

# Relationship Among Academic Self-Efficacy Personality Traits And Academic Achievement Of Form Three Students Of Nairobi City, Kenya

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**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 correction 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.

**Keywords:** Academic performance, Academic self efficacy, personality traits.

## I. INTRODUCTION AND CONTEXTUALIZATION OF THE STUDY

### INTRODUCTION

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).

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.

#### 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 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. 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.

#### OBJECTIVES OF THE STUDY

- ✓ Establish the relationship between academic self-efficacy and academic achievement.
- ✓ Find out the relationship between agreeableness and academic achievement.
- ✓ Determine the relationship between extroversion and academic achievement.
- ✓ Investigate the relationship between neuroticism and academic achievement.
- ✓ Determine the relationship between conscientiousness and academic achievement.
- ✓ Investigate the relationship between openness to experience and academic achievement.
- ✓ To find out the interaction effect between academic self-efficacy, personality traits and academic achievement.

## RESEARCH HYPOTHESES

H<sub>01</sub>. There is no significant relationship between academic self-efficacy and academic achievement.

H<sub>02</sub>. There is no significant relationship between agreeableness and academic achievement.

H<sub>03</sub>. There is no significant relationship between extroversion and academic achievement.

H<sub>04</sub>. There is no significant relationship between neuroticism and academic achievement.

H<sub>05</sub>. There is no significant relationship between conscientiousness and academic achievement.

H<sub>06</sub>. There is no significant relationship between openness to experience and academic achievement.

H<sub>07</sub>. There is no significant interaction effect between academic self-efficacy, personality traits and academic achievement.

## SIGNIFICANCE OF THE STUDY

The study findings 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 and 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.

## II. REVIEW OF RELATED LITERATURE

### A. RELATIONSHIP BETWEEN ACADEMIC SELF-EFFICACY AND ACADEMIC ACHIEVEMENT

It has been noted that learners with high academic self-efficacy tend to perform better academically than those with low academic self-efficacy. The following are some of the previous studies conducted to examine the relationship academic self-efficacy and academic achievement.

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.

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.

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.

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. stratified random sampling was used to select 150 students. 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.

### B. 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.

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

#### C. 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. 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

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. 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.

#### D. 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.

Vidya (2014) sought to find out the contribution of emotional stability on academic achievement of year one medical students in Karnatak India. 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.

#### E. 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 attributed this to the fact that learners who exhibit high levels



of conscientiousness are generally intrinsically motivated and do not procrastinate any school work.

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.

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.

#### F. 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. 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.

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.

### III. RESEARCH METHODOLOGY

#### A. 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).

##### a. 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.

##### b. 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).

#### B. 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).

#### C. SAMPLING TECHNIQUE AND SAMPLE SIZE

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 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.

#### D. 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. Both questionnaires had closed ended questions. It took approximately 40 minutes for the respondents to complete both questionnaires.

##### a. 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. 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. The scores of academic self-efficacy ranged from 15 to 75.

##### b. FACTOR MODEL OF PERSONALITY SCALE

An adopted questionnaire constructed by Rush and Prudence (2012) was used to determine the respondents' personality traits. 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 (The scale provides for methods of scoring depending on the choice of response given by the respondents. The scores were then tallied to determine the kind of personality someone had.

##### c. DOCUMENT ANALYSIS

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

#### E. DATA COLLECTION TECHNIQUES

An introductory letter was obtained from Kenyatta university which was used to apply for a research permit from National Council of Science and technology (NACOSTI). Once the permit was granted, authorization was sought from county education office. The researcher then organized with the schools' principals on when to collect data. The researcher

personally administered the questionnaires to the respondents. the process took a period of one week.

#### F. DATA ANALYSIS

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 with the help of SPSS version 25.

#### IV. 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 4.1

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

Table 4.1: Distribution of the Respondents by Gender

Table 4.1 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.

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 4.2.

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

Source: Researcher

Table 4.2: Age of the Respondents

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.

**A. DESCRIPTIVE STATISTICS FOR STUDENTS' ACADEMIC ACHIEVEMENT**

Academic achievement scores were converted into T score to make them comparable. The descriptive statistics of the scores are presented in Table 4.3.

	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

Table 4.3: T-Scores of Academic Achievement of the Respondents

The findings presented in Table 4.3 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 4.4.

Level of Academic Achievement	Frequency	Mean	SD
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

Table 4.4: Academic Achievement Level of the Respondents

As indicated in Table 4.4, 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 ( $SD = 1.41$ ).

**B. RELATIONSHIP BETWEEN ACADEMIC SELF-EFFICACY AND ACADEMIC ACHIEVEMENT**

This section contains descriptive statistics for academic self-efficacy scores, hypothesis testing and discussion of findings.

**a. 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 4.1.

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Academic self-efficacy Score	169	57.00	18.00	75.00	45.67	13.11	-.326	0.15

Table 4.5: Academic self-efficacy scores

As presented in Table 4.5, the mean cumulative scores on academic self-efficacy was 45.67. 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.

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

Table 4.2: Respondents' Levels of Academic Self-Efficacy

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.

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

Table 4.3: Scores of Academic Self-efficacy as per the School Categories

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%).

**b. HYPOTHESIS TESTING**

The first objective of this study was to determine the relationship between academic self-efficacy and academic achievement. The following null hypothesis was advanced to find out if the two variables were significantly related or not.

$H_{01}$ : 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.

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

Table 4.8: Correlation between Academic Self –efficacy and Academic Achievement

From Table 4.8 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.

*c. 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 4.8. 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) and Stice (2016). 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.

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. 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) indicated an insignificant relationship between academic achievement and academic self-efficacy.

**C. 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.

*a. DESCRIPTIVE STATISTICS FOR RESPONDENTS' AGREEABLENESS SCORE*

Data related to student's level of agreeableness was coded and analyzed. The results are shown in Table 4.9

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis	Mode
Agreeableness Score	169	30.00	10.00	40.00	17.1	11.44	-0.7	0.37	20

*Table 4.9*

Results presented in Table 4.9 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

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

*Table 4.10: Descriptive Analysis of Respondents' Agreeableness level*

As Table 4.10 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.

*b. 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.

H<sub>02</sub>: There is no significant relationship between agreeableness and academic achievement. To test this hypothesis the data was subjected to bivariate correlation.

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

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

*Table 4.11: Correlation between Agreeableness Score and Academic Achievement*

From Table 4.11 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.



c. 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 overallly, 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.

D. RELATIONSHIP BETWEEN EXTROVERSION AND ACADEMIC ACHIEVEMENT

The third objective sought to establish the relationship between extroversion and academic achievement. Data related to students' level of extroversion was coded and analyzed. The results are shown in Table 4.12. Table 4.12 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.

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis	Mode
Extroversion Score	169	30.00	10.00	40.00	12.09	10.61	.82	0.37	3

Table 4.12: Descriptive Statistics for Extroversion Scores

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

Table 4.13: Descriptive Analysis of Respondents' Extroversion level

Table 4.13 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.

a. 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:

H<sub>03</sub>: There is no significant relationship between extroversion and academic achievement.

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

Note: N; Sample

Table 4.14 : Correlation between Extroversion and Academic Achievement

From Table 4.14 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.

b. 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.

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.

E. RELATIONSHIP BETWEEN NEUROTICISM AND ACADEMIC ACHIEVEMENT

The fourth objective was to establish the relationship between extroversion and academic achievement. The results are discussed below

a. 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 4.15

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis Mode
Neuroticism Score	169	39.00	10.00	49.00	42.01	11.44	.219	-1.105 48

Table 4.15: Descriptive Analysis for Neuroticism

The data in Table 4.15 shows that the mean score on neurotics is 42.01, range is 39 while the mode was 48. 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.

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

Table 4.16: Descriptive Analysis of Respondents' Neuroticism level

As Table 4.16 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.

b. HYPOTHESIS TESTING

In order to determine the relationship between neuroticism and academic achievement, a hypothesis  $H_{04}$ : There is no significant relationship between Neuroticism and academic achievement was put across. Table 4.17 reveals the findings of the research.

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

Note: N: Sample

Table 4.17: Correlation between Neuroticism and Academic Achievement

Table 4.17 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.

c. 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 4.17. 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.

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.

F. 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.

a. 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. 18 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.

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis Mode
Conscientiousness Score	169	46.00	10.00	56.00	44.88	12.15	1.87	0.37 20

Table 4.18 : Descriptive Statistics for Conscientiousness

The researcher further categorized respondents according to their conscientiousness level. The findings are illustrated in Table 4.19

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

Table 4.19: Descriptive Analysis of Respondents' Conscientiousness level

From Table 4.19 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.

b. HYPOTHESIS TESTING

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

H<sub>05</sub>: There is no significant relationship between conscientiousness and academic achievement was put across.

Table 4.20 demonstrates the findings of the research.

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

Note: N; sample

Table 4.20: Correlation between Conscientiousness and Academic Achievement

Results resented in Table 4.20 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.

c. 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 a 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.

Furmham (2013) who recorded a negative correlation between conscientiousness and academic achievement arrived at these findings after replicating a study conducted by

Trapman (2007). Furnhams' 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.

G. 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.

a. 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 4.21.

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis Mode
Conscientiousness Score	169	28.00	12.00	40.00	18.51	.187	0.027	-1.11 23

Table 4.21: Descriptive Statistics for Openness

The data in Table 4.21 shows that the mean score on openness to experience is 18.51; range is 39 while the mode is 23 . 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.

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

Table 4.22: Respondents openness level

Table 4.22 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.

c. 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.

H<sub>06</sub>: 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.

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

Note: N; sample

Table 4.23: Correlation between Openness to Experience to Academic Achievement

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.

#### d. DISCUSSION OF FINDINGS

Table 4.23 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.

#### H. 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.

H<sub>07</sub>: 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.

#### a. MODEL SUMMARY

Model	R	R Square	Adjusted R	Std Error of	the Durbin
	Square	Estimate	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

Table 4.24: Model Summary

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.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	14921.275	7	242.0	7.171	.000
1Residual	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.

Table 4.25 : Analysis of Variance

Table (4.25) 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.

Coefficients Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	
	B	Std. Error				
	(Constant)	46.716	6.904	6.766	.000	
1	Openness	-.140	.125	-.079	-1.119	.065
	Agreeableness	.013	.112	.008	.113	.020
	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

Table 4.26 : Regression Analysis

From Table 4.26 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.

#### *b. 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.

### V. SUMMARY CONCLUSION AND RECOMMENDATION

#### A. 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.

#### B. CONCLUSION OF THE FINDINGS

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  $P < 0.05$ . 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. The conscientiousness level of learners was almost evenly distributed with the majority 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. 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.

#### C. 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 exiting 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.

#### D. SUGGESTIONS FOR FURTHER RESEARCH

- ✓ 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.
- ✓ A Study on the relationship between personality traits and other attributes of academic achievement other than academic self-efficacy to be done.
- ✓ A bigger geographical scope should be considered. A study to be done involving a sample from all counties in Kenya.
- ✓ A similar study should be done using other research designs other than correlational research design.
- ✓ More than one research instrument like Interview schedule should be incorporated in the study.
- ✓ A larger sample should be used so as to help in sweeping outliers in the sample.
- ✓ A common test aimed at obtaining secondary data to be done by all respondents so as to render the scores comparable.
- ✓ Students from all levels in secondary schools to be involved in the study and academic achievement of learners to be determined by the average of multiple tests done throughout an academic year.

#### REFERENCES

- [1] 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.
- [2] Bandura, A. (1977). *Self-Efficacy: The Exercise of Control*. New York: Freeman.
- [3] Brighton, S. (1989). *Social Learning and Imitation*. New Haven: Yale University Press.
- [4] County Director of Education. (2017). 2017 K.C.S.E Analysis
- [5] Costa, T; & McCrae, W. (2000). Revised NEO. Personality inventory interpretive Report, PAR psychological Assessment Resources, INC, PP 1-18.
- [6] Furnham, A. (2003b). Personality traits and academic examination performance. *European Journal of Personality*, 17, 237-250.
- [7] Digman, J. M: & Goldbergh, P. (1993). Personality structure: Emergence of the five-factor model- *Annual Review of psychology*, 41-417-440.
- [8] Douglas, M. (2014). Effect of agreeableness personality trait on academic achievement of learners in secondary school in Kenya. (Unpublished thesis) University of Nairobi: Nairobi.
- [9] Furnham, A. (2013). The big five versus the big four: the relationship between the Myers-Briggs Type Indicator [10]MBTI) and NEO-PI five factor model of personality. *Personality and Individual Differences*, 21(2),303-307.
- [11] Gorard, H. (2001). *Qualitative and quantitative research methods*. New Jersey: Lawrence Erlbaum Associates.
- [12] Hakim, H. (2017). A measure of big five factor of personality: A Saudi female study educational Magazine, Kuwait, volume 21 number: 83.
- [13] Imogen, G. (2015). Big Five personality predictors of post-secondary academic performance. *Personality and Individual Differences*, 43, 971-990.
- [14] Joan, R. (2013). Self-esteem and academic achievement of adolescents. *Journal of the Indian Academy of Applied Psychology*, 35, 33-39.
- [15] John, N & Ekatarina, K. (2013). Relationship between personality, motivation and academic achievement of learners. *Social Psychology Education*, 17, 269-291 doi 10.1007/ 11218-13-9244-4.
- [16] 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.
- [17] Krach, Z. (2016). Impact of personality on reading ability among elementary Schoollearners in Uruguay. *Journal of applied psychology*.
- [18] Koech, W. (2015). Conscientiousness and psychoticism as predictors of school grade: a one-year longitudinal study. *Personality and Individual Differences*, 42, 535-546.
- [19] Mackay, N. (2014). Research methodology. Retrieved <https://libguides.wits.ac.za/research-Support>.
- [20] Matz, J. (2010). Personality and family influences on adolescent attitudes to school and self-rated academic performance. *Personality and Individual Differences*, 32, 453-462 Italy University Press.
- [21] Miriam, S. (2015). The role of self-efficacy on academic achievement among college students. *Educational Psychologist*, 34(3), 169-189.
- [22] 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.
- [23] 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.
- [24] Pasarica, R. (2014). *Personality and intellectual competence*. New Jersey: Lawrence Erlbaum Associates.
- [25] Rush, T& Prudence, F. (2012). Big five Factor a model of Personality Scale. Unpublished works
- [26] Sameera, Y. (2015). Relationship between academic self-efficacy and academic achievement of Al- Ummra University students. Retrieved from: <http://digitalcommons.wku.edu/theses/1214>.
- [27] Sammera, P. (2015). Intelligence, personality and interests: evidence for overlapping traits. *Psychological Bulletin*, 121, 219-245.
- [28] 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.

- [29] Stice, E. (2016). The Similarities between self-efficacy, guilt and personality: Confession as a relief of Dissonance. *Current Psychology*. 11, no. 1:69-78.
- [30] Trapman, L. (2007). Cognitive ability, personality and academic performance in adolescence. *Discovery –SS student E- Journal*, 1,154-183.
- [31] Vidya, C. (2014). Personality traits and abilities as predictors of academic achievement. *European Journal of Psychology of Education*, 16(1), 3-15.
- [32] Zahra, F. (2017). Personality and intelligence as predictors of academic achievement. *Personality and Individual Differences*, 42, 441-451.

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