ELEMENTS OF REVERSING UNDERACHIEVEMENT IN ACADEMIC PERFORMANCE AMONG GIFTED SECONDARY SCHOOL STUDENTS, KIAMBU COUNTY, KENYA

BY

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DECLARATION

I confirm that this research thesis is my original work and has not been presented for a degree in any other university. The thesis has been complimented by referenced works duly acknowledged. Where text, data, graphics, pictures or tables have been borrowed from other works, including internet, the sources are specifically accredited through referencing in accordance with anti-plagiarism regulation.

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DEDICATION

This thesis is dedicated to my parents: my late dad who passed on at 105years; my mom, energetic and highly motivated mother in her youthful years, now peacefully retired and enjoying good health; my exemplary parents in law, for the respect they give me as their daughter in law; my husband & children for their unwavering support.

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ABBREVIATIONS AND ACRONYMS

AIDS Acquired Immune Deficiency Syndrome

BEd Bachelor of Education

GT Gifted and Talented

HIV Human Immune Virus

IQ Intelligence Quotient

KIE Kenya Institute of Education

KCPE Kenya Certificate of Primary Education

KCSE Kenya Certificate of Secondary Education

KDDP Kiambu District Development Plan

MA Master of Arts

MBA Master of Business Administration

MDS Master of Development Studies

MEd Master of Education

NCERT National Council of Educational Research and Training

S1 Diploma of Education

TIQUET Totally Integrated Quality Education and Training

QAS Quality Assurance and Standards

ABSTRACT

The purpose of this study was to investigate factors that contribute to underachievement and the role of varied strategies in reversing underachievement among gifted secondary school students. The study was carried out in Kiambu County because of its continued poor performance in KCSE examinations. The study was inspired by the researcher's experience in teaching. Questions of the role of the teacher in shaping the life of the learner are prominent: how are underachieving gifted learners managed given that they are found in every classroom, yet not many teachers understand them? The study employed the ex post facto research design to investigate possible cause-and-effect relationships by observing existing conditions for plausible causal factors. The target population of this study was 2,808 teachers in secondary schools in Kiambu County. A sample size of 306 teachers from 6 National Schools and 14 Extra-County Schools were selected. They were given the questionnaire to fill. Documentary evidence was utilized to identify learners who had been admitted with high KCPE marks but performed poorly in KCSE. Data was coded, analysed and presented in frequencies and percentages using tables. The Statistical Package for Social Sciences (SPSS, 20) was utilized for analysis. Negative attitude was assigned 1 to 2 or <3 and positive attitude was assigned 4 to 5 or >3. Out of the sample of 306 teachers, 254 filled in the questionnaires. The areas under investigation were common characteristics, factors that contribute to underachievement, role of assessment of students' performance and intervention strategies – Communication, Expectations, Role Model, Skill deficiencies and Reinforcements. It emerged that underachieving gifted have such characteristics as rebellion, perfection & passivity, and that there are factors that contribute to the state of underachievement like unfavourable home environment, intellectually unstimulating classrooms and peer pressure. The study results also revealed that assessment of underachieving gifted students is critical to reversing underachievement because it can manifest itself in varied ways in the school environment, and that reversal strategies like high expectations from teachers & peers, correction of skill deficiency and modification of reinforcement are important in reversing underachievement. The study recommends that teachers and parents be sensitised on reversal strategies for early identification, treatment and better collaboration between them. It further recommends that curriculum developers and policy makers design programmes and activities that facilitate the reversal of underachievement among gifted secondary school students.

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

This chapter comprises background to the study, statement of the problem, purpose of the study, objectives of the study and research questions. It also presents the assumptions of the study, limitations of the study, delimitations of the study, significance of the study, theoretical & conceptual framework and operational definition of key terms.

1.2 Background to the Study

Underachieving among the gifted has been a focus of research for several decades, with exceptional studies of interventions for gifted underachievers having demonstrated only limited success. The process of defining underachievement, identifying underachieving gifted students, and explaining the reasons for this underachievement continues to stir controversy among practitioners, researchers and clinicians (Reis & Coach, 2000). The underachievement of gifted students is a perplexing phenomenon. Too often, for no apparent reason, students who show great academic promise fail to perform at a level commensurate with their previously documented abilities, frustrating both parents and teachers (Reis & Coach, 2000).

This study is inspired by the researcher's teaching experience in Limuru District in Kiambu County. Personal experiences are not empirical in nature and they cannot be validated. They could also be subjective. However, questions of the role of the teacher

in shaping the life of the learner are prominent in the researcher's mind. What effect does a teacher's attitude towards underachieving students have on their improved performance? For example, students with problems related to education were encountered through the guidance & counselling process; some of them were consistently on the sick students' list, either at the school sickbay or at home for medical attention; and others were consistently on the punishment list. From guidance and counselling records, behaviours of such students revealed efficiency and consistency; there seemed to be "an intelligence" that could not be ignored. While their behaviour was socially unacceptable, and was adversely affecting their academic and social life, there was an efficiency that was intriguing.

Interest in the study on reversal of underachievement is further inspired by social occurrences: Attention is particularly drawn to "Matheri", a "wanted criminal" who was a class 6 drop out. Matheri was able to dodge the police and the intelligent systems of his country skilfully for over one year. Curiosity is aroused and a question asked: "How can you explain such skilfulness from a class 6 dropout?" (Wanjaria, 2010).

Out of the forty seven counties, Kiambu County is rated among counties that perform very poorly in Kenya Certificate of Secondary Education (KCSE) (Kiambu District Development Plan- KDDP, 2012). If KCSE mean score of the National Schools, (Alliance Boys, Alliance Girls, Loreto Limuru, Limuru Girls, Mangu Boys, and Mary Hill), with a mean standard score of between 10 & 11 out of a possible 12, are excluded from the County aggregate, the mean standard score of all other schools

combined drops to between 3 and 4 out of 12, with some schools registering between 1 and 2 only (Kenya National Examination Council – KNEC, 2013). Such mean scores place Kiambu County in the same level with the bottom counties in arid & semi-arid zones in the country. Since Kiambu County is well endowed with resources, electricity, road networks, nearness to Nairobi city, becoming last position, comparing well with Sub Counties in arid & semi-arid zones is a pitiful state of affairs. Appendix 6 shows some differences in performance in top and bottom schools in forty seven counties in relation to National Schools and bottom five schools in Kiambu County. This study therefore seeks to investigate elements that may work in reversing underachievement among secondary school students in Kiambu County.

Education Psychologists have had similar concerns and Davis, Rimm & Siegle (2011) observe that the underachieving gifted and talented child represents both society's greatest loss and its greatest potential resource. In fact, these children fit the definition of giftedness used by Renzulli (Hallahan & Kauffman, 1999), who succinctly defined giftedness as consisting of behaviours that reflect an interaction among three basic clusters of human traits—ability, task commitment, and creativity—all operating at a high level. It should be noted that this definition refers to gifted behaviours rather than gifted individuals and is neutral, that is, it does not matter whether these abilities are regarded as negative or positive. This definition by Renzulli seemed to accommodate observations made by teachers in the process of guidance & counselling in the school setting. Ability, creativity, and commitment to the task were high, even if the task was misbehaviour. It would seem that giftedness is the intensity with which the child applies "ability, creativity, and commitment to task" to manipulate the environment to

meet a given objective. This is what seems to distinguish the gifted from the average child (Wanjaria, 2010).

There seems to be no universally agreed upon definition of gifted and talented learners and consequently, there is no universal definition of gifted underachievement. Students identified as gifted and talented are not a homogeneous group. Several researchers who have studied gifted and talented learners agree that there is no one portrait of a gifted student, and that talents & strengths among the gifted vary as widely as they do with any sample of students drawn from a so-called average population. The most common component of various definitions of gifted underachievement involves identifying a discrepancy between ability and achievement (Reis & McCoach, 2001).

The National Special Needs Education policy (Ministry of Education, 2009) in Kenya acknowledges that learners with physical disabilities and other special education needs require specialized education resources at individual and school levels. It is important to note that children with Special Education Needs (SEN) in Kenya are generally grouped into two categories; those with physical disabilities and those with mental incapacities. Rarely are children identified using more specific categories as one would find in the western world. This raises questions of how underachieving gifted learners are managed in schools in Kenya's 8.4.4 system, given that the gifted learner's needs are far from being met. Tribute is however given to The National Punishment policy (Ministry of Education, 2004) that requires that learners are not subjected to corporal punishment, but that teachers use guidance & counselling

approach in the management of learner discipline. This is because some characteristics of gifted learners might be seen as negative, Ndurumo (2013). A commission created on August 26, 1981, the National Commission on Excellence in Education in America, (Gardner, 1983) reported that half of gifted children do not perform in school at a level that is up to their abilities. Studies of high school dropouts estimate that between 18 - 25% of the students who do not graduate are in the gifted range of abilities (Gardner, 1983). The Carnegie Corporation's (1996) report, *Years of the Promise* (p. 2), further certifies the seriousness of the underachievement problem in the United States. The report states:

> Make no mistake about it; underachievement is not a crisis of certain groups: it is not limited to the poor; it is not a problem afflicting other people's children. Many middle and upper-income children are also falling behind intellectually. Indeed, by the fourth grade, the performance of most children in the United States is below what it should be for the nation, and is certainly below the achievement levels of the children in competing countries.

In the developed world some attempts were made to reverse underachievement. Sidney & Moon (2004). Baymur & Patterson (1965) attempted unsuccessfully to resolve the issue strictly through a student and family counselling approach; while Hastings (1982) described an organizational study skills programme implemented by her district, which helped three students but did not help three others. Supplee (1990) led an ambitious drive to create special classrooms that used pro-reversal teaching strategies, but met with only mixed success. Weiner (2002) argued for simultaneously strengthening reward systems, addressing cognitive and emotional handicaps, filling educational gaps, and modifying passive-aggressive tendencies. Rimm (2008), through the "Trifocal Model" emphasized a firm partnership between educators, parents, and psychological counsellors to fix a larger number of root causes. Baum,

Renzulli, & Hébert (1995) piloted an independent-study-based programme - using curriculum compacting and student-interest projects - that was fairly successful in reinvigorating student attitudes about learning. Rimm (2008) further identified six steps that were successfully used to reverse underachievement in the study conducted in America (Sidney & Moon, 2004). These studies were conducted in developed countries where possibilities for availing resources for improved curriculum and differentiated programs for the gifted were high. This study was carried out in Kenya, a developing country with limited resources for advanced programs for gifted education.

The six steps used by Rimm (2008) seem to have aspects that would be in response to recommendations made by researchers in Kenya. Kinyua (2014) in the study of gifted in rehabilitation centres proposes that teachers in rehabilitation centres should be sensitized on the characteristics and needs of children who are gifted. He further proposes that an environment that is conducive be provided to enable children who are gifted exploit and develop their potential. For example, offering leadership training, encouraging cooperative learning, providing mentorship programmes, and appreciating & recognizing children's creative work. Learners should also be involved in decision making, especially in issues that affect them. Creation of opportunities in which problem-solving skills are practiced, and learners are allowed to come up with solutions, is encouraged in the same recommendation. Teachers are also encouraged to foster independent or self-directed learning to allow learners to exploit and develop research or inquisitive skills, and develop their talents in art, music, creative writing and acting, among others. Teachers should also involve the

children in coming up with Individualized Educational Programmes (IEPs), Kinyua (2014) asserts.

Underachieving gifted learners are found in every educational institution and their education needs deserve attention. The fact that Trifocal Model framework is flexible and can be utilised by teachers and parents explains why this study was placed within the model. Janesick (2000) points out that "qualitative researchers have open minds, but not empty minds". Despite the personal experiences and Kenyan perspectives, the researcher strove to remain as open-minded as possible and put pre-conceptions to one side as suggested by Silverman (2006).

1.3 Statement of the Problem

There is a growing concern in Kenya among educators, parents, and also students, that learners who are categorized as gifted end up underachieving in national examinations (Kang'ethe and Mugo, 2010). Pupils perform very well in primary school by getting 'A's in Kenya Certificate of Primary Education (KCPE) and are admitted to National or Extra-County secondary schools with excellent marks. However, some of these students end up dropping out while others graduate with dismal grades in KCSE. How does one explain a learner who enters secondary school with 'A's of 80 to 90% (400 to 450 marks) graduating with 'C's or 'D's at KCSE? (Quality Assurance and Standards, Limuru Sub – County, QAS, 2013) How does one explain that among most troublesome children in secondary schools are some students who got over 400 marks in KCPE? What happened to the demonstrated intelligence at primary school? Did it

disappear or did it change strategy? Assuming intelligence can be demonstrated by good grades in academics, can it (intelligence) be present today and disappear tomorrow? To illustrate the point, a top KCPE student (482 out of 500 marks) was admitted to a National School and then dropped out in form two with serious emotional complications (Wanjaria, 2010). What may have happened to such a student? Was the problem at the primary school level, or at secondary school level? What conclusions were made about the causes of her drop out? In another National school, (school no 6 in appendix 5), out of 258 students admitted in 2010, 180 had 400 and above. In 2013 KCSE results, 40 students had C and below. Out of those who had 400 and above marks in KCPE, 2 students had D+ and 2 had D-; one student had been expelled from school as a disciplinary measure and 4 students had been transferred to other schools. How does one explain such a scenario? Minimal research has been directed towards understanding underachieving gifted children.

Education Psychologists, Davis (2011) noted that underachieving gifted children can direct their energies in deviant behaviours, and it requires special understanding from teachers to manage the same. This study sought to investigate elements of managing underachieving gifted secondary school students in Kiambu County.

1.4 Purpose of the Study

This study hoped to make a contribution towards the aspirations of the Kenyan educators, parents, and students in the process of identifying and hopefully establishing programmes for the underachieving gifted students. The purpose of this

study was to investigate elements of reversing underachievement in academic performance among gifted secondary school students in Kiambu County.

1.5 Objectives of the Study

The study sought to achieve the following objectives:

1. To find out common characteristics of underachieving gifted secondary school students in Kiambu County.
2. To find out factors that contribute to underachievement among gifted secondary school students in Kiambu County.
3. To investigate the role of assessment of students' performance in reversing underachievement among gifted secondary school students in Kiambu County.
4. To investigate intervention strategies of reversing underachievement among gifted secondary school students in Kiambu County.

1.6 Research Questions

This study was guided by the following research questions:

1. What are the common characteristics among underachieving gifted secondary school students in Kiambu County?
2. What are the factors that contribute to underachievement among gifted secondary school students in Kiambu County?
3. What is the role of assessment of students' performance in reversing underachievement among gifted secondary school students in Kiambu County?
4. What intervention strategies are likely to reverse underachievement among gifted secondary school students in Kiambu County?

1.7 Assumptions of the Study

Due to the nature of the definition of giftedness, the study assumed that top KCPE performers in Kenya belong to the gifted category of students. The study also assumed that teachers in secondary school are qualified to identify the gifted students, especially in academic aptitude. The study further assumed that teachers, parents, counsellors, and other related professionals have the capacity to implement the reversal strategies identified, and that the expectations of the study process would go as planned.

1.8 Limitations of the Study

The study was limited due to targeting the top cadre of KCPE students who were mainly admitted to National and Extra-County schools (Former Provincial schools).

The study results may not be generalised to students who got KCPE marks that are lower than 300.

1.9 Delimitation of the Study

The study was delimited to National and Extra-County schools which admit 5% and 20% of the students from primary schools in every Sub-County in Kenya respectively. The study was delimited to Kiambu County and not to other Counties because it has most National schools and has a reputation of outstanding performance in the National schools. It was also delimited to form four students and not form one to three because they have gone through the full cycle of secondary school experience.

1.10 Significance of the Study

Expectations were that establishing common characteristics, factors that contribute to underachievement, role of assessment, and intervention strategies of academic underachievement in secondary schools would be an approach geared towards improving the learner's ability to use his/her special talents and be more productive. It was hoped that the findings would contribute to addressing the challenge of reversing underachievement among gifted students, and provide guidance for the management of their education in school settings for optimal outcomes. Curriculum developers and policy-makers would make use of the findings to design programmes and activities that may facilitate the reversal of underachievement among gifted secondary school students. The study was expected to provide useful information that might trigger debate among scholars and add knowledge on reversal strategies for underachieving gifted children in the context of developing countries.

1.11 Theoretical Framework

This study was guided by the insights of the Trifocal Model for reversing underachievement and grounded on a theoretical base of Bruner – the Culture of Education. The Trifocal Model includes six steps that apply to all underachievers, and are utilised by teachers, parents, and/or psychologists working towards reversing underachievement among the gifted youth and children. One, assessment, which entails evaluations done by the teacher, be it in form of observations in class or outside class besides the school based tests, and other formal evaluations in schools, like drama and music adjudications. Two, communication, which includes all correspondences that take place between adults involved in the students' life in reversing their underachievement. Three, changing expectations, signifying the changed expectation by parents, teachers, peers, and siblings, as well as self to facilitate reversing underachievement. They could be answering such questions as: "Is she/he doing her/his best in the circumstances?" Or "Am I smart enough?" Four, role model identification, which is the process of selecting a role model to collaborate with the underachieving student. Five, ccorrection of skill deficiencies - these are the activities carried out by teachers in helping underachieving gifted students overcome deficiencies that are as a result of inattention in class and poor work & study habits.

Step six, modification of reinforcement at home and school, is divided into four types of underachieving students: conforming & nonconforming dependent and conforming & nonconforming dominant. This step involves modifying the rewarding

system to break the cycle of manipulative rituals between the underachieving gifted student and teachers & parents.

The study adopted Rimm's Trifocal Model (2008) of reversing underachievement because it highlights different steps teachers and parents could use to reverse underachievement. The model was applied because it provided a flexible framework within which excellent pedagogy and parenting styles could be included, and it provided plenty of opportunity for additional teacher innovation.

According to Rimm (2008) the first step in underachievement reversal deals with assessment which involves the cooperation of the school psychologists, teachers, and parents. In the absence of advanced strategies, teachers could use their own insights and assess underachievement of their students. Performance in teacher-made assessment tests would be a good criterion to start from. A comparison of individual students' results in National examinations like KCPE and KCSE would be very revealing. Besides that, teachers could note other underachievement areas like failure to complete teacher assignments, and disruption in class during lessons. The teachers could also consider involvement in co-curricular activities for assessment. If incorrect assessment is made, efforts are likely to be directed to reversal strategies that may not work for the said student, thus having underachieving being reinforced instead of being reversed.

Step two of the Trifocal model, communication between parents and teachers, makes an important component of the reversal of underachievement. The analysis of step

one, assessment, forms the basis of communication between teachers and parents. The assessment process will have identified patterns that indicate nature of manipulative tendencies of the underachieving student. Either a parent or the teacher could initiate the first conference, assuring the other of support rather than place blame. If the teacher initiates the first conference, and the parents show no interest, or are incapable of working with him or her; the teacher could select another child advocate in the school, for example, a counsellor, gifted coordinator, or resource teacher. Reversing an underachievement pattern without parental assistance is not as efficient, but nevertheless could be very effective (Davis, 2011).

The third step, Rimm (2008), deals with changing the expectations of significant-others like parents, teachers, peers, and siblings as well as self-expectations. This could be a difficult process especially when underachievement has been maintained for a long period. In such circumstances anecdotal information could provide convincing evidence of the child's abilities. Changing self-expectations and peer expectations could be done in individual therapy, in group counselling sessions, and in classroom settings. Having high expectations could raise performance of a given individual. On the contrary, having low expectations could make an individual perform poorly. Rimm (2008) in her third edition of *Why Bright Kids Get Poor Grades*, indicated that what a student is told about himself or herself, and his or her work, and (depending on) how the teacher gives this feedback, students' progress can significantly improve or deteriorate.

Role model identification, step four of the Trifocal model, is said to be a turning point for the underachieving child. In fact, all other treatment for underachievement dim in importance compared to strong identification with an achieving model, (Rimm, 2008). Underachieving children could be matched with an achieving person to serve as a model for them. The person selected could serve in a model capacity for more than one child. His or her actual role might be as a tutor, mentor, companion, teacher, parent, sibling, counsellor, psychologist, minister, scout leader, doctor, and so on. The model should have as many of the following characteristics as possible: Nurturance, Same gender, Similarities to child, Openness, Willingness to give time, and Sense of Positive Accomplishment. Rimm (2008) and colleague researchers Reis & McCoach (2002) noted that students who reversed their underachievement found that they often attributed their reversal to a teacher who was an important inspiration in their lives. On the aspect of role model's contribution to reversing underachievement, educators and parents concur that role models had the single most remarkable influence on their education process (Rimm, 2008).

Step five, which is correcting of skill deficiencies, Siegle, D. & McCoach (2005) deals with habits that result from inattention in class and poor work & study skills. However, because the learner is gifted, the skill deficiencies could be overcome rapidly depending on the level of motivation. The correction of skill deficiencies should be conducted carefully for three main reasons. One, the independent work of the underachieving child is reinforced by the tutor; two, manipulation of the tutor by the child is avoided; and three, the child senses the relationship between effort and the achievement outcomes. Charting progress during tutoring helps to visually confirm

the rapid progress to both child and tutor. Breaking larger tasks into smaller tasks permits the student to build confidence.

Step six of Trifocal Model, Modification of reinforcements at school and at home is the final step of the underachievement reversal process. The analysis in Step one would identify some of the manipulative rituals applied by the underachieving gifted student. These behaviours need to be modified by setting important long-term goals, as well as some short-term objectives that can ensure immediate small successes for the student, both at home and at school. Breaking the cycle of manipulative rituals between the underachieving gifted student and teachers or parents is of great importance in reversing underachievement (Rimm, 2008). The six steps of the Trifocal Model form objective three and four of the study. Objective four has the five strategies which are proposed for reversing underachievement. They form the five strategies (variables) proposed for reversing underachievement.

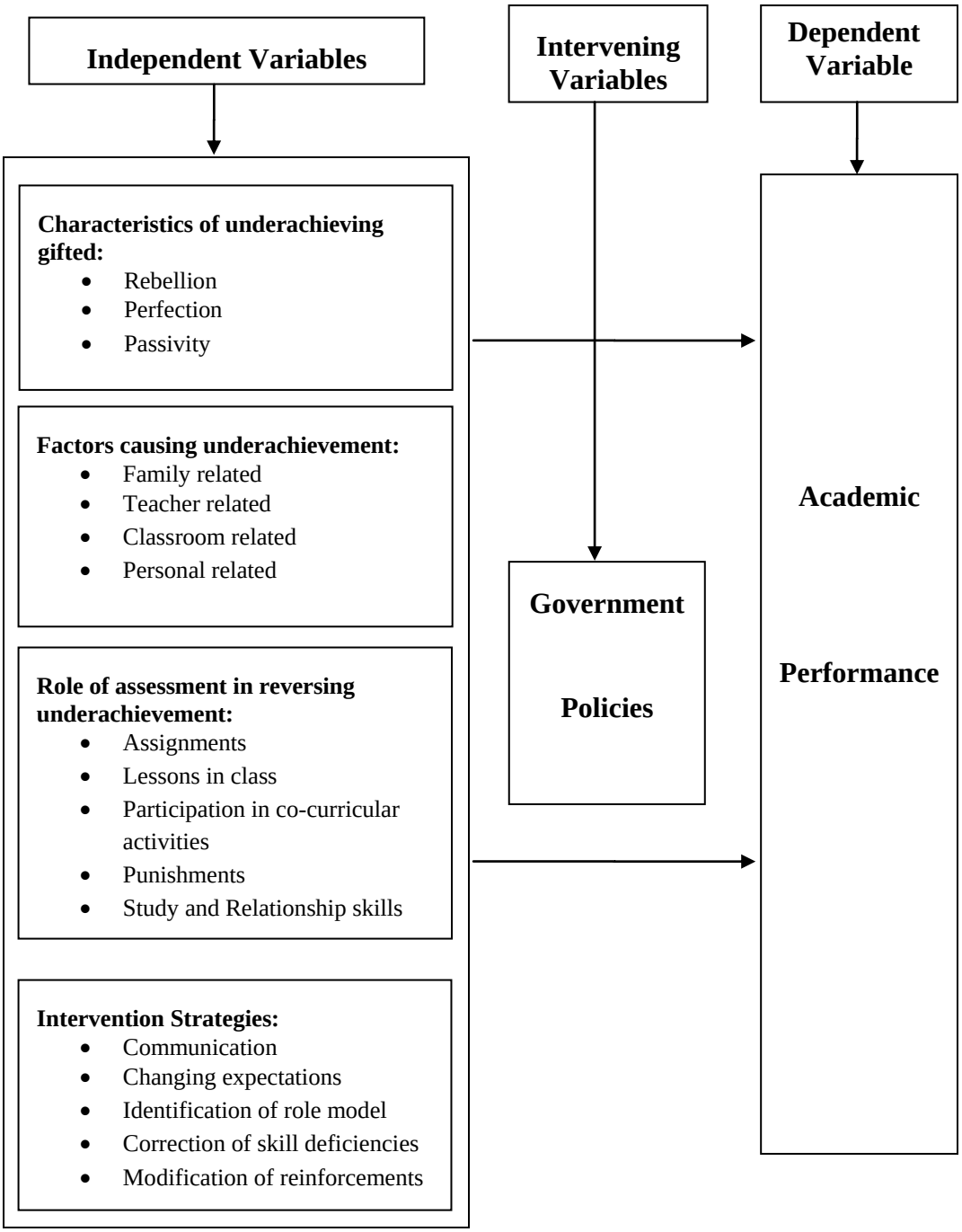
1.12 Conceptual Framework

The researcher's creation was based on adapted Rimm's (2008) Trifocal Model. If teachers were familiar with the characteristics of underachievers and the factors that cause it; if they were positive that reversing underachievement among the gifted secondary school students is possible, then proper assessment of the students would be carried out, and teachers would have high expectations from the underachieving students. If this were to happen, the teacher would get involved in correcting deficiencies, and modifying reinforcement so that the old manipulative habits would become extinct. This would lead to the student's underachievement being reversed

and improved academic performance cycle might begin as shown in figure 1 below. This prediction was confirmed by the study findings.

However government policies may affect interaction of teachers with the independent variables either positively or negatively and therefore influencing the outcomes.

Figure 1: Conceptual Framework



Conceptual Framework Source: Authors' own formation, 2016

1.13 Operational Definition of Terms

Gifted individuals are defined as those persons who have shown potential in the following domain or field: high ability, high creativity and high task commitment.

High ability: intelligence directed in helpful or unhelpful goals

High creativity: the ability to formulate new ideas and apply them to achieve set objectives – be they helpful or unhelpful

High task commitment: a high level of motivation and the ability to see a project through to its conclusion; persistence on a task – be they helpful or unhelpful

Gifted & Talented: **Bright** and **Intelligent** are used interchangeably when & and if they fit into the above criteria of high ability, creativity, and task commitment to some degree. Only the gifted aspect (academic aptitude) of the students' Gifts & Talents was focused on in this study.

Elements: used to mean **aspects** that may influence underachievement like characteristics, factors and assessment. They also include reversal **strategies** like communication, expectations, role model, skill deficiencies and reinforcements. Together they form the **Independent Variables** of the study.

Underachievement: discrepancy between ability and achievement in relation to Kenya National Examinations – KCPE and KCSE.

Academic Performance: cognitive domain as opposed to psychomotor and affective domains of learning.

Assessment: Evaluative activities done by teachers; be it in form of observations in class or outside class, besides the school based tests and other formal evaluations in schools, like drama and music adjudications.

Communication: All correspondences that take place between adults involved in the students' life in the process of trying to reverse the students' underachievement.

Extra-County schools: Schools previously referred to as Provincial schools before 2013, when Counties were formed in Kenya.

Manipulative rituals: Behaviours that are repeated to frustrate parents' and teachers' efforts to help underachieving students. The manipulative rituals "prevent" the underachieving student from doing what is expected by concerned adults

National Schools: The schools that admit students from all parts of the Country; previously set and equipped with high standard resources to cater for bright students in the country before 2013 education reforms.

8-4-4 system of Education: Eight years of primary education (categorised as Standard 1 to 8); 4 years of secondary education, (categorised as form 1 to 4) and 4 years of University of education (categorised as 1^{st} year to 4^{th} year)

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter comprises Background on Special Needs Education; Characteristics of the Underachieving Gifted Students; Causes of Underachievement among Gifted Students; Role of Assessment in Reversing Underachievement; Reversal of Underachievement:- Communication between Teachers and Parents; Changing the Expectations of Self and Significant Others; Role Model Identification; Correcting Skill Deficiencies; Modification of Reinforcements at Home & School and Summary of Reviewed Literature.

2.1 Background on Special Needs Education

Internationally, the education of children with special needs has taken various dimensions and phases. Dyson (2002) identifies some of them as remedial education, compensatory education, special classes, special treatment, the whole school approach, integration, and differentiation all of which have gone into the annals of history. It is worthwhile noting that there has been an increasing amount of research into the ways of helping children with special needs including the gifted & talented children and youth in Kenya. Some of the studies, among others, were by Kang'ethe – Kamau (2004) and Omoke (2011). Kang'ethe – Kamau (2004) study sought to establish measures and procedures of identifying gifted and talented children. Omoke (2011) sought to establish the quality of education offered to children with special needs in the era of free primary education. These studies were in response to concerns

that had been expressed by various people Koech (1999). Programs have been developed in universities in Kenya, a leading example being at Kenyatta University where there are undergraduate, masters, and doctorate programs.

Education for the gifted & talented students continues to be of great concern because the definition of who they are is not fully agreed upon. The big debate on what makes seemingly bright students not to perform well in school stems from the fact that failure to meet the learning needs of the gifted learners leads to immense loss of human potential. Most of the children whom the researcher encountered as underachieving gifted were referred for psychological support because they had been "identified" as having mild mental retardation. The fact that the "assessing teachers" had said the underachieving gifted had mild retardation goes to show the seriousness of wrong diagnosis (Wanjaria, 2010).

Kiarie (2005) noted that very few children with mental retardation receive services, and that most of the learners had not been identified. He characterizes these children in Kenya as those with an impaired ability to learn, acquire & generate concepts, processes, understand & respond to information, and apply knowledge in various settings such as school and community. He said it was important to note that the learning and social behavioural characteristics of students with mild retardation and those who were unmotivated low achievers were often so similar to observers that misdiagnosis occasionally occurred.

Various bodies and educational institutions have used certain characteristics for assessment. A Checklist for parents designed by Creative Intelligence Agency for

gifted and talented students, (Winebrenner, 1992) was used to guide this study. The check list has been used in schools in United States of America, for example in Wisconsin State by Ripon Area School District.

2.2 Characteristics of the Underachieving Gifted Students

Distinguishing features of the gifted become apparent from an early age. Silverman (2006) provided a useful generalization of the intellectual and associated personality characteristics of the gifted group. Not all of these features are exclusive to gifted & talented students but such students possess them to a greater degree (Department of Education and Training, 2004). Not all the characteristics of gifted & talented students are seen as positive. Davis (2011) listed some negative characteristics that gifted students may display that make the very strengths they possess become weaknesses in their interactions with teachers and other students. Some of these “negative” attributes are: a tendency to dominate class discussions; an impatience to proceed to the next level of subject or task; a resistance to rules, regulations and standard procedures; a tendency to get “off the subject” in class discussions, usually referred to as scatter brain; a tendency to become bored by repetitive exercises; frequent shifts of attention & interest, and a tendency to insist on knowing the logic behind required tasks and activities (Department of Education and Training, 2004).

After reviewing the research in the field of gifted underachievement, Emerick (1992) observed that "the picture of the underachiever which emerges is complex and often contradictory & inconclusive" (p. 140). Interestingly, some recent research suggests that underachieving gifted students share more common characteristics with underachievers in general than they do with achieving gifted students. (Reis & Coach,

2000). This means they might miss the opportunity to be identified as gifted and therefore may not receive the chance to be helped to reverse the underachievement. Other characteristics that might be seen as negative are that: the gifted learners have diverse, spontaneous and frequent self-directed interests; show a high degree of originality and often use good but unusual methods or ideas; have ability to adopt learning to various situations somewhat unrelated to orientation; they have also been believed to be non-conformist & to show independence of thinking; exhibit stubbornness or reluctance to do as directed; they have varied & penetrating inquiries; and experience boredom with routine and sameness (Ndurumo, 2013).

Gifted students underachieve for many reasons and in many different circumstances and there is no panacea for how to reverse underachievement in students whose talents may manifest themselves in diverse ways (Reis, 2007). Too often, students who show great academic potential fail to perform at a level commensurate with their abilities. Some underachieving students may lack self-efficacy, goal-directedness, or self-regulation skills (Davis, 2011). They set their goals either too high or too low, and as a result, they guarantee failure. Other low achievers may suffer from either obvious or hidden disabilities, and others may underachieve in response to inappropriate educational conditions or environments (Reis, 2007).

Reis and McCoach in 2002 classified student underachievers into three categories. First, the ‘Rebel’- the student who demonstrates disruptive, delinquent, hostile, touchy, and temperamental behaviours. Second, the ‘Stressed Learner’ or ‘Perfectionist’- a student who displays anxious, perfectionist, and worries about failure. Lastly there is the ‘Complacent Learner’ or ‘Passive learner’ – a student who

procrastinates, gets easily distracted, and seems unconcerned about work. The study adopted outlined categorization of underachievers, Reis and McCoach (2002), and sought to investigate teachers' opinion about them in relation to underachieving students in Kiambu County.

2.3 Causes of Underachievement among Gifted Students

Determining why some high ability students demonstrate low levels of achievement is difficult because underachievement occurs for three different reasons. One, an apparent underachievement problem masks more serious physical, cognitive, or emotional issues. Two, the underachievement is symptomatic of a mismatch between the student and his or her school environment. Three, it results from a personal characteristic such as low self-motivation, low self-regulation, or low self-efficacy (Reis & McCoach, 2002). This state of underachievement may be compounded by behaviour management practices in most school systems in that when there is a mismatch between the student behaviour and school expectations, a student is given a punishment. If the behaviour persists, he or she is suspended. In cases where the misconduct continues, he/she is expelled from the said school. In frustration and wonder on what to do with their child, who has to continue with education, parents have to transfer him/her to another school. As one educationist noted,

> …..much of the record-keeping and anecdotal material transferred from teacher to teacher acts as a milestone of failure around the neck of the pupil……The only worthwhile information to be gleaned from the past concerns the child's successes;….. It is useless to work with failure because the teacher and the child become deeply involved with failure; believing that his failure is an important part of his relationship to the teacher, the child continues to fail. By ignoring the past failure, we encourage the child to change his present behaviour; his past is not important to us. —Very few

> children come to school as failures, none come labelled as failures; it is school alone which pins the label of failure on children. Most of them have a success identity, regardless of their homes or environments. Whatever their background, children come to school highly receptive to learning….. (Glasser, 2011)

There is no gene for underachievement. Instead, underachieving children seem not to have learned the process of achievement—in fact, they have learned to underachieve. Underlying these children's poor study habits, weak skills, disorganization, and defensiveness is a feeling of a lack of personal control over their educational success. Underachievers aren't really certain that they can achieve their goals even if they work harder. They lack self-efficacy. These children set their goals either too high or too low, and as a result, they guarantee failure (Davis, 2011).

Works by Baker, Bridger & Evans (1998), and Reis & McCoach (2000) examined the multiplicity of negative factors that hold many gifted underachievers down. Those named as highly dependent on the individual were excessive absenteeism, peer group issues, and a lack of extracurricular involvement. Those that pertain to the classroom are a clash between learning style and instructional style, having a teacher who expects too much from a gifted student or too little from everyone else. Those that apply to the school at large include curriculum compacting or acceleration opportunities to alleviate boredom, a mismatched curriculum that emphasizes one area of study at the expense of others, or the existence of a poor academic environment overall. Baker & Wiseman (2007) also noted that family factors that hold many gifted underachievers back stem from a lack of familial cohesion, organization, or expectations because children need structure and goals to guide them

through the development process. When expectations are not made clear or behavioural boundaries are not firmly set, confusion sets in, and grades suffer.

Rimm (1999) characterized underachievement as a problem of "dominance or dependence," arguing that families who are too authoritarian and families who are too permissive actually produce almost identical results. Perhaps the most interesting familial factor is that of a parent's low emphasis on education or work. A parent who cares little for schooling is likely to raise similar children. Peterson (2001) demonstrated that a parent who constantly complains about their work can also negatively impact the child's education. In a survey of 31 gifted underachievers, only 6% had a mother who felt happy with their work, and only 29% of fathers enjoyed theirs. The rest were dissatisfied workers.

The saddest list of contributing factors is the personal domain, with large numbers of underachievers reporting mental, emotional, behavioural, or mood disorders. Learning disabilities, perfectionism, and fear of failure also played a role – each of which is a difficulty easily complicated by giftedness (Peterson, 2001). Study results by Emerick (1992) and related literature on self-esteem and locus of control, Barnabas, Shyngle, Tobias & Nancy (2012) suggest that external locus of control and poor self-concept are of great influence; with students believing that the world "acted upon them" rather than "them upon the world." Some of these factors require educational training to fix, yet most are perhaps better left to the realm of traditional counselling. The studies quoted are all from developed world whose cultures, social economic environment, resources, and training opportunities for teachers and parents, among others, could be

different from those of developing countries. This study therefore sort to investigate teachers' opinion on proposed causes of underachievement among gifted secondary students in a developing country.

2.4 Role of Assessment in Reversing Underachievement

The debate on the gifted learners has been going on for a long time in the developed countries. Several questions have been asked: Who are they and how many are they in relation to the general student population? Do they deserve/need special education? If yes, what kind of education should they be provided with? Where should that education be offered-inclusion or exclusion? (Hallahan & Kauffman, 1999) He also noted that this debate might continue for many years to come!

Perhaps there could be no situation more frustrating for parents or teachers than living or working with children who do not perform as well academically as their potential indicates. These children could be labelled as underachievers. Yet few people agree on exactly what this term means. At what point does underachievement end and achievement begin? Is a gifted student who is failing mathematics while doing superior work in reading an underachiever? Does underachievement occur suddenly or is it better defined as a series of poor performances over an extended time period? Certainly, the phenomenon of underachievement is as complex and multifaceted as the children to whom this label has been applied. (Department of Education and Training, 2004).

In developing countries like Kenya, four special education areas have been addressed, namely: visual impairment, hearing impairment, physical disability, and mental retardation. The need to address the other areas such as Learning Disabilities, Emotional & Behaviour Disorders and Communication Disorders is a recent endeavour (Koech, 1999). Special education needs for the gifted & talented are yet to be addressed to the same level as the above mentioned disability areas. That means that their needs are expected to be met by the general classroom teacher who may not be aware of the complexities that go with giftedness & talentedness (Koech, 1999).

Due to lack of understanding of the nature of learners who are gifted, and lack of educational programmes for them in Kenya, these learners find themselves in the regular schools with learners of the same chronological age. Here, the teachers follow the regular curriculum, which might be a torture to them. Like other children, learners who are gifted desire to belong and to please others. This might make some of them to inhibit (conceal) their talents in order to fit in the society and consequently they underachieve (Kang'ethe, 2004).

According to Njenga, (2005, May 11) most of the children suspended from school have Attention Deficit Hyperactive Disorder (ADHD). He further noted that some of the children who drop out of school have high intelligence and are bored by the school. He also noted that most ADHD patients are in prisons following crimes brought on by impulsiveness. He recommended that teachers and parents be sensitized on how to recognize the symptoms of ADHD. This would help them assist

children through different educational programmes such as guidance & counselling and individualized Educational programmes (IEP).

Kang'ethe and Mugo (2010) noted that learners who are Gifted & Talented are not mentioned in most educational policy documents in Kenya. According to them there has been no clear commitment and political strategy targeting persons who are gifted and talented. Their concern is echoed in Session Paper No. 1 of 2005 on a Policy Frame Work for Education, Training & Research, and the Kenya Education Sector Support Programme 2005-2010. In these papers, the Kenyan Government notes that the special education schools and units continue to cater for the education of learners with special needs in the four traditional areas. These are namely mental handicaps, physical handicaps, visual impairments, and hearing impairments. This leaves out other areas such as that of the gifted and talented.

During the National Conference on Gifted and Talented Young Persons in Kenya held between 27th and 30th July 2010 at Kenyatta University, it was noted that there are no programmes for learners who are gifted in Kenya as yet. According to the National Youth Situation Analysis Report (Ministry for Youth Affairs, 2009), majority of Kenya's population comprise of youth aged between 15-29 years. Most of these youth have no jobs and are vulnerable to delinquent behaviours and violence. The report further noted that the youth have talents but have not been given opportunities to enable them exploit these potentials. The report cites the absence of recreational facilities and play fields as one of the reasons why young people turn to negative activities such as crime, violence, and drug abuse. In response to this challenge the

Kenyan Government, through the Ministry for Youth Affairs and Sports established a pilot National Youth Talent Academy in March 2010. The Youth Academy is intended to provide the youth with opportunities to identify their talents and develop them.

There seems to be no universally agreed upon definition of gifted & talented learners and consequently, there is no universal definition of gifted underachievement. Students identified as gifted learners are not a homogeneous group. Several researchers who have studied gifted and talented learners agree that there is no one portrait of a gifted student, and that talents & strengths among the gifted vary as widely as they do with any sample of students drawn from a so-called average population. The most common component of the various definitions of gifted underachievement involves identifying a discrepancy between ability and achievement (Reis & McCoach, 2002).

According to Rimm (2008) the first step in underachievement reversal strategy is the aspect of assessment, which is multidimensional in nature in that it addresses different aspects of the students' academic life styles. It is important to acknowledge that academic underachievement can sometimes be indicative of a more serious physical, mental, or emotional issue. For example, Moon & Hall (1998) noted that learning disabilities, attention deficit/hyperactivity disorder, hearing impairment, non-traditional learning styles, emotional problems, or any combination of these issues can contribute to underachievement. Therefore, they recommended that all underachieving gifted students be screened for a wide variety of physical, mental or

emotional problems before making a student's underachievement the primary focus of attention. According to them, once educators rule out these more serious problems through screening, they can explore the role that students' perceptions, attitudes, and motivation are playing in their underachievement (Moon & Hall, 1998). In a study conducted at the University of Connecticut, McCoach & Siegle (2002), compared 122 gifted achievers with 56 gifted underachievers in 28 different high schools. The study suggested that gifted underachievers differed from achievers on four factors. These were attitudes toward teachers, attitudes toward school, goal valuation, and motivation/self-regulation. In addition, they found that gifted underachievers displayed greater variability than the gifted high achievers in academic self-perceptions. This emphasizes the need for accurate assessment in reversing underachievement, and affirms the Trifocal model in that if incorrect assessment is made, efforts are likely to be directed to reversal strategies that may not work for the said student.

The need for accurate and in-depth assessment cannot be overemphasized. Coil, 2007 noted that some well-meaning parents place a high priority on educational achievement sometimes and put too much pressure on their children to achieve in school. This may result to "Counter identification" where a parent overly identifies with the successes and failures of a child. In this situation, the parent may almost be living his or her life through the child, and the child may feel he or she could never live up to parental expectations. Many times, one child in such a family will become a high achiever while another may rebel against the pressure to succeed and will be an underachiever. It is easy to confuse parental concern & support with counter-identification and for that reason, the assessing teachers need to be alert and careful.

Being an encourager of educational achievement without exerting undue pressure requires striking a delicate balance on the part of the parents. There is no magic "balancing formula", thus each parent has to decide where that point of balance needs to be with each child.

Coil (2007) further notes that many children, especially children who have demonstrated a high potential for learning, are involved in too many extra-curricular activities. There are some children who spend every afternoon and evening in one activity or another and then attempt to do their homework late at night. Not only are such children stressed out by having too much of a good thing but many also become underachievers because they cannot keep up such a frantic pace. On the contrary, according to Department of Education and Training (2004), involvement in co-curricular activities is seen as an enrichment opportunity which may take many forms. These include, but not limited to encouraging students to attend performances at local professional theatres, local dance studios, or visiting productions; reading as many reviews as possible; and auditioning for all productions available – school & community productions and annual drama festivals provide many opportunities. This serves to emphasise the importance of using multiple criteria in assessment of underachieving students to allow for diversity in assessment.

A study by Emerick (1992) also indicated that it is important to identify the underachiever's areas of strength & talent and that personal interest can motivate the student to learn, and provide an avenue for learning various skills related to school success. Rimm (2008) also notes that there is need for appropriate multidimensional assessment of underachieving students which involves the cooperation of the school psychologist, teachers, and parents, with the school psychologist having the primary

involvement in the process. Careful observation by teachers and parents is a necessary component for determining giftedness.

A useful way to understand the feelings, behaviours, and needs of gifted students has been developed by Neihart and Betts (2010) in the form of six different 'Profiles of the Gifted and Talented'. Checklists used as part of assessment were modified to suite assessment of secondary school students in Kiambu County. Department of Education and Training (2004) states that in the development of checklists or nomination forms, it is helpful to list the traits to be identified and then develop questions or statements that will elicit this information. This study made close reference to 'Profiles of the Gifted and Talented' in developing the questionnaire for teachers to elicit opinions on role of assessment in reversing underachievement among secondary school students.

2.5 Reversal of Underachievement

Reis (2007) stated that talented students underachieve for many reasons and in many different circumstances. This suggests that there is no strategy that would work uniformly to reverse underachievement among students whose talents may manifest themselves in diverse ways. According to Pagnani (2008), educational researchers spent over five decades exploring the root causes and behavioural manifestations of gifted underachievement. As a result, the educational community possess a wealth of informative, accurate literature on the subject. Pagnani (2008) however noted that significantly less could be said about their knowledge of underachievement reversal strategies because most experimental programmes sought to address only one component of the problem, had been met with mixed results, and were tested well over 10 years by the time of writing. He noted that among the attempted reversal

schemes were four studies whose programs were a praiseworthy attempt, but none could consistently demonstrate long-term success. In each case, it was most likely the result of placing too narrow a focus on only one aspect or cause of underachievement. The problem of gifted underachievement, Pagnani (2008) further noted, is a multi-layered challenge with numerous interwoven causes, and successful reversal approaches are likely to be multi-layered as well – simultaneously responding to the child's academic, social, and emotional needs. These "academics *and* counselling" approaches hold the most promise for helping our students to succeed, yet require significantly more work as well.

Weiner (2002) argued for simultaneously strengthening reward systems, addressing cognitive and emotional handicaps, filling educational gaps, and modifying passive-aggressive tendencies. A study by Emerick (1992) suggests that educational interventions focused on areas of student's interest may be particularly effective. Emerick's study investigated factors which had influenced the reversal of the underachievement pattern in 10 gifted students, aged between 14 and 20 years, who moved from chronic underachievement to academic success. The study indicate that it is important to identify the underachiever's areas of strength & talent. Personal interests can motivate the student to learn and provide an avenue for learning various skills related to school success. Providing appropriately challenging curriculum during the period of underachievement also appears to be important. School personnel should consider gifted underachievers for gifted education services and/or advanced classes. The underachievers in the study also seemed to respond well to parents and teachers who had high expectations, provided calm and consistent guidance and

maintained a positive, objective regard for the student. The study's findings indicate that academic underachievement can be reversed as a result of modifications on the part of both the student and the school. These findings seem to affirm Rimm's (2008) Trifocal Model which emphasizes a firm partnership between educators, parents, and psychological counsellors to fix a larger number of root causes. Rimm's (2008) Trifocal Model may be evidence of continued study on the underachieving gifted and talented learners (Davis, 2011).

2.5.1 Communication between Teachers and Parents

After carrying out a multidimensional assessment of students' underachievement, communication between parents and teachers is the second step in the reversal of underachievement. Either a parent or the teacher may initiate the first conference assuring the other of support rather than place blame. If the teacher initiates the first conference and the parents are not interested in or are incapable of working with him or her, the teacher can select another child advocate in the school, for example, a counsellor, gifted & talented coordinator, or resource teacher. In the event of lack of cooperation from parents, reversing an underachievement pattern without parental assistance is not as efficient, but nevertheless can be very effective (Davis, 2011). This study emphasises the importance of the teacher in the communication process and also affirms that the teacher can still succeed in spite of lack of support from home; a critical state in reversal strategies because students come from different home environment, and school is a key unifying factor.

As teachers and parents hold conferences about the underachieving gifted students, Batdal, K. & Hasan, A. (2013), suggest that they ask questions which are designed

specifically to help identify underachievers. Some of these questions are: Does the child ask for help in ineffective ways, either by asking too often or by not asking for help when she needs it? Does she have trouble completing work, especially when she has to do so on her own? Does she work well when the teacher is near her and shut down when he moves away? Does she give up easily on new or challenging tasks? Is she inattentive, distractible or impulsive in class; does such behaviour increase when she is working independently or is confronted with a difficult task? Does she interpret feedback about her academic work or behaviour as criticism and has trouble using feedback to improve her performance? Does she have trouble getting started on and completing long-term projects and written assignments? Does she often forget her school materials, such as paper, pencils and textbooks? Does she often fail to hand in homework and does she appear capable of doing better work in class? These questions help clarify key areas of concern to both teacher & parent, and may pave way for accurate assessment which is the next step in reversing underachievement. Yes answers to three or more of these ten questions indicate a mild underachievement problem; positive responses to five questions indicate a moderate underachievement problem; whereas positive answers to more than five questions indicate that a severe underachievement pattern exists. In addition to this the study made close reference to Neihart and Betts (2010), 'Profiles of the Gifted and Talented' in developing the questionnaire for teachers to capture their opinion on communication strategies of reversing underachievement among secondary school students.

According to Tyrone C. H & Rema R (2008), research has shown that parent involvement has a significant influence on student achievement. Tyrone (2008)

further notes that substantial evidence shows that students whose parents are involved in their schooling have increased academic performance and overall cognitive development. Data from the National Assessment of Educational Progress (NAEP, 1994) has found that parent levels of education and parent involvement in schools have a significant influence on student performance. The NAEP data report a 30 scale point differential on standardized achievement tests between students with involved parents compared to those students whose parents were not. Researchers, Tyrone (2008), have also found that parent involvement is associated with a greater likelihood of aspiring to attend college and actually enrolling, as well as with higher grades, higher eighth grade mathematics, and reading achievement.

In summarising study findings done on essential elements of effective Programs of School, Family, and Community Partnerships Epstein (2005) noted that a case study of school-community partnerships found that when schools were willing to structure authentic two-way communication with parents, levels of parent involvement increased considerably. Longitudinal data in the National Network of Equitable Library Service (NNELS) surveys and follow ups showed that through high school, family involvement contributed to positive results for students, including higher achievement, better attendance, more course credits earned, more responsible preparation for class, and other indicators of success in school (Epstein, 2005). Communication strategies for improved performance among students in these studies were carried out in developing countries, this study attempted to investigate the role played by communication between teachers & parents as a strategy of reversing underachievement among gifted students in Kiambu County.

2.5.2 Changing the Expectations of Self and Significant Others

Parent, teacher, peer, and sibling expectations, as well as self-expectations, are an important component of the reversal strategies for underachieving students. The most important part in this process is maintaining a positive attitude towards the gifted child despite academic failings, and remaining calm, consistent, and objective during periods of underachievement, while placing responsibility for change squarely on the student (Emerick, 1992). Interviews were conducted over a 4-month period, with individual sessions averaging 2 to 3 hours per subject. In the same study, results for parents and nominating educators suggested that when significant others have low academic expectations of gifted students, they have no motivation to aim high, and they settle for the low outputs in school work.

The underachievers in the study (Emerick, 1992) seemed to respond well to parents and teachers who had high expectations, provided calm and consistent guidance, and maintained a positive, objective regard for the student. In changing expectations, it is crucial to help students set expectations that are realistic - difficult enough to be challenging, yet not so difficult that they are not attainable. Changing self-expectations was described by psychologists as answering the question, "Am I Smart Enough?" (Rimm, 2008).

Guidance for a design of interventions comes from research in the field of educational psychology on four characteristics of achievers, that is, self-efficacy, environmental perceptions, goal orientation, and self-regulation. Generally, achievers are self-efficacious, they have high academic self-perceptions, and they believe that they have the ability to perform well (Zimmerman & Schunk, 2011). Second, they trust their

academic environment, and expect that they can succeed in it. They expect that the environment is conducive to their performance of academic tasks, and they have positive attitudes toward their teachers and school. Third, they find school meaningful, and they enjoy school or believe that what they are doing in school will produce beneficial outcomes for them. Finally, they implement self-regulating strategies where they set realistic expectations and implement appropriate strategies to complete their goals successfully (McCoach & Siegle, 2001). If teachers have high expectations of their students, the students find meaning in the school environment and they can succeed in spite of what is happening elsewhere. This study therefore placed great importance in the teacher and sought to investigate teachers' opinion in the role of high expectations in reversing underachievement.

2.5.3 Role Model Identification

Role model identification is a critical turning point for the underachieving child. In fact, all other treatment for underachievement dim in importance compared with strong identification with an achieving model. Underachieving children should be matched with an achieving person to serve as a model for them. The person selected can serve in a model capacity for more than one child. His or her actual role may be as a tutor, mentor, companion, teacher, parent, sibling, counsellor, psychologist, minister, scout leader, doctor, and so on. The model should have as many of the following characteristics as possible: Nurturance – the model must care about the child assigned. Many adults are pleased to encourage youth with whom they can counter identify. Same gender – although identification with an opposite-gender model is possible, the equality in gender facilitates identification. Similarities to child – these may include religion, race, interests, talents, physical disabilities, physical

characteristics, socioeconomic backgrounds, specific problem experiences, or any other characteristics that would create the necessary easy rapport. When the child realizes that the model can be truly understanding, empathic & sympathetic — because the model has experienced similar problems — rapport is more easily established, and the process of identification is facilitated. Openness— a model's willingness to share his or her own real problems in establishing himself or herself as an achiever is important for encouraging communication & identification and for motivating the underachieving child. Willingness to give time — achieving adults frequently have shortages of this most precious commodity. However, it is not possible to be an effective, positive model without providing time. It can be work time, playtime, or talk time. Models that work on tasks with their child or play with their child can be most effective. It becomes possible for the child to see first-hand such important achievement characteristics as responding to challenge, winning & losing in competition, reasoning styles, leading, communicating & relating to others, and experiencing successes & failures. Sense of Positive Accomplishment —although the model's life need not be perfect, the model must exhibit to the child the sense that his or her achievements have been personally fulfilling. Achievement involves sacrifice and postponed gratifications. The underachiever must recognize that these costs and postponements are worthwhile (Davis, 2011).

Research on students who reversed their underachievement found that they often attributed their reversal to a teacher who was an important inspiration in their lives. A longitudinal study of disadvantaged children in Hawaii (Werner, 1996) showed that teachers, ministers, and other important adults were important role models for

achievement. The study by Werner focused on disadvantaged children and was in North America. This study was on general body of students, carried out in Kenya and it sought to know whether identification of role models played a significant role in reversing underachievement among secondary students in Kiambu County.

Teachers and coaches were also pivotal in the Rimm research about successful women (Rimm, Rimm-Kaufman, & Rimm, 1999). The concept of important role models is being used in hundreds of school programs where community members volunteer to participate in mentorship programs. The concept of all-male and all-female academies for African American students is intended to provide models for underachievers in disadvantaged populations. Role models based on biographies have also been found to be motivating (Rimm, Rimm-Kaufman, & Rimm, (1999); Siegle & McCoach, 2005). Role model's importance is well summarised by the following statement: "The single most awesome influence educators and parents have are as role models" (Davis, 2011).

2.5.4 Correcting Skill Deficiencies

Because gifted students traditionally progress through the early years of school without being challenged, they sometimes fail to develop the self-management skills that other students master. In the early grades, good memory and fast processing skills can compensate for note taking and other study skills. Often, educators attempt to teach students study skills before students need those skills to be successful. This process usually frustrates both the teachers and the students. Self-regulatory skills are more likely to be internalized when they are needed to solve the problem at hand. An obvious solution to the problem is to provide gifted students with an academically

challenging curriculum early and throughout their school careers. Teachers can help students to develop self-regulatory skills by incorporating explicit strategies to teach, and model those skills into their classrooms (Reis, S. & McCoach, 2000).

Teachers who allow students to assess their own mastery and set their own goals may be surprised at how well some gifted students self-assess their prior knowledge and content mastery. When teachers incorporate formal and informal pre-assessments into the classroom, gifted students benefit in several ways. First, students have the opportunity to demonstrate mastery of content and skills before they are taught, and work at a more appropriate level, thus creating a need for the student to use more self-regulatory strategies in order to be successful. Second, students learn to assess what they know and do not know, which helps to develop their self-monitoring skills. Finally, the students become more actively engaged in the learning process as they begin to see the connection between classroom activities and skill development (McCoach & Siegle, 2001).

Rimm (2008) suggested that tutoring, when done, should be goal-directed, with movement to a higher reading or math group or acceptance into an accelerated class being the anticipated aim. It should be of a specified duration, for example, weekly for two months until the child takes proficiency test, rather than ongoing. Ideally, the tutor should be an experienced and objective adult who recognizes the child's underachievement and giftedness & talentedness. Parents or siblings are not appropriate because the personal relationships are additional pressure and dependency (Rimm, 2008). This study sought to investigate teacher's view on the relationship

between correction of skill deficiencies and reversal of underachievement among secondary school students in Kiambu County.

2.5.5 Modification of Reinforcements at Home and School

Psychologists hypothesize that students' perceptions of their environment play an important role in their achievement and motivation. Students who view their environment as friendly and reinforcing may be more likely to demonstrate achievement-oriented behaviours. Students who expect that they will succeed within their environment may be more likely to put forth effort. Phrases such as, "My teacher doesn't like me," or, "I can't learn this way," may be indicators that students do not view their learning environment as friendly, or that they have developed a belief that their efforts do not affect outcomes (Rathvon, 2008). However, study indications are that academic underachievement can be reversed as a result of modifications of reinforcement on the part of the student and the school (Emerick, 1992).

In the process of assessment, teachers identify some of the manipulative rituals applied by the underachieving gifted & talented student. These behaviours need to be modified by setting important long-term goals as well as some short-term objectives that can ensure immediate small successes for the child both at home and at school. These successful experiences can be reinforced by rewards—anything from gold stars or extra art time to money or special outings with parents. There are several considerations in determining the rewards to be used for them to be meaningful to the student and acceptable to stakeholders. (Davis, 2011).

This study notes that modification of reinforcements at school includes much more than reward schedules and that modifying reinforcements for homework and study is an important component of reversing underachievement and thus sought teachers'' opinion on the same.

2.6 Summary of Reviewed Literature

This chapter reviewed related literature about the topic under investigation. It discussed some aspects of the historical perspectives of Special Needs Education (SNE) in the developed countries and in Kenya. It reviewed areas of SNE that have been addressed in Kenya and those that are in the process of being implemented. Studies revealed that the area of gifted & talented (GT) child has received good attention from researchers and policy makers. However, a gap for SNE for underachieving gifted & talented learners exists especially in the academic context, and in secondary schools in particular. Literature has revealed that underachievement is reversible and that there are factors that would be necessary for this to take place. This revelation is tied up with recommendations made by Kinyua (2014) that teachers should be sensitized on the characteristics and needs of children who are gifted. He recommended that teachers should involve learners in coming up with individualized education programmes (IEPs), and that further research on gifted learners should be carried out in other institutions of learning. According to Kang'ethe & Mugo (2010), from 1964 to 2005 several gaps existed which showed inconsistency in the implementation of educational policies and programmes. They also noted that children who are Gifted & Talented are not mentioned in most of the Education Policy documents in Kenya. Besides that, studies carried out have attempted to identify the GT (Kangethe, 2004) and others identify possible causes of delinquency

among GT (Mugo, 2004), but limited studies have been carried out in attempting to establish ways and means of reversing underachievement. This study therefore sought to investigate elements of reversing underachievement in academic performance among gifted secondary school students.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presents the methodology that was used in the study. It comprises research design and locale, population, sampling technique and sample size, research instruments, pilot study, data collection, data analysis, and logistical & ethical considerations.

3.2 Research Design and Locale

The study employed the ex post facto research design. According to Best & Kahn (2011), Ex Post Facto means 'from what is done afterwards'. In the context of social and educational research, the phrase means 'after the fact' or 'retrospectively' and refers to those studies which investigate possible cause-and-effect relationships by observing an existing condition or state of affairs, and searching back in time for plausible causal factors. In effect, the investigator designs the study to compare two or more samples that are comparable except for a specific factor that occurred in the past. The possible causes are studied after they have occurred. Rather than control what will happen to subjects, as in experimental designs, the researcher focuses on what has happened (Creswell, 2012). The researchers ask themselves what factors seem to be associated with certain occurrences, conditions or aspects of behaviour. This study therefore investigated possible cause–and–effect relationships of underachieving gifted secondary school students. These students were performing very well at a certain point (KCPE) in their academic journey, and they were

underperforming at another stage (KCSE). What could have happened? Orodho (2005) stated that ex post facto research design is used to analyse past events, or already existing conditions to study causation when it is impracticable or unethical to arrange occurrences. The researcher used ex post facto design using the retrospective approach with the advantage of using naturally occurring data thus overcoming one of the weaknesses of relying on memory. School records provided information of performance in KCPE, KCSE, and students' involvement in co-curricular activities. Students' records of sickness and punishment also provided useful information on possible manipulative patterns. The underachieving students were following the 8-4-4 curriculum, guided by similar government policies as the achieving students in the sampled schools. Variables under investigation were: characteristics of underachieving gifted, factors causing underachievement, role of assessment in reversing underachievement, and intervention strategies.

This study was carried out in Kiambu County which is located in Central Kenya, and constitutes ten Sub-Counties, namely: Thika West, Thika East, Gatundu South, Gatundu North, Juja, Githunguri, Kiambaa, Kabete, Limuru, and Lari. Kiambu County neighbours Nairobi city, and is about 30 to 45 kilometres to any of its Sub-Counties. The study was carried out in Kiambu County because of its continued poor performance in KCSE examinations (KDDP, 2012). Kiambu County was also selected because it hosts 6 National schools as compared to Nairobi County which hosts 4 while the other 7 are distributed to the rest of country. This increases the chances of sampling students with 400 marks in KCPE

3.2.1 Variables of the Study

Variables are the key ideas that researchers seek to collect information to address the purpose of their studies (Creswell, 2012). A variable is therefore a characteristic or attribute that the researcher can measure, and that varies among individuals or organizations. Creswell (2012) describe different classifications of variables such as dependent, independent, intervening, confounding, and antecedent. This study considered the dependent, intervening and independent variables.

Independent Variables:

An independent variable is an attribute or characteristic that influences or affects an outcome or dependent variable (Creswell, 2012). In this study independent variables include characteristics of the gifted, factors that contribute to underachievement, assessment, communication, changing expectations, role model identification, correction of deficiencies, and modifications at home and school. These variables are viewed only in the context of reversing academic underachievement among the gifted secondary school students in Kiambu County. Since the study employed ex post facto research design, there was neither random assignment nor active manipulation of the independent variables

The Intervening Variables

Intervening or mediating variables stand between the independent and dependent variables, and they mediate the effects of the independent variable on the dependent variable (Creswell, 2012). In this study the intervening variables include government policies since they influence education practices to a very great extent.

Dependent variable:

A dependent variable is an attribute or characteristic that is dependent on or influenced by the independent variable. (Creswell, 2012) In this study, the dependent variable was on students' academic performance.

3.3 Population of the Study

According to Creswell (2012), a target population is a group of individuals or a group of organizations with some common definitive characteristics that a researcher can identify to study. The target population was 2,808 secondary teachers in Kiambu County. Those drawn from the sampled schools comprised of 1020. However, only 306 teachers filled in questionnaires; and thus formed our sample. These teachers taught the 2013 KCSE cohort from form one to four. They were expected to have interacted with the students long enough to know behaviour changes in the course of their interaction.

All secondary school students from 234 secondary schools in Kiambu County were 112,320, with the 2013 KCSE cohort being 18,720 while 5,100 were form four students in the sampled schools. Form four students were targeted because they have gone through a cycle of four years in secondary school and the effects of the environment can be said to have taken full effect. National examinations of KCPE and KCSE were targeted as the measure for academic performance because they are standardised, and therefore a similar criteria in all schools.

3.4 Sampling Technique and Sample Size

This section represents the sampling techniques used by the researcher in determining the size of the sample on which the study was carried out.

3.4.1 Sampling Technique

Sampling answers the question, "from whom will the data be collected?" A sample therefore is the segment of the population that is selected for investigation. It is a subset of the population. The method of selection may be based on a probability or a non-probability approach (Bryman, 2008). In this study, several sampling techniques were used to arrive at the study sample. The techniques used included purposive, maximum variation sampling, stratified random sampling, and proportionate stratified random sampling.

Kiambu County was purposively selected from the forty seven Counties in Kenya. Purposive sampling is widely used in qualitative research for the identification and selection of information-rich cases related to the phenomenon of interest. The subjects are selected because of some characteristic (Creswell, 2012). Kiambu County was selected because it hosts 6 National schools as compared to Nairobi County which hosts 4 of them while the other 7 are distributed to the rest of country. These are the National Schools that were established after independent Kenya in the 1960s. These schools were specially equipped to cater for gifted learners to expose them to broad and more enriched curricula. (Gachathi, 1976). National schools received extra Government grants, and this allowed them to have pure sciences, subjects like fine art, music, and foreign languages like French & German. Other schools did not receive

the extra grants and therefore had capacity for financing subjects like physical sciences, humanities and agriculture & home science for example. The National schools therefore have well established facilities and systems; they also admit the best of KCPE students from all parts of the country. The objective was to create an elite group of learners to cater for leadership needs for independent Kenya. Kiambu County was also purposively selected due to its poor performance in the KCSE examinations. When the KCSE mean score of the National Schools (Alliance Boys, Alliance Girls, Loreto Limuru, Limuru Girls, Mang'u Boys and Mary Hill) are excluded from the County aggregate, the mean score of all other schools combined becomes last in the country (KDDP, 2012). If Kiambu County is well endowed with resources, electricity, road networks, nearness to Nairobi city, then assuming the last position, comparing only with Sub Counties in arid and semi-arid zones is a pitiful state of affairs (Appendix 7). The other reason for selecting Kiambu County was because of the convenience in data collection since the researcher works and resides in the County.

Maximum Variation Sampling (MVS) was used to select National Schools in Kiambu County. The idea behind MVS is to look at a subject from all available angles, thereby achieving a greater understanding. Also known as "Heterogeneous Sampling", it involves selecting candidates across a broad spectrum relating to the topic of study (Creswell, 2012). MVS was selected for sampling all the six National schools to maximize the probability of capturing students with 400 marks and above. Majority of students admitted to National schools have over 400 marks in KCPE because the form one selection process requires that National Schools, Extra-County Schools, Sub-

County Schools, and private schools admit form one students in that order of performance.

Secondary schools in the Sub Counties were sampled using stratified random sampling. This is a probability sampling technique wherein the researcher divides the entire population into different subgroups or strata, then randomly selects the final subjects proportionally from the different strata (Creswell, 2012). All the Extra County schools from each of the ten Sub Counties were stratified. Proportionate Stratified Random Sampling was used to sample one or two schools from each sub county depending on the number of schools in each. The sample size of each stratum in this technique is proportionate to the population size of the stratum when viewed against the entire population. This means that the each stratum has the same sampling fraction. (Creswell, 2012). One Extra-County school was selected from the Sub County with a small population, and two schools from those with a larger population, namely, Kiambaa, Lari, Thika West and Gatundu North.

Proportionate Stratified Random Sampling was used to sample teachers in the sampled secondary schools. These schools have four to six streams. Thirty percent of the teaching staff population formed the strata of teachers to be given questionnaires to fill. Purposive sampling was used to obtain documentary evidence from students' records. These students were in the 2010–Form–One entry, and graduated from secondary school in 2013. They formed strata because 2013 KCSE results had been released by March 2014, hence fresh data. A stratum was then regrouped into those who failed to get C+ and above; the minimum University entry requirements. These

were regarded as underachieving because their secondary school entry grade was A which dropped to grade C and below.

3.4.2 Sample Size

A sample is some part of a larger body specially selected to represent the whole. Sampling is the process by which this part is chosen. Sampling then is taking any portion of a population as representative of that population. Sample size relates to how many people/items to pick for the study (Creswell, 2012).

The sample for the study comprised 306 teachers from 6 National schools and 14 Extra-County schools from Kiambu County, which is 30% of teachers from each school with about 10 teachers per stream. Sampled students were 5,100. This is shown in Table 3.1 below

Table 3.1: Sample size

Category	**Population**	**Sample**	**%**
Sub County's in Kiambu County	10	10	100%
National Schools	6	6	100%
Extra–County Schools	24	14	58%
Teachers in Kiambu County	2808	1020	37%
Teachers in sampled schools:	1020	306	30%
Students in Kiambu County	112,320	18,720	17%
2013 KCSE students in schools	18,720	5,100	28%

3.5 Research Instruments

The researcher constructed instruments for collecting data based on Rimm's (2008) Trifocal Model. Among the ones used were questionnaires and check lists. Cohen, Manion & Morrison (2000) state that questionnaires can be used to collect data quite quickly where all participants can be given the opportunity to provide feedback which is generally anonymous and encourages openness and honesty. Structured questionnaire data can be processed by software packages such as Excel and SPSS (Cohen, Manion & Morrison, 2000).

3.5.1 Questionnaire for Teachers

Questionnaires were used to collect information from teachers to examine strategies of reversing underachievement in academic performance among gifted secondary school students. The questionnaires for the teachers were divided into 4 subsections. Section A of the questionnaire had 4 self-report items on teacher's demographic information. Section B dealt with common characteristics of underachieving gifted secondary school students. Section C considered factors that contribute to underachievement among gifted secondary school students. Section D was on the role of assessment of students' performance in reversing underachievement among gifted secondary school students. Section E looked at the following intervention strategies (i) communication, (ii) changing expectations of significant others, (iii) correcting of skill deficiency, (iv) role model identification, and (v) modification of reinforcement in reversing underachievement among gifted secondary school students. A 5 point Likert scale was used to measure information on strategies of reversing

underachievement among gifted secondary school students. This is recommended when researchers are attempting to measure less concrete concepts, such as motivation, satisfaction and confidence—where a single survey item is unlikely to be capable of fully capturing the concept being assessed (Best & Kahn, 2011). In this study, attitude was the concept being measured. A value of 1 to 5 was used for the Likert scale. Based on guidelines on use of ordinal scales (Best & Kahn, 2011), data were ordered from high to low and the objective criteria used was positive or negative attitude. Negative attitude was assigned 1 to 2 or <3 and positive attitude was assigned 4 to 5 or >3.

3.5.2 Documentary Evidence

A document is a written text. Documents are produced by individuals and groups in the course of their everyday practices, and are geared exclusively for their own immediate practical needs. They have been written with a purpose; are based on particular assumptions; presented in a certain way or style; and to this extent, the researcher must be fully aware of the origins, purpose, and the original audience of the documents (Grix, 2001). The documents used in this study were not deliberately produced for the purpose of research but were naturally occurring objects which indirectly revealed to the researcher about the social world of the schools in Kiambu County.

This involved examining various documents in the school to find out academic performance patterns. KCPE and KCSE performance records were examined and analysis done to determine the level of drop. Other student records included the class

attendance records (registers); punishment, counselling & medical records, and co-curricular & club membership records. These records gave indications that had a relationship with the drop in academic performance among secondary school students. These indications were in line with the strategies proposed for reversing underachievement. A check list was used to gather information from school documents containing student records.

3.6 Pilot Study

Creswell (2012) wrote about the pilot being vital in that it serves as a rehearsal of the protocol to be followed before the main study. One of the advantages of conducting a pilot study is that it might give advanced warning whether proposed methods or instruments are inappropriate or too complicated.

A pilot study was carried out in 2 secondary schools which were drawn from the population of the study but were not included in the actual research sample. Ten teachers who met the sample criteria were given the questionnaire for teachers to fill. Printed copies of student records were availed to the researcher and pre-testing of the checklist was also done. Responses from the pilot study were used to modify the tools in wording and formatting where necessary.

3.6.1 Validity of the Instruments

Validity is the accuracy and meaningfulness of inferences which are based on the research results. It is the degree to which results obtained from the analysis of the data actually represent the phenomenon under study (Creswell, 2012). Validity of the instruments was established through “experts’ process” technique. This included

lecturers, some professionals working with children who are gifted, and educators familiar with secondary school curricular. They went through the instruments and offered the expert critique. Suggestions put forward for its improvement were incorporated.

3.6.2 Reliability of the Instruments

Reliability means that scores from an instrument are stable and consistent (Creswell, 2012). This means that if the instrument was used again on a different day the resulting scores would be relatively consistent.

Reliability of the instruments was established through test re-test. Re-testing of the instruments was done after two weeks. The scores were correlated using Pearson's Product Moment Correlation Co-efficient. A correlation of 0.8-1.0 at a 0.05 level of significance was adopted for this study.

3.7 Data Collection

Data collection procedures refer to the actual process of data collection, over and above any instruments proposed. If instruments are involved, the question is usually how the instruments will be used or administered (Punch, 2006). Data was collected by the researcher meeting with the secondary school teachers. Prior to the distribution of the questionnaire for teachers, the researcher inducted teachers, and informed consent to participate in the study was sought. Teachers had been requested to obtain permission to access school records from the parents on behalf of the researcher. The trained assistant researchers collected the necessary data from school records as per

the checklists for students' records. Once data was collected, it was sorted, and two incomplete questionnaires discarded. Data was then coded, scored, and analysed.

3.8 Data Analysis

Johnson and Christensen (2008) define data analysis as creating meaning out of raw data. Collected data from questionnaire for teachers was coded, analysed, and presented in frequencies and percentages using tables. The Statistical Package for Social Sciences (SPSS, 20) was utilized for analysis. This made complex statistical computations simple & fast. Data analysis comprised descriptive statistics to obtain frequency tables showing frequencies and percentages. These were compared in order identify the highest. Responses that were above 50% were considered a positive opinion. Descriptive statistics were utilised to obtain means. Data were ordered from high to low and the objective criteria used was positive or negative attitude. Negative opinion was assigned 1 to 2 or <3 and positive opinion was assigned 4 to 5 or >3. Data collected from student records is presented in appendix 5.

3.9 Logistical and Ethical Considerations

Every research decision made, from planning to the disclosure of results, should be made with keeping ethics in view (Ruane, 2005). A letter from Graduate School, Kenyatta University, was presented to the National Council for Science, Technology, & Innovation (NACOSTI) through the Ministry of Higher Education, Science, & Technology, and a research permit was issued. Further permission was sought from Kiambu County Director by giving the officer a copy of the letter from the NACOSTI. Two research assistants were trained on how to use the checklists to obtain students' data from school records. Appointments with secondary school

principals were sought for briefing about research that was to be conducted in the schools. Once the school principals gave their consent, the teachers were contacted and also briefed, and they were requested to cooperate with the researcher. As in any professional field, researchers have a code of conduct which they have a responsibility to adhere to. The purpose of the ethics is to earn the respect of both research participants and the public at large. It may be difficult for a researcher to know in advance the possible or final consequences of his/her research. However it is important to keep in mind what Ruane (2005) calls 'do no harm' directive. Although she was referring to scientific experiments, harm in an academic study can be a feeling by the respondents that they are being investigated. Some ethical issues include: informed consent, privacy and confidentiality.

The ethical consideration in this study entailed respecting each individual's right to privacy during, and after the research. They were not required to write their names on the questionnaires. They were also assured that the information they gave was to be treated confidentially, and it would not be used in any other way except for research as part of the requirement by the University. All the respondents were informed that they may withdraw at will from the study at any stage of data collection. The ethical consideration also involved explaining to the secondary school principals, deans of studies, and teachers the purpose and method of data collection. This enabled the researcher to obtain their informed consent before collecting data. Another factor considered was whether the researcher would meet the teachers at their free time to avoid disrupting class. Where it fell within the teachers' tea and lunch break, the sacrifice made was acknowledged by words of appreciation. Throughout the data

collection period the researcher kept professional distance by not discussing research issues.

CHAPTER FOUR

FINDINGS, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

This chapter presents the findings, interpretations, and discussion according to the following objectives: to find out common characteristics, to find out factors that contribute to underachievement, to investigate the role of assessment of students' performance, to investigate five intervention strategies; namely, Communication, Expectations, Role Model, Skill Deficiencies, and Reinforcements. It presents the general and demographic information first. Findings and interpretations, based on the research objectives, are discussed in relation to other studies carried out on reversing underachievement among the gifted students.

4.2 General and Demographic Information

In this study, 306 secondary school teachers from 20 schools (6 National and 14 Extra-County) were sampled to respond to a questionnaire. Out of the sample 306 teachers, only 254 filled in the questionnaires out of which two were incomplete. The response rate was therefore 82%.

4.2.1 Gender Respondents

The aim of the researcher was to collect data from teachers in National and Extra-County secondary schools in Kiambu. The results are shown in Table 4.1 below.

Table 4.1: Gender of respondents

	Frequency	Percent	Cumulative Percent
Male	161	63.9	63.9
Female	91	36.1	100.0
Total	252	100.0	

Table 4.1 shows that the male respondents were 161, that is 64%, and female respondents were 91 (36%) of total respondents. From the results it is evident that there are more male teachers in secondary schools than there are female teachers in Kiambu County.

4.2.2 Level of Education

Secondary school teachers' profile, in terms of academic and professional qualifications of respondents is as tabulated in Table 4.2 below.

Table 4.2: Highest academic level

	Frequency	Percent	Cumulative Percent
S1	38	15.1	15.1
B,Ed	116	46.0	61.1
M.Ed	4	1.6	62.7
Other	94	37.3	100.0
Total	252	100.0	

Table 4.2 shows that almost half of the teachers were holders of Bachelor of Education degree. The 37% were "other" category which included Master's degree holders in none education specialisations like Master of Arts (MA), Master of Business Administration (MBA) or Master of Developmental Studies (MDS), and 3

PhD holders. Of all the respondents; 38 (15%) were Teacher Training Colleges (S1) Diploma holders while 4 (2%) were Master of Education (M Ed.) holders. Most of the respondents were B Ed graduates.

4.3 Common Characteristics of Underachieving Gifted Secondary School Students in Kiambu County

As per objective one of the study, the following characteristics were under investigation: Rebellion, Perfection, and Passivity. The respondents were asked to indicate the extent to which they agreed with suggestions that underachieving gifted students demonstrate the given characteristics, and the results are presented in Table 4.3 below.

Table 4.3: Common characteristics of underachieving gifted students

	N	Mean
Underachievement is due to Passivity	252	3.90
Underachievement is due to Rebellion	252	3.83
Underachievement is due to Perfection	252	3.67
Valid N (list wise)	252	

From Table 4.3, teachers were positive that underachieving gifted students demonstrate the given characteristics. In all the categories under review the opinion was above the median of 3, and were between 3.90, 3.83 and 3.67. Study findings indicate that majority of the teachers agreed with the fact that characteristics of underachieving gifted students can be rebellion, passivity, or perfection behaviours. From reviewed related literature, Reis and McCoach (2002), gifted students underachieve for many reasons and in many different circumstances. There is no

panacea for how to reverse underachievement in students whose talents may manifest themselves in diverse ways like rebellion, perfection, and passivity. This affirms the need for teachers to familiarise themselves with the different characteristics so that management of underachieving students is done correctly. Students with different characteristics manifest underachievement behaviours in diverse ways as presented below.

4.3.1 Rebellion Characteristics

That Underachievement is due to Rebellion characterised by disruptive, delinquent, hostile, touchy, and temperamental behaviours, is shown in Table 4.4 below.

Table 4.4: Underachievement is due to Rebellion

	Frequency	Percent	Cumulative Percent
Strongly Disagree	17	6.7	6.7
Disagree	33	13.1	19.8
Neutral	22	8.7	28.6
Agree	85	33.7	62.3
Strongly Agree	95	37.7	100.0
Total	252	100.0	

Table 4.4, shows that 180, that is 71% agreed, 50 (20%) disagreed and only 22 (9%) of the respondents were neutral. This is an indication that most of the teachers agreed with the fact that there are underachieving gifted students who have a rebellious nature and tend to be disruptive, delinquent, hostile, touchy, and temperamental.

Reis and McCoach (2002) classified student underachievers into three categories. One of them being the “rebel” - the student who demonstrates disruptive, delinquent,

hostile, touchy, and temperamental behaviours. The fact that there are underachievers in every school implies that knowing their characteristics is a gap that needs to be addressed.

4.3.2 Perfection Characteristics

That underachievement is due to Perfection, characterised by anxiety, perfectionism, and worries about failure is shown in Table 4.5 below.

Table 4.5: Underachievement is due to Perfection

	Frequency	Percent	Cumulative Percent
Strongly Disagree	42	16.7	16.7
Disagree	11	4.4	21.0
Neutral	36	14.3	35.3
Agree	61	24.2	59.5
Strongly Agree	102	40.5	100.0
Total	252	100.0	

Table 4.5 shows that 163 (65%) of the respondents were in agreement, 53 (21%) in disagreement, while only 36 (14%) were neutral. This is an indication that most of the teachers agreed with the fact that there are underachieving gifted students with a perfectionist nature, and tend to be anxious & worry about failure.

These findings affirm that when an underachieving student is highly orderly and organised, teachers may miss the critical aspects of perfection, anxiety and fear of failure, and therefore fail to help the underachieving student. Peterson (2001) noted that learning disabilities, perfectionism, and fear of failure also played a role – each of which is a difficulty easily complicated by giftedness. This affirms the need for

teachers to familiarise themselves with the different characteristics so that management of underachieving students is done correctly.

4.3.3 Passivity Characteristics

On the aspect of Passivity, characterized by procrastination, ease in distraction, and lack of concern about work, responses are shown in Table 4.6 below.

Table 4.6: Underachievement is due to Passivity

	Frequency	Percent	Cumulative Percent
Strongly Disagree	4	1.6	1.6
Disagree	21	8.3	9.9
Neutral	35	13.9	23.8
Agree	129	51.2	75.0
Strongly Agree	63	25.0	100.0
Total	252	100.0	

From Table 4.6, the teachers' responses were as follows 192 (76%) agreed, 35 (14%) were neutral and 25 (10%) did not agree on that passive underachieving students procrastinate, they get easily distracted, and they seem unconcerned about work.

The study findings confirm that gifted underachievers have a tendency to become bored by repetitive exercises, frequent shifts of attention & interest, and a have tendency to insist on knowing the logic behind required tasks & activities (David, 2011). Such students are said to be lazy, and teachers spend hours pushing the said students to "wake up and be serious". This needs to be addressed.

On the whole, the results indicate that most of the teachers agreed with the proposed common characteristics of underachieving gifted students. These are Rebellion characterised by disruptive, delinquent, hostile, touchy, temperamental behaviours; Perfection characterised by anxiety, perfectionism, worries about failure, and Passivity, characterized by procrastination, ease in distraction and lack of concern about work. From related literature, categorization used in the developed world (Rimm, 2008), fitted well in the Kenyan context.

4.4 Factors Contributing to Underachievement Among Gifted Secondary School Students in Kiambu County

The respondents were asked to indicate their opinion on factors contributing to underachievement and the results are presented in Table 4.7 below.

Table 4.7: Factors that contribute to underachievement among gifted secondary School students

	N	Mean
Inconsistent parenting techniques	252	3.72
Family instability/problems	252	4.03
Strict/repressive/inflexible teachers	252	3.23
Overly helpful teachers	252	3.19
Impossible standards/low expectations	252	3.27
Extremely completive/no competition	252	3.50
Need to confirm with peers	252	3.90
Externalizing issues including rebellion and nonconformity	252	4.02
Depression and anxiety	252	4.08
Valid N (list wise)	252	

From Table 4.7, teachers were positive that there are certain causes of underachievement among gifted students. In all the categories, the teachers' opinion was above the median of 3, and were between 4.08 and 3.19. Findings indicate that teachers were in agreement that family, teacher, and classroom related factors as well as individual student, are all factors that contribute to underachievement.

Reviewed related literature, Reis & McCoach (2002) state that determining why some high ability students demonstrate low levels of achievement is difficult because underachievement occurs for many different reasons. One reason is that an apparent underachievement problem masks more serious physical, cognitive, or emotional issues. Another is that the underachievement is symptomatic of a mismatch between the student and his or her school environment, among others. These assertions are consistent with the study findings.

4.4.1 Family Factors

The respondents were asked to indicate their opinion on parenting related factors as they contribute to underachievement and the results are presented in Table 4.8 and Table 4.9.

Table 4.8: Inconsistent parenting techniques

	Frequency	Percent	Cumulative Percent
Strongly Disagree	6	2.4	2.4
Disagree	39	15.5	17.9
Neutral	40	15.9	33.7
Agree	102	40.5	74.2
Strongly Agree	65	25.8	100.0
Total	252	100.0	

From Table 4.8, the respondents who agreed that inconsistent parenting techniques can cause underachievement were 167 (66%) and those who disagreed were 45 (18%), while those who felt that parenting techniques have a neutral effect on underachievement were 40 (16%).

Table 4.9: Family instability or problems

	Frequency	Percent	Cumulative Percent
Strongly Disagree	2	.8	.8
Disagree	17	6.7	7.5
Neutral	61	24.2	31.7
Agree	64	25.4	57.1
Strongly Agree	108	42.9	100.0
Total	252	100.0	

From Table 4.9, those who agreed that family instability or problems can cause underachievement were 172 (68%) and those who were neutral were 60 (24%), which is a big number relatively. Those who disagreed were only 19 (8%).

The study findings are consistent with the study by Baker & Wiseman (2007) who noted that family factors that hold many gifted underachievers back stem from a lack of familial cohesion, organization, or expectations because children need structure and goals to guide them through the development process, and when expectations are not made clear or behavioural boundaries are not firmly set, confusion sets in and grades suffer.

4.4.2 Teacher Related Factors

The respondents were asked to indicate their opinion on teacher related factors as they contribute to underachievement and the results are presented in Table 4.10 to Table 4.12.

Table 4.10: Strict/repressive/inflexible teachers

	Frequency	Percent	Cumulative Percent
Strongly Disagree	58	23.0	23.0
Disagree	34	13.5	36.5
Neutral	26	10.3	46.8
Agree	59	23.4	70.2
Strongly Agree	75	29.8	100.0
Total	252	100.0	

From Table 4.10, the teachers who agreed with the statement that Strict/repressive/inflexible teachers can cause underachievement among students were 134 (53%), those who disagreed were 92 (37%), while those who were neutral were 26 (10%). Those who supported the statement were slightly above fifty percent. This could mean that some teachers see strictness as synonymous to firmness. If this is the case, since the two are different, strict/repressive/inflexible teachers can seriously frustrate gifted students whose opinion needs to be acknowledged. Coil (2007) noted that reasons for underachievement may come from the school. Some teachers are too strict or repressive and lack patience with students who ask difficult questions, do not conform, and are divergent rather than convergent thinkers, among others. This type of classroom climate eventually turns students off to school.

Table 4.11: Overly helpful teachers

	Frequency	Percent	Cumulative Percent
Strongly Disagree	49	19.4	19.4
Disagree	49	19.4	38.9
Neutral	36	14.3	53.2
Agree	40	15.9	69.0
Strongly Agree	78	31.0	100.0
Total	252	100.0	

Table 4.11 shows that 118 (47%) of the teachers were positive that overly helpful teachers cause underachievement, 98 (39%) disagreed while 36 of them, representing 14% were neutral about that aspect. The teachers seemed to have divided opinion on this factor as a cause for underachievement among gifted students with a difference of only 20 (8%) between those who agreed and those who disagreed with the statement. This divided opinion could mean that some teachers felt being overly helpful was a sign of concern. It could also mean that the teachers felt that whether the teacher is overlay helpful does not have any effect on students' performance. If this is the case, gifted students who require "space" may feel frustrated if they are taught by teachers who do not cater for their need for a higher degree of independence.

Table 4.12: Impossible standards/low expectations

	Frequency	Percent	Cumulative Percent
Strongly Disagree	47	18.7	18.7
Disagree	38	15.1	33.7
Neutral	30	11.9	45.6
Agree	75	29.8	75.4
Strongly Agree	62	24.6	100.0
Total	252	100.0	

From Table 4.12, when asked their opinion on whether teachers' impossibly high or low expectations cause underachievement among gifted secondary school students, the teachers who were in agreement were 137 (54%); those who seemed to disagree were 85 (34%) and those with neutral responses were 30 or 12% only. That teachers who agreed were only 54% could be an indication that some felt teacher's standards cannot be too low or too high, they are just expectations - the teacher is always right. If that is the case, as noted above, gifted students whose educational needs are diverse, may be frustrated due to their need for differentiated expectations in academic performances. Coil (2007), noted that some teachers have impossible standards while others may have low expectations of their students. Either way, underachievement can result.

Results from previous studies revealed that underachievers seemed to respond well to parents and teachers who had high expectations, provided calm & consistent guidance, and maintained a positive, objective regard for the student (Weiner, 2002). In keeping with Weiner, teachers are also encouraged to foster independent or self-directed learning to allow learners to exploit and develop research or inquisitive skills and develop their talents in art, music, creative writing and acting, among others. Teachers are encouraged to note the difference between management of average students and gifted students so that the gifted students' need for firmness and high expectations are met by teachers in all classroom experiences Kinyua (2014).

4.4.3 Classroom Related Factors

Respondents were asked to indicate their opinion on whether extremely competitive classrooms or classrooms with no competition and peer influence can cause underachievement among gifted students. Their responses are shown in Table 4.13 and 4.14.

Table 4.13: Extremely competitive/ no competition in class

	Frequency	Percent	Cumulative Percent
Strongly Disagree	34	13.5	13.5
Disagree	35	13.9	13.9
Neutral	35	13.9	13.9
Agree	66	26.2	26.2
Strongly Agree	82	32.5	32.5
Total	252	100.0	100.0

Table 4.13 shows that on the opinion about classrooms that are extremely competitive or with no competition; those who agreed were 148 (59%) and those who did not agree were 69 (27%) while 35 or 14% were neutral. When compared with other aspects of school related factors, teachers who agreed that classrooms could affect performance positively or negatively were only 59% compared to 82% and 72% on student related factors. This could mean that teachers apportion students' performance to factors outside themselves and apportion blame to either parents or students. This may be in line with study findings by Rimm, (2008) who warned that in an attempt to reverse underachievement among gifted, communication between parents and teachers should assure each other of support rather than place blame. If there is blame,

competition on who is to blame would set in and students would not benefit from the process.

Table 4.14: Need to confirm with peers

	Frequency	Percent	Cumulative Percent
Strongly Disagree	15	6.0	6.0
Disagree	8	3.2	9.1
Neutral	48	19.0	28.2
Agree	97	38.5	66.7
Strongly Agree	84	33.3	100.0
Total	252	100.0	

Table 4.14 shows that 181 (72%) agreed with the fact that conformity to peers can affect achievement among gifted students and 48 (19%) were neutral, while only 23 or 9% disagreed.

From reviewed literature, underachievement among students can be caused by factors related to family, school, and community. In terms of the community, Siegle (2007), noted that group pressure can be a primary culprit that leads to underachieving among the gifted. Performing well in school may cause a student to be labelled as a "nerd" or other derogatory terms. Academic excellence is not valued by many students. To avoid such criticism and be accepted by their social group, gifted students often perform below expectations. These observations are consistent with the findings of this study and hence a gap on the management of classrooms to enhance academic achievement among gifted students does exist.

4.4.4 Personal Related Factors

Secondary school teachers were asked if student's personal related issues cause underachievement among gifted students. The personal issues in this study were concerned with personal characteristic such as low self-motivation, low self-regulation, or low self-efficacy which could lead to depression & anxiety, non-conformity, and rebellion among the gifted underachievers. Their responses are shown in Table 4.15 and Table 4.16.

Table 4.15: Depression and anxiety

	Frequency	Percent	Cumulative Percent
Strongly Disagree	7	2.8	2.8
Disagree	14	5.6	8.3
Neutral	25	9.9	18.3
Agree	111	44.0	62.3
Strongly Agree	95	37.7	100.0
Total	252	100.0	

Table 4.15 shows respondents' opinion on whether depression and anxiety in students causes underachievement among gifted students. Indications are that those who were in agreement were 206 (82%), those who were neutral were 25 (10%) while those who disagreed were 21 (8%). The fact that only 8% disagreed and 10% were neutral shows a very high level of agreement among the teachers concerning causes of underachievement. This is in line with Reis &McCoach (2000), who state that the saddest list of contributing factors is the personal domain, with large numbers of underachievers reporting mental, emotional, behavioural, or mood disorders.

Table 4.16: Externalizing issues including rebellion and non-conformity

	Frequency	Percent	Cumulative Percent
Strongly Disagree	6	2.4	2.4
Disagree	32	12.7	15.1
Neutral	23	9.1	24.2
Agree	81	32.1	56.3
Strongly Agree	110	43.7	100.0
Total	252	100.0	

Table 4.16, shows teachers' opinion on whether externalizing (voicing) issues, including rebellion and nonconformity, contributed to underachievement among gifted students. Majority of the respondents were in agreement, 191 (76%) and 38 (15%), disagreed to some extent while 23 or 9% were neutral.

Related literature, (Davis, 2011) states that underlying these children's poor study habits, weak skills, disorganization, and defensiveness is a feeling of a lack of personal control over their educational success. Underachievers aren't really certain that they can achieve their goals even if they work harder. They lack self-efficacy. These children set their goals either too high or too low, and as a result, they guarantee failure.

In summary, the findings of this study on the causes of underachievement among gifted students are supported by the works of Baker, Bridger & Evans (1998) and Reis & McCoach (2000) who examined the multiplicity of negative factors that hold many gifted underachievers down and suggested that students' home environment exerts considerable impact on the type of achievement patterns they develop. A family's

communication style, education level, parenting style, consistency of expectations & discipline, and organization within the home are just a few of the many factors that affect the success or failure of gifted children; and that classrooms do not always provide intellectually stimulating environment for gifted students to thrive. In one study, 66% of high-ability students named peer pressure or the attitude of the other children & friends as the primary force against getting good grades.

4.5 Role of Assessment of Underachieving Gifted Secondary School Students in Kiambu County

As per objective three, teachers' assessment of the students who are gifted but are underachieving was under investigation. The respondents were asked to indicate the extent to which they agree with suggestions that assessment is a critical element in reversing underachieving gifted secondary school students and the results are presented in Table 4.17 below:

Table 4.17: Role of assessment of underachieving students

	N	Mean
Students with poor study and relationship skills	252	3.81
Students who fail to complete assignment	252	3.81
Students disrupts teaching	252	3.65
Students involved in punishment regularly	252	3.57
Students not involved in co-curricular activities	252	2.93
Valid N (list wise)	252	

From Table 4.17, teachers were positive that assessment is critical in reversing underachievement in gifted secondary school students. In four areas, the teachers' opinion was above the median of 3, and were between 3.81 and 3.57, but in one, the level of involvement in co-curricular activities, the mean was 2.93 and therefore below 3. This is an indication that the significance of co-curricular activities in managing student behaviour varies from school to school or from teacher to teacher. This means that involvement in co-curricular activities cannot exclusively be used as criteria for decision making pertaining to underachievement. There is need for multiple assessment strategies to cater for divergent views.

From reviewed literature, Neihart and Betts (2010), Profiles of the Gifted and Talented, some of the conduct disorders used in assessment are that the student distrusts and blames other people for problems; persistently violates social norms and basic rights of others with no remorse; seeks power and control over other people to feel safe; and blatantly manipulates others to get what he wants. It is recommended that teachers show empathy without condoning unacceptable behavior and establish a safe environment and build trust. This seems to be in line with teachers' opinion on the similar aspects.

On specific assessment aspects, the questionnaire required teachers to give their opinion on aspects of the school system that indicate underachievement among gifted students. The results are shown in Table 4.18 to Table 4.22.

When asked if underachieving gifted students fail to do teacher's assignments, their pattern of responses is shown in Table 4.18 below.

Table 4.18: Students who fail to complete assignment

	Frequency	Percent	Cumulative Percent
Strongly Disagree	9	3.6	3.6
Disagree	18	7.1	10.7
Neutral	25	9.9	20.6
Agree	160	63.5	84.1
Strongly Agree	40	15.9	100.0
Total	252	100.0	

Table 4.18 shows that those in agreement with the proposition were 200 (79%) and only 27 (11%) were in disagreement while 25 (10%) were neutral. There is a very high level of agreement among the respondents that consistent failure to complete assignments is indicative of underachievement among gifted students.

Neihart and Betts (2010), 'Profiles of the Gifted and Talented', states that some underachievers are easily distracted, and tend to give up easily. This may lead to failure to complete assignments while making endless excuses for poor performance. Because they lack introspection, it is recommended that teachers confront excuses methodically and supportively, avoiding nagging and verbal reminders. Instead, teachers should use lists of tasks and consequences for non-compliance. If this happened reversal process of underachievement may begin.

When teachers were asked if underachieving gifted students disrupt teaching in one way or other during certain lessons, their responses showed the pattern in Table 4.19 below.

Table 4.19: Students who disrupt teaching

	Frequency	Percent	Cumulative Percent
Strongly Disagree	3	1.2	1.2
Disagree	48	19.0	20.2
Neutral	32	12.7	32.9
Agree	121	48.0	81.0
Strongly Agree	48	19.0	100.0
Total	252	100.0	

Table 4.19 shows that 169 (67%) were in agreement that underachieving gifted students can disrupt class of given lessons and 51 (20%) were in disagreement while 32 (13%) were neutral. The percentage of agreement in this aspect was not as high as the one above but it was positive that teachers agreed that disruption of certain classes is a sign of underachievement.

From reviewed literature, Neihart and Betts (2010), 'Profiles of the Gifted and Talented' underachieving gifted students tend to react stubbornly in negative opposition to authority and they persistently oppose authority and "the system," in spite of negative consequences. Since this happens in classes of certain teachers only, it is recommended that such teachers avoid power struggles, edicts & ultimatums, and instead model and teach assertive communication skills. This is why it is recommended that all teachers have clear expectations of students to avoid scenarios where some teachers are obeyed and others are not.

When asked to give their opinion on whether underachieving gifted students' were involved in co-curricular activities like music, drama, games & sports, and teachers responses are shown in Table 4.20 below.

Table 4.20: Students not involved in co-curricular activities

	Frequency	Percent	Cumulative Percent
Strongly Disagree	32	12.7	12.7
Disagree	46	18.3	31.0
Neutral	96	38.1	69.0
Agree	63	25.0	94.0
Strongly Agree	15	6.0	100.0
Total	252	100.0	

From Table 4.20, the pattern of responses was different from all the others above in the sense that those who were neutral were very many, that is 96 (38%), which is the highest neutral response, while those who disagreed were 78 (31%) and those who were in agreement were also 78 (31%).

This divided response, where half agreed and half disagreed and a higher percentage being neutral, could mean several things, and serves to emphasize the need for multidimensional assessment of underachieving students. If involvement in co-curricular activities were the only criteria for evaluating a "performing" student, teachers would be extremely divided on the matter.

From related literature, the divided opinion is also evident. One psychologist had this to say; many children, especially children who have demonstrated a high potential for learning, are involved in too many extra-curricular activities. There are some children who spend every afternoon and evening in one activity or another and then attempt to do their homework late at night. Not only are such children stressed out by having too much of a good thing, many also become underachievers because they cannot

keep up such a frantic pace Coil (2007). On the other hand, another one views co-curricular activities as an enrichment opportunity which may take many forms, including but not limited to: encouraging students to attend performances at local professional theatres, local dance studios or visiting productions, and to read as many reviews as possible. Students are also encouraged to audition for all productions available – school productions, community productions, and annual drama festivals (Department of Education and Training, 2004). This serves to emphasise the importance of using multiple criteria in assessment of underachieving students to allow for diversity in assessment.

Teachers were asked to give their opinion on the aspect that underachieving gifted student differ with student colleagues and is on teacher punishment regularly. The responses are as shown in Table 4.21 below.

Table 4.21: Students disagree with colleagues and is involved in punishment regularly

	Frequency	Percent	Cumulative Percent
Strongly Disagree	13	5.2	5.2
Disagree	37	14.7	19.8
Neutral	18	7.1	27.0
Agree	161	63.9	90.9
Strongly Agree	23	9.1	100.0
Total	252	100.0	

From Table 4.21, the responses were that 184 or 73% were in agreement that underachieving gifted students tend to disagree with student colleagues and are on teacher punishment regularly. Disagreements were 50 or 20% while those who were

neutral were 18, or 7% of the respondents. Teachers were in agreement that students who differ with fellow student and are involved in teacher punishment could be in the category of underachieving gifted.

From reviewed literature, Neihart and Betts (2010), 'Profiles of the Gifted and Talented', underachieving student engages in long, complex emotional and philosophical discussions and arguments. He or she may experience anxiety and depression in relation to this search for an independent, cohesive, and satisfying sense of self. This may lead to confrontations with other students and punishments from teachers. It is prudent that teachers listen actively, and serve as a sounding board to facilitate introspective exploration of identity issues.

On the aspect that underachieving gifted students have poor study and relationship skills, the responses were as captured in Table 4.22 below.

Table 4.22: Students with poor study and relationship skills

	Frequency	Percent	Cumulative Percent
Strongly Disagree	8	3.2	3.2
Disagree	27	10.7	13.9
Neutral	19	7.5	21.4
Agree	149	59.1	80.6
Strongly Agree	49	19.4	100.0
Total	252	100.0	

Table 4.22 shows that 198 teachers or 79% of the respondents were in agreement, 35 teachers or 14% of the respondents were in disagreement while 19 teachers or 8 % of the respondents were neutral that underachieving gifted students have poor study and

relationship skills. This shows that teachers were in agreement that gifted students who are underachieving could demonstrate signs of poor relational and study skills.

From the findings, assessment of underachieving gifted students is critical to reversing underachievement because it can manifest itself in varied ways in the school environment. Neihart and Betts (2010), 'Profiles of the Gifted and Talented', states that such students may be intensely introspective and preoccupied with identity issues involving three questions: Who am I as a separate person? What's my purpose in life? How do I relate to other people? They tend to engage in long, complex emotional and philosophical discussions and arguments which take time off from study and also interfere with relationships. The student may be immobilized by confusion and therefore unable to focus on studies. It is recommended that teachers use vocational interest testing to broaden focus and explore possible career options. The teacher may also provide achieving role models and mentors willing to interact with him/her in a collegial manner. It would be helpful if the teacher helps the student to explore practical steps needed to reach his/her goals.

Therefore assessment in various aspects was critical to reversing of underachievement. Neihart and Betts (2010) assert that since gifted children are not affected by their special abilities in the same way; they interact with and are influenced by their families, their education, relationships and their personal development very differently; without adequate assessment, gifted children are all too likely to languish unnoticed and underachieve in educational environments that fail to meet their special needs. Moon & Hall (1998) also recommended that all

underachieving gifted students be screened for a wide variety of physical, mental, or emotional problems before making a student's underachievement the primary focus of attention.

4.6 Intervention Strategies of Reversing Underachievement Among Gifted Secondary School Students in Kiambu County

As per objective four, the following intervention strategies were under investigation: communication, expectations, skill deficiency, role model, and reinforcement.

4.6.1 Communication Between Teachers and Parents

Objective 4a, communication with significant others was under investigation in the following aspects: refusal to do assignments; disruption of classes; naughtiness; against other students and lack of basic skills.

The respondents were asked to indicate the extent to which they agree that communication made to significant others would have the same meaning to all parties concerning underachieving gifted student. Their responses are presented in Table 4.23 below.

Table 4.23: Communication between teachers and parents

	N	Mean
Bright students lack study and interpersonal skills	252	3.83
Bright students refuse to do assignments	252	3.81
Bright students disrupts classes of some teachers	252	3.71
Bright students energy goes to being naughty	252	3.58
Bright students seem to be against other students and happy on punishments	252	3.20
Valid N (list wise)	252	

From Table 4.23, teachers were positive that communication made to significant others would have the same meaning to all parties concerning underachieving gifted student, because all the responses were above the median of 3, and were between 3.83 and 3.20.

From the findings teachers confirmed that students' response to assignments, lessons, punishments, co-curricular activities and relating with other students are all important aspects in reversing underachievement and in their opinion, parents and significant others would feel the same.

Studies by Batdal & Hasan (2013) suggest that teachers and parents hold conferences about the underachieving gifted students. Some of the questions they need to address are: Does she have trouble completing work, especially when she has to do so on her own?; Does she work well when the teacher is near her and shuts down when he moves away?; Does she have trouble getting started on and completing long-term projects and written assignments? These questions help clarify key areas of concern to

both teacher and parent and may pave way for accurate assessment which is the subsequent step in reversing underachievement.

Specifically, teachers were asked whether they agreed with given statements on communication related to gifted underachieving students; their responses were shown in Table 4.24 to Table 4.28.

When asked whether they agreed with the statement "he/she is a bright boy/girl; he/she simply refuses to do teacher's assignments", teachers responses were shown in Table 4.24 below.

Table 4.24: Bright students refuse to do assignments

	Frequency	Percent	Cumulative Percent
Strongly Disagree	16	6.3	6.3
Disagree	34	13.5	19.8
Neutral	23	9.1	29.0
Agree	87	34.5	63.5
Strongly Agree	92	36.5	100.0
Total	252	100.0	

From Table 4.24, those who agreed with the statement were 179 (71%) and those who were in disagreement were 50 (20%) while neutral were 23 (9%). The results indicate that majority of the teachers were in agreement with the statement that bright students can choose not to cooperate with teachers in academic related activities.

The questionnaire further required teachers to indicate their opinion on the statement that - "he/she makes deliberate disruption of classes in some teachers' lessons". The responses were as shown in Table 4.25 below.

Table 4.25: student disrupts classes of some teachers

	Frequency	Percent	Cumulative Percent
Strongly Disagree	18	7.1	7.1
Disagree	40	15.9	23.0
Neutral	29	11.5	34.5
Agree	76	30.2	64.7
Strongly Agree	89	35.3	100.0
Total	252	100.0	

Table 4.25 shows that those who agreed were 165 (65%) and those who disagreed were 58 (23%) while neutral were 29 (12%). This indicates that while those who agreed that students disrupt classes of given teachers and not others, were the majority, the percentage of those who agreed was comparatively lower than of the other aspects.

Teachers were required to indicate their opinion on the statement - "his/her energy goes to being naughty; he/she has none left for co-curricular activities like drama, music, games or sports". The responses were as shown in Table 4.26 below.

Table 4.26: Bright students' energy goes to being naughty

	Frequency	Percent	Cumulative Percent
Strongly Disagree	18	7.1	7.1
Disagree	39	15.5	22.6
Neutral	64	25.4	48.0
Agree	41	16.3	64.3
Strongly Agree	90	35.7	100.0
Total	252	100.0	

From Table 4.26, those who agreed were 131 (52%) and neutral were 64 (25%) while those who disagreed were 57 (23%). The neutral and disagreement response represented a high percentage and similar responses were given for the same aspect in the question of assessment pertaining to co-curricular activities involvement.

From the findings, the value of co-curricular may vary from school to school and its impact on the management of underachieving gifted seems unclear. From related literature, Coil (2007) asserted that involvement could have a negative effect on academic achievement and therefore teachers and parents need to be careful about it. On the same matter, another psychologist views co-curricular activities as an enrichment opportunity which may take many forms and should be encouraged (Department of Education and Training, 2004).The study findings are therefore consistent with those in the western world where opinions on what affects achievement vary thus requiring multiple assessment strategies.

The questionnaire required teachers to indicate their opinion on the statement that - "he/she seems to be against other students and happy being on teacher punishment" The responses were as shown in Table 4.27 below.

Table 4.27: student seems against colleagues and happy being on punishment

	Frequency	Percent	Cumulative Percent
Strongly Disagree	25	9.9	9.9
Disagree	83	32.9	42.9
Neutral	23	9.1	52.0
Agree	58	23.0	75.0
Strongly Agree	63	25.0	100.0
Total	252	100.0	

From Table 4.27, those who agreed were 121 (48%) and those who disagreed were 108 (43%) while neutral were 23 (9%). The number of those who disagreed was actually high comparatively and it would mean that there was divided opinion.

When teachers were asked whether they agreed with the statement "his/her problem could be lack of study and interpersonal skills", their responses were as shown in Table 4.28 below.

Table 4.28: Bright students lack study and interpersonal skills

	Frequency	Percent	Cumulative Percent
Strongly Disagree	9	3.6	3.6
Disagree	24	9.5	13.1
Neutral	33	13.1	26.2
Agree	121	48.0	74.2
Strongly Agree	65	25.8	100.0
Total	252	100.0	

From Table 4.28, slightly below three quarters of the respondents, 186 (74%), agreed with the statement; neutral respondents were 33 (13%) and those who were in disagreement were also 33, representing 13%. This is an indication that majority of teachers were in agreement that underachieving gifted students could be lacking in certain skills and therefore the approach to their management should be carefully designed to help them acquire the necessary study and interpersonal skills.

Therefore communication between parents and teachers is an important component of the reversal of underachievement. Epstein (2005) noted that a case study of school-

community partnerships found that when schools were willing to structure authentic two-way communication with parents, levels of parent involvement increased considerably. Some other studies reveal that through high school, family involvement contributed to positive results for students, including higher achievement, better attendance, more course credits earned, more responsible preparation for class, and other indicators of success in school (Epstein, 2005).

4.6.2. Changing the Expectations of Self and Significant Others

Objective 4b, changing the expectations of self and significant others was under investigation in the following aspects: teachers' expectations; school community changed focus; students confront colleague's negativity; firmness and student expected to seek help.

The respondents were asked to indicate the extent to which they agree with suggestions that if the significant others changed their expectations of underachieving secondary school students, the underachieving student would revert to good performance. The results are presented in the Table 4.29 below.

Table 4.29: Changing the expectations strategy of reversing underachievement

	N	Mean
If teachers expected students to seek help on study and interpersonal skills, they would do so efficiently	252	4.27
If all teachers set clear expectations on assignments and classroom behaviour, students would oblige	252	4.25
If all teachers were firm with expectations and gentle with students' need for attention, they would avoid being on punishments	252	4.17
If school community changed their focus from negative behaviour, would divert to co-curricular activities	252	3.90
If colleagues were empowered to confront student, he/she would learn to respect them	252	3.59
Valid N (list wise)	252	

From Table 4.29, teachers were positive that if the significant others changed their expectations, the underachieving student would revert to good performance, the responses were above the median of 3, and were between 4.27 and 3.59. This is a high level of agreement.

The study findings affirm the gap that having high expectations could raise performance of a given individual. On the contrary, having low expectations could make an individual perform poorly. Rimm (2008) in her third edition of *Why Bright Kids Get Poor Grades*, indicated that when a student is told about himself or herself and his or her work, depending on the way in which the teacher gives the positive feedback, student's progress significantly improves.

Specifically, teachers were asked to indicate their opinion on suggestions that if significant others changed their expectations of underachieving secondary school students, they would revert to good academic performance. The results are presented in Tables 4.30 to Table 4.34.

Teachers were asked to give their opinion of the following statement: “if all teachers expected him/her to do their assignments at all times, and be attentive in class, he/she would oblige”. The responses were as indicated in Table 4.30 below.

Table 4.30: If teachers set clear expectations on assignments and classroom behaviour, students would oblige

	Frequency	Percent	Cumulative Percent
Almost Never True	8	3.2	3.2
Usually Not True	17	6.7	9.9
Non-committal	8	3.2	13.1
Usually True	89	35.3	48.4
Almost Always True	130	51.6	100.0
Total	252	100.0	

From Table 4.30, those who agreed were 219 (87%) and those who disagreed were 25 (10%) while the non-committal respondents were only 8 (3%). The number of those who were neutral and those who disagreed was actually comparatively very low and it means that there was unquestionable agreement in opinion.

The questionnaire required teachers to indicate their opinion on the following statement: “if the school community changed their focus from his/her negative

behaviour, he/she would divert the energy to co-curricular activities like drama, music, games and sports. The responses were as indicated in Table 4.31 below.

Table 4.31: If school community changed their focus from negative behaviour, student energy would divert to co-curricular activities

	Frequency	Percent	Cumulative Percent
Almost Never True	5	2.0	2.0
Usually Not True	34	13.5	15.5
Non-committal	21	8.3	23.8
Usually True	113	44.8	68.7
Almost Always True	79	31.3	100.0
Total	252	100.0	

From Table 4.31, those who felt the statement was true were 192 (76%) and those who felt the statement is not true were 39 (15%) while non-committal response was 21 (8%). The number of those who supported the statement was high compared to those who were non-committal and those who felt it was not true to some degree. A positive response of 76% compared to 87% on the aspect of assignment could indicate that teachers did not think high expectations from school community would influence involvement in co-curricular activities as it would influence response to doing assignments.

The questionnaire required teachers to indicate their opinion on the following statement, “if student colleagues are empowered to confront student negativity, he/she would learn to respect them for who they are”. The responses were as shown in Table 4.32 below.

Table 4.32: If student colleagues were empowered to confront student, he/she would learn to respect them

	Frequency	Percent	Cumulative Percent
Almost Never True	28	11.1	11.1
Usually Not True	15	6.0	17.1
Non-committal	51	20.2	37.3
Usually True	97	38.5	75.8
Almost Always True	61	24.2	100.0
Total	252	100.0	

From Table 4.32, respondents who felt the statement was true were 158 (63%). Those who had a non-committal response were 51 (20%) which was relatively high compared to other aspects of the questionnaire. Those who felt the statement is not true were 43 (17%). The number of those who supported the statement was fairly high compared to those who were non-committal and those who felt it was not true to some degree. It seems that those who were opposed (17%) and those who were non-committal (20%) were almost equal. This divided opinion and a positive of 63% only could mean teachers don't place much emphasis on emotional support coming from student peers or they don't think it is of much value.

On the statement, "if all teachers were firm with expectations and gentle with the boy's/girl's need for attention, he/she would stop being on punishment"; teachers' responses were as indicated in Table 4.33 below.

Table 4.33: If teachers were firm with expectations and gentle with students' need for attention, they would avoid being on punishment

	Frequency	Percent	Cumulative Percent
Almost Always True	108	42.9	42.9
Usually True	107	42.5	85.3
Non-committal	17	6.7	92.1
Usually Not True	13	5.2	97.2
Almost Never True	7	2.8	100.0
Total	252	100.0	

From Table 4.33, those who felt the statement was true were 215 (85%) and those who felt the statement is not true were only 20 (8%) while non-committal were only 17 which is 7%. The number of those who supported the statement was very high compared to those who were non-committal and those who felt it was not true to some degree. The overwhelming support of the statement is an indication that teachers know the importance of high expectations in relation to behaviour change.

Teachers were expected to indicate their opinion on the following statement, "if he/she is expected to seek help on his/her study skills and to improve his/her interpersonal skills he/she would do so efficiently". The responses were as indicated in Table 4.34 below.

Table 4.34: If students are required to seek help on study and interpersonal skills, would do so efficiently

	Frequency	Percent	Cumulative Percent
Almost Never True	6	2.4	2.4
Usually Not True	20	7.9	10.3
Non-committal	8	3.2	13.5
Usually True	83	32.9	46.4
Almost Always True	135	53.6	100.0
Total	252	100.0	

From Table 4.34, out of 252 respondents, 218 (87%) felt the statement was true and 26 (10%) felt the statement was not true while 8 (3%) were non-committal. The number of those who supported the statement was very high compared to those who were non-committal and those who felt it was not true to some degree. This is a clear indication of how decisive the teachers were in supporting the statement on behaviour change approach.

The high level of agreement demonstrated by the teachers was a good indication that underachievers respond well to high expectations from teachers and peers. These findings on approaches used to reverse underachievement affirm the gap that approaches used in the developed world would work in Kenya, or in other developing countries. The results are consistent with a study carried out by Emerick (1992) where underachievers seemed to respond well to parents and teachers who had high expectations, provided calm and consistent guidance, and maintained a positive, objective regard for the student (Rimm, 2008). The divided support on co-curricular activities and support from student peers could be an indication of focus placed on

academic areas by teachers. There is need for teachers to realise that a student in an integrated whole and needs support from all dimensions of life.

4.6.3 Role Model Identification

Objective 4c, role model identification was under investigation in the following aspects: nurturance, similarity, openness, willingness to give time, and sense of positive accomplishment.

The respondents were asked to indicate the extent to which they agreed with suggestions if the role model had the given qualities, the student would feel supported by a significant adult whom he/she can identify with. The results are presented in the Table 4.35 below.

Table 4.35: Role model identification strategy of reversing underachievement among gifted secondary school students

	N	Mean
Student feels supported by a significant nurturing adult.	252	4.50
Role model has a sense of accomplishment	252	4.31
Student freely shares weaknesses without fear of negativity	252	4.24
Role model is willing to give time to student	252	4.14
Student feels similarities to role model and same gender	252	3.72
Valid N (list wise)	252	

From Table 4.35 it is clear that teachers were positive that if the role model has nurturance, similarity, openness, willingness to give time, and sense of positive accomplishment then the student would feel supported by a significant adult who he/she can identify with, and the underachieving student would revert to good

performance. The responses were above the median of 3, and between 4.50 and 3.72. This is a very high level of agreement.

The study findings established the model should have as many of the following characteristics as possible: nurturance, same gender, similarities to child, openness, willingness to give time, and sense of positive accomplishment. Role model identification is said to be a critical turning point for the underachieving child (Rimm, 2008). Underachieving children could be matched with an achieving person to serve as a model for them. The person selected could serve in a model capacity for more than one child. His or her actual role might be as a tutor, mentor, companion, teacher, parent, sibling, counsellor, psychologist, minister, scout leader, doctor, and so on. Rimm (2008) and colleague researchers Reis & McCoach (2002) noted that students who reversed their underachievement found that they often attributed their reversal to a teacher who was an important inspiration in their lives. These findings are consistent in all aspects and it affirms the need for role model identification in reversing underachievement in any set up, the developing world included.

Specifically, the questionnaire expected the teachers to agree, disagree or remain neutral with given statements related to role models' role in reversing underachievement. The responses were given as shown in Table 4.36 to 4. 40.

Teachers were to agree, disagree or remain neutral with the statement: "If the role model is nurturing, the student feels supported by a significant adult who cares". The responses were as shown in Table 4.36 below.

Table 4.36: Student feels supported by a nurturing adult

	Frequency	Percent	Cumulative Percent
Unimportant	4	1.6	1.6
Of Little Important	7	2.8	4.4
Neutral	6	2.4	6.7
Important	76	30.2	36.9
Very Important	159	63.1	100.0
Total	252	100.0	

From Table 4.36, those who felt that nurturance was an important factor agreed with the statement were 235 or an overwhelming 93% of the respondents. Those who disagreed with the statement were only 11 (4%) while those who were neutral were only 6 (2%). The number of those who supported the statement was very high compared to those who were non-committal. This is a clear indication of how decisive the teachers were in supporting the significance of nurturing role models in reversing underachievement.

Teachers were expected to agree, disagree or remain neutral with the statement: "If the role model is similar to student and same gender, the student feels, "yes he/she knows how it feels to be in my position or status, we are the same". The responses were as shown in table 4.37 below.

Table 4.37: Role model is similar to the student and of the same gender

	Frequency	Percent	Cumulative Percent
Unimportant	5	2.0	2.0
Of Little Important	23	9.1	11.1
Neutral	48	19.0	30.2
Important	137	54.4	84.5
Very Important	39	15.5	100.0
Total	252	100.0	

From Table 4.37, respondents who agreed with the statement were 167 (70%) and those who were neutral were 48 (19%). The neutral response is comparatively high in relation to nurturance which was only 2%. Those who disagreed with the statement were 28 (11%), which was also higher than nurturance which was only 4%. The number of those who supported the statement while high was much lower than those who supported nurturance. This means that while similarity and same gender may support reversing underachievement, it is not as important as nurturance for those who will act as role models to the students.

The questionnaire expected the teachers to agree, disagree or remain neutral with the statement: "If the role model is open, has willingness to share weakness, then the student feels free to share weaknesses without fear of being judged negatively". The responses were as reflected in Table 4.38 below.

Table 4.38: Student feels free sharing weaknesses without fear of negativity

	Frequency	Percent	Cumulative Percent
Unimportant	7	2.8	2.8
Of Little Important	12	4.8	7.5
Neutral	11	4.4	11.9
Important	106	42.1	54.0
Very Important	116	46.0	100.0
Total	252	100.0	

From Table 4.38, those who agreed with the statement were 222 (88%), those who disagreed with the statement were only 19 (8%), while those who were neutral were only 11 (4%). The number of those who agreed with the statement was very high

compared to those who were neutral or disagreed with the statement. This is a clear indication of how decisive the teachers were in supporting the significance of openness among role models in reversing underachievement.

The questionnaire expected the teachers to agree, disagree or remain neutral with the statement: “If the role model is willing to give time, then the student gets the feeling of: “I am important enough to merit his/her time”. The responses were as shown in Table 4.39 below.

Table 4.39: Role model is willing to give time to student

	Frequency	Percent	Cumulative Percent
Unimportant	7	2.8	2.8
Of Little Important	8	3.2	6.0
Neutral	50	19.8	25.8
Important	65	25.8	51.6
Very Important	122	48.4	100.0
Total	252	100.0	

From Table 4.39, out of the 252 respondents, 187 (74%) agreed with the statement; those who were neutral were 50 (20%) while those who disagreed with the statement were only 15 (6%). The number of those who supported the statement was only relatively high when compared to nurturance or openness. The fact that those who were neutral were 50 (20%) shows some level of indecisiveness on whether willingness to give time is an important criterion for effective role modelling while reversing underachievement among gifted secondary school students.

The questionnaire expected the teachers to agree, disagree or remain neutral with the statement: "If the role model has a sense of positive accomplishment then the student feels all is not lost; I can recover and make up lost time with positive changes". The responses were as shown in Table 4.40 below.

Table 4.40: Role model has a sense of accomplishment

	Frequency	Percent	Cumulative Percent
Unimportant	12	4.8	4.8
Of Little Important	10	4.0	8.7
Neutral	20	7.9	16.7
Important	55	21.8	38.5
Very Important	155	61.5	100.0
Total	252	100.0	

From Table 4.40, out of 252 respondents, 210 (83%) agreed with the statement and 22 (9%) disagreed with it while 20 (8%) were neutral. The number of those who supported the statement was quite high compared to those who were non-committal or in disagreement with the statement. This shows that positive accomplishment among role models is an important criterion if reversing underachievement among gifted secondary students will be effective.

The findings of this study are that role model identification is a critical turning point for the underachieving child. These findings are in line with the Trifocal Model (Rimm, 2008) of reversing underachievement which is supported by Davis (2011) who said that all other treatment for underachievement dim in importance compared with strong identification with an achieving model. The findings of this study revealed that role model being of same gender to underachieving student is not a

critical factor in successful role modelling because those who agreed with the statement were 70%. The other aspects were 93%, 88% and 83% for nurturance, sharing weakness and sense of accomplishment respectively. Peterson (2001) noted that although identification with an opposite-gender model is possible, the equality in gender facilitates identification, it is therefore recommended.

Study results further suggest that willingness to give time is not as important as nurturance at 93%, for example, because those who agreed with the statement were only at 74%. From related literature, giving physical time is not a critical factor in determining the success of a role model. The findings of this study are in line with those by Davis (2011), who purported that the role model can actually be an absent inspiring individual since the individual should have as many characteristics as possible and not necessarily all.

4.6.4. Correcting Skill Deficiencies

Objective 4d, correcting skill deficiencies was under investigation in the following aspects: teacher took time to lay class ground rules, discuss co-curricular options, train students on relating with colleagues, help in making study time table, and to help seek counselling.

The respondents were asked to indicate the extent to which they agree with the statement that it was important for teachers to take time to lay ground rules, discuss options, train students, help in making study time table, and to help seek counselling. Their responses are presented in Table 4.41 below.

Table 4.41: Correcting skill deficiencies among gifted students

	N	Mean
Encouraged personal time study time table and follow and always free to seek help	252	4.58
Teacher took time to discuss opinion of co-curricular activities and its importance in academic and personality excellence	252	4.02
Encourage student to see the counsellor to work on improving communication skills and give feedback on experience with counsellor	252	4.01
Teaches students to objects negativity from her, so as to learn to respect them	252	3.96
Teacher involved in skill development in academic performance and class work	252	3.92
Valid N (list wise)	252	

From Table 4.41, all the responses were above the median of 3, and between 4.58 and 3.92. This is a very high level of agreement and it is evident that teachers were involved with correcting skill deficiencies among underachieving gifted secondary school students. This is because they were to agree with the given statements only if the strategy worked for the given student.

The study findings therefore affirm that correction of skill deficiency is an important component in reversing underachievement. Siegle, D. & McCoach (2005) state that the correction of skill deficiencies should be conducted carefully for certain reasons. One, the independent work of the underachieving child is reinforced by the tutor; two, manipulation of the tutor by the child is avoided; and three, the child senses the relationship between effort and the achievement outcomes. Charting progress during

tutoring helps visually confirm the rapid progress to both child and tutor. Breaking larger tasks into smaller tasks permits the student to build confidence.

Specifically, teachers were asked to indicate their involvement with correcting skill deficiencies among underachieving gifted secondary school students. The responses were as indicated in Table 4.42 to Table 4.46.

When asked whether they took time to lay ground rules and help student on how to do all his/her work and pay attention during their lessons even when most teachers were failing, the responses were as shown in Table 4.42 below.

Table 4.42: Teacher involved in skill development in academic performance and class work

	Frequency	Percent	Cumulative Percent
Never	2	.8	.8
Rarely	14	5.6	6.3
Non-commitment	18	7.1	13.5
Frequently	186	73.8	87.3
Very Frequently	32	12.7	100.0
Total	252	100.0	

From Table 4.42, those who frequently or very frequently did were 218 (87%) and those who never or rarely did were only 16 (6%) while those who were non-committal were 18 (7%). It is however surprising that there were 2 teachers whose response was ‘never’ to having tried to help a student about his work and expectations. One wonders whether this was indifference to the question or it is a fact they have never been involved in helping their students set standards in their teaching subjects.

When teachers were asked whether they took time to discuss options for participation in drama, music, games & sports, and the value it has on academic & personality excellence, the responses were as shown in Table 4.43 below.

Table 4.43: Teacher took time to discuss value of co-curricular activities

	Frequency	Percent	Cumulative Percent
Never	2	.8	.8
Rarely	33	13.1	13.9
Non-commitment	30	11.9	25.8
Frequently	81	32.1	57.9
Very Frequently	106	42.1	100.0
Total	252	100.0	

Table 4.43 shows that those who frequently or very frequently did were 187 (74%) and those who never or rarely did were 35 (14%) while 30 (12%) of the responses were non-committal. 2 teachers responded "never". The researcher wondered if the 2 teachers whose response was 'never' to having tried to help a student about his class work and expectations, were the same ones who never tried to help students in co-curricular activities.

From the results one notes that only 74% of respondents said they were involved in encouraging student to improve participation in co-curricular activities. This is considered low because involvement in helping to make a personal study time table was 95% and in class work was 87%.

When teachers were asked whether they took time as subject/class teacher to train students on how to object negativity from the underachieving student, so that he/she

can learn to respect them for who they are, the responses were as shown in Table 4.44 below.

Table 4.44: Teaches students to set positive expectations

	Frequency	Percent	Cumulative Percent
Never	13	5.2	5.2
Rarely	27	10.7	15.9
Non-commitment	23	9.1	25.0
Frequently	84	33.3	58.3
Very Frequently	105	41.7	100.0
Total	252	100.0	

From Table 4.44, those who frequently or very frequently did were 189 (75%) and those who never or rarely did were 40 (16%), out of which 13 (5%) were 'never' while non-commitment were 23 (9%). From the results, one wonders how 13 teachers had "never' tried to help students on how to cope with other students.

Teachers were asked whether they took time to encourage students to work out a personal study time table and follow it and whether they were ready to help students if they needed their help. The responses were as shown in Table 4.45 below.

Table 4.45: Encouraged use of, and consultation on personal time table

	Frequency	Percent	Cumulative Percent
Never	3	1.2	1.2
Rarely	6	2.4	3.6
Non-commitment	3	1.2	4.8
Frequently	69	27.4	32.1
Very Frequently	171	67.9	100.0
Total	252	100.0	

From Table 4.45, almost all respondents, 240 (95%), said they frequently or very frequently encouraged students to use personal time table and those who never or rarely did were only 9 (4%) while non-commitment respondents were only 3 (1%). The response that teachers encouraged students very frequently was obviously the most popular.

From the results, and if this is the case, it means that teachers give most assistance to students in relation to making study time tables in an attempt to correct skill deficiencies related to academic excellence among underachieving gifted secondary school students.

Teachers were asked whether they took time to encourage students to see the school counsellor to work on improving their communication skills and receive feedback on the student's experience with the counsellor. Table 4.46 below presents the findings.

Table 4.46: Encourage student to see school counsellor about communication skills

	Frequency	Percent	Cumulative Percent
Never	17	6.7	6.7
Rarely	16	6.3	13.1
Non-commitment	31	12.3	25.4
Frequently	71	28.2	53.6
Very Frequently	117	46.4	100.0
Total	252	100.0	

From Table 4.46, those who frequently or very frequently did were 188 (75%) and those who never or rarely did were 33 (13%) while those whose response was non-commitment were 31 (2%). The pattern in this category has changed with 13% saying

they never or rarely refer students for counselling and another 12% saying they are non-committal as to whether they refer students for counselling or not.

One wonders if this could be an indication of the attitude towards counselling or if it is a response to the non-effectiveness of the process. It could also mean that according to the teachers, counselling support is not as important as academic support.

From the results, and while the individual response rates varied slightly, the study proposes that correction of skill deficiency is an important component in reversing underachievement among gifted secondary school students. Related literature reviewed asserts that students become more actively engaged in the learning process as they begin to see the connection between classroom activities and skill development (McCoach & Siegle, 2001). However teachers are encouraged to foster independent or self-directed learning to allow learners to exploit and develop research or inquisitive skills as well as develop their talents in art, music, creative writing and acting, games and sports among others (Kinyua, 2014).

4.6.5 Modification of Reinforcements at Home and School

Objective 4e, modification of reinforcements at home and school, was under investigation in the following aspects: teachers' recognized & rewarded completion of assignments; school community recognized & rewarded involvement in co-curricular activities; students empowered to reward & recognize colleague; teachers' to reward & recognize good behaviour; and also reward & recognize improvement on skills.

The respondents were asked to indicate the extent to which they agree with modification of reinforcements as a strategy for reversing underachievement among gifted students and the results are presented in Table 4.47 below.

Table 4.47: Modification of reinforcement strategies of reversing underachievement among gifted secondary school students

	N	Mean
If teachers recognize students' improvement on studies and interpersonal skills, would perfect them	252	4.57
Teachers awarding students for doing assignments and be attentive; would oblige	252	4.52
If teachers rewards and recognize students' good deeds, would make a habit and avoid punishments	252	4.30
If community rewards students in co-curricular activities, would make it a habit	252	4.16
If colleagues empowered and recognize student's positive communication, would make it habit	252	4.05
Valid N (list wise)	252	

From Table 4.47, teachers were positive that modification of reinforcement at school can be used as a strategy to reverse underachievement among gifted secondary students. In all the categories under review the opinion was way above the median of 3 because it was 4.5 and above in two criteria and 4.05 as the lowest mean.

From the findings, the need for modification of reinforcement is affirmed because in categories under review, the mean was above 4 out of 5. These findings are in line with studies by Rimm (2008) which emphasise the need to modify the rewarding system to break the cycle of manipulative rituals between the underachieving gifted student and teachers & parents.

On specific aspects, the questionnaire expected teachers to agree or disagree with the given statement or remain neutral in various aspects of modifying reinforcement. The responses are as presented in Table 4.48 to 4.52.

Teachers engaged with the statement: “If all teachers recognized and rewarded students for doing their assignments and being attentive in class at all times, he/she would consistently oblige”. The responses were as recorded in Table 4.48 below.

Table 4.48: If teachers award students for doing assignments and attentiveness, would oblige

	Frequency	Percent	Cumulative Percent
Strongly Disagree	4	1.6	1.6
Disagree	3	1.2	2.8
Neutral	8	3.2	6.0
Agree	79	31.3	37.3
Strongly Agree	158	62.7	100.0
Total	252	100.0	

From Table 4.48, majority of the respondents, 237 (94%), agreed with the statement and 8 (3%) were neutral while those who disagreed with the statement were only 7 (2.8%). The number of those who supported the statement was quite high compared to those who were neutral, or in disagreement with the statement. This shows that if teachers recognized & rewarded students for doing their assignments & being attentive in class at all times, the students would oblige, thus reversing underachievement among gifted secondary students.

Teachers engaged with the statement; “If the school community recognized & rewarded him/her for any attempt to participate in drama, music, games and sports he/she would do so more often and eventually make it a habit”. The responses were as reflected in Table 4.49 below.

Table 4.49: If community rewards students in co-curricular activities, would make it a habit

	Frequency	Percent	Cumulative Percent
Strongly Disagree	1	.4	.4
Disagree	6	2.4	2.8
Neutral	15	6.0	8.7
Agree	159	63.1	71.8
Strongly Agree	71	28.2	100.0
Total	252	100.0	

From Table 4.49, those who agreed with the statement were 230 (91%) and those who were neutral were 15 (5.9%) while those who disagreed with the statement were only 7 (2.8%). The number of those who supported the statement was quite high compared to those who were neutral or in disagreement with the statement.

This shows that if the school community recognized & rewarded students for any attempt to participate in drama, music and games & sports the student would do so more often and eventually make it a habit, thus reversing underachievement among gifted secondary students.

Teachers engaged with the statement; “If students are empowered to reward & recognize fellow colleagues for any positive communication he/she demonstrates

towards them, he/she would do so more often and eventually make it a habit". The responses were as shown in Table 4.50 below.

Table 4.50: If colleagues empowered and recognize fellow student's positivity, would make it a habit

	Frequency	Percent	Cumulative Percent
Strongly Disagree	3	1.2	1.2
Disagree	12	4.8	6.0
Neutral	34	13.5	19.4
Agree	124	49.2	68.7
Strongly Agree	79	31.3	100.0
Total	252	100.0	

Table 4.50 shows that those who agreed with the statement were 203 (80%) and those who were neutral were 34 (13%). Those who disagreed with the statement were 15 (5.9%). While the number of those who were neutral was comparatively high, the number of those who supported the statement was still quite high compared to those who were neutral or in disagreement with the statement. This shows that if students are empowered to reward & recognize their colleagues for any positive communication they demonstrate towards them, they would do so more often and eventually make it a habit, thus reversing underachievement among gifted secondary students.

Teachers engaged with the statement "If all teachers reward & recognize him/her for any good act he/she does, he/she would do so more often and make it a habit, finally avoiding being on punishment". Table 4.51 below shows these results.

Table 4.51: If teachers reward and recognize students' good deeds, would make it a habit and avoid punishments

	Frequency	Percent	Cumulative Percent
Strongly Disagree	3	1.2	1.2
Disagree	2	.8	2.0
Neutral	31	12.3	14.3
Agree	97	38.5	52.8
Strongly Agree	119	47.2	100.0
Total	252	100.0	

From Table 4.51, those who agreed with the statement were 216 (86%) and those who were neutral were 31 (12%) while those who disagreed with the statement were only 5 (1.9%). While the number of those who were neutral was comparatively high, the number of those who supported the statement was quite high because only 5 were in disagreement with the statement.

This shows that if all teachers reward & recognize students for any good act they do, the students would do so more often and make it a habit, finally avoiding being on punishment, thus reversing underachievement among gifted secondary students.

Teachers engaged with the statement; "If teachers reward & recognize a student for any improvement on his/her study skills and interpersonal skills he/she would perfect the skills". The responses were as shown in Table 4.52 below.

Table 4.52: If teachers recognize students' improvement on studies and interpersonal skills, would perfect them

	Frequency	Percent	Cumulative Percent
Strongly Disagree	2	.8	.8
Disagree	2	.8	1.6
Neutral	7	2.8	4.4
Agree	80	31.7	36.1
Strongly Agree	161	63.9	100.0
Total	252	100.0	

From Table 4.52 out of 252 respondents, those who agreed with the statement were 241 (95.6%) and those who were neutral were 7 (2.8%) while those who disagreed with the statement were only 4 (1.6%). The number of those who supported the statement was overwhelmingly high compared to those who were neutral or in disagreement with the statement. This shows that if teachers reward & recognize students for any improvement on their study skills and interpersonal skills, they would perfect the skills, thus reversing underachievement among gifted secondary students.

In summary one can conclude that modification of reinforcement is critical in reversing underachievement. This is affirmed by the fact that the mean was above 4 in all aspects. This conclusion is further supported by study findings Emerick (1992), which indicated that academic underachievement can be reversed as a result of modifications of reinforcement on the part of the student and the school. Kinyua (2014) proposes that conducive environment should be provided to enable children who are gifted exploit and develop their potential, like offering leadership training, encouraging cooperative learning and providing mentorship programmes and appreciating & recognizing children's creative work. Learners should also be

involved in decision making especially in issues that affect them. Creation of opportunities in which problem-solving skills are practiced, and learners are allowed to come up with solutions, is encouraged in the same recommendation.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the summary and conclusions are presented. Recommendations for various stakeholders are also presented, and the researcher offers recommendations for further research.

5.2 Summary

This study was basically an investigation into the elements of reversing underachievement in academic performance among gifted secondary school students in Kiambu County. It is based on four objectives. The data collection instrument was applied to secondary school teachers in National and Extra-County schools in Kiambu County. To validate the instruments, a pilot study was conducted and results analysed ahead of the actual survey. Other than the results from the questionnaire, documentary evidence from student school records was collected to enrich the findings.

The first objective of the thesis was to establish common characteristics of underachieving gifted secondary school students in Kiambu County. Characteristics adopted from a Checklist for parents designed by Creative Intelligence Agency for gifted and talented students, (Winebrenner, 1992), was used to establish teachers' opinion. Teachers were positive that underachieving gifted students demonstrate the given characteristics. Results indicate that the most common characteristic is that which describes underachieving student as complacent (passive), meaning it is one

who procrastinates, is easily distracted, and seems unconcerned about work. The least common characteristic was the perfection, described as an anxious, perfectionistic student who worries about failure.

Research objective two sought to establish factors that contribute to underachievement among gifted secondary school students and one question was formulated from the objective. Factors adopted from the list of multiplicity of factors (Reis & McCoach, 2000). The findings indicate that the most common factor was that caused by the individual him/herself, such as depression or anxiety. The least common factor was among those that are possibly caused by teacher related factors such as overly helpful teachers.

Research objective three was formulated to investigate the role of assessment of students' performance in reversing underachievement among gifted secondary school students in Kiambu County and one question was formulated on this objective. Assessment strategies were adopted from Profiles of the Gifted and Talented (Neihart, 2010). The findings indicate that the most common behaviours were two, these are: the Student who fails to complete teacher's assignments & attempts to give reasons for the same, and the student who has poor study & relationship skills. The least common behaviour was indicated to be a student who is not involved in co-curricular activities like music, drama, games & sports which indicated a negative opinion. The study findings therefore negated the assertion that non-involvement in co-curricular activities is a sign of an underachieving student. This is an indication that the

significance of co-curricular activities in managing student behaviour varies from school to school or from teacher to teacher. This means that involvement in co-curricular activities cannot exclusively be used as criteria for decision making pertaining to underachievement. There is need for multiple assessment strategies to cater for all underachievers.

Research objective four was formulated to investigate intervention strategies of reversing underachievement among gifted secondary school students in Kiambu County. Intervention strategies were adopted from Profiles of the Gifted and Talented (Neihart, 2010). The findings on communication between teachers and parents indicate that the most common opinion was that bright student's problem could be lack of study and interpersonal skills. The least common opinion was that the student seemed to be against other students and happy being on teacher punishment.

For changing the expectations of self and significant others, results indicate that the most common opinion was that if a student is expected to seek help on his/her study skills and to improve his/her interpersonal skills he/she would do so efficiently. The least common opinion was that if students are empowered to confront colleague student's negativity, he/she would learn to respect them for who they are.

For role model identification, results indicate that the most common opinion was that the role model has nurturing quality and the student feels supported by a significant adult who he/she can identify with. The least common opinion was that the role model

is same gender with the student who feels that the role model knows how it feels to be in their position or status because they are “the same”.

For correcting skill deficiencies, results indicate that the most common level of involvement was that the teacher took time to help the student work out a personal study time table & follow it and when the student needed help, teachers were ready to help. The least common level of involvement was that the teacher took time to discuss options for participation in drama, music, games & sports and the value it has on academic & personality excellence.

For modification of reinforcements at home and school, the results indicate that the most common opinion was that if student is expected to seek help on his/her study skills and to improve his/her interpersonal skills he/she would do so efficiently. The least common opinion was that if students are empowered to reward & recognize colleague student for any positive communication he/she demonstrates towards them, he/she would do so more often and finally make it a habit.

5.3 Conclusion

This research has identified elements of reversing underachievement in academic performance among gifted secondary school students in Kiambu County. The research illustrates that characteristics of underachieving gifted secondary school students are general in nature irrespective of whether it is in developed world or in developing countries like Kenya. It further illustrates that factors that contribute to underachievement among gifted secondary school students are well known to teachers irrespective of where they do their teaching, whether in developed world or in

developing world like Kenya. The role of assessment could however vary depending on some factors. From the study, teachers seemed to be divided on the issue of whether underachieving gifted students' involvement in co-curricular activities like music, drama, games & sports would have an impact on reversing underachievement. This could mean that significance of co-curricular activities could vary from situation to situation and involvement in co-curricular activities cannot exclusively be used as criteria for decision making pertaining to underachievement. There is need for multiple assessment strategies to cater for all underachievers. On the strategies that can reverse underachievement, the research illustrates that the strategies used in the developed countries as illustrated by the Trifocal model can also work in the developing countries like Kenya. These results can therefore be generalized in reversing underachievement among gifted secondary school students/parent related causes

5.4 Recommendations

Based on the findings of this study, the researcher found it important to make some recommendations to guide end users, policy-makers and other researchers.

5.4.1Teachers and Parents

Teachers and parents, being the people on the ground and regularly interacting with underachieving students, may stand to gain directly from the findings of this study.

i. Teachers and parents can use the findings for early identification, treatment, and better collaboration between them which may lead to improved student

performance. Such students would then settle in one school, negating transfers from one school to another as is the case with underachieving gifted students.

5.4.2 Policy Recommendations

Policy issues were mentioned earlier in connection with important aspects concerning Special Needs Education (SNE) in Kenya. After interrogating the teachers who are the implementers, the results reflect great need to have policies that guide action in the management of underachieving gifted secondary school students.

i. Findings from this study would be used by curriculum developers and policy-makers to design programmes and activities that may facilitate the reversal of underachievement among gifted secondary school students.

5.4.3 Recommendations for Further Research

The findings of this study are expected to provide useful information that may trigger debate among scholars on underachievement of gifted students in secondary schools in a non-western context. In management of underachieving gifted secondary school students decisions must be based on the right information. This can be achieved by having more research being conducted on:

i. Reversing underachievement among primary school pupils for early interventions.

ii. Views of the underachieving students on their state of underachievement

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APPENDICES

Appendix 1: Questionnaire for teachers: Section A to E

Section (A): Demographic Information

What is your sex?

- ☐ Male ☐ Female

1. What is your highest academic level?

   Diploma of Teacher Training (S1) ---------- ☐

   - Bachelor of Education (B Ed) ---------- ☐
   - Masters of Education (M Ed) ---------- ☐
   - Other---------- ☐

2. Are you a Head of Department?

   - Yes ☐ No ☐

3. Are you a class teacher?

   - Yes ☐ No ☐

Section (B): Common Characteristics of the Underachieving gifted Students

Using the following terms, indicate your opinion on common characteristics of underachievement gifted students in secondary schools.

Strongly Disagree = 1; Disagree =2; Neutral = 3; Agree = 4; Strongly Agree = 5

Characteristics of Underachievement					
Select one:	1	2	3	4	5
Rebellious: Disruptive, delinquent, hostile, touchy, temperamental					
perfectionist: Anxious, perfectionistic, worries about failure					
Passivity: Procrastinates, easily distracted, seems unconcerned about work					

Section (C): Factors that contribute to underachievement among gifted students

Using the following terms, indicate your opinion on factors that contribute to underachievement among the gifted students in secondary schools.

Strongly Disagree = 1; Disagree =2; Neutral = 3; Agree = 4; Strongly Agree = 5

Causes of underachievement – Select one:	1	2	3	4	5
Family Related Factors					
Inconsistent parenting techniques					
Family instability/problems					
Teacher Related Factors					
Strict/repressive/ inflexible teachers					
Overly helpful teachers					
Impossible standards/low expectations					
Classroom Related Factors					
Extremely competitive/no competition					
Need to conform with peers					
Possible Personal Causes					
Depression and anxiety					
Externalizing issues including rebellion and nonconformity					

Section (D): Assessment of underachieving gifted students

Using the following terms, indicate your opinion on the assessment of the students who are gifted but are underachieving.

Strongly Disagree = 1; Disagree =2; Neutral = 3; Agree = 4; Strongly Agree = 5

The student:	1	2	3	4	5
Fails to complete teacher's assignments and gives excuses.					
Disrupts teaching in one way or other during certain lessons					
Is not involved in co-curricular activities like music, drama etc.					
Differs with students and is on teacher punishment regularly					
Has poor study and relationship skills					

Section (E): Intervention Strategies of reversing underachievement.

Sub – Section E (i): Communication among key people

When the state of underachievement is communicated to important others, you and them will seem to be in agreement in the following statements about underachieving gifted student:

Strongly Disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly Agree = 5

Select one:	1	2	3	4	5
A bright student who refuses to do teacher's assignments.					
Student makes deliberate disruption during certain teachers' lessons					
Students' energy goes to being naughty and little is left for co –curricular activities like drama, music, games or sports					
Student seems against colleagues and happy being on punishment					
Students' problem could be lack of study and interpersonal skills					

Sub – Section E (ii): Changing expectations of significant others

When a gifted student fails to perform; expectations of important others enforce that pattern. If they changed; underachieving students' performance would too.

Never True = 1; Usually Not True = 2; Non-committal = 3; Usually True = 4; Always True = 5

Opinion:

Select one	1	2	3	4	5
If all teachers set clear expectations on assignment and classroom behaviour, students would oblige.					
If the school community changed their focus from students' negative behaviour, students would divert the energy to co-curricular.					
If students are empowered to confront colleagues' negativity, there would mutual respect.					
If students were given positive attention by teachers, they would avoid being on punishment					
If students are expected to seek help on study and interpersonal skills, they would do so efficiently.					

Sub – Section E (iii): Identification of a role model

The discovery of one adult, who has the following qualities, will play a key role in reversing underachievement. Is this true?

Unimportant = 1; Of Little Importance = 2; Neutral = 3; Important = 4; Very Important = 5

Select one:	1	2	3	4	5
Nurturance: availability of one adult who cares enough to slow down and work with the student.					
Similarities to student and same gender: Availability of one adult who is similar to the student in a certain way - religion, race, talents, disabilities, socioeconomic backgrounds etc.					
Openness: A model's willingness to share own problems in becoming an achiever.					
Willingness to give time					
Sense of positive accomplishment					

Sub – Section E (iv): Correcting skill deficiencies

I have personally done it and found that it worked for my student:

Never = 1; Rarely = 2; Non-committal = 3; Frequently = 4; Very Frequently = 5

Select one:	1	2	3	4	5
I took time to set clear expectations for my students even when most teachers were failing.					
I took time to educate students on value of co – curricular activities.					
I took time to train my students on how relate with each other so that there is mutual respect.					
I encouraged students prepare and follow a study time table. They were free to consult with me if need arose.					
I encouraged students to seek counsel from the school counsellor on interpersonal skills and update me on progress.					

Sub – Section E (v): Modification of reinforcement at school

State your opinion on the following conclusions with:

Strongly Disagree = 1; Disagree =2; Neutral = 3; Agree = 4; Strongly Agree = 5

Select one of them:	1	2	3	4	5
1. If all teachers motivated students for doing assignments, being attentive in class, they would consistently oblige.					
2. If the school community motivate students for any attempt to participate in co-curricular activities they would participate more often.					
3. If students are empowered to motivate colleagues for any positivity demonstrated towards them, they would be more positive					
4. If all teachers s motivated students for good actions done, students would behave more positively and avoid being on punishment.					
5. If teachers motivated students for any improvement on study and interpersonal skills, students would perfect the same.					

Appendix 2: Check List for documentary Evidence

Obtaining relevant information from various documents in school, collect data in the following areas.
0 -5 = 1; 6 - 10 = 2; 11-15 = 3; 16 - 20 = 4; 21 plus = 5.
List A: Making reference to form one admission register of 2010, identify students with 400 and above in KCPE and list them in descending order

Question A: How many students have 400 and above from the 2010 cohort?

1 – 5 ☐ 6 – 10 ☐ 11 – 15 ☐ 16 – 20 ☐ 21 – plus ☐

List B: Making reference to KCSE results of 2013, identify the students with C and below and list them in ascending order.

Question B: How many students are on list B?

1 – 5 ☐ 6 – 10 ☐ 11 – 15 ☐ 16 – 20 ☐ 21 – plus ☐

List C: Establish list C by selecting the names that appear on both list A & B.

Question C: How many students are on list C?

1 – 5 ☐ 6 – 10 ☐ 11 – 15 ☐ 16 – 20 ☐ 21 – plus ☐

Making reference to school attendance registers and co-curricular records of 2010 to 2012, obtain the data on student participation in co –curricular activities.

Table J: For names on **List C**, establish and complete the following table by putting a tick ( ) appropriately

Co - Curricular Activities	Participated in drama festivals	Participated in music festivals	Participated in games and sports	Was a member of one other club	Participated in science Congress/ maths contests	Total number of ticks
Student 1						
Student 2						
Student 3						
Student 4						
Student 5						
Student 6						
Student 7						
Student 8						
Student 9						
Student 10						

Question J: What is the distribution of ticks among the students?

	0 -2	3 – 4	5 - 6	7 – 8	9 – 10
1 tick					
2 ticks					
3 ticks					
4 ticks					
5 ticks					

Making reference to school attendance registers and co-curricular records of 2010 to 2012, obtain data on student presenting problems.

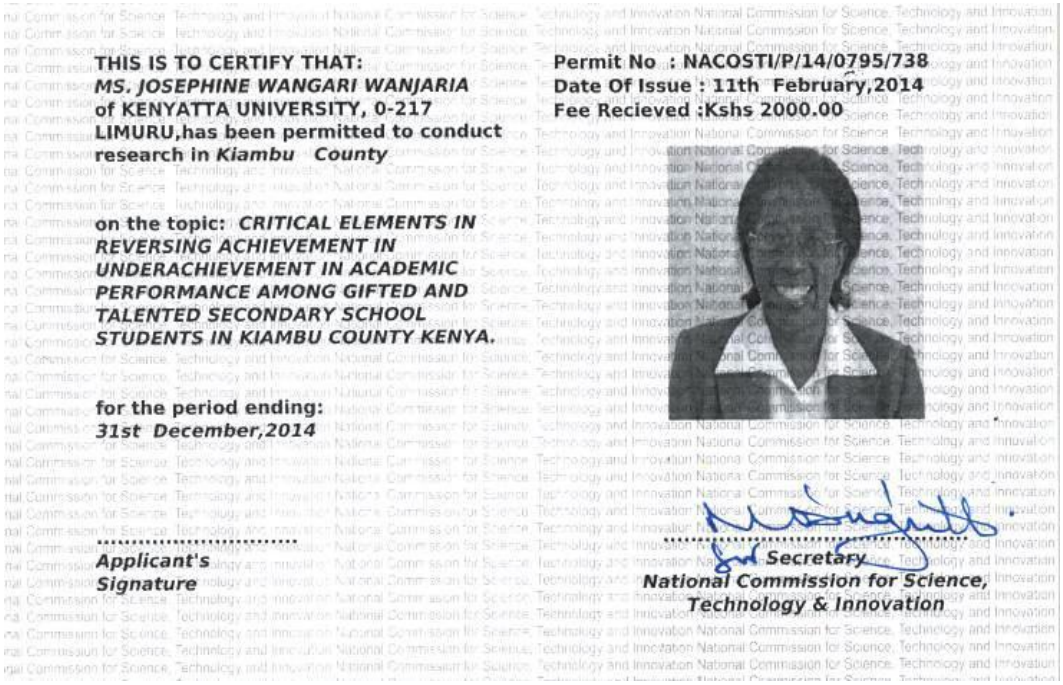
Table K: For the names on **List C**, establish and complete the following table by putting a tick ( ) appropriately

Attention seeking Tendencies	Was on punishment list 3 or more times a term	Was on sickness list 3 or more times a term	Was on G&C list 3 or more times a term	Had missed class 3 or more times a term	Had been on suspension in 2010/ 2011
Student 1					
Student 2					
Student 3					
Student 4					
Student 5					
Student 6					
Student 7					
Student 8					
Student 9					
Student 10					

Question K: What is the distribution of ticks among the ten students?

	0 -2	3 – 4	5 – 6	7 – 8	9 – 10
5 ticks					
4 ticks					
3 ticks					
2 ticks					
1 tick					

Appendix 3: Research Permit



THIS IS TO CERTIFY THAT:
MS. JOSEPHINE WANGARI WANJARIA
of KENYATTA UNIVERSITY, 0-217
LIMURU,has been permitted to conduct
research in *Kiambu County*

on the topic: *CRITICAL ELEMENTS IN REVERSING ACHIEVEMENT IN UNDERACHIEVEMENT IN ACADEMIC PERFORMANCE AMONG GIFTED AND TALENTED SECONDARY SCHOOL STUDENTS IN KIAMBU COUNTY KENYA.*

for the period ending:
31st December,2014

.....
Applicant's Signature

Permit No : NACOSTI/P/14/0795/738
Date Of Issue : 11th February,2014
Fee Recieved :Kshs 2000.00

.....
Secretary
National Commission for Science, Technology & Innovation

Appendix 4: Research Authorisation

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349, 3310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No.

Date:

11th February, 2014

NACOSTI/P/14/0795/738

Josephine Wangari Wanjara
Kenyatta University
P.O.Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Critical elements in reversing achievement in underachievement in academic performance among gifted and talented secondary school students in Kiambu County, Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Kiambu County** for a period ending **31st December, 2014.**

You are advised to report to **the County Commissioner and the County Director of Education, Kiambu County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

DR. M. K. RUGUTT, PhD, HSC.
DEPUTY COMMISSION SECRETARY
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Copy to:

The County Commissioner
The County Director of Education
Kiambu County.

Appendix 5: Raw Data for Student Records

Sch	A-400n above List	B-Cn below list	C-AnB list	J-co cur.d	J- co-cur.m	J- co-cur.gs	J- co-cur.c	J- co-cur.smc	K-att.p	K-att.s	K-att.g/c	K-att.mc	K-att.sus
1.	5	5	3	2	2	1	1	1	3	2	1	1	1
2.	5	2	1	1	1	1	1	1	3	2	1	1	1
3.	5	5	5	1	2	1	1	1	4	1	2	1	1
4.	5	5	5	2	1	3	1	1	3	1	1	1	1
5.	5	3	1	1	1	1	1	1	1	1	1	1	2
6.	5	5	5	5	1	1	1	1	3	2	1	1	2
7.	5	5	3	2	2	2	1	1	1	1	2	1	1
8.	5	5	4	3	1	1	1	1	1	1	2	1	1
9.	5	5	3	1	3	1	2	1	1	1	4	1	1
10.	5	5	5	2	3	1	1	1	1	1	2	2	1
11.	5	5	5	4	1	1	1	1	4	1	1	1	1
12.	5	5	4	4	1	1	1	1	4	2	1	1	1
13.	5	5	5	5	1	1	1	1	5	1	1	1	1
14.	5	5	2	2	1	1	1	1	3	2	1	1	1
15.	5	5	3	1	4	1	1	1	4	1	1	2	1
16.	5	5	2	2	1	1	1	1	2	1	3	1	1
17.	5	5	4	4	1	1	1	1	4	2	1	1	1
18.	5	3	1	2	2	1	1	1	1	1	1	1	2

Two schools did not permit access to their student records.

Appendix 6: 2013 KCSE Top 5 and Bottom 5 Schools in 47 Counties

TOP 5 SCHOOLS		**School's Index**
	KIAMBU COUNTY	81.783
		76.826
		73.586
		72.902
		72.792
	MURANGA COUNTY	75.916
		75.097
	NAIROBI COUNTY	79.604
		77.060
		76.030
		75.602
		74.757
	TRANS NZOIA COUNTY	75.311
		74.924
	NAKURU COUNTY	79.862
		77.270
		75.128
		72.730
	KERICHO COUNTY	73.962
	NANDI COUNTY	79.062
	LAIKIPIA COUNTY	73.588
	VIHIGA COUNTY	77.005
	KISUMU COUNTY	78.701
	KISII COUNTY	72.266
	SIAYA COUNTY	74.633
BOTTOM 5 SCHOOLS		**School's Index**
	MOMBASA COUNTY	10.978
	KILIFI COUNTY	10.049
		10.872
	NYERI COUNTY	10.482
		10.893
	KIAMBU COUNTY	5.870
		9.137
		9.248
		9.259
		9.396
	MACHAKOS COUNTY	9.150
	NAIROBI COUNTY	9.457
		10.855
	NAKURU COUNTY	9.949

http://www.capitalfm.co.ke/news/files/2014/03/APPENDIX-E. Names of schools withheld

All the top schools in Kiambu County were National schools. Many other Counties had similar top schools in terms of index of 72 and above.

From the analysis one can see that very few other school in the Country had an index of less than ten.

Mombasa had one that was very close to eleven; Kilifi had two; Nyeri two; Machakos one; Nairobi two and Nakuru one which was very close to ten.

Kiambu had all its five bottom schools with less than ten and one school with as low as 5. From the data it seems there might have been other schools with less than ten.