

**RELATIONSHIP AMONG ACADEMIC SELF-EFFICACY PERSONALITY TRAITS
AND ACADEMIC ACHIEVEMENT OF FORM THREE STUDENTS OF NAIROBI
CITY, KENYA**

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E55/CE/25512/2014

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE
DEGREE OF MASTER OF EDUCATION IN EDUCATIONAL PSYCHOLOGY
SCHOOL OF EDUCATION OF KENYATTA UNIVERSITY**

APRIL, 2021

DECLARATION

I declare that this project is my original work and has not been presented in any other university/ institution for consideration of any certification. This research project has been complemented by referenced sources dully acknowledged. Where texts, data, graphics, pictures or tables have been borrowed from other sources, these are specifically accredited and reference cited using current APA system and in accordance with anti-plagiarism regulations.

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DEDICATION

This project is dedicated to my dear mother Roselyn, late niece Chelsea and late aunty Alice.

ACKNOWLEDGEMENT

I am grateful to the Almighty God for his guidance, mercies and grace that has enabled me to come this far. In a special way, I acknowledge with a lot of humility and appreciation the professional advice, guidance, support and encouragement from my supervisor Dr. Chrispus Wawire whose professional advice, guidance and encouragement enabled me to complete this research project. My sincere appreciation also goes to lecturers, colleagues and staff of Kenyatta University for assistance extended to me in one way or another. I am extremely indebted to my mother Roselyne for her financial assistance, encouragement and moral support and for editing this document. I would also like to thank my classmates with whom we walked the academic journey and who really supported and encouraged me during the period of my studies. Last but not least, I wish to acknowledge with much appreciation all the principals, teachers and students for taking time from their busy schedules to provide me with the valuable data for the study. Lastly special thanks to a dear friend Mr. Peter for his encouragement and constructive criticism and finally to my friends , Dr. Babusa, Lavina, Chero for their tireless support. For all those mentioned and those not mentioned, who assisted me in one way or the other during the course, I say, “Thank you”.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
LIST OF FIGURES	viii
LIST OF TABLES	ix
ABBREVIATIONS AND ACRONYMS	x
ABSTRACT	xi
CHAPTER ONE:INTRODUCTION AND CONTEXTUALIZATION OF THE STUDY	1
1.1 Introduction	1
1.2 Background to the Study.....	1
1.3 Statement of the Problem.....	4
1.4 Purpose of the Study.....	5
1.5 Objectives of the Study.....	5
1.6 Research Hypotheses	5
1.7 Significance of the Study	6
1.8 Delimitations and Limitations of the Study	7
1.9 Assumptions of the Study	7
1.10 Theoretical and Conceptual Framework	8
1.11 Operational Definition of Terms.	15
CHAPTER TWO:REVIEW OF RELATED LITERATURE	16
2.1 Introduction	16
2.2. Relationship between Academic Self-efficacy and Academic Achievement	16
2.3 Relationship between Agreeableness and Academic Achievement	21
2.4 Relationship between Extroversion and Academic Achievement.....	24
2.5 Relationship between Neuroticism and Academic Achievement	26
2.6 Relationship between Conscientiousness and Academic Achievement	28

2.7 Relationship between Openness to Experience and Academic Achievement	29
2.8 Relationship between Academic Self-efficacy Personality Traits and Academic Achievement	31
2.9 Summary of Literature Review and Gap Identification.....	33
CHAPTER THREE:RESEARCH METHODOLOGY	34
3.1 Introduction	34
3.2 Research Design	34
3.3 Study Locale	35
3.4 Target Population	35
3.5 Sampling Technique and Sample Size.....	36
3.6. Instrumentation.....	38
3.7 Pilot Study.....	39
3.8 Data Collection Techniques	40
3.9 Data Analysis	41
3.10 Logistical and Ethical Considerations	42
CHAPTER FOUR:PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION	43
4.1 Introduction	43
4.2 General and Background Information	43
4.3 Relationship between Academic Self-efficacy and Academic Achievement.	46
4.4 Relationship between Agreeableness and Academic Achievement	55
4.5 Relationship between Extroversion and Academic Achievement.....	60
4.6 Relationship between Neuroticism and Academic Achievement.....	66
4.7 Relationship Between Conscientiousness and Academic Achievement.	70
4.8 Relationship Between Openness to Experience and Academic Achievement.....	75
4.9 Interaction effect between Academic Self –efficacy, Personality traits and Academic Achievement	80

CHAPTER FIVE: SUMMARY CONCLUSION AND RECOMMENDATION	84
5.1 Introduction	84
5.2 Summary of Study Findings.....	84
5.3 Conclusion of the Study.....	86
5.4 Recommendations of the Study.....	87
5.5 Suggestions for Further Research.....	87
REFERENCES.....	89
APPENDICES.....	93
APPENDIX A: INFORMED CONSENT FORM.....	93
APPENDIX B: SELF EFFICACY QUESTIONNAIRE.....	94
QUESTIONNAIRE ON ACADEMIC SELF-EFFICACY	95
APPENDIX C: BIG FIVE FACTOR MODEL QUESTIONNAIRE.	97
APPENDIX D: RESEARCH AUTHORIZATION LETTER	100
APPENDIX E: RESEARCH LICENSE.....	101
APPENDIX F: MAP OF NAIROBI COUNTY.....	102
APPENDIX G :KCSE ANALYSIS 2014-2017.....	103
APPENDIX H:PRO FORMA SUMMARY OF STUDENT’S EXAMINATION RESULTS	104

LIST OF FIGURES

Figure 1.1 Relationship between academic self-efficacy, personality traits and academic achievement.	14
Figure F.1 : Map Of Nairobi County	102

LIST OF TABLES

Table 3.1: Summary of the sample.....	38
Table 4.1: Questionnaire Return Rate	44
Table 4.2: Distribution of the Respondents by Gender	45
Table 4.3: Age of the Respondents.....	45
Table 4.4: Item Analysis for Academic Self-efficacy	48
Table 4.5: Descriptive Statistics for Respondents’ Academic Self-efficacy.....	49
Table 4.6: Respondents’ Levels of Academic Self-Efficacy	50
Table 4.7: Scores of Academic Self-efficacy as per the School Categories	51
Table 4.8: T –Scores of Academic Achievement of the Respondents.....	51
Table 4.9: Academic Achievement Level of the Respondents	52
Table 4.10: Correlation between Academic Self –efficacy and Academic Achievement	53
Table 4.11: Item Analysis for Agreeableness	56
Table 4.12: Descriptive Statistics for Respondents’ Agreeableness Score.....	57
Table 4.13: Descriptive Analysis of Respondents’ Agreeableness level.....	58
Table 4.14: Correlation between Agreeableness Score and Academic Achievement	59
Table 4.15: Item Analysis for Extroversion.....	61
Table 4.16: Descriptive Analysis for Extroversion Scores	62
Table 4.17: Descriptive Analysis of Respondents’ Extroversion level	63
Table 4.18: Correlation between Extroversion and Academic Achievement	64
Table 4.19: Item Analysis for Neuroticism.....	66
Table 4.20: Descriptive Statistics for Respondents’ Neuroticism Score	67
Table 4.21: Descriptive Analysis of Respondents’ Neuroticism level	68
Table 4.22: Correlation between Neuroticism and Academic Achievement	69
Table 4.23: Item Analysis for Conscientiousness	71
Table 4.24: Descriptive Statistics for Conscientiousness	72
Table 4.25: Descriptive Analysis of Respondents’ Conscientiousness level.....	73
Table 4.26: Correlation between Conscientiousness and Academic Achievement.....	74
Table 4.27: Item Analysis for Openness to Experience.....	76
Table 4.28: Descriptive Analysis for Openness to Experience	77
Table 4.29: Respondents openness level	78
Table 4.30: Correlation between Openness to Experience to Academic Achievement.....	79
Table 4.31: Model Summary	81
Table 4.32: Analysis of Variance	81
Table 4.33: Regression Analysis	82
Table G.34: K.C.S.E Performance by Grade	103
Table G.35: K.C.S.E Grade Analyses 2013-2017	103

ABBREVIATIONS AND ACRONYMS

AGR	Aggregate Grade Point
ANOVA	Analysis of variance
CDE	County Director of Education
EPQ	Eysenck Personality Questionnaire
K.C.S.E	Kenya Certificate of Secondary Education
MANOVA	Multivariate Analysis of Variance
MCQ	Multiple Choice Questions
MBTI	Myers Brigs Type Indicator
NACOSTI	National Council for Science and Technology
NEO	Neuroticism, Extroversion, Openness
SPSS	Statistical Package for Social Sciences

ABSTRACT

When students post low grades in national examinations, most of the time it is attributed to; poor learning strategies, burnout among teachers, lack of motivation among learners and other issues like inadequate resources in schools. Little attention is normally paid to the contribution of learners' personalities and self-efficacy. It is in this light that this study sought to determine the relationship among academic self-efficacy, personality traits and academic achievement. The study was guided by seven objectives. This study adopted a correlational design and was done in Makadara Sub-county in Nairobi City. The target population was all form three students in Makadara Sub-county. Purposive sampling was used to determine the area of study and target population while stratified random sampling and simple random sampling were employed to get the schools and sample for this study. A sample of 169 students from three schools was selected. A self-administered questionnaire consisting of 15 and 50 items on the areas of academic self-efficacy and personality traits respectively were used as the research instrument. A pilot study was conducted in one of the schools which was excluded from the final sample. The data for this study was coded and analyzed using SPSS version 25. Both descriptive and inferential methods were used to analyze the data. Pearson Product Moment correlation was used to determine the relationship between academic self-efficacy and academic achievement and to determine the relationship between the various personality traits and academic achievement while multiple regression was used to determine the interaction effect between academic self-efficacy, personality traits and academic achievement. The findings of the study indicated that; there is a strong positive and significant correlation between academic self-efficacy and academic achievement ($r(167)=0.73, p<0.05$); a positive significant relationship exists between agreeableness and academic achievement ($r(167)=0.826, p<0.05$); extroversion correlated negatively to academic achievement ($r(167)=-0.49, p<0.05$); no significant relationship was recorded between conscientiousness and academic achievement ($r(167)=0.01, p>0.05$); a moderate positive correlation between openness to experiences and academic achievement of learners ($r(167)=0.48, p<0.05$); there existed a significant strong negative correlation between neuroticism ($r(167)=-0.69, p<0.05$) and academic achievement and finally a positive and significant relationship between academic self-efficacy, personality traits and academic achievement of learners. It was also revealed that 62.5% of the variations in academic achievement can be attributed to academic self-efficacy and personality traits. The study recommended that policy makers should develop a curriculum that would inform students on the various personality traits and design ways to mitigate challenges that they may face in school so as to improve their academic performance.

CHAPTER ONE

INTRODUCTION AND CONTEXTUALIZATION OF THE STUDY

1.1 Introduction

This chapter covers the background to the study; statement of the problem; significance of the study; objectives of the study; research questions; assumptions of the study; delimitations and limitations of the study; theoretical and conceptual framework and operational definition of terms as used in the study.

1.2 Background to the Study

Globally education has been viewed as a key to ones' success in life implying that one who gets education succeeds in life and the vice versa is also true. When a child joins school, he or she experiences the pressure to do well in academics especially from the parents. General Certificate of Secondary Education done in Europe for instance is important because the results act as a guarding entry to higher institution of learning, certification and selection into careers. Failure in these examination have far reaching implication for the student in terms of missing out on opportunity for higher education and more rewarding choices in life like gainful employment (Siringi, 2011).

According to Sammera (2013) academic self-efficacy is an individual's belief in his or her capacity to execute behaviors. She noted that different students have different levels of academic self-efficacy i.e. high or low. The higher the academic self-efficacy, the higher the academic achievement levels, while the lower the academic self-efficacy, the lower the academic achievement. Miriam (2015) in the United States of America recorded that there is a positive relationship between academic self-efficacy and academic achievement implying that those who have high academic self-efficacy tend to perform better than those who have lower academic self-efficacy. She adds that females are more likely to have higher levels of academic self-efficacy compared to males. She also notes that academic achievement at

different level of education is important because the scores in those academic tests act as a source of self-efficacy and also act as a guarding entry to institutions of higher learning.

Studies in Europe have shown that there is a relationship between academic self-efficacy and personality traits. Individuals characterized by conscientiousness, openness to experience and agreeableness traits tend to have higher academic self-efficacy than those who exhibit extroversion and neuroticism. Costa and McCrae (2000) studied big five factor model of personality, self-efficacy and academic achievement and they reported that there is a negative correlation between neuroticism and academic achievement. They also noted that neurotics tend to have low self-efficacy. Individuals who are open to experience are likely to perform better academically than those who are not. This is because they are willing to try out something new. They note that there is a strong positive correlation between openness to experience and academic achievement. They went ahead to note that extroverts and those who are agreeable tend to do well academically though extroverts do not do well in group work activities. It was also recorded that these individuals have high self-efficacy. Lastly they posit that conscientiousness is a predictor of academic achievement though they did not indicate whether the relationship is positive or negative.

In Africa, a persons' worth is determined by the grade or score they obtain in national examinations because the scores determine whether an individual can proceed to an institution of higher learning or not (Vidya, 2014). In Nigeria for example their National Examinations Council conducts various examinations like Senior Secondary Certificate Examinations and Junior Secondary Certificate Examinations to determine learners' ability for the education level they are transiting into. A student who takes the Junior Secondary Certificate Examination is expected to sit for a minimum of 10 subjects and a maximum of 13. A candidate is deemed to have passed if he or she passes (50%) in six subjects including English and Mathematics. Failure in these examinations denies a student entry to secondary

school education without considering the different levels of academic self –efficacy and personality differences (Brighton, 2015).

In Kenya KCSE examinations which are done by form four students every year reveal disturbing results. According to 2014, 2015, 2016, 2017 KCSE examinations results, only 27% got C+ and above while 43% nationally obtained D+ and below. Nairobi City is among the 47 counties in Kenya. It is noted that in Nairobi City, the students who obtain D minus and E are approximately 7%. This is 5% above the national statistics of 2% (County Director of Education, 2017). These examinations are important because the results act as a guarding entry to institutions of higher learning, certification and selection into careers. Failure in these examinations have far reaching implications for the student in terms of missing out on an opportunity for higher education and more rewarding choices in life such as gainful employment.

Makadara Sub-county is one of the eight Sub-counties within Nairobi City. The region has recorded poor results in the past five years in comparison to other sub-counties and every year the results dwindle further. It has been recording an average grade of C minus (CDE, 2017). This poor performance is worrying because being that majority of the students come from lower social strata, it would be beneficial for the students to get better grades so as to increase their chances of going to institutions of higher learning and getting gainful employment so as to improve their living standards. If they continue posting these kinds of results, they will be locked out of these opportunities. Siringi (2015) associates poor academic performance to environmental factors like; poor school administration policies, truancy, limited resources, lack of enough staff and lack of motivation among teachers and students. Nothing is mentioned about individual psychological differences like personality and academic self-efficacy which may immensely contribute to academic success or failure. He also posits that students have different personalities that help them cope with the changes

and challenges they experience in a school set up. The ones who are open to experience, agreeable and conscientious are likely to do better academically. It has been noted that in several researches that there is a relationship between academic self –efficacy, personality traits and academic achievement of learners in tertiary levels of education and universities outside Africa. There is therefore need to carry out a similar study in Kenyan secondary schools.

1.3 Statement of the Problem

Poor academic achievement among learners in public examinations may result to loss of many rewarding opportunities in life both for the individual who may miss out on gainful employment and opportunity to further their education and also the society which may miss out on skilled man power to meet the demands for wealth creation of their society. The society also faces the risk of being underdeveloped and as a result elite foreigners would have to come in to rescue the situation thus locking out the locals (Onkundi, 2014). Poor academic achievement in this Sub-county has led to a vicious cycle of poverty, there is need to study factors associated with either low or high academic achievement so as to curb this cycle. From the background, it is evident that there is a relationship between academic self-efficacy, personality traits and academic achievement. A number of studies have been done on the relationship between academic self-efficacy, personality traits and academic achievement. However, most recent ones have been done in developed countries using university and college students as their sample. Therefore, there is need to do a similar study in a developing country like Kenya.

The central problem of this study was to establish the relationship between academic self-efficacy, personality traits and academic achievement among secondary school students in Makadara Sub-county Nairobi City in Kenya.

1.4 Purpose of the Study

The aim of this study was to determine the relationship between academic self-efficacy, personality traits (neuroticism, extroversion, openness, agreeableness, and conscientiousness) and academic achievement.

1.5 Objectives of the Study

This study intended to;

- i. Establish the relationship between academic self-efficacy and academic achievement.
- ii. Find out the relationship between agreeableness and academic achievement.
- iii. Determine the relationship between extroversion academic achievement.
- iv. Investigate the relationship between neuroticism and academic achievement.
- v. Determine the relationship between conscientiousness and academic achievement.
- vi. Investigate the relationship between openness to experience and academic achievement.
- vii. To find out the interaction effect between academic self-efficacy, personality traits and academic achievement.

1.6 Research Hypotheses

This study was guided by the following null hypotheses:

H₀₁. There is no significant relationship between academic self-efficacy and academic achievement.

H₀₂. There is no significant relationship between agreeableness and academic achievement.

H₀₃. There is no significant relationship between extroversion and academic achievement.

H₀₄. There is no significant relationship between neuroticism and academic achievement.

H₀₅. There is no significant relationship between conscientiousness and academic achievement.

H₀₆. There is no significant relationship between openness to experience and academic achievement.

H₀₇. There is no significant interaction effect between academic self-efficacy, personality traits and academic achievement.

1.7 Significance of the Study

The research findings and recommendations of this research may be of great help to a great number of stake holders in the education sector. It may be of significance to the Ministry of Education because it may lead to a better understanding and a broader perspective of the way the issue of poor academic performance is looked at in this country and also help in resource provision and planning. The students may gain from the findings of this study because they may be more aware of their personalities. This may enable them address some of the challenges that come with certain personalities and look for better ways of managing themselves and strategize on how to improve their academic performance. It may also help subject teachers to understand the different types of personality traits that exists and in turn they may be able to present what they intend to teach in way that may suit the different kinds of personalities. In the field of research, the findings may add to the partly existing literature on the importance of personality and self-efficacy on academic achievement.

1.8 Delimitations and Limitations of the Study

1.8.1 Limitations of the Study

Academic achievement was measured using end of term examinations done by the respondents in the various sampled schools. The researcher had no control over the test items that were used to determine the respondents' academic achievement which differed from school to school thus leading to different scores. To counter this, the researcher converted all scores to standardized T scores so as to render them comparable.

1.8.2 Delimitations of the Study

The study sought to investigate the relationship between academic self-efficacy and personality traits and their relationship to academic achievement. However, it did not consider other attributes to academic performance like learning styles and locus of control. The study sample involved only form three students from public secondary schools found in Makadara Sub-county in Nairobi City hence the findings may not be generalizable to learners in both public and private schools.

1.9 Assumptions of the Study

It was assumed that; the participants would understand and give honest responses in the questionnaires; academic achievement records were available in the sampled schools and that the scoring method in the sampled schools were equivalent.

1.10 Theoretical and Conceptual Framework

1.10.1 Theoretical Framework

This section gives a brief exposition of the theory on which this study was based on. These include self-efficacy theory by Albert Bandura and Trait theory of personality by Earnest Tupes and Raymond Crystal (1961)

a. Self-efficacy Theories

Self-efficacy theories were developed by Albert Bandura as part of the larger socio- learning theories. Bandura (1977) explains that self-efficacy refers to one's capabilities to organize and execute the courses of action required to manage prospective situations. More simply, self-efficacy is what an individual believes he or she can accomplish using his or her skills under certain circumstances. The basic principle behind self-efficacy theory is that individuals are more likely to engage in activities for which they have high self-efficacy and less likely to engage in those they do not.

He notes that self-efficacy has influence over people's ability to learn, their motivation and their performance, as people will often attempt to learn and perform tasks for which they believe they will be successful. Judgments of self-efficacy are generally measured along three dimensions; magnitude, strength and generality. Self-efficacy magnitude measures the difficulty level (e.g., easy, moderate and hard) an individual feels is required to perform a certain task, self-efficacy strength refers to the amount of conviction an individual has about performing successfully at diverse levels of difficulty. Generality of self-efficacy on the other hand refers to the degree to which the expectation is generalized across situations.

The basic idea behind self-efficacy theory is that performance and motivation are in part determined by how effective people believe they can be. Bandura (1977) outlines four sources of information that individuals employ to judge their efficacy. These include;

Performance outcomes, vicarious experiences, verbal persuasions and physiological feedback. These components help individual determine if they believe they have the ability to accomplish specific tasks. He explains that

“individuals with high levels of self-efficacy approach difficult tasks as challenges to master rather than threats to be avoided’

According to Bandura, past experiences are the most important source of self-efficacy. Positive and negative experiences can influence the ability of an individual to perform a given task. If one has performed well at a task previously, they are more likely to feel competent and perform well at a similar associated task (Bandura, 1977). The opposite is also true. If an individual experiences failure, their self-efficacy is likely to be reduced. However, if these failures are later overcome by conviction, it can serve to increase self-motivated persistence when the situation is viewed as an achievable challenge.

Vicarious experience explains that people can develop high or low self-efficacy through observing other people's performances. If a person sees someone similar to them succeed, it can increase their self-efficacy. However, the opposite is also true; seeing someone fail at a similar task can lower self-efficacy of an individual.

Self-efficacy is also influenced by encouragement and discouragement pertaining to an individual's performance or ability to perform (verbal persuasion). Using verbal persuasion in a positive light generally leads individuals to put forth more effort; therefore, they have a greater chance at succeeding. However, if verbal persuasion is negative, it can lead to doubts about oneself resulting in lower chances of success. Also, the level of credibility directly influences the effectiveness of verbal persuasions; where there is more credibility; there will be a greater influence.

Physiological feedback (emotional arousal) is the last source of information according to this theory. It explains that; People experience sensations from their bodies and how they perceive this emotional arousal influences their beliefs of efficacy. Although this source is the best influential of the four, it is important to note that if one is more at ease with the task at hand they will feel more capable and have higher beliefs of self-efficacy.

Schunk (1985) record the concept of self-efficacy can be applied in education sector. He notes that self-efficacy beliefs affect academic performance by influencing a number of behavioral and psychological processes. Self-efficacy contributes to higher achievement and higher achievement is interpreted by students as evidence that they have the ability to perform similar tasks in the future. A review of Usher and Pajares (2008) found that mastery experiences are the most powerful source of self-efficacy information. The reciprocal reinforcement of achievement and self-efficacy produces an upward or downward spiral in which changes in one stimulate and sustain changes in the other.

This theory is applicable in this study because it explains in detail the sources of self-efficacy which can be applied in a school setup. In school, students who perform well academically have high academic self-efficacy which they develop either through past success which motivates them to work harder to achieve similar results; observing other students accomplishing tasks or being applauded for the effort in those tasks.

Generally, students who believe that they can perform well academically have a strong belief that they can succeed and are more likely to select tasks and activities, work hard to complete them successfully, persevere in the face of difficulty, and be guided by physiological indexes that promote confidence as they meet obstacles and hence will achieve highly. Those students who do not believe that they can succeed in classroom related activities will tend avoid them

if they can, and will put forth minimal effort if they cannot hence affecting their general academic achievement.

b. Trait Theories of Personality-Five Factor Model Personality Theory.

A trait is basically a relatively stable characteristic that cause an individual to behave in certain ways (Abdalla, 2013). Personality is made up of a number of broad traits. There are several trait theories but this study was be guided by five factor theory of personality. Several researchers can be attributed to the development of this theory. However the initial model was advanced by Ernest Tupes and Raymond Crystal in (1961). Other researchers who are proponents of this theory include Goldberg and Digman (1993). The Big Five personality trait is also known as the five factor model. This theory categories human personality into five broad domains that include; openness to experience, conscientiousness, extroversion, agreeableness and neuroticism commonly abbreviated as OCEAN. Beneath each global factor, a cluster of correlated and more specific primary factors are found. For example, extroversion includes such related qualities as gregariousness, assertiveness, excitement warmth, activity and positive motions.

Neuroticism is a personality characterized by anxiety, fear, frustration, excitement, anger towards others, tendency of sadness and loneliness and depression. This individual has no problem with shame and is weak to control his/her motives and desires but is able to cope with pressures and with most of people. Due to high levels of anxiety and fear, they have low self-efficacy

The extrovert individual is more social, does not show concern about how to appear before others. They are adventurers, proud, frank, social workers, and talkative. They tend to be calm, restraint, shame and not sociable. These individuals are softhearted and caring towards

others, and sometimes enjoy large gathering and partying. They are less likely to experience feelings of happiness and pleasure. They prefer group works to individual tasks.

Openness to experience is exhibited by appreciation for art, emotion, adventure, unusual ideas, curiosity and variety of experience. High openness can be perceived as unpredictability or lack of focus. Moreover, individuals with high openness are said to pursue self-actualization specifically by seeking out intense, euphoric experiences. Conversely, those with low openness seek to gain fulfillment through perseverance, and are characterized as pragmatic and data-driven sometimes even perceived to be dogmatic and closed-minded. Some disagreement remains about how to interpret and contextualize the openness factor. Generally individual who are open have high self- efficacy.

Individuals with high levels of agreeableness trust others easily and usually assume good faith by any person they meet. He/ she is an unreserved person, sincere and finds it difficult to cheat and manipulate others. They are proud of themselves and their achievements, and are happy to derive confidence from others. When compared with other individuals, they are stubborn, have realistic mood and thinking mind.

Conscientiousness trait is depicted by individuals who are moderately efficient, sensitive in general and logical in decision-making. They are moderately nifty diligent, systematic and tend to be reasonably reliable and trustworthy in achieving obligations or duties; they have fairly high ability in achievement, reasonably careful, and generally thinks in things deliberately before he begins doing them thus, individuals who score high scores on the conscientiousness scale are described as having definite goals and certain desire and responsibility, and deserve confidence.

Research by Costa and Mcrae (2000) indicate that; each of the Big Five personality traits contains two separate, but correlated, aspects reflecting a level of personality below the broad

domains but above the many facet scales that are also part of the Big Five. The aspects are labeled as follows: volatility and withdrawal for neuroticism; enthusiasm and assertiveness for extroversion; intellect and openness for openness; industriousness and orderliness for conscientiousness; and compassion and Politeness for agreeableness.

They also note that high conscientiousness is often perceived as stubbornness and obsession. Low conscientiousness is associated with flexibility and spontaneity, but can also appear as sloppiness and lack of reliability. High extroversion is often perceived as attention-seeking, and domineering. Low extroversion causes a reserved, reflective personality, which can be perceived as aloof or self-absorbed. Low agreeableness personalities are often competitive or challenging people, which can be seen as argumentativeness or untrustworthiness. A high need for stability manifests itself as a stable and calm personality, but can be seen as uninspiring and unconcerned. A low need for stability causes a reactive and excitable personality, often very dynamic individuals, but they can be perceived as unstable or insecure.

There are many theories that explain personality but a trait theory of personality is the only one that addresses the issues of personality as a block. The choice of this theory to explain this study is based on the fact that: It combines various characteristics of individual and sums them up to give a general personality of individual and also indicates the level of self-efficacy in different personalities. The various traits are vital factors that contribute to either academic success or failure. It has also been proven that it shows consistency in interviews, self-descriptions and observation. Moreover, this five factor structure seems to be found across a wide range of participants of different ages, cultures and environment including a school set up.

1.10.2 Conceptual Framework

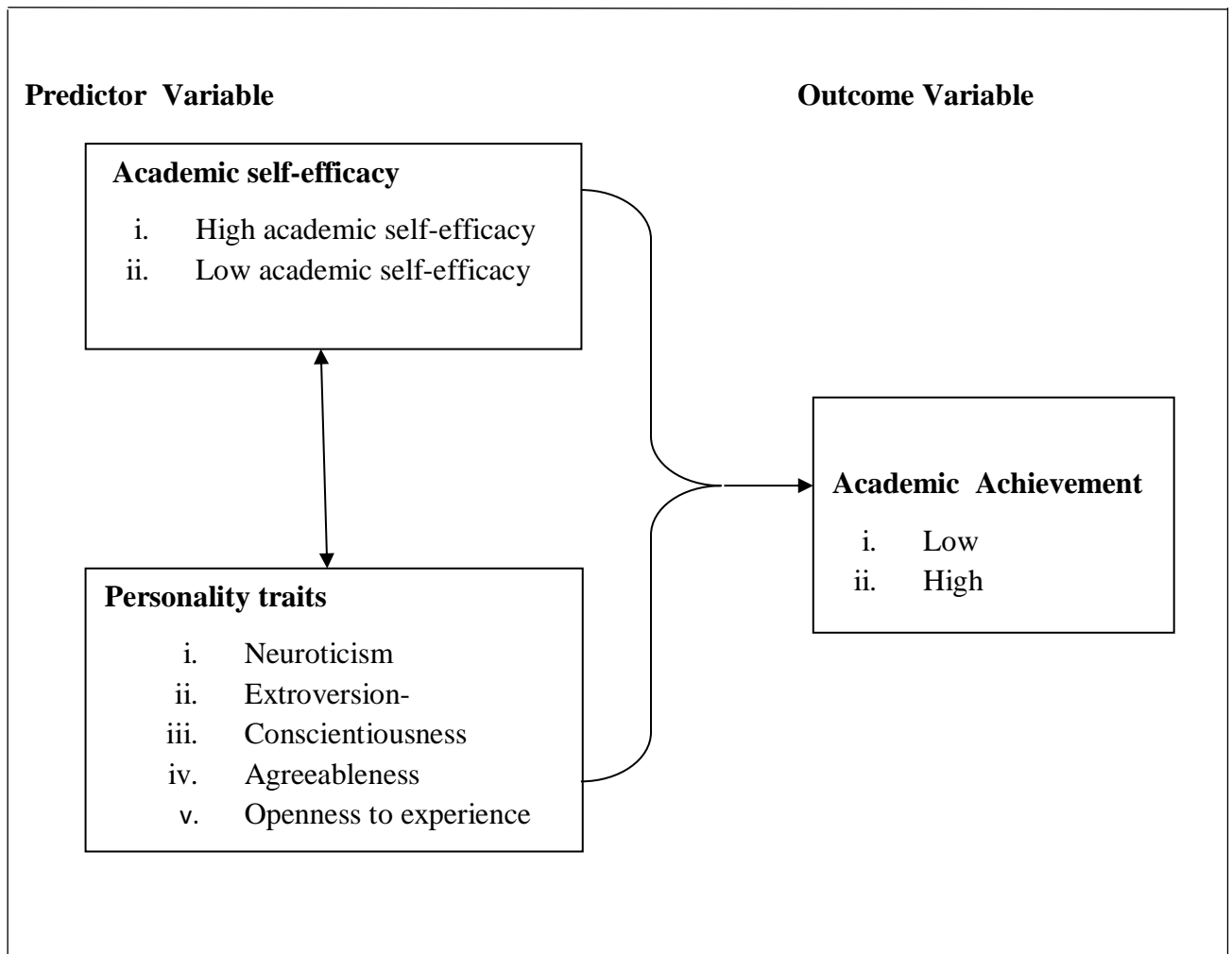


Figure 1.1 Relationship between academic self-efficacy, personality traits and academic achievement.

The conceptual framework (fig 1.1) shows the conceptualized relationship between students' academic self-efficacy level and personality traits. The figure shows that the relationship between the predictor variables (academic self-efficacy and personality traits) and outcome variable (academic achievement). It further illustrates that the predictor variables have a direct relationship with the outcome variable. A degree of relationship is anticipated to exist between academic self-efficacy and personality traits which may bring about differences in academic achievement levels.

1.11 Operational Definition of Terms.

Academic Achievement	Average mark or score obtained by a student in all subjects at the end of an academic term.
Academic self-efficacy	An individual's belief in his or her capacity to do well academically.
Agreeableness	A personality trait characterized by an individual who easily trusts people.
Conscientiousness	A personality trait characterized by an individual who is logical and systematic.
Extroversion	A personality trait characterized by an individual who is social, outgoing and caring towards others.
Neuroticism	General Tendency for people not to be able to control their desires.
Openness to experience	Personality trait characterized by an individual who is not afraid to try out something new.
Personality	A set of qualities that make a person different from another.
Student	A person studying in a secondary school in Nairobi City

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

Drawing resources from existing literature which comprised of books, journal and published studies, this chapter presents a review of literature related to relationship between academic self-efficacy, personality traits and academic achievement. The review is presented under the following sub headings based on the research objectives; relationship between academic self-efficacy and academic achievement; relationship between agreeableness and academic achievement; relationship between extroversion and academic achievement; relationship between neuroticism and academic achievement; relationship between conscientiousness and academic achievement; relationship between openness to experience and academic achievement and relationship between academic self-efficacy, personality traits and academic achievement. Summary of the literature reviewed concludes the chapter.

2.2. Relationship between Academic Self-efficacy and Academic Achievement

Various studies have been conducted in the area of academic self-efficacy and academic achievement across the world. It has been noted that learners with high academic self-efficacy tend to perform better academically than those with low academic self-efficacy. Miriam (2015) did a research on the relationship between academic self-efficacy and academic achievement among university students. The sample consisted of 230 computer engineering students from West Virginia College. Self-made questionnaire was used and contained 28 items based on a likert scale. The researcher employed the use of survey research design. Both descriptive and inferential statistics were used to analyze the data. The findings of the study revealed that; academic self-efficacy correlated positively to academic achievement of learners. This means that learners who have higher levels of academic self-

efficacy are more likely to record higher academic achievement levels than those who have lower academic self-efficacy. The findings were that females were likely to have higher levels of academic self-efficacy unlike males. The reviewed study used a self-made questionnaire that contained 28 items however, the current study sought to determine the relationship between academic self-efficacy and academic achievement using Bandura's questionnaire which contains 15 question items based on a Likert scale. Moreover, respondents for the current study were secondary school students unlike in the previous study which were college students.

A more recent study by Stice (2016) sought to determine the relationship between personality, self-efficacy and academic achievement among university students. He used a descriptive survey to collect data from 350 college students from St Louis University (230 boys, 120 girls). A self-efficacy scale by Sherer et al that measures general self-efficacy of learners was filled online by the respondents. Qualitative and quantitative techniques were employed in the study. The findings were that there is a positive correlation between high academic self-efficacy and academic achievement and a negative correlation between low academic self-efficacy and academic achievement. The sample from the above study was drawn from university students. The scale used measured general self-efficacy and the questionnaires were filled online however, this study drew its sample from secondary school students in Kenya. Due to logistical constraints the researcher personally issued the questionnaire to the respondents and the scale used to measure the students' self-efficacy levels was only meant to elicit information regarding their academic self-efficacy levels.

Aasiginy (2012) did a research titled "The impact of Academic Self-efficacy on Mathematic Achievement among college students of Al-Shukri College in Iran". He used a cross-

sectional study design that involved responding to standardized mathematics self-efficacy questionnaire which had 52 items. Both descriptive and inferential statistics were used to analyze the data. The results of these finding revealed that there is no direct relationship between low academic self-efficacy and academic achievement but there is a strong positive relationship between high academic self-efficacy and mathematics achievement. This implies that low academic self-efficacy doesn't necessarily results to low mathematics scores achievement and that an increase in self-efficacy results to an increase mathematics score amongst learners. Cross sectional study was employed by the researcher to collect data from the respondents and the variable being investigated was self-efficacy in mathematics. However, the current study was correlational as it investigated the relationship between academic self-efficacy and general academic achievement of learners unlike the variable of self- efficacy in mathematics.

A similar study was done by Sameera (2015) on the relationship between academic self-efficacy and academic achievement. Data was collected using Rosenberg's self-efficacy scale that had 30 items. The sample comprised of 360 female students of Al- Ummra University in Iran who had been randomly selected. descriptive research design was employed. The findings of this study revealed that; there was a negative relationship between low academic self-efficacy and academic achievement while high academic self-efficacy correlated positively to academic achievement. This study was descriptive in nature and its sample involved only female respondents while the current study was correlational and consisted of both male and female respondents.

A related study was carried out by Moturi (2014) on the relationship between academic self-efficacy and academic performance in Mathematics and Kiswahili among secondary school

students in Nyamira Sub-county. Bandura's self-efficacy scale was used to elicit information on mathematics self-efficacy levels of learners while reflective thinking questionnaire was used to gather information on self-efficacy levels of learners in Kiswahili language. The study employed both qualitative and quantitative research techniques. The study sample was 230 female and male students from public secondary schools was selected. The results indicated that there is no significant relationship between academic self-efficacy and general academic performance. However, a weak positive relationship was found between academic self-efficacy and performance in Kiswahili Language. The Study also indicated that there was a strong positive relationship between self-efficacy and performance in Mathematics. Both qualitative and quantitative techniques were employed in the reviewed study however the current study delimited itself to quantitative techniques and measured the general academic self-efficacy of learners using one questionnaire unlike the above study which used two instruments to elicit information from two specific subjects.

A much related study was conducted by Onkundi (2014) to determine whether academic performance could be predicted on the bases of the Constructs; academic self-efficacy and locus of control in three schools from Nyamira Sub-county in Kisii County. The schools were sampled using stratified random sampling i.e. 1 boy school, 1 girl school and 1 mixed school. Using simple random sampling, 150 students were sampled. The researcher modified Rosenberg's self-efficacy scale and also employed the use of Thematic Apperception Tests to collect data from the respondents. The study adopted a correlation research design and both descriptive and inferential statistics were employed to analyze the data. It was found that; both locus of control and self-efficacy were predictors of academic achievement and that; the higher the level of self-efficacy the higher the academic achievement of an individual student.

Unlike the fore said study which investigated self-efficacy and locus of control, this study only concentrated on academic self-efficacy and its relationship to academic achievement.

A different study by Shkullaku (2013) investigated gender differences in self-efficacy and academic performance among Albanian students from two universities in Albania. The data was collected from 180 students (102 females and 78 males). Both universities and participants were randomly selected. A questionnaire was used to measure self-efficacy and the Grade Point Average (GPA) of the first Semester was used to measure the academic performance of the participants. The data was analyzed using descriptive and inferential statistics. Pearson correlation coefficient was used to determine the relationship between academic self-efficacy and academic performance. T-test was used to compare male and female participants in self-efficacy and academic performance. The results of the study showed that there was a significant difference between males and females in academic self-efficacy levels yet there was no difference between males and females in terms of academic performance. Also, a significant relationship was found between the students' academic self-efficacy and academic performance. It also indicated that learners with higher levels of academic self-efficacy tend to perform much better than those with low academic self-efficacy irrespective of their gender.

Ochieng (2015) conducted a study titled self-efficacy and academic achievement among secondary schools in Kenya from a mathematics perspective. The research was done in Nyakatch Sub-county in Kisumu County. The sample involved 390 secondary school students. He adopted descriptive research design and made use of a self-made questionnaire which had 32 items to collect data. The findings indicated that; high academic self-efficacy correlates positively with mathematics academic performance and low academic self-efficacy

correlates negatively with academic achievement in Mathematics. Research findings further indicated that self-efficacy beliefs influences academic achievement by influencing effort, persistence and perseverance. Descriptive research design was employed in the reviewed study, a self-made questionnaire which contained 32 items was used to collect data. However the current study was correlational in nature and used a standardized self-efficacy scale by Bandura.

The findings in the area of the relationship between academic self-efficacy and academic achievement seem to be conclusive that; the higher the level of academic self-efficacy the higher the academic achievement. Most literature that exist are on the relationship between academic self –efficacy and academic achievement among university and college students, moreover most of the studies have researched on academic self-efficacy of particular subjects. However, this study sought to study find out the relationship between academic self-efficacy and general academic achievement among secondary school students in Nairobi City.

2.3 Relationship between Agreeableness and Academic Achievement

A number of studies conducted on the relationship between agreeableness and academic achievement indicate that individual who are agreeable tend to have high academic self-efficacy which lead to high academic achievement.

A study conducted in Belgium by Douglas (2014) revealed that there is a positive relationship between agreeableness and academic performance. He used a sample of 378 students in college, selected from first and second level of studies. The college and the participants were randomly selected. Maudsley Personality Inventory and interview schedule were used to

collect data from the respondents. The questionnaire had 32 items in the form of MCQs while the interview guide had 12 questions. Data was analyzed using inferential and descriptive statistics. Research findings indicate that agreeableness correlates positively to academic achievement. He further posits that those who are agreeable are likely to have higher levels of academic self-efficacy hence leading to better academic achievement. While the above reviewed study was done in Belgium the current sought to investigate the phenomenon in Kenya which is totally different in terms of geographical, economic and social set up thus the findings could fill gaps that exist in literature.

A study by Krach (2016) on the impact of personality on reading was conducted among elementary school learners in Uruguay. The sample consisted of 354 learners between ages six and nine. Data was collected through observation and was recorded from a checklist that had 62 question items. This study revealed that there is a direct positive relationship between agreeableness and academic achievement. He further noted that learners who had high levels of agreeableness tend to be more social hence increasing contacts with fellow classmates hence thus increasing the speed at which they can be able to pronounce words.

Koech (2015) conducted a research study titled factors contributing to the academic performance of students in private universities in Kenya. A case of Daystar University. The study incorporated both qualitative and quantitative research methods. The survey design was employed in establishing the perception of students on the factors that contribute to undergraduate students' academic performance. Stratified random sampling techniques were used to select both full time and part time students to respond to the questionnaire of students' academic characteristics. In addition students in their third and fourth year of study were selected using the same technique in order to establish their perception on the factors

that contribute to their academic performance. A total of 410 students responded to the questionnaires on academic characteristic and perception of factors contributing to academic performance.

Two types of questionnaire, one addressing perceived factors contributing to students' academic performance and the other addressing ratings on academic characteristics of students were used to gather primary information from the respondents. The former questionnaire was open ended while the latter was largely close ended and required students to reveal their ability for purpose of linking responses to prior high school and current university academic performance records as obtained from secondary data in the university. It mainly sought to establish students rating on various students' academic characteristics namely attitudes (self-efficacy and internal locus of control, self-regulatory learning strategies and personality traits (agreeableness, extroversion, neuroticism, conscientiousness and open to experience).

Pearson Product Moment Correlation Coefficient was used to determine the relationship between agreeableness and academic achievement of learners. The findings of this study revealed that there exists a strong positive and significant relationship between agreeableness and academic achievement. It was also recorded that students who exhibit high levels of agreeableness tend to perform well academically because they are often willing to learn new things. These learners also exhibit traits like curiosity and high levels of self-efficacy which are necessary for good academic achievement.

The reviewed study looked at other attributes that contribute to academic achievement while the current study delimited itself to personality traits and used close ended questionnaires to

collect data from the respondents. The identity of the participants was kept anonymous unlike in the reviewed study.

Literature reviewed in the area of relationship between agreeableness and academic achievement indicate that agreeableness correlates positively to academic achievement. However the sample used from these studies were drawn from university and elementary students. This study sought to conduct a research on the same area of personality but the sample was drawn from secondary school students who were between ages 16 and 17 so as to find out if the findings can be generalized to learners of all ages.

2.4 Relationship between Extroversion and Academic Achievement

External surrounding determines the academic achievement of extroverts. This is because these individuals tend to be overly social and talkative and if not controlled, supervised or given a lot of work to do, they may end up wasting their time which could affect their academic outcome.

Joan (2013) did a research on relationship between Big Five Factor model of personality, decision making styles and academic achievement. She used a sample of 308 graduates of Virginia technical school in U.S.A and made use narcissistic personality inventory and big five inventory which comprised of 96 questions that were answered online and he used a likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). Findings were that there was a positive effect of extroversion on academic achievement. It was also noted that extroverts learn better in a relatively unstructured learning environment though they needed to be supervised if they are to finish assigned tasks. Unlike the reviewed study, the current one made use of self-administered questionnaire that contained 50 items based on a likert scale.

A more recent study by Hakim (2017) carried out in the University of Iran used a sample of 456 students (213 males and 243 female) that had been randomly selected. He conducted a cross-sectional study on the subjects with the help of Iranian version of Eysenck Personality Inventory to collect data. The research revealed that; there is a negative correlation between extroversion and academic achievement. He also recorded that anxiety and emotional instability have little benefit in any field especially in education though a little level can stimulate task engagement.

Zahra (2017) studied the relationship between extroversion traits and academic achievement among primary school students in Johor, Malaysia. The traits were measured based on the Big Five Personality Inventory which are conscientiousness, agreeableness, neuroticism, extroversion and openness. A total of 320 national elementary school students in Johor were involved in the study. The researcher involved a research assistant to assist in issuing the questionnaire. In order to suit the respondents' level of maturity the language used in the questionnaire was modified. Data collected was analyzed using SPSS to obtain percentage mean difference and correlation. The finding showed that extroverts and those without chronic emotional problems tend to attain a better academic achievement. In other words, it can be said that in order to improve the students' performance at school, specific traits such as extroversion level of students need to be considered.

Research findings in this area are inconclusive because they post different results. Hakim (2017) notes that there is a negative relationship between extroversion and academic achievement while Joan (2013) posits that there is a positive relationship between extroversion and academic achievement hence the findings cannot be used to make generalization. There is therefore need to carry out similar study in secondary schools as to

establish the relationship between extroversion and academic achievement.

2.5 Relationship between Neuroticism and Academic Achievement

A neurotic individual is characterized by being unable to control their desires. Studies have revealed neuroticism correlates negatively with academic achievement.

Hakim (2017) carried out a research study on the relationship between neuroticism and academic achievement in Iran University. He used a sample of 456 students (213 males and 243 female) adult students selected from their first year of undergraduate studies. The average age of the respondents was 42 years old. An adopted questionnaire by Rush and Prudence (2012) was used to measure neuroticism level while their academic achievement was analyzed in specific courses. Data was analyzed using descriptive and inferential statistics. Pearson correlation coefficient was used to determine the relationship between the variables. The researcher conducted a cross-sectional study on the subjects with the help of online questionnaires to collect data. The research revealed that there is a negative correlation between neuroticism and academic achievement. The sample from this study was more mature than the current one and online questionnaire were used to collect data. However, the average age of the respondents for this study was 17 years old.

A similar study done by John and Korchigina (2013) in Italy on the relationship between personality, motivation and academic achievement was conducted among university students. They used a sample of 276 students (150 males, 126 females). The respondents were between the age of 18 and 23. They used survey research design and collected data using a self-made questionnaire which had 40 multiple choice questions. This study found out that there is a negative relationship between neuroticism and academic achievement. They attributed this to

the fact that neurotics are normally fearful and avoid taking action including class activities. This makes it difficult to perform well in examinations that require practical skills because they had not mastered the required skills making them not attempt those questions.

Although the findings revealed that there is a negative relationship between neuroticism and academic achievements, the population used in this study was from developed countries and the instrument used was in the form of MCQs. This study investigated the relationship between neuroticism and academic achievement among secondary school students in Kenya in order to report on the cross cultural differences and similarities if any. Moreover, the test items were based on a likert scale.

Vidya (2014) sought to find out the contribution of emotional stability on academic achievement of year one medical students in Karnatak India. The main objective was to ascertain the neuroticism score among the medical students and to find out the correlation between neuroticism and their academic performance. Participants for this study were 84 respondents who had been purposively selected. Eyesenck personality inventory which contained 24 items was administered to find out the neuroticism level of students and the scores were compared with their academic grades. For this reason, Pearson product moment correlation coefficient method was carried out. The results revealed that there was a significant strong negative correlation between academic performance and neuroticism of medical students. The researcher further noted that it was important to develop awareness and understanding of the existence of this dimension in the medical students for their excellent academic performance in medical school.

The implication of this study was to develop insight in each medical student and the existence of negative emotionality as a dimension of personality and its influence on their academic

performance. The sample involved in the above study were mature medical students from India. The current study made use of secondary school students in Kenya who were different in terms of age.

2.6 Relationship between Conscientiousness and Academic Achievement

Trapman from the United Kingdom in the year (2007) did a research on personality and its relationship to academic achievement. He used a large sample of 70,000 college students and used longitudinal research design. Qualitative and quantitative approaches were used to analyze the data. The research instruments were a modified version of Maudsley Personality Inventory which contained 25 items based on a likert scale and interview guide that had eight questions. The findings of this study reveal that conscientiousness is a major predictor of academic achievement and that all other personality traits are secondary to it. He further recorded that there was a positive correlation between conscientiousness and academic achievement. He attributes this to the fact that learners who exhibit high levels of conscientiousness are generally intrinsically motivated and do not procrastinate any school work. All these are factors that are necessary to record high academic achievement.

Furmham (2013) does not concur with these findings. This was after he replicated the same study in Washington in America. He used a smaller sample of 210 students in the university and used the same 35 question items. He posited that though conscientiousness is a contributing factor to academic achievement, it is not the major predictor of performance. He argues that conscientiousness is correlated positively to academic achievement but not to a great extent. While the above study was longitudinal and interviewed respondents, the current study was correlational and used questionnaires to collect data from the respondents.

Additional research using Myers Brigg Type indicator indicated that conscientiousness was a great predictor of academic achievement. The results also showed that conscientiousness which explained 39% of variance in academic achievement was most important predictor variable. Finally MANOVA and t test indicated that there is no significant gender difference in the personality, characteristics and academic achievement. This was arrived at by Imogen (2015) who studied the impact of personality on academic achievement. He used a sample of 170 first year students studying computer engineering at Cardiff university in Thailand. He used questionnaire and focus groups discussions as instruments for data collection. The questionnaire had 44 question items and six questions for the focus group discussion. Although the literature reviewed indicated that conscientiousness is a great predictor of academic achievement, It did not indicate whether it correlates positively or negatively with academic achievement. Moreover the sample was drawn from university students. The current study sought to find out the relationship between conscientiousness and academic achievement among secondary school students using a questionnaire as the only instrument for collecting data.

2.7 Relationship between Openness to Experience and Academic Achievement

Individuals who are open to experience are said to have high self-efficacy and that they tend to have high academic achievements especially in Arts subjects. Matz (2010) did a research titled personality and individual differences as determinants of academic achievement. The study was cross- sectional in nature. He used a sample of 3618 students (1764 males, 1872 females) from elementary to university level that had been randomly selected. Cartel's Sixteen Personality factor indicator and interview schedules were used for data collection. The questionnaire had 24 items while the interview schedule had eight questions. The language used in the instruments was modified to suite the different ages of the respondents.

Some of the questionnaires were mailed to the respondents while others were filled online. From this study, he posits that there is a positive correlation between openness to experience and academic achievement. Unlike the fore said study which used two instruments to collect data the current study used only one instrument namely a questionnaire, moreover, the respondents were drawn from secondary schools only. The researcher personally administered the questionnaire to the respondents.

Karanja (2015) conducted a study on the relationship between self-efficacy, personality and academic achievement among form three students of Kiambu County. She used a sample of 270 female students from private schools found within the region. The questionnaire contained 28 items which she used to obtain data from the respondents. She had modified Eyesenck's personality inventory to suit her study area. Secondary data was obtained from the respondents' end of term score from the previous year. The research revealed that there is a strong positive correlation between openness to experience and academic performance. This is so because learners who are highly open are always willing to learn something new, curious and inquisitive. These traits are believed to be important to achieve high levels of academic achievement.

Sameera (2015) conducted a study on the relationship between academic self-efficacy, big five factor model of personality and academic achievement. She used a sample of 270 female students from Al Ummra University in Iran. Instruments used were NEO Big Five Personality Factors, modified version of Rosenburgh self –efficacy scale and students GPA. Multiple regression analysis was used to determine the relationship between the variables. She used a questionnaire containing 28 items based on a likert to collect data from the respondents. This research revealed that there was a strong positive correlation between

openness to experience and academic performance. She further recorded that openness is directly related to academic achievement because it subsumes traits such as curiosity, open mindedness and intellectuality.

The findings in this area of study are conclusive. They conclude that there is direct positive relationship between openness to experience and academic achievement. However, the instruments used were interviews, questionnaire and focus groups. The current study sought to investigate the same variables but using only questionnaire as the research instrument so as to ascertain whether or not the same findings may be arrived at. The study also involved both female and male respondents.

2.8 Relationship between Academic Self-efficacy Personality Traits and Academic Achievement

Matinused (2017) studied the impact of personality traits and self-efficacy on academic and military performance among Norwegian cadets. Data for this study was collected from cadets attending three military academies between 2013 and 2017. The study questionnaire included several scales in addition to demographic variables such as level of prior civilian education age, school affiliation (air, army, navy and gender. Civil aviation was coded 1= lower secondary school, 2= upper secondary school, 3= 1-3 years of college or university and 4 = more than four years of college or university. The big five personality dimensions were measured using Norwegian 7 version of the inventory which consists of 44 statements and was based on the big five inventory of John and Scivatsa (1999). Each statement was answered on a 7 –point likert scale (1+ strongly disagree to 7 + strongly agree. Some items which were negatively formulated were reversed before the scale was computed. In order to measure self-efficacy in a military context, a 7- item scale was used. The respondents

indicated their responses on 7 -point scale (1+ totally disagree to 7 + totally agree. The scale had an internal consistency of 0.83.

Academic performance was assessed through academic grades which were issued from A to F, where F signified fail. The cadets took exams in subjects like military leadership, strategy and English. The average grades were used as performance indicator. The grades were then transformed into numbers from 1 to 6, where the highest represented the best grade (A). The questionnaires were distributed at school and completed in plenary with a member of research team on site. The findings indicated that self-efficacy correlates positively with some personality traits. It was realized that extroverts have high self-efficacy which correlates positively to academic achievement. The above reviewed study looked into the contribution of personality traits, self-efficacy and academic achievement in a military set up which is quite different from secondary school in terms of training.

Pasarica (2014) studied the relationship between personality, self-efficacy and academic performance. He used EPQ to measure neuroticism. Extroversion and psychosis; MBTI for the level of organization during activities and Rosenberg Self efficiency scale. Academic performance was evaluated by the final project grade and the overall grade of the last academic year. There were 80 participants who had been randomly selected and were between ages 22 and 28 and had graduated university. The findings indicated the neuroticism negatively influences the academic performance both in the case of the final project which implied a long period of time preparation. A weak relationship was established between extroversion and academic performance in the form of the final project and no significant correlation with the overall grade.

2.9 Summary of Literature Review and Gap Identification

From the literature reviewed it was noted that there is a relationship between academic self-efficacy and academic achievement. Learners with high academic self-efficacy tend to perform better in academics than those with low academic self-efficacy. Most of the literature reviewed indicated that most of the studies have been done in developed countries and using university and college students as their sample.

It was noted that there is a negative relationship between neuroticism and academic achievements; that there is a direct positive relationship between agreeableness and academic achievement; openness to experience correlates positively to academic achievement. Research findings on the relationship between extroversion and academic achievement are not conclusive, others note that there is a negative correlation between extroversion and academic achievement while others record that there is a positive relationship between extroversion and academic achievement. Literature reviewed indicated that conscientiousness is a great predictor of academic achievement. Most of reviewed literatures indicate that the studies have been done in developed countries, the current study was done in Kenya which is a developing country moreover, and samples from the reviewed studies were drawn from tertiary and elementary level using more than one instrument to collect data. The current study was conducted among secondary school students.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides information on methodology used in the study, research design, population and sampling techniques. It also outlines instrumentation as well as data collection procedure. Explanation of logistical and ethical consideration concludes the chapter.

3.2 Research Design

The study employed correlational research design. A correlational approach was considered appropriate because the study sought to establish whether there was a relationship between the variables (Mackay, 2014).

3.2.1 Variables of the Study

The variables of this study were academic self-efficacy and personality traits as the predictor variables, while academic achievement was the outcome variable. Academic self-efficacy and personality traits fall under nominal scale of measurement while academic achievement falls under interval scale of measurement.

3.2.2 Research Methodology

This study utilized quantitative methods whereby, information was gathered from a sample of the population through carefully administered questions by use of questionnaires. This method was relatively fast, cheap, and easy because large amount of data was collected in a short amount of time (Mackay, 2014).

3.3 Study Locale

This study was carried out in Makadara Sub-county in Nairobi City. Mackay (2014) notes that when determining a study locale, the researcher needs to ensure that the characteristic being investigated is available among the intended participants. In this case the characteristic being investigated was poor academic achievement among secondary school learners of which Makadara Sub-county is one of the Sub-counties that has been posting poor academic results in national examinations (CDE, 2017).

According to a statistics from 2013-2017 the average grade in KCSE in this Sub-county was C Minus which is 5 points out of a possible 12. The general academic achievement of students in public secondary schools in Makadara Sub-county may be considered poor by many stake holders in the education sector. This is because many of them do not attain the minimum grade which is required to gain entry into public universities in Kenya and be transformed to skilled manpower for economic productivity. This is in comparison with the best Sub-county in Nairobi City which is Westlands Sub-county that posts an average mean grade of C Plus (CDE, 2017). The choice of the locale was due to the fact that the Sub-county posts poor results in national examination hence the need to find out the factors that contribute to this with more focus on personality traits and academic self-efficacy.

3.4 Target Population

The target population was form three students in Nairobi City. This was informed by a research conducted by Onkundi (2014) that studied whether academic performance could be predicted on the bases of the constructs of academic self-efficacy and locus of control. He recommended that form three students were an ideal population for research because they are available unlike form four students who are busier with their revision work. Form three

students were also preferred because by the time of this study they would have been in secondary school for about three years and would have selected subjects for KCSE examinations. These students are expected to be getting more serious with their studies. Academic self-efficacy and personality traits are necessary components for high academic achievement. Their type of personality which is assumed to have already formed at this stage is likely to largely contribute to their level of academic self-efficacy thereby bringing about the difference in academic performance.

A study by Aasiginy (2012) on contribution of personality on academic achievement among high schools students in Asia recommended for a similar study to be done in Africa so as to determine whether the findings of his research could be generalized in all cultures, thus the major reason why this study was carried out in Nairobi City which happens to be in Kenya. The choice of the schools was based on the fact that they had presented form four candidates in the past four national examinations i.e. (year 2013-2017) this was a pre-determined criterion for a school to be included in the study. All participants were aged between 14 and 17; this was meant to curb any influences of age on the variables of interest.

3.5 Sampling Technique and Sample Size

3.5.1 Sampling Technique

Probability and non-probability sampling techniques were employed in this study. Purposive sampling was used to determine the target population which is from three students as per the recommendations of Onkundi (2014). Stratified random sampling was used to determine the study locale and the schools that took part in the study. According to Mackay (2014) stratified random sampling is a form of probability sampling technique in which members of a population are divided into homogenous subgroups before sampling. The goal of this

method is to achieve desired representation from various sub-groups in the population. Being that all the public secondary schools within the Sub-county are county schools, and the research was delimited to public schools, school type was the only viable strata that could be used for stratification. Of the 11 schools within the Sub-county, three are co-educational day schools, four boys' boarding schools and four girls' boarding schools. The sample per school was 10% of the total population of the selected schools.

To get the required number of participants per school, the researcher obtained a class list of all from three students. Secondly, paper folds equivalent to the total number of form three students in the school were prepared, those equivalent to the targeted number of participants in the schools were written "yes" and the rest were written "No". The papers were then folded and placed in a container and mixed thoroughly. The students had already been assembled in one room and were requested to pick one paper each from the container. The students who had picked paper folds written "Yes" were requested to remain sited in the room while their counter parts that had picked paper folds written "No" were requested to go back to their classes. This process was repeated in every school so as to obtain 20 students required from each school.

3.5.2 Sample Size

According to Gorard (2001) an ideal sample size for any study should be between 10% to 20% of the total population. The total population of form three students in public secondary schools in the Sub-county is 1690 (County Director of Education, 2017). A total of 169 students were sampled in the study consisting of 63 from boys' only school, 74 from girls' only boarding schools and 32 from mixed (co-educational) school. This was 10% of the total population.

Table 3.1

Summary of the sample

School Type	No of schools	Population estimate	Sample size
Boys' only	4	630	63
Girls' only	4	740	74
Co-educational	3	320	32
Total		1690	169 10%

Note: County Director of Education, 2017.

3.6. Instrumentation

This study used two questionnaires to collect the data. The question items were in the area of academic self-efficacy and personality traits. The other instrument that provided secondary data was the students' end of term three 2018 scores. The choice of these tools was guided by the nature of data to be collected and the time available. According to Kombo and Tromp (2006), questionnaires are appropriate when collecting data from a large sample. It also ensured confidentiality and saves time. Both questionnaires had closed ended questions. It took approximately 40 minutes for the respondents to complete both questionnaires.

3.6.1 Students Questionnaire on Academic Self –efficacy

In order to determine the level of academic self-efficacy for the respondents, the researcher used an adopted questionnaire from Bandura unpublished works (refer to appendix B). This questionnaire had two parts. Part A elicited demographic information while part B measured the academic self-efficacy of the respondents. It contained 15 question items in the form of a likert scale (1 = Strongly Disagree (SD), 2= Disagree

(D), 3= Undecided (UD), 4= Agree (A), 5 = Strongly Agree (SA) so as to rate respondents' agreement with statements. The scores of academic self-efficacy ranged from 15 to 75. A score of 15- 45 implied low academic self-efficacy while a score of 46-75 implied high self-efficacy. Permission to use the questionnaire is given so the researcher did not have to seek permission to use it.

3.6.2 Factor Model of Personality Scale

An adopted questionnaire constructed by Rush and Prudence (2012) was used to determine the respondents' personality traits (refer to appendix C).The researcher modified the language used in the questionnaire to suite the current respondents. They were required to respond to 30 items based on a five point likert scale (1 = Strongly Disagree (SD), 2= Disagree (D), 3= Undecided (UD), 4= Agree (A), 5 = Strongly Agree (SA). The scale provides for methods of scoring depending on the choice of response given by the respondents (refer to appendix F). The scores were then tallied to determine the kind of personality someone has.

3.6.3 Document Analysis

In order to determine the academic achievement of the respondents, the researcher obtained the end of term three scores for the year 2018 for all participating students and transformed them to standard T- scores separately (school by school, class by class) in order to render them comparable.

3.7 Pilot Study

Pilot study was done using 20 respondents from one randomly selected school within the area of study. The instruments were administered to the respondents and the information collected was useful in addressing logistical challenges like establishing test schedules and material

sourcing for the study. Piloting was also done to ascertain, reliability and validity of the instrument items. It was conducted in a school closest to the researcher's place of work and one which the researcher was familiar with the administration of the school so as to avoid a lot of logistical issues hence saving on time.

3.7.1 Validity of Research Instruments

Random sampling of participants helped in increasing internal and external validity of the research instruments. Face validity was ensured by ensuring that all the question items were legible while peers in the same department assisted in ensuring content validity by making sure that the test items only elicited information on academic self-efficacy and personality traits.

3.7.2 Reliability of Research Instruments

During piloting split half method was used to determine the reliability of the research instruments. The questionnaires were administered once and the scores of each half were recorded separately. Pearson product moment correlation coefficient was used to calculate the correlation between the two halves (Kothari, 2010). The instruments were considered reliable because correlation coefficient of + 0.7 was obtained.

3.8 Data Collection Techniques

The researcher personally administered the questionnaires to the respondents. This technique involved making use of questionnaires in the form of paper and pencil for the respondents to respond to already pre-determined questions. This method is considered to be appropriate because it allows for the collection of data from a large sample over a short period of time.

3.9 Data Analysis

Data was coded, tabulated, scored and keyed in the computer. Analysis was done using the Statistical Package for Social Sciences (SPSS version 25). Data was analyzed using both descriptive and inferential statistics. Pearson Product Moment correlation coefficient was used to determine relationship between academic self-efficacy and academic achievement; relationship between the various personality traits and academic achievement while multiple regression was used to determine the relationship between academic self-efficacy, personality traits and academic achievement. The null hypotheses that were tested in this study were:

H₀₁. There is no significant relationship between academic self-efficacy and academic achievement.

H₀₂ There is no significant relationship between agreeableness and academic achievement.

H₀₃. There is no significant relationship between extroversion and academic achievement.

H₀₄. There is no significant relationship between neuroticism and academic achievement.

H₀₅. There is no significant relationship between conscientiousness and academic achievement.

H₀₆. There is no significant relationship between openness to experience and academic achievement.

H₀₇. There is no significant relationship between academic self-efficacy, personality traits and academic achievement.

All the hypotheses were tested 0.05 alpha level of significance.

3.10 Logistical and Ethical Considerations

3.10.1 Logistical Issues

A research permit was obtained from the National Council for Science Technology and Innovation. The researcher also obtained a clearance letter from the department of Educational Psychology of Kenyatta University. Principals and Dean of studies in each school, along with affected classes and class teachers were informed through letters of request to each school. This ensured harmony between test schedules and research study processes.

3.10.2 Ethical Considerations

To ensure confidentiality and reduce research bias, all questionnaires were coded then a separate list was created linking survey numbers to the participants' sitting positions. The list was kept separate from survey data. The marks were linked to the survey responses to facilitate statistical analysis. No identifying information was given on the questionnaires. The students signed a consent form before commencing the study and none of them was coerced to participate in the study. Debriefing was also done after the study.

CHAPTER FOUR

PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter focuses presentation of study findings, interpretation and the discussion of the results from the questionnaires administered during the study that sought to investigate the relationship among academic self-efficacy, personality traits and academic achievement of form three students of Nairobi City, Kenya. The analysis was based on the seven specific objectives of the study which included:

- i. To establish the relationship between academic self-efficacy and academic achievement.
- ii. To find out the relationship between agreeableness and academic achievement.
- iii. To determine the relationship between extroversion and academic achievement.
- iv. To investigate the relationship between neuroticism and academic achievement.
- v. To determine the relationship between conscientiousness and academic achievement.
- vi. To investigate the relationship between openness to experience and academic achievement.
- vii. To establish the relationship between academic self-efficacy, personality traits and academic achievement.

4.2 General and Background Information

This subsection presents the questionnaire return rate and information regarding gender and age of the respondents.

4.2.1 Questionnaire Return Rate

The researcher visited all the sampled schools and administered the questionnaires in person to the respondents and ensured that all the questionnaires were properly filled and collected. Thus the return rate for the students' questionnaire was 100% (169), representing 820 girls and 870 boys. The actual sample size as shown by the return rate is presented in Table 4.1.

Table 4.1

Questionnaire Return Rate

School Type	No of schools	Population estimate	Sample size
Boys' only	4	630	63
Girls' only	4	740	74
Co-educational	3	320	32
Total		1690	169 10%

4.2.2 Demographic Information of the Respondents

The study sought to determine the demographic characteristics of the respondents based on gender, age and school type. This information aimed at testing the appropriateness of the respondents in responding to the questions.

The gender of the students was sought and the findings are shown in Table 4.2

Table 4.2

Distribution of the Respondents by Gender

Gender	Frequency	percentage
Male	87	51.4
Female	82	48.6
Totals	169	100

Table 4.2 shows gender distribution among the respondents who took part in the study which indicated that 51.4% were males while 48.6% were female students. As indicated, the number of boys was slightly higher than girls. However, the disparity did not significantly affect the findings of the study on the basis of gender since it was marginal. Concerning the age of the respondents it was found that majority of the respondents (32.5%) were 16 years; 46.7% of respondents were 17 years, 14.8% of the respondents were 18 years while remaining 5.9% were 19 years old. The results are presented in Table 4.3.

Table 4.3

Age of the Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
16.00	55	32.5	32.5	32.5
17.00	79	46.7	46.7	79.3
Valid 18.00	25	14.8	14.8	94.1
19.00	10	5.9	5.9	100.0
Total	169	100.0	100.0	

Source: Researcher

Research evidence has demonstrated that personality traits, academic self-efficacy and academic achievement significantly vary with age (Sameera, 2015). The findings on age imply that its intervening effect did not significantly influence the results on the relationship between academic self-efficacy, personality traits and academic achievement. During data analysis the influence of age and gender was statistically controlled.

4.3 Relationship between Academic Self-efficacy and Academic Achievement.

The first objective of the study sought to establish the relationship between academic self-efficacy and academic achievement. In order to determine the level of academic self-efficacy, the respondents were required to respond to 15 question items which were based on a likert scale ranging from 1 Strongly Disagree to 5 Strongly Agree. The scores ranged from 15 -75. The respondents' academic achievement was represented by mean score obtained in form three end of term three examinations which were later translated to standardized T- scores.

Table 4.4 shows the findings of the item analysis which indicate that the average score was 3.16 (0.993 SD) for the 15 items in the questionnaire indicating that most students had average level of academic self-efficacy. While 59.2% of the respondents strongly agreed, 35.5% agreed that they always managed to solve difficult problems if they tried hard. Similarly, 51.4% strongly agreed and 38.4% agreed that if someone opposes them they found means and ways to get what they wanted. Most students also felt that it was easy for them to stick to their aims and accomplish their goals as 48.5% strongly agreed and 37.42% Agreed. Most students were confident enough that they could deal with unexpected events as 79.8% strongly agreed and 18.3% agreed. Majority also felt that if they practiced daily, they could master any skill they were taught (64.4%) strongly agreed while 17.7% agreed.

Most of the respondents indicated that they could solve most problems if they put the necessary effort, 59.2% agreed while 32.5% strongly agreed and majority of them

acknowledged that they could remain calm when facing challenges with 48.5% strongly agreeing and 37.2% agreeing. When asked to indicate whether they faced a problem when they came across it, 15.7% strongly disagreed, 33.9% disagreed and 10.4% were non-committal. Most respondents strongly agreed (71%) that they believed that hard work pays off. Majority of the respondents (53.6%) agreed believed that they could handle whatever came their way. When asked whether they sought help from their teachers when faced by a problem which they couldn't handle 79.8% strongly disagreed and 31% disagreed.

When asked whether they could study well when there were interesting things to do around them, 42.3% strongly disagreed while 28.4% disagreed. Most of the students also felt that they could study a chapter in a text book for a test with 48.5% strongly agreeing and 37.2% agreeing. Majority of the respondents (47.3%) strongly disagreed while 17.8% disagreed that they managed to finish all the homework every day. Most students (72.7%) agreed while 21.3% strongly agreed that they understood quickly things taught in class.

Table 4.4**Item Analysis for Academic Self-efficacy**

Statement	Mean(SD)	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I always manage to solve difficult problems if I try hard	4.50(0.720)	59.2	35.5	2.6	0	0
If someone opposes me, I find the means and ways to get what I want.	4.53(0.692)	51.4	38.4	2.3	1.8	5.9
It is easy for me to stick to My aims and accomplish my goals.	4.37(0.766)	48.5	13.1	17.7	17.7	2.9
I am confident that I can deal with unexpected events.	4.29(0.685)	79.8	18.3	1.7	0	0
If I practiced daily, I can master any skill taught.	4.77(0.535)	64.4	17.7	8.8	4.9	4.2
I can solve most problems if I put the necessary effort.	3.83(0.993)	32.5	59.2	5.4	1.7	1.1
I can remain calm when facing challenges.	4.29(0.685)	48.5	13.1	14.8	14.8	8.8
When I come across a problem i face it.	3.83(0.699)	17.8	20.8	11.8	31.9	17.7
I believe hard work pays off.	4.42(0.675)	71.0	11.8	17.1	0	0
I can handle whatever comes my way.	4.50(0.667)	23.6	55.6	2.9	5.9	11.8
I get help from teachers when I cant handle school work.	2.98(0.799)	11.8	5.3	17.8	47.3	17.8
I can study well when there are other interesting things to do around me.	4.43(0.677)	17.5	5.9	5.9	28.4	42.3
I can study a chapter in text book for a test.	4.49(0.799)	48.5	37.2	14.2	0	0
I manage to finish all my homework every day.	2.23(0.329)	5.3	11.8	17.8	17.8	47.3
I quickly understand things taught in class.	4.73(0.772)	21.3	72.7	5.9	0	0

4.3.2 Descriptive Statistics for Respondents' Academic- Self-efficacy

Data related to students' academic self-efficacy were coded and analyzed. The cumulative scores of academic self-efficacy were analyzed to determine their levels. The results are shown in Table 4.5.

Table 4.5

Descriptive Statistics for Respondents' Academic Self-efficacy

Statistics	Valid	Values
Mean		45.67
Median		47
Mode		52
Range		57
STD deviation		13.11
Variance		171.90
Skewness		-.326
Kurtosis		.15
Minimum		18
Maximum		75

As presented in Table 4.5, the mean cumulative scores on academic self-efficacy was 45.67 while median and mode were 47 and 52 respectively. The expected maximum score for academic self – efficacy was 75 while minimum was 15. The standard deviation was 13.11. This means that majority of the students have average academic self-efficacy level. The coefficient of skewness was -.326 which implies that academic self-efficacy scores were approximately symmetric.

Participants were grouped into three categories based on their academic self-efficacy level. Table 4.6 illustrates the findings.

Table 4.6

Respondents' Levels of Academic Self-Efficacy

Level of academic self- efficacy	Frequency	Percentage
Low	632	37.3
Average	848	50.2
High	110	6.5
Total	1690	100

The results obtained indicated that majority of the respondents (848) representing 50.2% had average level of academic self-efficacy; 632 respondents (37.3%) recorded low level of academic self-efficacy while only 6.5% of the respondents had high level of academic self - efficacy. The findings imply that majority of the sampled students had average academic self-efficacy level to deal with academic issues to achieve desirable academic outcomes.

The schools that were selected to participate in this study were categorized into three namely; boys' schools, girls' schools and co-educational schools and the results for their academic self-efficacy scores are presented in Table 4.7.

Table 4.7

Scores of Academic Self-efficacy as per the School Categories

School type	Mean score
Girls' school	49.3
Boys' school	44.0
Co-educational school	28.3

Table 4.7 shows that girls' schools had the highest academic self-efficacy mean score of 49.3% followed by boys' schools (44.0%). Co-educational schools recorded the least mean score (28.3%).

4.3.3 Descriptive Statistics for Academic Achievement Scores

On academic achievement of the respondents, the scores were converted into T score to make them comparable (See section 3.6.3). The descriptive statistics of the scores are presented in Table 4.8.

Table 4.8

T-Scores of Academic Achievement of the Respondents

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
T Score	169	55.00	29.00	84.00	49.33	9.54	.053	1.06

The findings presented in Table 4.8 indicate that the mean for the T-scores was 49.33 (Std, deviation = 9.54). The maximum score was 84.0 while the minimum was 29.0 which gave a range of 55.0. The skewness coefficient obtained indicate that the data was normally

distributed with a leptokurtic peak. The T-scores were used to classify academic achievement of the respondents as low ranging from 20-40, average from 41-60 and high 61 and above. Based on these categories, the findings are presented in Table 4.9.

Table 4.9

Academic Achievement Level of the Respondents

Level of Academic Achievement	Frequency	Mean	<i>SD</i>
Low	43 (25.4%)	39.01	1.41
Average	117 (69.2%)	49.07	5.54
High	9 (5.4%)	68.93	6.44
Total	169 (100)		

Note. *SD* – Standard deviation () Percentages

As indicated in Table 4.9, majority of the respondents representing 69.2% of the respondents had an average score in academic achievement, 25.4% of the respondents had a low score and only 5.4% had a high score in academic achievement. The mean scores for low, average and high academic achievement were 39.01, 49.07 and 68.93 respectively. Students with high academic achievement revealed the highest variability (*SD* = 6.44), followed by students with average scores (*SD* = 5.54) and students with low academic achievement had the least (*SD* = 1.41).

4.3.4 Hypothesis Testing

In order to determine the relationship between academic self-efficacy and academic achievement. The following null hypothesis was advanced.

H₀₁: There is no significant relationship between academic self-efficacy and academic achievement.

To test this hypothesis the researcher subjected the academic achievement scores and academic self-efficacy score to bivariate correlation. The statistic used was Pearson correlation co-efficient.

Table 4.10

Correlation between Academic Self –efficacy and Academic Achievement

		T score
		.73
Academic self Efficacy	Pearson Correlation	
	Sig. (2-tailed)	.01
	N	169
T score(academic achievement)	Pearson Correlation	.73
	Sig. (2-tailed)	.01
	N	169

Note: N-sample; T score;- Standardized T score for Academic achievement

From Table 4.10 correlation analysis revealed Pearson correlation coefficient of 0.73 and at a significant level of 0.01 ($r = .73$; $df = 167$, $P < 0.05$) therefore, the null hypothesis was reject implying that there is a significant positive correlation between academic self-efficacy and academic achievement. The findings reveal that an increase in academic self-efficacy levels leads to an increase in academic performance of students by 0.73 which indicates a strong correlation between the variables.

4.3.4 Discussion of the Findings

The first objective was to determine the relationship between academic self-efficacy and academic achievement. The study revealed a strong positive and significant relationship between the two variables as indicated in Table 4.10. This means that if academic self-

efficacy amongst students is properly nurtured and increased they would record higher academic achievements. Therefore, effort should be enhanced to raise the academic self-efficacy of students. This will in turn boost their confidence in their academic work and make them understand the importance of putting efforts in their studies thus improve on their grades.

These findings support earlier ones reported by Miriam (2015), Stice (2016) and Ochieng (2015). They all report that there exists a positive relationship between academic self-efficacy and academic achievement. For instance, Miriam (2015) as well as Stice (2016) used a sample from college and university students respectively and found a positive correlation between academic self-efficacy and academic achievement.

Similarly, Ochieng (2015) using a sample from secondary school students also reported a positive correlation between students' academic self-efficacy and their mathematics performance. The findings of the study also corroborate the results of a study by Onkundi (2014) that used a sample from secondary school students and used two research instruments. He reported that; academic self –efficacy has a strong positive correlation with academic achievement and that there are statistically significant difference between learners with high academic performance and low academic performance regarding academic self-efficacy. He further added that academic self-efficacy helps students to achieve high academic resistance whereas a low academic self-efficacy acts against academic performance. He attributes this to the ability of those with high academic self-efficacy to establish good relationship with others, willingness to learn, accepting new things and knowing their boundaries. Sameera (2015) also concurs with these findings. She obtained similar results among university students in Iran having used Rosenberg's self-efficacy scale and employed the use of descriptive research design.

These findings show that the level of schooling may not influence the outcome of the relationship between the two variables because some of the samples were drawn from secondary school students while others were drawn from university and college students yet there is a similarity in the findings.

However other researchers reported contradictory findings. For instance Moturi(2014), in her findings indicated an insignificant relationship between academic achievement and academic self-efficacy. Though the samples used in the above studies are different in terms of level of schooling, it appears that the contradictory findings may be attributed to cultural differences and study location.

4.4 Relationship between Agreeableness and Academic Achievement

The second objective was to establish relationship between Agreeableness and academic achievement. Data was collected using selected items on Big Five Factor Model Scale. Item and descriptive analysis of respondents' agreeableness scores was done followed by hypothesis testing and discussion of findings. The results of item analysis are shown in Table 4.11

Table 4.11

Item Analysis for Agreeableness

Statement	SD	D	N	A	SA
I am always prepared	2.1	9.1	23.2	24.9	40
I am relaxed most often	4.4	5.5	6.2	35.5	48.4
I day dream most often	4.1	5.5	9.2	38.0	43.2
I have excellent ideas	5.8	6.9	6.2	29.6	51.5
I do not have good imagination	4.3	4	2.9	34.1	58.3
I am not interested in others	2.6	4.1	5.6	31.0	56.50
I take time to help others	4.4	5.9	8.1	30.1	51.5
I Understand others emotions	14.4	36.7	14.8	16.3	17.8
I make people feel Comfortable	19.5	10.9	25.6	25.9	18.0
I make people feel happy	8.5	9.2	18.1	39.5	24.7

From Table 4.11 less than half of the respondents (40%) strongly agreed that they were always prepared. Slightly less than half indicated that they were relaxed most of the time (48.4%). Less than half of the respondents (43.2%) strongly agreed that they day dreamt often while slightly more than half of them (51.5%) indicated that they had excellent ideas. More than half of the respondents (58.3%) strongly agreed that they did not have a good imagination while those who strongly agreed that they were not really interested in others were 56.5%. Less than half of the respondents (30.1%) agreed that they took their time to help others. A small number of respondents (36.7%) disagreed that they understood others emotions while less than half of them (25.9%) agreed that they made people feel comfortable. A few respondents (39.5%) agreed that they made people fell happy.

4.4.2 Descriptive Statistics for Respondents' Agreeableness Score

Data related to student's level of agreeableness was coded and analyzed .The results are shown in Table 4.12

Table 4.12

Descriptive Statistics for Respondents' Agreeableness Score

Statistics	Values
N	169
Mean	17.1
Median	18.0
Mode	20
Range	30
STD deviation	11.44
Variance	131
Skewness	-.7
Kurtosis	0.37
Minimum	10
Maximum	40

Results presented in Table 4.12 shows that the mean score on agreeableness is 17.1 while the median and mode were 18.0 and 20.0 respectively. The highest recorded score was 40 while the minimum was 10. In the scale used, the expected maximum and minimum scores were 50 and 10 respectively. The coefficient of skewness was found to be -.7 while Kurtosis was 0.37 which showed that the distribution was leptokurtic with many values concentrated around mean.

The researcher categorized learners based on their agreeableness levels and the findings are presented in Table 4.13

Table 4.13

Descriptive Analysis of Respondents' Agreeableness level

Agreeableness level	Frequency	Percentage
Low	36	21.3
Average	118	69.8
High	15	8.9
Total	169	100

As Table 4.9 indicates, most of the respondents (69.8%) had average score in agreeableness level. Only 8.9% of the students reported high level of agreeableness while 21.3% scored lowly on agreeableness level. From the findings, majority of the students involved in this study had their agreeableness level ranging between low and average.

4.4.3 Hypothesis Testing

Basing on the second objective which sought to find out the relationship between agreeableness and academic achievement, the second null hypothesis was advanced.

H₀₂: There is no significant relationship between agreeableness and academic achievement.

To test this hypothesis the data was subjected to bivariate correlation.

Table 4.14

Correlation between Agreeableness Score and Academic Achievement

T score		
	Pearson Correlation	.826
Agreeableness	Sig. (2-tailed)	.01
	N	169
	Pearson Correlation	.826
T score (academic achievement)	Sig. (2-tailed)	.01
	N	169

Note: T standardized score for academic achievement; N- sample

From Table 4.9 the correlation analysis revealed Pearson correlation coefficient of 0.826 and at a significance level of 0.01 which is less than 0.05 ($r=0.826$, $df=167$, $P<0.05$). The results therefore indicate that there is a strong significant positive relationship between agreeableness and academic achievement because $P<0.05$. The null hypothesis was therefore rejected.

4.4.3 Discussion of Findings

The findings of a strong positive and significant relationship between agreeableness and academic achievement are supported by most of the reviewed literature. Douglas (2014) and

Krach (2016) using different research instruments and different sample in terms of geographical area recorded that there exists a significant, positive and strong correlation between agreeableness and academic achievement. Krach (2016) recorded that; learners who had high levels of agreeableness tend to be more social hence increasing contacts with fellow classmates hence increasing the speed at which they can be able to pronounce words. (Academic achievement).

Similarly, Koech (2015) used both qualitative and quantitative approaches and a randomly selected sample. The descriptive statistic from this study revealed that majority of the respondents had high agreeableness level. The researcher established that there is a positive correlation between agreeableness and academic achievement. He further noted that students who exhibit high levels of agreeableness tend to perform well academically because they are often willing to learn new things. These learners also exhibit traits like curiosity and high levels of self-efficacy which are necessary for good academic achievement.

Inconsistent with the findings of this research was a study by Jafaar (2013) who recorded that overall, there is no significant relationship between Agreeableness and academic achievement. He however noted that those students that are high in agreeableness tend to have higher academic performance especially in English, Chemistry & Islamic studies.

4.5. Relationship between Extroversion and Academic Achievement

The third objective sought to establish the relationship between extroversion and academic achievement. The results of item analysis are shown in Table 4.15.

Table 4.15

Item Analysis for Extroversion

Statements	SD	D	N	A	SA
	1	2	3	4	5
1 I care very little for other	31.2	11.1	14.6	19.0	23.7
2 I am interested in people	43.7	17.7	12.6	14.6	11.4
3 I have a rich vocabulary	14.7	13.5	10.0	19.3	42.5
4 I pay attention to details	14.5	6.5	12.5	23.0	43.5
5 I make a miss of thing	50.4	16.7	5.6	12.4	92
6 I am not interested in other people problem	56.0	15.5	7.5	11.1	9.9
7 I talk to a lot of different people at parties	18.2	18.2	11.9	14.2	37.5
8 Don't like to draw attention to myself	11.8	7.1	10.2	18.5	32.4
9 Don't mind being the center of attention	52.4	10.2	18.5	11.8	7.1
10 Am quite around strangers	9.2	9.2	9.5	9.2	63.0

From Table 4.15 the findings revealed that slightly more than a quarter (31.2%) strongly disagreed that they cared very little for others. Nearly half of the respondent (43.7%) strongly disagreed that they were interested in people while an almost similar number (42.5%) strongly agreed that they had rich vocabulary. Al most half of the respondents (50.40%) strongly disagreed that they made a mess of things while slightly more than half (56.0%) strongly disagreed that they were not interested in other peoples' problems.

When asked to indicate whether they talked to a lot of different people at parties and whether they did not like to draw attention to themselves 37.5% and 52.45% strongly agreed respectively. The findings also revealed that nearly half of the students (52.4%) strongly disagreed that they did not mind being the center of attention and finally when asked to indicate how they behaved around strangers 63.0% strongly agreed that they were quite around people.

4.3.1 Descriptive Statistics for Extroversion Scores

Data related to students' level of extroversion was coded and analyzed. The results are shown in Table 4.16. Table 4.16 indicates that the minimum score was 10 while the maximum score was 40. The mean was 12.09 and standard deviation was 10.61. The range was 30 which was considered to be high. The distribution of extroversion was found to be skewed (+.819) implying that majority of the respondents rated themselves lowly on extroversion.

Table 4.16

Descriptive Analysis for Extroversion Scores

Statistics	Valid	Values
Mean		12.09
Median		7
Mode		3
STD deviation		10.61
Variance		112.57
Skewness		.819
Kurtosis		-.624
Minimum		10
Maximum		40

Table 4.17

Descriptive Analysis of Respondents' Extroversion level

Level of extroversion	Frequency	Percentage
Low	33	19.5
Average	16	9.4
High	120	71.1
Total	169	100

Table 4.17 illustrates that more than half of the respondents (71.1%) reported high extroversion level, few students were rated low (19.5%) while only 9.4% had average score in extroversion level.

4.5.3 Hypothesis Testing

The researcher sought to find out if the relationship between extroversion and academic achievement is significant or not by testing the following hypothesis:

H₀₃: There is no significant relationship between extroversion and academic achievement.

Table 4.18

Correlation between Extroversion and Academic Achievement

Correlations		
		T score (achievement)
T score	Pearson Correlation	-0.49
	Sig. (2-tailed)	.00
	N	169
Extroversion	Pearson Correlation	-.049
	Sig. (2-tailed)	.00
	N	169

Note: N; Sample

From Table 4.18 correlation analysis found Pearson correlation co-efficient of -0.49 and significance level of 0.00 ($r=-0.49$, $df=167$, $P<0.05$). The results therefore indicate that there was a moderate significant negative relationship between extroversion and academic achievement hence the null hypothesis was accepted. This implies that high levels of extroversion were associated with lower academic achievement to a moderate extent.

4.5.3 Discussion of Findings

The findings of this study revealed that there is a significant negative relationship between extroversion and academic achievement. From the literature reviewed, it was established that the relationship between extroversion and academic performance is controversial. Several studies have concluded that there is no reason to talk about a relationship between extroversion and academic performance. Others suggest that extroversion is not clearly linked with academic performance or whether the correlation between these two variables is positive

or negative. Studies have found both positive and negative correlations between this personality factor and academic achievements.

Joan (2013) investigated the relationship between extroversion, decision making and academic achievement. The sample was from a college and made use of narcissistic personality inventory and big five inventory. She found out that there is a positive effect of extroversion on academic achievement. She also noted that extroverts learn better in a relatively unstructured learning environment though they needed to be supervised if they are to finish assigned tasks.

Zahra (2017) recorded that extroversion is partially related to academic performance. The study revealed that a weak though positive and significant relationship exists between extroversion and academic performance in the form of the finale project grade and no significant correlation with the overall grade. This positive association can be best explained in terms of interpersonal skills because the graduation project requires a good collaboration with the teacher coordinator for at least 6 months. The correlation with the overall grade of the final academic year reveals that there is no significant relationship between extroversion and the performance during the entire final academic year.

The inconsistency of extroversion can be explained by two ideas. Firstly, extroversion can be a predictor of high academic performance because extroverts are active and they ask questions, which can help them learn more effectively. Secondly, extroverts often have an active social life, and this can interfere with activities devoted to studying because the time spent for learning or documentation is reduced. For this reason, extraverts tend to have a higher number of absences in school (Zahra, 2017).

4.6 Relationship between Neuroticism and Academic Achievement.

The fourth objective was to establish the relationship between extroversion and academic achievement. The results for item analysis are shown in Table 4.19.

Table 4.19

Item Analysis for Neuroticism

	Statements	SD	D	N	A	SA
		1	2	3	4	5
1	I feel comfortable around people	7.2	7.6	14.9	34.8	36.6
2						
3	I keep to myself most of the time	3.3	7.6	21.1	36.0	31.6
4	I am easily disturbed	5.8	11.7	17.5	39.4	25.5
5	I have a soft heart	12.5	12.2	15.1	32.5	27.7
6	I am not really interested in others	46.5	18.5	11.1	13.3	10.7
7	I change my moods a lot	53.5	22.5	10.9	8.4	4.7
8	I have frequent mood swings	39.7	15.7	16.9	10.1	1.76
9	I get irritated easily	58.1	18.8	7.4	4.8	1.07
10	I often day dream	39.7	17.6	15.7	16.9	10.1

From the findings on whether they talked a lot, only 35.6% of the respondents strongly agreed. Less than half of the respondents strongly agreed (36.6%) that they felt comfortable around people. Majority of the respondents (36.0%) agreed that they kept to themselves. The findings also indicated that 39.4% of the students agreed that they were easily disturbed. A small percentage (32.5%) agreed that they had a soft heart while slightly less than half

(46.5%) strongly disagreed that they were not really interested in others. Slightly more than half (53.5%) recorded that they strongly disagreed that they changed their moods a lot. On whether they had frequent mood swings, 39.7% of the students strongly disagreed. The students were also asked to indicate whether they easily got irritated, slightly more than half (58.1%) strongly disagreed. The research findings also noted that only 39.7% of students strongly disagreed that they day dreamed often.

4.6.2 Descriptive Statistics for Neuroticism

The participants' level of neuroticism was analyzed on the basis of neuroticism score. The analysis was aimed at getting their range, mean and standard deviation. The results are presented in Table 4.20

Table 4.20

Descriptive Statistics for Respondents' Neuroticism Score

Statistics	Valid	Values
Mean		42.01
Median		38
Mode		48
Range		39
STD deviation		10.61
Variance		112.57
Skewness		.219
Kurtosis		-1.105
Minimum		10
Maximum		49

The data in Table 4.20 shows that the mean score on neurotics is 42.01, range is 39 while the mode and median are 48 and 38 respectively. The highest recorded score was 49 while the lowest score 10. The co-efficient of skewness was found to be .219 meaning many participants rated themselves lowly on this scale. Kurtosis was -1.105 which indicated that many values were not concentrated around the mean.

Table 4.21

Descriptive Analysis of Respondents' Neuroticism level

Neuroticism level	Frequency	Percentage
Low	43	25.4
Average	44	26.1
High	82	48.5
Total	169	100

As Table 4.21 indicates, most of the respondents (48.5%) had high score in neuroticism level. While almost an equal number i.e 43 and 44 recorded low and average levels respectively.

4.6.3 Hypothesis Testing

In order to determine the relationship between neuroticism and academic achievement, a hypothesis H₀₄: There is no significant relationship between Neuroticism and academic achievement was put across.

Table 4.22 reveals the findings of the research.

Table 4.22

Correlation between Neuroticism and Academic Achievement

		T score
T score(achievement)	Pearson Correlation	-.696
	Sig. (2-tailed)	.000
	N	169
Neuroticism	Pearson Correlation	-.696
	Sig. (2-tailed)	.000
	N	169

Note: N: Sample

Table 4.22 displays Pearson correlation co-efficient for the relationship between Neuroticism and academic achievement. The findings reveal there is a strong negative significant relationship between neuroticism and academic achievement ($r = -0.69$, $df = 167$, $P < 0.05$). This means an increase in neuroticism level leads to a decrease in academic achievements. The null hypothesis was therefore rejected implying that an increase in neuroticism levels leads to a decrease in academic achievement.

4.6.3 Discussion of Findings

The fourth objective sought to investigate the relationship between neuroticism and academic achievement. The study revealed a strong negative and significant correlation between the two variables as indicated in Table 4.22. These results are consistent with earlier ones reported by Hakim (2017), John and Korchigina (2017) and Vidya (2014).

Hakim (2017) using a sample from university students employed cross sectional research design and used Pearson product moment correlation to analyze the data. The findings indicated that neuroticism correlates negatively to academic achievement. He further noted that anxiety and emotional instability have little benefit in any field especially of education though a little level can stimulate task engagement. Thus, Neuroticism negatively influences the academic performance both in case of the exams` short-time stressful conditions during the academic year and also in case of the final project which implies a long time preparation. Negative relationship between neuroticism and academic performance is easily explainable because neuroticism refers to less adaptive behavior. Neuroticism negatively affects responsibility and interest for studying and thus, it is detrimental to academic results.

Vidya (2014) also concurs with these findings. He recorded that there is a significant negative correlation between neuroticism and academic performance of students and that students with high level of neuroticism tend to perform dismally in their academic work. He further noted that it is important to develop awareness and understanding of the existence of this dimension in students for their excellent academic performance in school. The implication of this study was to develop insight in each student and the existence of negative emotionality as a dimension of personality and its influence on their academic performance.

4.7 Relationship Between Conscientiousness and Academic Achievement.

The fifth objective sought to determine the relationship between conscientiousness and academic achievement. The students responded to 10 items which elicited information regarding their conscientiousness' level. The result of item analysis are shown in Table 4.3

Table 4.23 :

Item Analysis for Conscientiousness

Statements	SD	D	N	A	SA
	1	2	3	4	5
1 I easily get stressed out	61.0	17.0	7.0	10.4	3.7
2 I have difficulty understanding abstract ideas	6.3	6.3	11.6	78	67.9
3 I have a vivid imagination	16.5	9.9	7.4	14.3	51.8
4 I am not interested in abstract ideas	8.7	3.0	7.9	14.0	66.4
5 I do not talk much	67.0	4.2	5.7	8.7	14.0
6 I talk to a lot of different people at gathering	17.6	7.0	70	11.3	57.0
7 I am quiet around people	11.1	4.6	9.5	9.5	65.3
8 I finish all duties assigned to me	13.4	3.8	7.6	6.9	68.3
9 I follow a schedule	4.3	14.0	9.7	10.9	61.2
10 I follow exact instructions	14.0	66.4	79	3.0	8.7

Data in Table 4.23 shows that more than half (61.0%) of the respondent strongly disagreed that they easily got stressed out while 67.9% strongly agreed that they had difficulty understanding abstract ideas. The findings also revealed that almost half of the respondent (51.8%) strongly agreed that they had vivid imagination. More than half (66.4%) observed that they were not interested in abstract ideas while almost an equal number (67%) strongly disagreed that they did not talk much. When asked to indicate if they talked to a lot of people

during gatherings and if they were quiet around people 57.0% and 65.3% strongly disagreed respectively. The research findings also indicated that 68.3% and 61.2% strongly agreed that they finished all duties assigned to them and that they could follow a schedule respectively. It was also noted that more than half of the respondents (66.4%) disagreed that they followed exact instructions given to them.

4.7 Descriptive Statistics for Conscientiousness

The participants' level of conscientiousness was analyzed on the basis of conscientiousness score. The analysis was aimed at getting their range, mean and standard deviation. The results are presented in Table 4.24 which shows that the minimum and maximum score were 10 and 56 respectively. The mean score was 44.88 and standard deviation 12.15 and this was large and agreed with range of 46 which was considered very huge. The distribution of conscientiousness scores was found to be positively skewed (skewness = + 1.87) meaning majority of respondents rated them self lowly on conscientiousness.

Table 4. 24

Descriptive Statistics for Conscientiousness

Statistics	Valid	Values
Mean		44.88
Median		36.00
Mode		33
Range		46
STD deviation		12.15
Variance		147.57
Skewness		+1.87
Kurtosis		-1.216
Minimum		10
Maximum		56

The researcher further categorized respondents according to their conscientiousness level. The findings are illustrated in Table 4.25

Table 4.25

Descriptive Analysis of Respondents' Conscientiousness level

Conscientiousness level	Frequency	Percentage
Low	58	34.2
Average	58	34.2
High	54	31.6
Total	169	100

From Table 4.25 above, it is evident that highest number of students (34.2%) rated average and low in conscientiousness level while 54 students (31.6%) rated highly. It is worth nothing that there was no much disparity in terms of the frequency of the number of students in each level of this trait.

4.7.3 Hypothesis Testing

In order to determine the relationship between conscientiousness and academic achievement, the following null hypothesis was formulated

H₀₅: There is no significant relationship between conscientiousness and academic achievement was put across.

Table 4.26 demonstrates the findings of the research.

Table 4.26

Correlation between Conscientiousness and Academic Achievement

		T score
T score	Pearson Correlation	.001
	Sig. (2-tailed)	.989
	N	169
Conscientious	Pearson Correlation	.001
	Sig. (2-tailed)	.989
	N	169

Note : N; sample

Results presented in Table 4.26 displays Pearson correlation co-efficient for the relationship between conscientiousness and academic achievements. The findings reveal there is a slight positive though insignificant relationship between conscientiousness and academic achievement ($r=0.001$, $df= 167$, $P>0.05$). This means only a negligible increase in conscientious level leads to increase in academic achievements hence the null hypothesis was accepted because P value was greater than 0.05.

4.7.3 Discussion of Findings

The fifth objective sought to establish the relationship between conscientiousness and academic achievement. The study found out that there is an insignificant positive correlation between conscientiousness and academic achievement. Previous research by Conrad (2014) concurs with the finding of this study. He notes that there is no correlation between conscientiousness and academic achievement. This was achieved using path analysis. Additional research using Myers Brigg Type indicator indicated that conscientiousness was a

great predictor of academic achievement. The results also showed that conscientiousness which explained 39% of variance in academic achievement was most important predictor variable, finally MANOVA and t test indicated that there is no significance gender difference in the personality, characteristics and academic achievement.

Furmham (2013) who recorded a negative correlation between conscientiousness and academic achievement arrived at these findings after replicating a study conducted by Trapman (2007). Furmhams' study was different in terms of geographical area and instrumentation and design. He posited that though conscientiousness is a contributing factor to academic achievement, it is not the major predictor of performance. He argues that conscientiousness is correlated positively to academic achievement but not to a great extent.

4.8 Relationship Between Openness to Experience and Academic Achievement

The sixth objective sought to establish the relationship between openness to experience and academic achievement. The students responded to 10 items which were based on a which elicited information regarding their openness level. The result of item analysis are shown in Table 4.27.

Table 4. 27

Item Analysis for Openness to Experience

Statements	SD	D	N	A	SA
	1	2	3	4	5
1 I have a rich vocabulary.	4.4	4.1	107	32.0	48.7
2 I insult people.	9.3	63	15.1	375	32.0
3 I sympathize with others feeling.	6.5	8.0	9.8	32.0	43.6
4 I get chores alone right away.	49.2	33.0	9.1	4.2	4.5
5 I often forget to put things back in their proper place.	50.2	31.0	4.2	7.7	4.5
6 I like order.	47.8	25.2	7.7	33	11.7
7 I am quick to understand things.	49.2	9.1	33		4.2
8 I use difficult words to communicate.	51.5	30.1	8.1	8.1	4.4
9 I spend time reflecting on things.	560	31.0	5.6	41	2.6
10 I am full of ideas.	58.3	34.1	4	2.9	4.3

The research findings indicate that: Slightly less than half (48.7%) of the respondents strongly agreed that they had a rich vocabulary. When asked to indicate whether they insulted people 37.5% agreed. Less than half of the respondents (43.6%) strongly agreed that they sympathized with others feelings. Almost half of the respondents (49.2%) indicated that they

got chores done right away. Slightly more than half of students strongly disagreed (50.2%) that they forgot to put things back in their proper place. Almost half of the respondents (47.8%) indicated that they liked order and almost equal number (49.2%) strongly disagreed that they were quick to understand things. Slightly more than half of the respondents (51.5%) indicated that they strongly disagreed that they spent their time reflecting on things. When asked to indicate if they were full of ideas more than half of the students (58.3%) strongly disagreed.

4.8.2 Descriptive Statistics for Respondents' Openness Score

The participants' level of openness to experience was analyzed on the basis of openness score. The analysis was aimed at getting their range, mean and standard deviation. The results are presented in Table 4.28.

Table 4. 28

Descriptive Analysis for Openness to Experience

Statistics

N	Valid	Values
Mean		18.51
Median		21.00
Mode		23.00
Range		28
STD deviation		.187
Variance		125.942
Skewness		.027
Kurtosis		-1.112
Minimum		12
Maximum		40

The data in Table 4.28 shows that the mean score on openness to experience is 18.51; range is 39 while the mode and median are 23 and 21 respectively. The highest recorded score was 40 while the lowest score 12. The co-efficient of skewness was found to be .027 meaning many participants rated themselves highly on this scale. Kurtosis was -1.11 which indicated that many values were not concentrated around the mean.

Table 4.29

Respondents openness level

Openness level	Frequency	Percentage
Low	17	33.7
Average	88	34.3
High	98	57.9
Total	169	100

Table 4.28 indicates, slightly more than half of the respondents (57.9%) had a high score in openness level. Only 10% of the students reported low level of openness while 52.1% had an average level. From the findings, majority of the students involved in this study had their openness level ranging between and average and high.

4.8.3 Hypothesis Testing

Basing on the sixth objective of the study which aimed at establishing the relationship between openness to experience and academic achievement of learners. The sixth null hypothesis was formulated.

H₀₆: There is no significant relationship between openness to experience and academic

achievement.

Pearson product moment correlation was used to determine the relationship between the variables.

Table 4.30

Correlation between Openness to Experience to Academic Achievement.

		T score
T score	Pearson Correlation	.001
	Sig. (2-tailed)	.48
	N	169
Openness	Pearson Correlation	.001
	Sig. (2-tailed)	.48
	N	169

Note : N; sample

The relationship between openness to experience and academic achievement was moderately positive ($r=0.486$). The results indicate there is a strong positive linear relationship at $P<0.05$ hence the null hypothesis was rejected. This means an increase in openness to experience corresponds to an increase in academic achievement. This implies that the test statistics was significant at 50% level.

4.8.3 Discussion of Findings

Table 4.30 clearly illustrates that there is a positive relationship between openness to experience and academic achievement. These findings are supported by previously reviewed studies by Sameera (2015), Karanja (2105) and Matz (2010). They all reported that openness to experience correlates positively to academic achievement.

Karanja (2015) conducted a study on the relationship between self-efficacy, personality and academic achievement among form three students of Kiambu County. She had modified Eyesenck's personality inventory to suit her study area. The research revealed that there is a strong positive correlation between openness to experience and academic performance. This is so because learners who are highly open are always willing to learn something new, curious and inquisitive. These traits are believed to be important to achieve high levels of academic achievement.

Similarly, Sameera (2015) conducted a study on the relationship between academic self-efficacy, big five factor model of personality and academic achievement among female students from Al Ummra University in Iran. Instruments used were NEO Big Five Inventory. This research revealed that there is a strong positive correlation between openness to experience and academic performance. She further recorded that openness is directly related to academic achievement because it subsumes traits such as curiosity, open mindedness and intellectuality. She further noted that openness is related to crucial determinants of success and effectiveness in education settings such as deep and strategic learning, learning goal orientation and self-regulated learning.

4.9 Interaction effect between Academic Self –efficacy, Personality traits and Academic Achievement

The last objective of the study was to establish the interaction effect between academic self-efficacy, personality traits and academic achievement. The following null hypothesis was formulated.

H₀₇: There is no significant interaction effect between academic self-efficacy personality traits and academic achievement.

Multiple regression was used to establish the relationship among the variables.

4.9.2 Model Summary

Table 4.31:

Model Summary

Model	R	R Square	Adjusted R Square	Std Error of the Estimate	Durbin Watson
1	.625	.251	.231	17.698792	1.866

- a. Predictors: (Constant) Neuroticism, Agreeableness, self-efficacy, conscientiousness, openness, Extroversion
- b. Dependent Variable: Academic Achievement

Source : Research Findings

The model summary results indicate that 62.5% of the variation in the dependent variable as revealed by (R Square) statistics, which was 0.251. It also indicates the overall correlation value of 0.625, which indicates a strong correlation between the dependent and independent variables. The Durbin Watson Statistic is between the recommended value of 1.5- 2.5.

Table 4.32 :

Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	14921.275	7	242.0	7.171	.000
Residual	53094.005	162	323.565		
Total	67015.280	169			

- a. Dependent Variable : Academic Achievement

- b. Predictors : Constant) Conscientiousness, Agreeableness, Openness, Neuroticism, Extroversion, Academic self-efficacy

The Table (4.32) reveals regression model significant and fit to explain the relationship between the considered research variables. This is indicated by the F value of 7.171 and P value of 0.000 which is less than the significance value of 0.05.

Table 4.33

Regression Analysis

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	46.716	6.904		6.766	.000
Openness	-.140	.125	-.079	-1.119	.065
Agreeableness	.013	.112	.008	.113	.020
1 Neuroticism	-.472	.125	-.269	-3.785	.000
Self-efficacy	.509	.108	.337	4.732	.000
Extroversion	-.052	.134	-.028	-.386	.001
Conscientious	-.006	.117	-.004	-.049	.961

a. Dependent Variable: Academic Achievement

From Table 4.33 the following regression equation was generated.

$$\text{Academic Achievement} = 46.716 - (0.14x1) + (0.13x2) - (0.472x3) + (0.509x4) - (0.052x5) + (0.06x6) + \mu$$

The coefficient results on Table 4.33 indicate insignificant negative correlation linking openness to experience and academic achievement. The Table further indicates a significant positive correlation linking agreeableness to academic achievement. Further the findings indicate a significant inverse correlation linking neuroticism and extroversion to academic achievement. Finally Table (4.33) indicates a significant positive correlation linking academic self-efficacy to academic achievement and a weak insignificant negative correlation linking conscientiousness to academic achievement. The study findings reveal that there is a positive and significant relationship between academic self-efficacy, personality traits and academic achievement of learners and that 62.5% of the variations in academic achievement amongst learners can be attributed to academic self- efficacy and academic achievement.

4.9.3 Discussion of Findings

These findings are in line with those of Pasarica (2014) who studied the relationship between personality, self-efficiency and academic performance. He used EPQ to measure personality traits. Academic performance was evaluated by the final project grade and the overall grade of the last academic year. The findings indicated the neuroticism negatively influences the academic performance both in the case of the final project which implied a long period of time preparation. A weak relationship was established between extroversion and academic performance in the form of the final project and no significant correlation with the overall grade and general academic self-efficacy and personality traits correlate positively to academic achievement. It was also noted that there existed a positive correlation between academic self-efficacy personality traits and academic achievement. In this study, it was recorded that 34.5 of the variation in academic achievement can be attributed to academic self-efficacy and personality traits.

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMENDATION

5.1 Introduction

This Chapter presents summary of the findings, conclusions of the study and recommendations based on the study.

5.2 Summary of Study Findings

The study was concerned with the relationship between academic self-efficacy, personality traits and academic achievement of form three students in Nairobi City County. A sample of three Secondary schools was obtained by stratified random sampling. A sample of 169 form three students participated in the study. Academic self-efficiency was measured using Albert Bandura's self-efficacy scale which consisted of 15 question items based on a five likert scale. Total scores for each question were summed up to get respondents academic self-efficacy score. The scores ranged between 15 and 75. Personality traits were determined using Big Five Factor Model of personality scale that had 50 question items, 10 measuring each of the traits. The minimum expected score for each trait was 10 while the maximum score was 50. Academic achievement was obtained from end of term three mean grade for each student then the scores were converted to T-scores to enable comparison. Data obtained were summarized using descriptive and inferential statistics. Pearson product moment correlation and multiple regression were used to test the set hypothesis.

The study found out that learners have different levels of academic self-efficacy. Half of the students who participated in the study (50.2%) had average academic self-efficacy while the

rest had low (37.3%) and high (6.5%) levels of academic self-efficacy. It was also discovered that girls' boarding schools recorded the highest (49.3%) academic self-efficacy level. The findings also indicated that there is a strong positive significant correlation between academic achievement of learners and academic self-efficacy hence the null hypothesis was rejected. This implies that the higher the level of academic self-efficacy the higher the academic achievement of learners.

It was revealed that agreeableness correlated positively to academic performance of learners. the relationship was deemed strong and significant as the correlation between the variables was 0.826 and $P < 0.05$. The value of correlation was high according to Garret (2006). Hence it was concluded that there was a strong positive relationship between agreeableness and academic achievement. Findings of the study indicated that 71.1% of the respondents rated highly on extroversion. It was also noted that high level of extroversion correlated negatively to academic achievement though the relationship between the two variables was significant. This implied that increase in extroversion levels leads to decrease in academic achievement of learners as those students who have experience high levels of extroversion tend to perform poorly in academics.

The conscientiousness level of learners was almost evenly distributed with the majority (34.3%) having average conscientiousness level. It was also noted that there was no significant relationship between conscientiousness and academic achievement hence the null hypothesis was accepted.

Research finding indicated that there exists a moderate positive correction between openness to experiences and academic achievement of learners. It was also noted that this correction was significance at 0.05 level of significance. This implies that an increase in openness level leads to increase in academic achievement hence the null hypothesis was rejected.

The study sought to determine the relationship between neuroticism and academic achievement of learners. It was noted that almost half of the respondents (48.5%) had high levels of neuroticism. From the study, it was concluded that there exists a significant strong negative correlation between neuroticism and academic achievement. The study findings also revealed that there is a positive and significant relationship between academic self-efficacy, personality traits and academic achievement of learners and that 62.5% of the variations in academic achievement can be attributed to academic self-efficacy and personality traits implying that 37.5% of variations in academic achievement if learners can be attributed to other factors.

5.3 Conclusion of the Study

From the study findings, it was concluded that academic self-efficacy correlates positively to academic achievement. This implies that the higher the academic self- efficacy scores the higher the academic achievement. Results from regression analysis revealed personality traits accounted for 48% of variance in academic achievement. Conscientiousness explained 36% of variance in academic achievement alone. Extroversion accounts for 6.8% variance in academic achievement. It was also found that neuroticism explained for 2.4% of the variance in academic achievement and that the relationship is negative. Agreeableness correlated positively to academic achievement to a great extent. It was also noted that the interaction between academic self-efficacy and personality traits influences academic performance of learners.

Neuroticism and extroversion were significant and negatively related to academic achievement whereas, agreeableness, openness and academic self-efficacy were significant and positively related. It was also recorded that there was an insignificant relationship between conscientiousness and academic achievement.

5.4 Recommendations of the Study

Based on the findings of the study a number of recommendations have been made; Firstly educational psychologist need to come up with interventions for improving academic self-efficacy of students. More research needs to be done in the area of personality traits and academic self-efficacy so as to add on the existing scanty literature.

Secondly schools should pay more attention to the development of academic self-efficacy and personality traits and consider them as key variable in determining students' academic achievement.

Thirdly, the designers of secondary school curriculum may also devise classroom activities that allow students to learn about their personalities and in turn they may be able to know which subjects may be best suited for them before subject selection

Lastly, Parents and teachers should encourage students to work on their personality traits that may hinder them from attaining better academic achievement. Teachers also need to present their teaching and learning in varied and interesting ways to cater for individual differences among learners.

5.5 Suggestions for Further Research

Based on the finding the study recommends further studies on the following areas;

1. A similar study should be carried out among private secondary schools, primary schools and tertiary institutions to compare with the findings so as to establish generalizability and determine whether the mentioned attributes exists in those institutions.
2. A Study on the relationship between personality traits and other attributes of academic achievement other than academic self-efficacy to be done.
3. A research to be done in other Sub-counties in Nairobi other than Makadara.

4. A bigger geographical scope should be considered. A study to be done involving a sample from all counties in Kenya.
5. A similar study should be done using other research designs other than correlational research design.
6. More than one research instrument like Interview schedule should be incorporated in the study.
7. A larger sample should be used so as to help in sweeping outliers in the sample.
8. A common test aimed at obtaining secondary data to be done by all respondents so as to render the scores comparable.
9. Students from all levels in secondary schools to be involved in the study.
10. Academic achievement of learners to be determined by the average of multiple tests done throughout an academic year.

REFERENCES

- Aasiginy, S. (2012). The impact of Academic Self-efficacy on Mathematic Achievement among college students of Al-Shukri College in Iran. *Personality and Individual Differences, 25*, 973-989.
- Abdalla, S. (2013). Viewing of mass media violence, perception of violence, personality and academic achievement. *Australian Educational Research, 31*(2), 81-112.
- Bandura, A. (1977). *Self-Efficacy: The Exercise of Control*. New York: Freeman.
- Brighton, S. (1989). *Social Learning and Imitation*. New Haven: Yale University Press.
- County Director of Education . (2017). 2017 K.C.S.E analysis
- Costa, T; & McCrae, W. (2000). *Revised NEO. Personality inventory interpretive Report*, PAR psychological Assessment Resources, INC, PP 1-18.
- Furmham, A. (2003b). Personality traits and academic examination performance. *European Journal of Personality, 17*, 237-250.
- Digman, J. M: & Goldbergh, P. (1993). *Personality structure: Emergence of the five-factor model- Annual Review of psychology, 41*-417-440.
- Douglas, M. (2014). *Effect of agreeableness personality trait on academic achievement of learners in secondary school in Kenya*. (Unpublished thesis) University of Nairobi: Nairobi.
- Furmham, A. (2013). The big five versus the big four: the relationship between the Myers-Briggs Type Indicator (MBTI) and NEO-PI five factor model of personality. *Personality and Individual Differences, 21*(2), 303-307.
- Gorard, H. (2001). *Qualitative and quantitative research methods*. New Jersey: Lawrence Erlbaum Associates.

- Hakim, H. (2017). *A measure of big five factor of personality: A Saudi female study* educational Magazine, Kuwait, volume 21 number: 83.
- Imogen, G. (2015). Big Five personality predictors of post-secondary academic performance. *Personality and Individual Differences, 43*, 971-990.
- Jaafar, A. (2013). *Personality and Individual Differences*. New Jersey : Lawrence Erlbaum Associates.
- Joan, R. (2013). Self-esteem and academic achievement of adolescents. *Journal of the Indian Academy of Applied Psychology, 35*, 33-39.
- John, N & Ekatarina, K. (2013) . Relationship between personality, motivation and academic achievement of learners. *Social Psychology Education, 17*, 269–291doi 10.1007/11218-13-9244-4.
- John , T.A., & Scivasta, J.E. (1999): Five-factor model of personality and transformational leadership. *Journal of Applied Psychology, 85*, 751-765
- Karanja, Y. (2015). Psychosocial profile of unsuccessful university student: personality and motivational factors revisited. *Social Behavior and Personality: An International Journal, 3(29)*, 299-306.
- Krach, Z. (2016). *Impact of personality on reading ability among elementary School learners in Uruguay*. Journal of applied psychology.
- Koech, W. (2015). Conscientiousness and psychoticism as predictors of school grades : a one-year longitudinal study. *Personality and Individual Differences, 42*, 535-546.
- Mackay, N. (2014). Research methodology. Retrieved <https://libguides.wits.ac.za/research-Support>.
- Matz, J. (2010). Personality and family influences on adolescent attitudes to school and self-rated academic performance. *Personality and Individual Differences, 32*, 453-462.

achievement Italy University Press.

Miriam, S. (2015). The role of self-efficacy on academic achievement among college students. *Educational Psychologist*, 34(3), 169-189.

Moturi, E.S. (2014). *The relationship between self-efficacy and academic performance in Mathematics and Kiswahili language among secondary school student in Nyamira*. Unpublished thesis. Retrieved from Kenyatta University.

Ochieng, F. (2015). Typical intellectual engagement, Big Five personality traits, approaches to learning and cognitive ability predictors of academic performance. *British Journal of Educational Psychology*, 79, 769-782.

Onkundi, E.M. (2014). *Locus of control and self-efficacy as predictors of Academic Achievement among Form Three Students Nyamaiya Division, Nyamira County, Kenya: (Unpublished thesis) Kenyatta University*.

Pasarica, R. (2014). *Personality and intellectual competence*. New Jersey: Lawrence Erlbaum Associates.

Rush, T& Prudence, F. (2012). Big five Factor a model of Personality Scale. Unpublished works

Sameera, Y. (2015). *Relationship between academic self-efficacy and academic achievement of Al- Ummra University students*. Retrieved from:
<http://digitalcommons.wku.edu/theses/1214>.

Sammera, P. (2015). Intelligence, personality and interests: evidence for overlapping traits. *Psychological Bulletin*, 121, 219-245.

Siringi, D. (2011). *A study of the attitude, self-efficacy, effort and Academic Achievement of City students towards research methods and statistics*. Discovery –SS student E-Journal, 1, 154-183.

- Schunk, T. (1985). *Explorations in self-efficacy*. New York: Wiley.
- Shkullaku, M. (2013). Personality, cognitive ability and beliefs about intelligence as predictors of academic performance. *Learning and Individual Differences, 14*, 49-66.
- Stice, E. (2016). *The Similarities between self-efficacy, guilt and personality: Confession as a relief of Dissonance*. *Current Psychology, 11*,no. 1:69-78.
- Trapman, L. (2007). *Cognitive ability, personality and academic performance in adolescence*. *Discovery –SS student E- Journal, 1*,154-183.
- Tupes, E & Crystal, R. (1961). Trait theory of personality: Big Five Factor Model. Unpublished works. *International Journal of Experimental Educational Psychology, 35*(6), 714-725.
- Usher T., & Pajares, A. (2008). Personality predicts academic performance: evidence from two longitudinal university samples. *Journal of Research in Personality, 37*, 319-338.
- Vidya, C. (2014). Personality traits and abilities as predictors of academic achievement. *European Journal of Psychology of Education, 16*(1), 3-15.
- Zahra, F. (2017). Personality and intelligence as predictors of academic achievement. *Personality and Individual Differences, 42*, 441-451.

APPENDICES

APPENDIX A: INFORMED CONSENT FORM

Dear Participants,

I am a student undertaking a Masters Degree in Educational Psychology at Kenyatta University. I am conducting a research on “Relationship between academic self-efficacy, personality traits and academic achievement among Form Three students in secondary schools in Nairobi City. I kindly request your to respond to the questionnaire items as honestly as possible. The responses you give will be treated with ultimate confidentiality. Your genuine responses will go a long way to increase knowledge on improvement of academic outcomes.

Please if you agree to participate, sign at the end of this letter.

Thank you

Christine Juma

Department of Educational Psychology,

School of Education,

Kenyatta University.

I agree to participate.

Signature

APPENDIX B: SELF EFFICACY QUESTIONNAIRE

I am Christine Juma a post graduate student pursuing a Masters of Education in Educational psychology at Kenyatta University. You have been selected randomly to participate in this study on “Relationship between Academic Self-Efficacy, Big Five Factor Model of personality and Academic Achievement of Form Three students of Makadara Sub-county, Nairobi City .

SECTION A: PERSONAL DATA

(Please indicate the correct answer)

1. Sex (tick one)

a. Male

b. female

2. How old are you?

3. Name of the school.....

4. Type of school.

A	Boys only	
B	Girls only	
C	Co-educational	

QUESTIONNAIRE ON ACADEMIC SELF-EFFICACY.

(Answer the statements below by indicating with a tick to show how much you agree or disagree with them).

Question	Strongly Disagree	disagree	Neutral	Agree	Strongly agree
1. I always manage to solve difficult problems if I try hard					
2. If someone opposes me, I find the means and ways to get what I want.					
3. It is easy for me to stick to my aims and accomplish my goals.					
4. I am confident that I can deal with unexpected events.					
5. If I practiced daily, I can master any skill taught.					
6. I can solve most problems if I put the necessary effort.					
7. I can remain calm when facing challenges.					
8. When I come across a problem I face it.					
9. I believe hard work pays off.					
10. I can handle whatever					

comes my way.					
11. I get help from teachers when I cant handle schoolwork.					
12. I can study well when there are other interesting things to do around me.					
13. I can study a chapter in text book for a test.					
14. I manage to finish all my homework every day.					
15. I quickly understand things taught in class.					

APPENDIX C: BIG FIVE FACTOR MODEL QUESTIONNAIRE.

(Indicate with a tick to show the extent to which you agree with the following statements)

STATEMENT	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am the life of the party					
I feel little concern for others.					
I am always prepared.					
I get stressed out easily.					
I have a rich vocabulary.					
I don't talk a lot.					
I am interested in people.					
I leave my belongings around.					
I am relaxed most of the time.					
I have difficulty understanding abstract ideas.					
I feel comfortable around people.					
I insult people.					
I pay attention to details.					
I worry about things.					
I have a vivid imagination.					
I keep in the background.					
I sympathize with others' feelings.					

I make a mess of things.					
I day dream often					
I am not interested in abstract ideas.					
I start conversations.					
I am not interested in other people's problems.					
I get chores done right away.					
I am easily disturbed.					
I have excellent ideas.					
I have little to say.					
I have a soft heart.					
I often forget to put things back in their proper place.					
I get upset easily.					
I do not have a good imagination.					
I talk to a lot of different people at parties.					
I am not really interested in others.					
I like order.					
I change my mood a lot.					
I am quick to understand things.					
I don't like to draw attention to myself.					
I take time out for others.					
I do all my duties.					

I have frequent mood swings.					
I use difficult words.					
I don't mind being the center of attention.					
I care for others' emotions.					
I follow a schedule.					
I get irritated easily.					
I spend time reflecting on things.					
I am quiet around strangers.					
I make people feel at ease.					
I do my work well.					
I day dream often					
Am full of ideas.					

THANK YOU FOR YOUR TIME AND CO-OERATION

APPENDIX D: RESEARCH AUTHORIZATION LETTER



KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100

NAIROBI, KENYA

Tel. 8710901 Ext. 57530

Our Ref: ESS/CE/25512/2014

DATE: 27th September, 2019

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

**RE: RESEARCH AUTHORIZATION FOR CHRISTINE JUMA OUMA – REG. NO.
ESS/CE/25512/2014.**

I write to introduce **Christine Juma Ouma** who is a Postgraduate Student of this University. The student is registered for M.Ed degree programme in the **Department of Educational Psychology**.

Christine intends to conduct research for a M.Ed. Project Proposal entitled, "**Relationship among Academic Self-Efficacy Personality Traits and Academic Achievement of form three Students of Nairobi City, Kenya**".

Any assistance given will be highly appreciated.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'Elisjuba Kimani', written over a circular stamp.

PROF. ELISJUBA KIMANI
AG. DEAN, GRADUATE SCHOOL

///sn

APPENDIX E: RESEARCH LICENSE

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 969624	Date of Issue: 23/October/2019
RESEARCH LICENSE	
	
This is to Certify that Ms. christine ouma of Kenyatta University, has been licensed to conduct research in Nairobi on the topic: Relationship among Academic Self- Efficacy and Personality Traits among Form Three Students of Nairobi City County Kenya for the period ending : 23/October/2020.	
License No: NACOSTIP/19/2329	
969624 Applicant Identification Number	 Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
	Verification QR Code 
NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.	

APPENDIX F: MAP OF NAIROBI COUNTY



Figure F.1 : Map Of Nairobi County

Source: www.googlemaps.com

APPENDIX G: KCSE ANALYSIS 2014-2017

Table G.34:

K.C.S.E Performance by Grade

Year	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
2014	3042	11584	28931	37964	19450	58399	70405	47113	73198	47436	75887	5562
2015	2685	21927	21927	44581	44581	54770	64913	74115	79157	79555	48658	5350
2016	141	4645	10975	23745	23745	32207	44792	61026	80951	112135	149929	33399
2017	142	2714	7344	12628	19385	27860	40474	61040	68447	135550	179381	35536
2018	315	3417	8268	16403	26156	35818	49707	71047	96512	147918	165139	30840
Total	5868	44486	61833	106290	87776	145376	180110	182254	233306	239126	274474	14311

Table G.35:

K.C.S.E Grade Analyses 2013-2017

Year	C+ and above		C to D+		D to E	
	No.	%	No.	%	No.	%
2017	90377	13.77	217266	32.90	437274	66.23
2016	70073	11.4	169961	27.6	350467	56.9
2015	88929	15.57	186769	32.7	295463	51.73
2014	166009	31.8	215350	41.86	131826	25.62
2013	148084	30.9	204691	39.83	126196	26.92
Total	403022	25.7	606810	38.6	553485	35.226

APPENDIX H: PRO FORMA SUMMARY OF STUDENT'S EXAMINATION

RESULTS

Participant's Code Number.....

Student's Academic Achievement Form 3 Examinations

Examination	Subjects							Mean Score
	1	2	3	4	5	6	7	
Mid- Term One 2017								
End of Term One 2017								