

CORRELATE OF GENDER INFLUENCE ON STUDENT'S LOCUS OF CONTROL AND ATTITUDE TOWARDS ACADEMIC ACHIEVEMENT IN PUBLIC SECONDARY SCHOOLS NAIROBI COUNTY, KENYA

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ABSTRACT

All educators and parents wish that students, who will ultimately be the future leaders and professionals, prosper academically. Nationally there has been a decline in academic achievement in secondary schools as indicated by the available statistics and Nairobi City County has not been left behind. Research indicates that attitude is considered as an important determinant of student's achievement in an education setting. It is therefore necessary that learning institutions establish and clarify the cause of good academic achievement. This study sought to examine whether variation in gender influences locus of control and attitude towards academic achievement in public secondary school Nairobi County Kenya. The study was grounded on the Rotter's (1954) social learning theory. The study employed correlational research design. The target population was 6460 form three secondary school's students from Nairobi City County. Stratified random sampling was used to divide the schools into three strata namely boys boarding, girls boarding and mixed day schools. Simple random sampling was used to select 7 public schools; 2 boys boarding, 3 girls boarding and 2 mixed day schools. Simple random sampling was used to select 385 form three students (208 boys and 167 girls) through proportionate allocation. The research instruments comprised of Rotter's locus of control scale -internal versus external (I-E) scale control, and academic attitude scale. The tools were administered after piloting to establish their suitability. Data was analyzed using both descriptive (percentages and mean) and inferential statistics (Kruskal-Wallis one-way analysis of variance and t-test). The findings showed that gender differences across attitude and locus of

control scale scores, hence, the null hypothesis was rejected at 0.05 level of significant. The study recommends that school counselors facilitate groups that focus on acquiring an internal locus of control, engage in classroom guidance that focuses on the significance of internal locus of control and discourage use external locus of control in the student. The policy makers should come up with programs that train educators on the importance of locus of control and how to change the unfavorable locus of control of their students.

Keywords: Locus of control and attitude, Academic achievement, Variation in gender

INTRODUCTION

Globally, great attention has focused on students' academic achievement. Many studies have sought to establish the underlying factors that propagate or hinder the learners' achievement. Findings from some of these studies have established that, students' academic achievement is dependent on various intrinsic and extrinsic factors within the environment in which the learners live (Bosorgi, 2009). Studies indicate that academic achievement which can be looked at both short and long term is a product of student's attitude in education. Achievement though may include the student's results in this study it will importantly look at the process of acquiring the results. Students with poor academic achievement have more negative attitude towards learning and believe that school and learning would not help them become successful in the future (Oliveira, 2011). Various psychologists and theorists in the field of education put emphasis on the factors that led to positive attitude which led to high academic achievement (Hulzing, 2015). An investigation carried out to establish the influence of students' attitude on their academic achievement in education in Malaysian educational centers (Awang, 2013) established that students had a negative attitude towards the Malaysian Language studies which in turn, negatively affected their academic achievement in this subject.

Since academic achievement has been linked to attitude, the researcher was interested in investigating the correlates of attitude and locus of control towards academic achievement. Academic achievement may be influenced by myriad factors where many researchers are interested in the end results of good grades. This study focuses on gender as a correlate of attitude and locus of control towards academic achievement. In the present study gender is the physical difference between people who are male and female. A person typically has their sex assigned at birth based on physiological characteristics including their genitalia and chromosome composition. In this study type of schools were grouped in boys boarding girls boarding and mixed day. In Kenya the main gender happens to coincide with the developmental stage when adolescence in high school are generally over sensitive about how they appear to others and particularly attentive to their peers (Somerville, 2013).

According to Eshun (2004) this emotional disposition influences a student's behavior, confidence or willingness to learn. Positive attitude fosters hard work and consequently high academic achievement while negative attitude lead to low academic work readiness and hence low academic achievement. Das (2014) argues that attitude is a determined way of rationalizing, feeling or behaving about something. It has been previously established by psychologists that several factors influence the formation of attitudes among students (Lewis, 2007). They include emotional, cognitive and behavioral factors. From several studies, it has been noted that

students who had a positive attitude towards their academics attained higher academic success than students who portrayed a negative attitude. The researcher's big question is what correlates to attitude and locus of control among secondary students which research has attributed to academic achievement?

Rotters (1966) posited that locus of control (LoC) was the personal conviction about the degree to which an individual's behavior determined a particular outcome. Rotter (1966) went on to identify Locus of control as being either internal or external where individuals who exhibited the internal LoC were referred to as internals while those who identify with external LoC were termed as externals. Many students with internal LoC presumed that their current and prospective outcome was hinged predominantly on their personal behavior and effort (Khir, 2015). These students exalted themselves for their success. However, students who were identified as having external LoC ascribed their actions and achievement to factors beyond their control or superior beings. These factors included luck, fate chance or even witchcraft. Such students laid the blame of their failure on their school environment, their teachers, the government or even acts of nature. When a student felt they had no control of their academic achievement, their attitude was negative which finally affected their academic grades.

Shide (2011) in his study argued that locus of control and attitude had correlates which finally affected academic achievement of students. In this study, the researcher was interested in finding out how gender correlates to locus of control and attitude towards academic achievement in Nairobi City County, Kenya. Zam (2008) argued that students with internal locus of control had positive attitude towards learning since they knew that their hard work would be rewarded. Such students tended to motivate themselves and by doing so, they developed a positive attitude to what they were studying. However, students with external locus of control tended to exhibit a negative attitude towards their learning process mainly because they ascribed their academic achievement to external forces that they deemed to be beyond their control. Recent studies have pointed to the possibility that locus of control could moderate attitude. In particular, research studies by Silvestre (1983) and Wickman and Ball (1983) present insights that individual with either internals and or externals locus of control exhibit behavior consistent with their attitudes. More often than not, this attitude is influenced by how the students perceived the environment and what happened around them (Bosorgi, 2009). The current research would be interested to find out how gender correlates to locus of control and attitude because these could be the factors which are responsible of academic achievement of students in secondary schools.

Studies done in USA, (Kurt 2012) reveal that students with external locus of control believed that circumstances and outside forces influenced their progress or failure. These students were less likely to persist in their learning and never worked hard in their studies as they mostly believed that their academic failure or progress was pegged on some luck or fate which determined their scores at school (Shide, 2011). Having an external locus of control led to feelings of helplessness, hopelessness and despair. Students with a high external locus of control thought that they were basically incapable in their lives. They ascribed events in their lives to supernatural powers beyond their control. External locus of control amongst the learners led to the phenomenon known as Learned Helplessness which an individual has learned through experiences in life that they were powerless to change or control things or remove themselves

from harm or danger (Kurt 2012). This powerlessness led to feelings of depression and in turn led to negative attitude and finally low academic achievement. Attitude determined the work readiness and the feeling of being in charge at the university and secondary level (Bosorgi, 2009). If students felt in control of their outcome in their studentship, then they developed positive attitude which gave them more motivation. Understanding these factors is of great significance as it enables the students, teachers, psychologists, parents and other stakeholders within the educational sector to plan for educational programmers that enable them to achieve at their optimum.

A study by Ariffin (2007) in Malaysia focused on students' locus of control and how it affected their attitude had a close link with a person's personality and intellectual capabilities. The findings were that locus of control was influenced by environmental factors such as educational support provided by the peers and teachers and consequently affected the students' attitude. In Portugal, Candelas (2019) revealed that significant effect of gender, locus of control and background, led to school failure and development of negative attitude towards school in general but not in the case of the perception of competence as if social-economic experience did not interfere. Also a study by Kubiarko (2012) in Portugal argues that if attitude towards a subject and school are positive then also the achievement of students gets better.

In further Treviono and Youngblood (2012) found American graduate's students who had an internal locus of control were less likely to engage in unethical behavior indicating lack of interest in school. In their study in America, Maheffey (2021) found students with negative academic attitude refuse to work hard but rather cheat in Exams. The current study is keen to find out how correlates of attitude and locus control which include gender affect academic achievement in public secondary schools in Nairobi city Kenya.

Nigeria, Adebisi (2010) posited that attitude are generally regarded as enduring though modifiable by experience and persuasion and are learned rather than innate. In their study in Nigeria they found out that achievement of any learner is dependent on his/her attitude towards learning materials. This was based on the general belief that a positive attitude more often led to successful learning. Further, Alarape and Onakoyo (2003) examined the cheating behavior and personality variables including locus of control of Nigerian college students. They reported that students with external locus of control reported more cheating behavior and had a negative attitude.

In East Africa, studies carried out reveal a relationship between locus of control and attitude and consequently affecting the students' grades. Uganda was the first to launch the universal primary education program (UPE) in 1997, the government of Uganda hoped to empower the students attain internal locus of control; hence they viewed education as something which change their future (Juma, 2011). Regardless, dramatic increase in enrollment levels in Kenyan schools due to the launch of the free primary education (FPE) the academic achievement has registered a decline (Uwezo, 2012). Kombo (2006) attributed this to the fact that many students felt that they were not in charge of the grades they achieved.

In Kenya, Mutwelili (2004) explored the main interaction effect between type of school,

academic motivation and self-regulated learning as a factor in predicting students' academic achievement in public secondary school. Ileri (2015) explored the interaction of school type and achievement goal orientation among form three students in Embu County. In another local study, Mwangi, Oketch and Ileri (2015) using boys and girls boarding and mixed day public secondary schools in Kiambu County Kenya investigated the relationship between academic resilience and academic achievement. Kariuki (2017) correlation study in Nairobi County on achievement and motivation had a significant relationship with school category (public and private). Going by the data of fore mentioned type of school and student's personal factors there is need for further investigations to find out how gender affect academic achievement. It is on the strength of this gap that the current study would want to find out how the above correlates affect education achievement public secondary schools in Nairobi county Kenya.

From the above research findings, it is hypothesized that gender is one of the correlates of locus of control and attitude which may affect academic performance. Students' belief in the cause of their success or failure played a very important role according to earlier studies influencing their attitude (El-anzi, 2005) henceforth, influencing their academic achievement. However, most of these studies have been carried out in populations without considering what correlates to the type of locus of control and attitude the students acquire. Moreover, the local studies have studied the two variables either separately or with other variables ignoring the determinants to their formation. This elicited great interest to the current researcher who sought to find out if gender as a correlate of locus of control and attitude determine the academic achievement of students in secondary school in Nairobi City County Secondary schools in Kenya where the national results have been quiet low.

Statement of the Problem

In its quest to turn Kenya into a middle-income economy, the government came up with vision 2030. It became apparent that education would play a pivotal role in achieving this vision. Education was therefore incorporated as one of the three pillars for this vision (MOE, 2012). Given that education is predicated on academic performance the stakeholders are worried because of the persistent decline in the students' academic performance as shown by KCSE results mean score of Nairobi County. It may become an impediment to the achievement of the vision 2030. Since the year 2018 the KCSE performance has not been satisfactory as previously envisioned to produce students with high skills. In 2014, the percentage of students who attained grade C+ and above was 30.78%; in 2016, 32.93%; in 2017, 15.48%, and in 2018, 14.23% (KNEC, 2018). The number of students who obtained the minimum entry requirement points for university was low. This poor trend has also been reported in Nairobi City County. From the available data, we note the mean score per county from 2018 to 2020 is very low. Where improvement has been noted like Langata sb-county in 2019 the mean score was 5.5 then 2020 the mean score went up to 6.03. This is very minimal improvement noting that this is the sub-county with the best results in Nairobi City County. Worse is the fact that some counties have even dropped in their mean score, Njiru sub-county mean score was at 2.83 in 2019 while 2020 the mean score dropped to 2.72, Kasarani sub-county 2019 the mean score was at 3.24, 2020 it dropped to 3.05. Nairobi being the city county is endowed with the best infrastructure and ratio of teacher to pupil in the country and so it is expected to be producing much better

results.

Several studies have been carried out in and outside Nairobi to ascertain the determinants of academic performance such as academic self-concept, academic motivation, resilience and causal attributions (Mutweleli, 2014; Mwangi, 2015; Ngunu, 2019). Correlates of Examination Anxiety (Mukolwe 2015) is another study which added knowledge on low academic performance but the problem has persisted. The researcher has presumed that there could be other factors that may be attributed to the continuous low academic performance. Several studies are not conclusive on locus of control as one of the cognitive variables associated with attitude. The researcher therefore presumed that gender is a determinant of locus of control and attitude which may affect academic achievement. It is against this premise therefore, that this research study was carried out in Nairobi City County, Kenya.

Hypothesis of the Study

H₀₁: There is no statistically significant variation in gender influence on student's locus of control and attitude towards academic achievement in public secondary schools Nairobi County.

Theoretical Framework

The study was hinged on social functionalist theory.

Functionalism grew out of the writing of English philosopher and biologist Herbert Spencer (1820-1903) who saw similarities between society and human body. He argued that just as the various organs of the body work together to keep the body functioning the various parts of the society work together to keep society functioning (Spencer 1898) This brought up a theoretical perspective postulating that attitudes are formed to serve one or more different functions and these functions can influence such processes as attitude change and attitude behavior consistency. In 1950s two groups of scholars developed attitude theories proposing that attitudes serve different functions. (Katz 1960, Bruners & White 1956)

Daniel katz (1960) proposed a functionalist theory of attitudes which took the view that attitudes are determined by the function they serve as people held given attitude because these attitudes helped achieve their basic goals. This resonates too with academic attitude. Students who had a positive attitude about education tended to work very hard to achieve their dreams. Katz (1960) distinguished four types of psychological functions that attitudes meet.

Instrumental or adjustment function attitude help students to adjust to their work environment because when students were well-trained, they are likely to develop a positive attitude towards management in their learning institutions. When students are intimidated and negatively criticized, they develop a negative attitude towards education. The adjustment function directs students towards pleasurable or rewarding object thus keeping them away from unpleasant and undesirable ones. It served the utilitarian concept of maximizing reward and minimizing punishment. Students' attitude was dependent on their perception of what was needed in satisfying and punishing.

Katz (1960) argued that students develop attitudes that help them meet their education goals. They developed a favorable attitude towards things that aid or reward them with the aim of maximizing rewards and minimizing penalties. It was right to argue that students were likely to change their attitude according to how much these attitudes helped them fulfill their goals or avoid undesirable consequences.

Knowledge-attitude provide meaningful structured environment. In school life, students sought some degree of order clarity and stability in their personal frame of reference. Attitude help student to have standards of evaluation. This allows students to predict what is likely to happen and gives them some sense of control. To students some attitudes are useful because they help to make the school life desirable. This allows students to ascribe causes to events and direct attention towards features or situation that were likely to be useful in making sense in their achievements. Consequently, attitudes help to make the world more understandable, predictable and knowable. In fact, knowing a person's attitude enables us predict their behavior.

Value-expressive attitude expresses basic values and reinforces student's self-image. For example, if a student views himself as successful, they enhance that, by developing positive attitude towards education and working very hard to achieve the success. Value expressive attitude help students establish an identity and gain social approval thereby showing whom they are and what they stand for. Lastly, ego-defensive function refers to holding attitudes that protect our self-esteem or that justify actions that make us guilty. To students, psycho-analytic principles are important since they use defense mechanisms to protect themselves from psychological harm. It is important to note that some attitudes serve to protect students from acknowledging basic truth about themselves or the harsh realities of life.

According to Katz (1960), an attitude changes when it no longer serves its function and the individual feels blocked or frustrated. This study based its argument on that attitude change was achieved not so much by changing a person's information or perception about an object but rather by changing the persons underlying motivational and psychological needs. If the student's attitudes were changed and became positive, then they would be able to enjoy and work hard in their studies hence acquire positive attitudes which would lead to positive academic results.

Empirical Review

Gender refers to the physical differences between people who are male, female or intersex. A person typically has their sex assigned at birth based on physiological characteristics including their genitalia and chromosome composition. The study on gender versus student's locus of control and attitude may help in providing the best intervention for academic performance.

In an attempt to examine to examine the relationship between gender, locus of control and attitude toward academic achievement variables, several studies were reviewed. A study on the association between locus of control and academic attitude and the role of gender by Stipek and Weisz (2018) revealed that females who had a high belief of social allure had better external scores than males with low beliefs in social allure. Therefore, one would have argued that

female responses on locus control scales were induced by their viewpoints on suitable gender roles. This meant that locus of control scores of females never represented their genuine beliefs. Stipek (2018) administered the Rotter I-E scale tool to 200 males and 200 females. The two were both instructed to respond to the scale as either super males (exemplifying extreme male gender characteristic) or super female (exemplifying extreme female gender characteristics). The results indicated the super male measures achieved higher external scores. This response exemplified the gender role beliefs for male and female. Based on the results females had a superior external locus of control than the males. The current studies focused on the gender versus locus of control and attitude in a developing country Kenya unlike the latter which was in a developed country.

A study on the correlation between locus of control, academic attitude and gender in selected higher education in Jordan by Nalk (2015) also shed some light on locus of control in relation to different demographic variables such as gender (male and female), course of study (science and arts) and locality (urban and rural) among college students. The study comprised of 171 college student of Gulbarga city sampled using simple random sampling. Data was collected using questionnaire that consisted of personal data sheet, and Rotter's locus of control scale. The data was analyzed using both descriptive statistics and inferential statistics such as Mann-Witney test (U). The results revealed that there were no significant gender differences on the locus of control among the college students. These findings were consistent with those of Rastegar, et al. (2013) in their study on the relationship between locus of control, test anxiety and religious orientation among Iranian students. Rotter's (1966) LOC scale was used to measure the individual internal-external orientation and gender differences were tested using independent sample T-test. The researchers found out that there were no significant differences among males and females on their internal and external locus of control. This current study will use a larger study population of 400 and will be done in secondary school which may help students improve their academic achievement and pace themselves for marketable courses in future.

Another study by Meghan Mole (2012) also revealed that there was no statistically significant relationship found between Locus of control and gender. These findings contradicted those of McLaughlin and Saccuzzo (1997) who reported that gender effects were noticeable with females who showed some slight but significantly superior use of internal locus of control. Young and Shorr (1986) also established that that females tended to attribute success and failure outcomes to internal causes significantly more often than males. Due to these inconsistencies the current study was carried to shed more light on the gender versus locus of control towards academic achievement in public secondary school Nairobi County.

The study conducted by Lynton (2012) does not reveal any significant relationship between locus of control and gender. In 2003, Clarke also concluded in his findings that there were no significant differences between sexes on any mean score on locus of control. On the other side there are studies which are contradictory to the results of current funding's. Ghasemzadeh and Saadat (2011) observed in their study that female students for the locus control received higher scores than the male students. Female students have more external locus of control than male (Parsons and Schneider 1974). Boys has internal locus of control and girls scored high on external locus of control (Zaidi & Mohsin, 2013). Girls' means were supplementary external

than boys' on LOC (Wehmeyer 1993). The current study will shed light on how gender will determine locus of control and attitude which will affect academic achievement.

Majzub et al. (2009), explored the relationship between Locus of Control and academic achievement, and even explored the possibility of gender differences. The sample of this study included 204 first year Yarmouk University students from Jordan. The multidimensional- multi-attribitional causality scales (MMCS) was administered and there was a correlation between locus of control and academic achievement. The statistical evaluation demonstrated a link between locus of control and academic success thus corroborating the outcomes of past researches which supported a positive relationship between locus of control and academic achievement. Regarding gender, the findings were that males were more internal and external than females. The internal locus of control was high and positively correlated with academic attitude among male learner and positively correlated with external locus of control. Internal locus of control was positively correlated with academic performance among female students and negatively correlated with external locus of control. The current study explored further on the gender versus in locus of control and attitude towards academic achievement in the population of study.

Several studies have indicated that there is a relationship between external locus of control and academic attitude. However, the results on gender differences in external locus of control have varied. In a study to establish the link between LOC and students' academic attitude, Gujjar and Aijaz (2014) found out that gender also influenced the academic achievement of students in America. They sampled out 466 students of whom 205 were male students while female students were 261. The students were aged between 16 and 21 years. The study revealed that there was a significant difference between male and female students' academic mean scores in relation to locus of control. The current study has included another variable which is attitude which will increase knowledge on how to improve academic achievement.

Aijaz (2014) found out that male students had a significantly higher mean score than female student's internal locus of control and concluded that male students had better control of their locus of control than female students. The study also established that male students had a greater control of motivational factors and therefore had greater scores than female students when attitude and locus of control were compared. Moreover, the research revealed that older male students had greater control over their Locus of control and therefore scored higher grades as compared to younger male students. The current study sought to add knowledge in the area of gender differences in external locos of control and relate this variable to attitude and achievement.

In an attempt to study the influence of gender, age, grade level, subjects, and family income on locus of control of secondary school students Tella (2009) carried out a study in Nigeria. The aim of the study was to establish the influence of different variables on the locus of control on secondary school learners. A sample of 520 students participated. Brown locus of control scale (BLOC S) was used to evaluate the internal and external social and other locus of control of learners. The t-test and were used to examine the gender difference in locus of control of

students. Results showed that age had an influence on the external locus of control of students. Results showed that Boys and girls were not found to be significantly different on the internal locus of control. Actually, gender significantly influenced the external social and external other locus of control. External social and external other locus of control of female students were significantly higher than those of male students which showed the female students are more external. They perceived luck and fortune as more critical than the male. Moreover, the current study was able to shed more light on gender difference in external locus of control and how it related to attitude and academic achievement.

A study by Vahdany (2015) in India sought to assess the relationship between student's attitudes based on gender towards their teachers and area of study besides teachers' attitude towards their students and the students' academic performance based on gender in high school examinations. The participants were 335 students and ten teachers. The study established that there was a positive relationship between students' attitudes towards their studies and their overall academic performance. The study also revealed that there was a positive correlation between the students' attitudes and their academic performance based on gender. The current study aimed at contributing more empirical data to the existing knowledge on academic achievement.

RESEARCH METHODOLOGY

Research Design

This study employed a correlational research design. This design involves the measurement of relationship between or among variables (Strangeor, 2011). This design looks at the association between the variables and allows the researcher to infer on whether there is presence or absence of the relationship between variables of the study and establish the direction of the relationship. The choice of the design was based on its ability to explore co-relationship among variables that cannot be manipulated.

Target Population and Sampling

The target population for this study was 6460 form three students from all 85 secondary schools in Nairobi County. The selected sample of the study was 375 students from 7 selected public schools using stratified random sampling. This study adopted both probability and non-probability sample techniques. Purposive sampling was used to select Nairobi City County. Probability sampling guaranteed that each element in the population had an equal probability of being included in the sample. More specifically, stratified sampling was employed to identify schools from boys boarding, girls boarding and mixed day schools strata. This enabled the researcher to obtain estimates that were more accurate from every stratum since each stratum is more homogeneous than the total population. Therefore, the information collected from different strata was more reliable and heterogeneous information. Simple random sampling was used to select the 375 students from the sampled schools. This ensured that every subject had an equal chance of being selected thus resulting in a truly representative sample.

Table 1: Sample Size of Schools and Students

School Category	Sampled schools (30%)	Students per school
1. BB	3	169
2. GB	2	138
3. MD	2	68
TOTAL	7	375

The sample size was attained using Slovin's formulae (1967) cited in Israel (1992) that was $n=N/(1+N*e^2)$. Where "n" was the desired sample "N" is total population and "e" was the margin of error which was rated at 0.05. Using this formula, 400 study subjects were selected as the base sample. In each class a table of random numbers was used to get suitable respondents. Proportionate stratified sampling was used to allocate study subjects in the boys boarding, girls boarding and mixed day schools to ensure that the size of the sample drawn from each stratum was equivalent to the relative size of the stratum in the population as espoused by Strangor (2011). This was computed based on the total number of students per strata relative to the total number of students in public secondary schools in Nairobi City County and the sample size. The number of students per strata was arrived at by using the formulae $n/N*n$ where "n", was the population size of the particular strata, "N" was the total population and "n*" was the sample size.

Data Collection And Analysis

The researcher employed questionnaires for primary data collection. After data collection, the research instruments were coded and the data was fed into a computer for analysis using SPSS version 25. Both descriptive and inferential statistics were used to analyze the data. Quantitative data results were analyzed and then presented using frequencies, means, and percentages, tabulated in tables, charts and polygons. Data was organized into related themes and then summarized in report form. The research hypothesis was analyzed as follows:

H₀₁: There is no statistically significant variation in gender influence on locus of control and attitude towards academic achievement in public schools of Nairobi county secondary schools. This hypothesis was analyzed using t-test. The significance level at 0.05.

RESEARCH FINDINGS AND DISCUSSION

Percentages were used to describe and summarize data in reference to demographic characteristics of respondents. The demographic variables were analyzed in relation locus of control and attitude towards academic achievement skills scores. The distribution of respondents on gender across locus of control and attitudes towards academic achievement is shown in Figure 1 below.

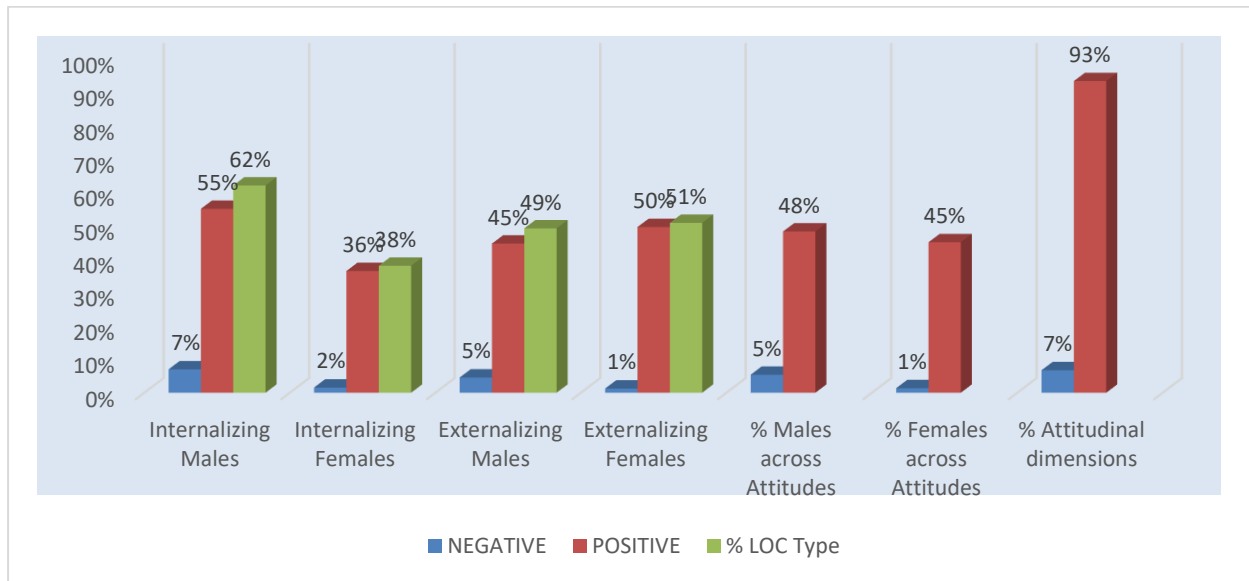


Figure 1: Distribution of Respondents across Gender, LOC and Attitudes towards Academic Achievement

According to Figure 1 above the sample consisted of more males with internal locus of control (62%) followed by females with external locus of control (51%) over whole. Never the less the percentage of external locus of control males (49%) was close to external locus of control female (51%) while as internal locus of control male had a higher percentage (62%) than internal locus of control female (38%) on overall males were more internalizing than females like was reported by (Emine, 2015) in another related study.

Still in Figure 1 the findings on attitude indicate that the symbol embraced more of positive attitude towards academic attitudes represented by (93%) with the majority male recording slightly more positive attitude (48%) while as female at (45%). This coincides with Abayomis (2015) study on gender differences and attitude towards academic performance.

Further analysis on statistical characteristic of sample score with regard to gender was done in relation to locus of control and attitude towards academic achievement and the figures below summarized the finding in term of mean standard deviation and skewness.

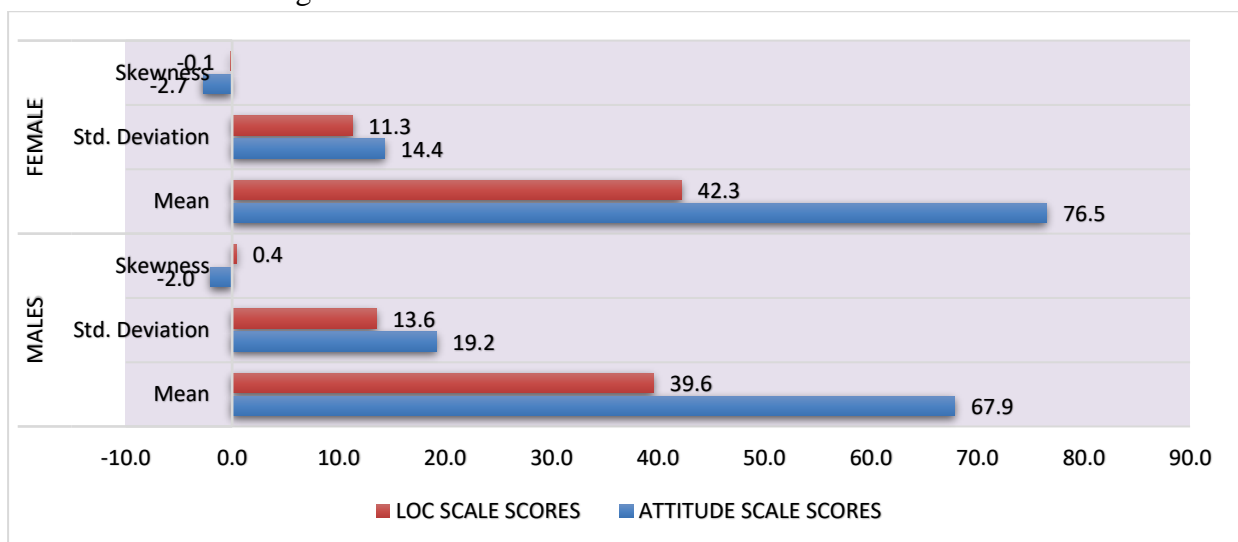


Figure 2: Descriptive Statistics for Gender, LOC and Attitudes towards Academic Achievement Scores

In Figure 2 shows comparisons in terms of mean standard deviation and skewness between boys and girls across the locus of control scale scores and attitude towards academic achievement scale score. The finding indicate a high mean score in attitude towards academic achievement for girls (76.5) than boy at 67.9. However with the skewness of -2.7 and -2.0 respectively the slight differences in the mean are insignificant, Since the implication shows that both males and females scored high mean scores in the attitude towards academic achievement scale score. Indeed, with reference to Figure 1 above it is clearly indicated that in both sexes there were positive attitude towards academic achievement. Ideally, attitudes play a few important role in academic achievement hence studies such as Vahdany (2015) have indicated a positive relationship between student's attitudes towards their studies and overall academic achievement.

Likewise Figure 2 indicate a high mean score for the female respondents in their locus of control scale scores (42.3) than their male counterparts (39.6). This implies that with high mean score in females it depicts them to be more of external locus of control than males who in this case were more of internal locus of control, still in reference to Figure 1 above it reflects the same scenario in which males were more of internally locus of control while majority of females were more of externally locus of control. This pattern of score is confirmed by skewness value Figure 2 while females obtained -0.1 skewness while as the male had a skewness of positive 0.4 indicating of inherence difference in their mean scores on locus of control. It is undeniable that some related studies on gender differences and locus of control have also established similar finding (i.e Stipek & Weisz, 2018; in which females had high external locus of control scores than the males.

Locus of Control and Attitude towards Academic Achievement across Gender

Analysis of hypotheses three was based on objective three, which sought to investigate whether there were any significant differences in the relationship between locus of control and attitude toward academic achievement across gender in public secondary schools in Nairobi County. Figure 1 above depicted that there were differences in percentages of males and females across locus of control and attitude. Furthermore Figure 2 also shown differences in mean for locus of control and attitude across gender thus Kruskal wallis Anova test at 0.05 level of significant was used to find out whether these differences were significant. The results of the analysis are shown in the Table 2 below

Table 2: Relationship between Locus of Control and Attitude towards Academic Achievement across Gender in Public Secondary Schools Nairobi County

	Attitude Scale Scores	LOC Scale Scores
Test	Kruskal Wallis Anova Test	Kruskal Wallis Anova Test
Total N	371	371
Test Statistics	31.419	7.172
Degrees of Freedom	1	1
Sign	0.0001	0.007

The finding shows that there were gender differences across attitude and locus of control scale scores. Hence, the null hypothesis was rejected at 0.05 level of significant. This implies the differences in means and percentages of locus of control and attitude across gender are

significant as depicted in Figure 1 and 2 above. These findings are in agreement with a number of results of previous studies like Sayid (2011). Gender differences in factors affecting academic attitude of high school students. The following study examined gender differences existing in academic attitude and performance attained in school subjects of literature and Mathematics. A sample of 363 students was selected from high school students' second and third academic years. Results showed the existence of gender differences in variables under consideration with the girl showing internal locus of control and scoring better in literature. The boys were found to be using concentration information processing and selecting main ideas strategies more and getting better marks in Mathematics. Gender differences were found in external locus of control and academic attitude. In addition, there were differences in the cognitive motivation of functioning of boys and girls in the academic environment with the girls having a more adaptive approach to learning task.

Effects of Gender Age, Grade Level Subjects and families income on locus of control of secondary school students was a study to identify the effects of different variables on the locus of control of secondary school students. 520 students participated (Siddiquah, 2019). Brown locus of control scale was used to assess the internal and external locus of control on students. T-test and Anova were applied to find out the differences in locus of control of students of different gender age grade and level subject and family income. The results showed that external locus of control in female was higher which gave them negative academic attitude and ended up with low academic achievement unlike the male who had a higher internal locus of control hence positive attitude and that earned them high academic achievement.

In another study by Van Houhe (2004) girls seem to have more positive attitude while boys are less motivated and have negative attitude. In general, results showed that girls do not require more time to study engage in less cases of misconduct behavior and have less absenteeism and also have more expectations about future and are more enthusiastic about their future studies. A study by Fisher and Hell (2013) indicate that girls during adolescence are more motivated to learn compare with peers' boys, which is reflected in their learning. Hell (2013) noted that girls seem to have more positive attitude towards school while boys are less motivated and have more negative attitude towards school. This will total to girls performing much better than the boys do. According to the study by Musa (2016), the fact that males perform significantly better than female in overall academic achievement could be attributed to the differences in their learning goals. The study concluded that there were significant gender differences in students' academic achievement in a specific subject domain of English language and overall academic performance. The study examined gender differences in achievement goals and academic achievement by looking at specific subject domains.

Effects of Gender and location of locus of control among college students is a study, which was done by Waghmare (2020). The aim of the research was to examine the effects of gender and location on locus of control among college students. A sample of 120 students (Arts students selected in this study in each 60 male 30 urban and 30 rural students 60 female 30 urban and 30 rural students) Rotters locus of control scale by Anand Kumar was used. The finding of the study revealed that there is significant difference between locus of control and attitude among the male and female students. Female were high in internal locus of control than male and male

high in external locus of control than female which made the female academic achievement be better than that of their male counterpart.

On the contrary, some studies have established that there is no statistically significant difference in the relationship between locus of control and attitude towards academic achievement across gender. A study to investigate the relationship between locus of control and academic achievement of students by Guffer (2013) confirms that. The main aim of this research was to measure the locus of control of students in order to determine the degree of their externality or internality of locus of control and to find out the gender difference in locus of control orientation at college and university level. Sample of the study consisted 466 students 204 were boys and 261 were girls. The college students were mostly 16-17 years of age group. To measure locus of control questionnaire was used. Academic performance was measured by the marks obtained by the sample in their institute. Data was analyzed using mean, correlation coefficient. The results showed that majority of the students were found to be more internal than external in their locus of control. No gender differences in locus of control were found at the university level.

Yogoub and Magableh (2012) conducted a study aimed at investigating disparity in degrees of locus of control in university population in accordance with some variables (gender, Specialty and educational level). The randomly selected sample consisted of 721 students of both sexes. Rotter external and internal locus of control was translated into Arabic version, controlled for Yordanian setting, and administered to subjects. The researcher used t-test one-way analysis of variance (Anova). No statistically significant difference attributed to gender and educational level of variables were shown. Although the study by Musa (2018) reported statistically insignificant gender differences in performance approach and performance avoidance goals there was need to examine the same variable to determine if the same conclusion could be arrived at using a different sample in a different setting.

All in all due to the differences in gender among the respondents we expect their orientation to locus of control and attitude to follow the specific social culture background where by male are bound to be more internally in locus of control while as women externally locus of control. In the end, such orientations may influence their attitudinal dispositions as reflected in the findings of this objective.

Conclusions

The study concluded that there were gender differences across attitude and locus of control scale scores, hence, the null hypothesis was rejected at 0.05 level of significant. Findings on LOC concurs with Rotter's theoretical rationale in that in the academic setting, positive academic attitude had been linked to the acquisition of internal locus of control (Groinic & Ryan, 1989). Learners with internal locus of control ascribed results of incidents to their own control and believe that the consequences of their activities were a result of their own abilities. Learners with internal locus of control held the believe that their exemplary work would determine their positive outcome. Such learners also believed that every deed had its results which led them to accept the fact that events took place and it all relied on their ability to

control them or not. Whether a learner had an internal or external locus of control it was supposed to have a strong influence on academic motivation, determination and performance in school. In education, “internals” were considered as more likely to put more effort in order to learn more, develop and prosper while “externals” were inclined to think that working hard is futile since someone or something else is handling them unjustly or curtailing their progress. Learners with an external locus of control thought that their achievements were not recognized or their efforts did not succeed giving them a negative attitude to academic achievement.

Recommendations

The study recommends that school counselors facilitate groups that focus on acquiring an internal locus of control, engage in classroom guidance that focuses on the significance of internal locus of control and discourage use external locus of control in the student. Internal locus of control will promote positive academic attitudes that will assist the students in coping and succeeding academically.

The policy makers should come up with programs that train educators on the importance of locus of control and how to change the unfavorable locus of control of their students. An internal locus of control is necessary for enhancing academic responsibility in the student, while an external locus of control encourages students’ excuses for failure lead.

Even though the results indicated there was significant gender differences in locus of control and academic attitude, the girls were found to have external locus of control orientation and also scored high in negative attitude. The educators should come up with measures that target girls with the aim of reinforcing internal locus of control so as to boost their optimism in academics. On the other hand, males who were mainly employing internal locus of control should be encouraged and supported since this was associated with academic success. The same applies to findings on school type.

Considering that there was no clear evidence on how gender and internal locus of control influenced attitude towards academic achievement, it may require inclusion of other variables such as culture, social economic status so that it is clear whether disparity in these variables affect the locus of control or gender plays a vital role in determining locus of control.

Since several studies have established that females have more external locus of control than do males while other studies did not find differences in locus of control between genders the area of gender differences in locus of control needs further exploration. This is because of the strong emphasis on the link between locus of control and attitude towards academic achievement brought out by the current study so that the right intervention measures based on gender can be put in place.

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