memorization of the concepts.

(b) Music education is also believed to have a relationship with other aspects of life like discipline, self esteem and motivation among others. If we do not provide adequate opportunities for our children to learn and participate in music, we are depriving them of a great resource. Music competitions and festivals are used primarily to produce performances by talented and interested students for the enjoyment of parents and the community instead of using them to help young people who may not have musical talents reach their full potentials and also preserve the nation’s rich cultural heritage. This is a tragedy for both the individual and the nation.

(c) The findings were in agreement with the three theories that guided the study, that is, Jean Piaget’s theory of cognitive development, George Mead’s theory of symbolic interaction and Albert Bandura’s social cognitive theory. This is shown in the discussions in chapter four.
(d) These results (as discussed in chapter four) also were consistent with most of the previous studies findings (e.g. Henderson, 1983; Juma 2004; Mutweleli, 2009; Piers 1994; Schimdt, Zdzinski, and Ballard, 2006 and Yoon, 2000 among others) but also contradicted with some of the previous findings (e.g. Haynes, 1982; Hyton, 1981 and Murdock, 1991 among others) thus the need for further investigation into the relationship between students academic achievement and music performance.

5.4 Recommendations

Specific recommendations were made on the basis of the results obtained. These recommendations are:

(a) If music is to become a basic part of education, those responsible for our educational system must become convinced of its educational, as well as its artistic value. They must be convinced that music is as essential to a satisfactory education as are other subjects like English, mathematics and science.

(b) Music also (as shown in the results) has a positive statistically significant relationship with students’ self concept and academic achievement which are core to our education system and thus it should be given the value that it deserves.

(c) This work does not diminish music as an art (the beauty and expression it offers in and of itself), but rather it increases the status of music as an educational tool. Music education is essential for all students, not only the gifted and talented but also the average (normal child), less gifted and the less talented, and therefore all educators must understand that providing music education is a fundamental part of their responsibility.
Hence, the researcher recommends that, music be made an examinable subject at all levels of education and also be made a core subject especially in primary level.

5.5 Suggestions for Further Research

The results of this study may not be generalizable to the whole Kenyan school population because of the relatively small sample drawn from only one province. In order to mitigate the effect of cultural and geographical differences and class (form) differences, the following are the suggestions for further research:

(a) A similar study should be replicated using a larger sample drawn from all over the country and to include all students from form one to form four.

(b) The generalizability of the study findings may further be limited by the fact that, only students in provincial boarding schools were involved in the study and thus there is need to study the students in other categories like district and national schools. Thus there is also a need to study students in private schools since this study was limited to public schools.

(c) The findings of the study have contradicted several other findings from scholars in previous studies in terms of the interrelationships as shown in chapter four (e.g. Haynes, 1982; Hyton, 1981; and Murdock, 1991 among others). This, therefore, calls for a need for further research on the same.
(d) The findings of the study reported a significant positive relationship between music education and the students’ self concept and academic achievement. In future, more studies should be done on the relationship between music education and music performance on other aspects of life like discipline, obedience, motivation and occupational aspirations among others.
REFERENCES


Cobb, T. A. (1997). *A comparison of the academic achievement of students who have a musical background versus students who do not have a musical background.* (Doctoral dissertation, University of Mississippi). Dissertation Abstracts International, 58 (11), 4134A


Miranda, J. Y. (2001). A study of the effect of school-sponsored, extra-curricular activities on high school students' cumulative grade point average, SAT score, ACT score, and core curriculum subject grade point average. (Doctoral dissertation, University of North Texas). Dissertation Abstracts International, 63 (11), 3843A.


Appendix i

QUESTIONNAIRE FOR STUDENTS

GENERAL INSTRUCTIONS

Kindly answer all the questions to the best of your ability. Read the instructions before each section carefully, before answering. Remember this is not an examination, therefore any response given is correct.

PART I

Please read the following questions carefully and fill in the blank spaces or put a tick (√) in the brackets where appropriate.

1. Student’s code ________________________________

2. Name of school________________________________________

3. Type of school:
   - Girls school (   )
   - Boys school (   )
   - Coeducational (   )

4. Residential status:
   - A boarder (   )
   - A day scholar (   )

5. Gender:
   - Boy (   )
   - Girl (   )
6. Age

≤15 years ( )

Between 15-20 years ( )

> 20 years ( )

**PART II**

**SEMANTIC DIFFERENTIAL SCALE**

**Illustration**

Read the instructions very carefully and follow through the illustrations provided. The item below is made up of two adjectives; one which is the opposite of the other. These adjectives have been used by students like you before to describe themselves. The two adjectives are separated by a line divided by five points as below.

Short       Tall

| | | | | | |

You are required to judge your feelings towards yourself. Examine carefully the two adjectives (short, tall). Think of where you would place yourself on that line separating the two adjectives. Once you decide, place a cross mark (X) on that point. For example, if you feel the adjective tall describes you very well, then place a mark (X) next to this adjective as shown below.
If tall describes you but not very well, then mark next as shown below.

```
Short  Tall
       X
```

If you feel you are in between the two adjectives, then mark at the midpoint as shown below;

```
Short  Tall
       X
```

If short describes you very well, place a mark next to the adjective as shown below;

```
Short  Tall
       X
```
If short does not describe you very well, indicate as shown below:

<table>
<thead>
<tr>
<th>Short</th>
<th>X</th>
<th>Tall</th>
</tr>
</thead>
</table>

Make sure you understand fully the above instructions on how to complete the items that follow. Be as HONEST and TRUTHFUL as you can about your feelings. The answers will not be shown to anyone, and remember, this is not an examination so there is no right or wrong answer.

Now go ahead and do likewise for the items below. Each item represents a new pair of adjectives. Think carefully over each item and rate yourself by putting a cross mark (X) on the point on the line which describes you best.

1. Ugly                   Beautiful/ Handsome

| 1 | 2 | 3 | 4 | 5 |

Unhealthy                   Healthy

2. |

Weak                        Strong

3. |
4. Unkind
   Kind

Dishonest

5. ____________________________
   Honest

Disobedient

6. ____________________________
   Obedient

Fearful

7. ____________________________
   Fearless

Unsympathetic

8. ____________________________
   Sympathetic


9. ____________________________

Sorrowful

10. Stupid
    Clever

Lazy at school
    Hardworking at school

11. ____________________________
    Good memory

Poor memory

12. ____________________________
    Friendly

Unfriendly.
Uncooperative                  Cooperative
14. [________________________] ______________________

Unpopular                     Popular
15. [________________________] ______________________

Not helpful at home           Helpful at home
16. [________________________] ______________________

Not loved at home              Loved at home
17. [________________________] ______________________

Lonely at home                 Not lonely at home
18. [________________________] ______________________

PART III

SECTION A

MUSIC EDUCATION

1. Do you take music as an examinable subject?
   Yes ( )
   No ( )

If yes, what was your mark in last term’s examination in the subject?
   Between 0 and 25 ( )
   Between 26 and 35 ( )
   Between 36 and 45 ( )
Between 46 and 55  (  )
Between 56 and 65  (  )
Between 66 and 75  (  )
Between 76 and 85  (  )
Above 85  (  )

SECTION B

MUSIC PERFORMANCE

1) Do you participate in any music group?
   Yes  (  )
   No  (  )
   If yes, which group have you joined? (choose one group only).
   School choir  (  )
   Church choir  (  )
   Discos  (  )
   Any other (specify) .............................................................
   ..........................................................................................

2) Which type(s) of music do you like?
   Vocal  (  )
   Instrumental  (  )
   Sacred  (  )
   Secular  (  )
African (  )  
Western (  )  
Oriental (  )  
Jazz (  )  
Pop (  )  
Reggae (  )  
Bongo (  )  
Other (specify)………………………………………………………
………………………………………………………………
………………………………………………………………
………………………………………………………………
………………………………………………………………
………………………………………………………………

3) Rank the music genres (types) in the order of your priority (from the best)

(a)…………………………………………………………………………………
(b)…………………………………………………………………………………
(c)…………………………………………………………………………………
(d)…………………………………………………………………………………
(e)…………………………………………………………………………………

4) For what purpose have you participated in the type (s) of music mentioned in 2 above?
   
   For competition purpose (  )  
   For entertainment purpose (  )  
   For academic purpose (  )
5) Give two reasons why you prefer the categories of music mentioned in 3 above.

(a) ........................................................................................................................................
........................................................................................................................................

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

(b) ........................................................................................................................................
........................................................................................................................................

............
Appendix ii

STUDENT’S CONSENT LETTER

This research study is aimed at fulfilling the requirements for a Masters degree that the researcher is pursuing at Kenyatta University, department of educational psychology. The findings of this study will help provide vital information for curriculum developers, policy makers, education administrators, teachers and the students. I would like to request you to complete the research questionnaire and help in this noble task.

GENERAL INSTRUCTIONS
1. This is a research study. Through sampling procedures your school happens to be included in this study.
2. You, as an individual, may choose to accept or not to accept to participate in this study.
3. You are free to ask the researcher for any clarifications in any case where you do not understand what the question or item demands.
4. All the information given will be treated with ultimate confidentiality, thus you will not be required to write your name on the questionnaire which will be handed to you after signing this letter of acceptance but you will write a code number which will be assigned to you.

Kindly write your name in the spaces provided if you agree to participate.
I………………………………………. agree to participate in the study.
Thank you very much for agreeing to participate in the study.

Yours respectfully,

Matiti Redemta Mary
RE: RESEARCH AUTHORIZATION

Following application for authority to carry out research on relationship between music education, music performance and secondary school students’ self concept and academic achievement, Nairobi province, Kenya

I am pleased to inform you that you have been authorized to undertake your research in Nairobi for a period ending 31st Dec 2009.

You are advised to report to the District Commissioner and the provincial Director of Education Nairobi before embarking on your research project.

Upon completion of your research project, you are expected to submit two copies of your research report/thesis to our office.

PROF. SHAUKAT A. ABDULRAZAK PhD, MBS
SECRETARY

Copy to:
The District Commissioner
Nairobi

The Provincial Director of Education
Nairobi
Appendix iv

Research Permit No. NCST/5/002/R/614
Date of issue 13.07.2009
Fee received SHS 1000

THIS IS TO CERTIFY THAT:
Prof./Dr./Mr./Mrs./Miss. MATITI
REDEMTA NARY
KENYATTA UNIVERSITY
PO BOX 43844 NAIROBI

has been permitted to conduct research in:
LOCATION, NAIROBI
DISTRICT, NAIROBI
PROVINCE, NAIROBI
RELATIONSHIP BETWEEN
MUSIC EDUCATION, MUSIC PERFORMANCE
AND SECONDARY SCHOOL STUDENTS
SELF CONCEPT AND ACADEMIC
ACHIEVEMENT IN NAIROBI PROVINCE

for a period ending 31ST DEC 2009