

Relationship Between Achievement Goal Orientation and Academic Achievement Among Form Three Students in Kiambu County, Kenya

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ABSTRACT

In the last five years (2013 to 2017), poor academic achievement has been experienced in Kiambu County, despite government interventions. Most researchers attribute this to socio-cultural factors with little done to explain personal factors which may contribute towards students' academic achievement. The study was designed to determine the relationship among students' achievement goal orientation, and academic achievement in Kiambu County. The study was guided by the goal orientation theory. The research adopted mixed methods sequential explanatory design. The targeted population was all year 2017 Form Three students in Kiambu County. Purposive sampling was used to select Gatundu South Sub-county. Using stratified random sampling 12 schools were selected. Through proportionate stratified sampling, one girl's only and one boys' only boarding, one co-educational boarding and nine co-educational day schools were selected. Simple random sampling was used to select 665 participants. Achievement goal orientation scales were adopted and used to measure achievement goal orientation. Purposively, 40 respondents were selected from those who filled the questionnaires for an interview to cross check the quantitative data. Academic achievement was inferred from students' examination grades obtained from school records. The quantitative data was analyzed using SPSS version 21. Qualitative data was analyzed thematically. A pilot study on 40 students was conducted in a school within the County. Data collected was

analyzed using both descriptive and inferential statistics. Hypotheses was tested at a $=.05$ level of significance. The findings revealed that all the domains of achievement goal orientation significantly correlated to academic achievement ($r(630) = .310, p < .05$). The highest relationship was observed between performance avoidance ($r(630) = .355, p < .05$). Based on the findings, teachers, parents and all concerned stake holders should work together in creating conducive environment for fostering development of domains of achievement goal orientation found to have a positive predictive value on academic achievement.

Key words: Academic achievement; Achievement goal orientation; Mastery Approach; Mastery Avoidance; Performance Approach; Performance Avoidance

Objectives / Hypothesis of the Study

The objectives of the study was to determine the relationship between students' achievement goal orientation and academic achievement

The study was guided by the following alternative hypothesis:

H_{a1} There is a significant relationship between students' achievement goal orientation and academic achievement

Introduction / Background of the study

Academic achievement is designated by grades, tests and examinations scores which indicate students' scholastic standings. Levin, Wasanga & Somerset (2011) pointed out that students' grades in national examinations are not only a pointer of the school effectiveness but also a major determinant of the wellbeing of youth and nation in general. Society, educators, parents and governments attach high importance to students' examination grades. This has drawn the attention of researchers for decades internationally.

In the field of education, achievement goal has been a central construct to explain students' motivation for learning. According to Pintrich (2000, as cited in Matos, Lens & Vansteenkiste, 2007) achievement goal constructs reflect an organized system, theory, or schema for approaching and evaluating one's performance in an achievement context. It also refers to energization and direction of behaviour, competence - based effect and cognition. In academic settings, achievement goal theory has been one of the most important frameworks to conceptualise students' motivation to study, individual interpretations and experiences (Diseth, 2015).

Several motivation researchers have used achievement goal perspective (Elliot & McGregor, 2001; Law, Elliot, & McGregor, 2012; Meece, Anderman, & Anderman, 2006; Phan, 2014; Sideridis & Kaplan, 2011). According to Elliot, McGregor and Gable (1999) achievement goals represent the purpose or reason the students engage in an academic learning task. In previous works, researchers distinguished between two types of achievement goals: mastery and performance goals. In mastery goals students are motivated to understand learning material and develop skills, while in performance goals students are concerned with outperforming others. Both goals are linked to different patterns of learning. Elliot and McGregor (2001) proposed incorporation of approach and avoidance orientations to achievement goals. That is, the outcome can either be a success or failure. When students expect success, they are motivated towards an approach orientation, while, students expecting failure are motivated towards an avoidance orientation.

In Africa, most countries are in the process of development and education is vital to national development (Geta, 2012). Individuals with academic underachievement do not get access to high

education. Hence, they are less likely to participate and influence decisions which affect their lives as well as those of others (United Nations Educational, Scientific and Cultural Organization, UNESCO, 2008). Academic achievement has been related with contextual factors like: school environments, teachers and parents (Kimani, Kara, & Njagi, 2013). Personal internal factors such as achievement goal orientation of a student may also facilitate or hinder learners' academic achievement (Yeung, Craven & Kaur, 2014).

Relevant to the present study, achievement goal orientation can predict a number of achievement related outcomes (Tanaka & YaMauchi, 2001, as cited in Phan, 2014). Although studies done in developed countries show that personal variables may explain academic achievement, there is a dearth of local studies on how achievement goal orientation relates with academic achievement. It is against this background, therefore, that the current researcher explored the relationship between achievement goal orientation and academic achievement.

Significance of the Study

The study findings are expected to contribute to the existing cross-cultural literature on students' academic achievement among students in Kenya and therefore reference point for empirical researchers. It may also aid educators and policy makers such as the Ministry of Education and Kenya Institute of Curriculum Development (KICD) to understand students' achievement goal orientation, so that teacher trainees are equipped with the necessary training skills to enhance students' motivation for learning.

Review of Related Literature

Most educational studies which investigated relationship between achievement goals and academic achievement applied dichotomous or trichotomous achievement goal framework. A study by Geta (2012) assessed the relationship between achievement goal orientation, approaches to learning and academic achievement of college students. In the study, 243 sample of Bonga College of Teacher Education from Ethiopia were used. The result of the study revealed that achievement goal orientation statistically correlates with academic achievement. Further, the study found significant positive correlations for performance-approach and mastery goals and negative correlations for performance avoidance goal with achievement-related processes and achievement. The same revised goal theory was used in the present study. The sample was only Bonga College of Teacher Education. The current study was necessary since it used a different sample (Form Three students).

In a recent longitudinal study, Phan (2014) explored the correlates and outcomes of mastery goals. The participants were 288(148 boys and 140 girls) government secondary school students from Sydney, Australia. The data was collected across four occasions. The findings were inconsistent with previous research of Elliot (1999) in that a mastery-approach was not significant correlate of academic outcomes. The study methodology (longitudinal study) may have produced the noted inconsistent findings. This implied that the research method used had a bearing on study outcomes. The present study collected data once from the participants. This minimized time-related threats.

In another study, Sideridis and Kaplan (2011) focused on the outcomes of achievement goals on 97 undergraduate psychology students from a State University in Southern Greece. The behavioural aspect of engagement (persistence) comprised the outcome variable. Results reported a significant relationship between mastery-oriented and non-significant with performance approach-oriented, performance avoidance-oriented and persistence. The study used a small sample size, based in a

college setting and in a developed country, Southern Greece. The current study was conducted in secondary schools in a developing country, Kenya, in order to compare cross-cultural similarities and differences if any.

In a related study, Agbuga and Xiang (2008) applied the trichotomous achievement goal model. He investigated the relationship between mastery, performance-approach, and performance-avoidance goals and self-reported persistence/effort in secondary physical education among Turkish students. In the study, 229 students filled questionnaires in Grades 8 and 11. They found out that at age 14 students significantly scored higher than at age 17 on persistence/effort and performance goals. Further positive correlation emerged between students' self-reported persistence/effort and mastery goals, although its predictive weight seemed to change by age. The current study utilized 2 x 2 achievement goal framework by investigating between achievement goal orientation and perceived competence which had a better predictive value of academic achievement.

In a meta-analytic review of achievement goal orientation, Hulleman and Harackiewicz (2010) reviewed 243 correlational studies comprising of a total of 91,087 participants. The results indicated that performance –approach goal had a negative relationship ($r = -.14$) with performance outcomes while mastery- approach was not significantly related to performance outcomes. However, the study found out that as learners progressed through school avoidance goals became more correlated, while performance- approach goals became less correlated with educational outcomes like interest. The research argued that, the maladaptive emotional responses associated with normative component of performance approach goals such as anxiety and shame could explain the negative relationship with performance.

In Roussel, Elliot and Feltman (2011) examined the link between 2 x 2 achievement goal model among senior high school. Three hundred and seventeen students participated in the study with in France with a mean age of 17.33 years. The results revealed that mastery approach and mastery avoidance were positive predictors of help seeking while performance approach and performance avoidance were negative predictors of instrumental help seeking in an academic context.

Diseth, Danielsen, and Samdal (2012) explored the relationship between teachers' support of basic psychological needs, self-efficacy, achievement goals, life satisfaction and academic achievement in a sample of 240 secondary school students (8th and 10th Grades) in Hordaland County, Norway. In the study using Patterns of Adaptive Learning Scales (PALS), Midgley et al., (2000) measured achievement goal orientation and academic achievement was inferred from average scores obtained by students in eight school subjects. Correlation analysis showed a significant negative relation between performance goals and all of the variables. A subsequent path analysis indicated that achievement goals together with other variables gave a structural model which predicted academic achievement. The researcher suggested use of other tools to measure achievement goal orientation and widen the understanding of the relationship between this and academic outcomes.

In a cross-sectional study, aimed at exploring variables related to the students' personal achievement goals and perceived school performance, Diseth and Samdal (2014) used 2594 Norwegian secondary education students. The results indicated that mastery, performance approach and performance avoidance positively predicted perceived school performance (academic achievement). Furthermore, girls scored higher than boys in mastery goals whereas boys scored higher in performance goals than girls.

In a recent local study, Ileri (2015) examined the relationship between academic identity status, achievement goal orientation and academic achievement among secondary school students in Kenya. The study utilized 390 student participants drawn from selected public secondary schools in Mbeere South Sub County. The empirical findings reported a significant positive correlation between approach achievement goal orientation and academic achievement ($r(383) = .20, p < .05$). However, avoidance achievement goal orientation revealed a significant negative correlation with academic achievement ($r(383) = -.15, p < .05$). A significant gender differences in approach achievement goal orientation ($t(383) = -.56, p < .05$) was reported.

Methodology

Research Design

Mixed method sequential explanatory research design was used. According to Creswell and Clark, (2011, as cited in Caryn, 2012) the design is merited on its "strong quantitative orientation, two phase structure and the link to emergent approaches where the second phase can be designed as a result of the outcomes of the first phase" (p.74). This researcher collected data in two consecutive phases within the study. The quantitative data was collected first and analyzed followed by qualitative data collection and related to the outcomes from the quantitative phase (Creswell, 2014). The design was suitable to this current study in which the researcher wanted to explain significant, non-significant and interesting quantitative findings. The researcher identified the quantitative findings which needed further exploration and used these results in the qualitative phase.

Locale of the Study

This study was carried out in Gatundu South Sub- County, Kiambu County. Kiambu County is situated in the former Central Province of Kenya and covers an area of 2,449.2km². The County was chosen for this study because of the declining academic achievement. The study target population was all year 2017 students in Form Three from public secondary schools in Kiambu County. According to statistics from Kiambu C D E Office, there are approximately 27,697 Form Three students. The accessible population was 3136 (1695 boys and 1441 girls) students from Gatundu South Sub-County.

Sampling Techniques

Purposive sampling was used to select Gatundu South Sub- County, public secondary schools and Form Three classes. Using a list of all the public secondary schools in Gatundu South Sub- County as the sampling frame, stratified random sampling helped to group the schools into strata. This sampling method was appropriate because the population embrace a number of distinct categories (Chaturvedi, 2009). In total 12 schools participated in the study, representing 34 % of all schools in the Sub-County. Proportionate stratified random sampling was used to select 665 (388 males and 277 females) student participants. This was to ensure equal representation of schools in each stratum (Stangor, 2010). It was to ensure equal representation of boys and girls in the study.

Research Instruments

This researcher used a self- administered questionnaire, academic achievement table to collect quantitative data.

Questionnaire

The study had one questionnaire for the students used to collect demographic information, achievement goal orientation. The questionnaire was divided into two main sections. The introductory part oriented the participants on how and importance of filling the questionnaire. Section A comprised of five items on respondents code number, gender, age, type of school and residential status. Section B consisted of items which sought information on participants' achievement goal orientation using the achievement goal orientation scale. Below is a summary of the instruments;

a. The Achievement Goal Orientation Scale

The study adopted the 2 x 2 Achievement Goal Questionnaire Revised (AGQ-R) (Elliot & Murayama, 2008). This researcher sought permission to use this scale from the author. The 2 x 2 AGQ-R was a 12 items' instrument divided into four subscales (mastery approach, mastery avoidance, performance approach, performance avoidance). Each sub-scale contained 3 items measured on a 5-point rating scale (1 = *strongly agree* to 5 = *strongly disagree*).

b. Academic Achievement Table

Academic Achievement Table was used to record the scores obtained from the school records. The researcher requested for Form Three mid and end of Term One examinations in the year 2017. An average score on the two examinations was then calculated. To make the scores comparable among participants from different schools, they were transformed into standardized scores. The researcher categorized the scores into high, average and low levels of academic achievement. Local studies among secondary school students in Kenya had utilized examination marks obtained from class teachers with success. Hence, this study conceptualized the idea (Ireru, 2015; Mwangi, 2015; Mutweleli, 2014; Otanga, 2016).

c. Interview Schedule

Semi structured interviews were conducted in the phase two of the study. The purpose of the interviews was to explore further respondents quantitative responses. The researcher recorded the interviews after seeking for permission from respective School Principals and consent from the participants. The interviews were preferred because they enabled the participants to expound more on their responses in order to enrich the quantitative data. In addition, semi-structured interviews were flexible to the student participants (Matthews & Ross, 2010). They provided an opportunity for follow-up questions and the verbal prompts generated verbatim transcripts (Jamshed, 2014.)

Data Collection

This researcher obtained a research authorization letter from Kenyatta University and a research permit from the National Commission for Science, Technology and Innovation (NACOSTI). Permissions were also obtained from the administrative education officials at County /Sub-County levels and the Principals of the selected schools for purposes of data collection. The researcher sought informed consent from the participants of the study prior to data collection by filling in a consent form.

The research instruments were delivered to the schools and administered by the researcher with the assistance of class teachers. The researcher gave instructions and demonstrated how to respond to the questionnaire items. Participants took an average of 30 minutes. The filled-in questionnaires

were collected immediately. The class teachers were requested to provide the participants' scores in Form Three mid and end of Term One 2017 examinations.

Data Analysis

Quantitative Data

The quantitative data obtained was coded for statistical analysis using the Statistical Package for Social Sciences (SPSS), Version 21. The study employed descriptive and inferential statistics to analyse data. The descriptive statistical procedures were used to report demographic and institutional features of the students and inferential statistical procedures were used to test each hypothesis at a = .05 level of significance. The following null hypotheses and statistical tests guided the data analysis:

H₀₁: There is no significant relationship between students' achievement goal orientation and academic achievement. Statistical test: Pearson's product moment correlation co-efficient.

Qualitative Data

The researcher collected qualitative data from all the students selected for the interviews by audio recording on a digital voice recorder and taking notes served as further backup. The qualitative analysis process for this study involved identification of thematic relationship and patterns developed during the qualitative phase of this research. According to Neuman (2011) qualitative data analysis involves deconstruction of the qualitative data into manageable categories, themes and relationships in line with the study objectives, theory and reviewed literature.

Findings

General Information

A total of 665 questionnaires were issued to the respondents, out of which 645 were returned, translating into 96.99 % return rate. Of those returned, 14 questionnaires accounting for 2.17% were discredited during the data gleaning. This was because 8 of the participants had given multiple responses, 3 had ticked one common response in the questionnaire, and 3 had no responses and lacked the academic achievement score. The actual number of the questionnaires used for analysis was thus 631. This accounted for 94.58% of the participants, representing 362 (53.38%) boys, 267 (41.20%) girls and 2 'no response'. The breakdown of the target sample size compared with the return rate is presented in Table 1

Table 1

Respondents Return Rate

TOS	Target Return Rate			Actual Return rate		
	B	G	Total	B	G	Total
BB	172	-	172	164	-	164
GB	-	120	120	-	119	119
COEB	12	7	19	12	7	19
COED	209	145	354	186	141	327
NR						2
Total	388	277	665	362	267	631
Percentage	58.35	41.65	100	53.38	41.20	94.58

Note. B=Boys; G=Girls; Sch= School; TOS; Type of School; BB= Boys Boarding; GB= Girls Boarding; COEB=Co-educational boarding; CO-ED=Coeducational day; NR=No Response
Source: Gatundu Sub-County Education Office, (2016, March).

Table 2
Distribution of Respondents by Gender

Gender	Frequency (%)
No response	2 (0.3)
Male	362 (57.4)
Female	267 (42.3)
Total	631 (100.0)

As shown in Table 2, 362(57.4%) of the respondents were males, 267(42.3%) were females, while 2(0.3%) did not respond. The gender variation was due to the uneven distribution of male and female students in the schools that had both genders.

Description of Participants' Achievement Goal Orientation

The total scores attained by the participants in the overall achievement goal orientation scale were used to determine the respondents' level of achievement goal orientation and to compute their means, standard deviation, skewness and kurtosis. Summary of the findings are presented in the subsequent Tables:

Table 4
Respondents' Levels of Achievement Goal Orientation

Goal Orientation	Frequency	M	SD	Sk	Kur
Low AGO	92 (14.6)	37.01	6.570	-0.179	0.311
Moderate AGO	425 (67.4)				
High AGO	113 (17.9)				
Total	630 (100.0)				

Note. M= Mean; SD=Standard Deviation; Sk = Skewness; Kur=Kurtosis; AGO=Achievement Goal Orientation

The findings presented in Table 4 reveal that highest percentage (67.4%) of respondents had a moderate achievement goal orientation, 17.9% had a high level, while 14.6% had a low achievement goal orientation level. The mean score was 37.01 (SD= 6.57) indicating an average moderate level of achievement goal orientation. Skewness co-efficient was found to be -0.179 which indicated that majority of the respondents rated themselves highly on achievement goal orientation, while the kurtosis value was 0.311 indicating that the achievement goal orientation scores were normally distributed.

Respondents' scores on achievement goal orientation were further analyzed to compute the descriptive statistics for each sub-scale. The findings as presented in Table 4.8 indicate that the highest mean was for the performance approach (M= 10.88, SD= 3.04), mastery approach (M = 10.44, SD = 2.936), performance avoidance (M =8.03, SD= 0.277) and the lowest was for the mastery avoidance (M= 7.66, SD= 0.413).The standard deviation ranged from 0.277 to 3.04.

Table 5
Descriptive Statistics for Achievement Goal Orientation

Sub Scale	N	Range	Min	Max	M	SD	Sk	Kur
MAPP	630	12	3	15	10.44	2.936	-0.455	-.685
MAVO	630	13	2	15	7.66	0.413	0.413	-.637
PAPP	630	12	3	15	10.88	3.04	-0.603	-.532
PAVO	630	13	2	15	8.03	0.277	0.277	-.994

Note. MAPP= Mastery Approach; MAVO=Mastery Avoidance; PAPP=Performance Approach; PAVO= Performance Avoidance; Min = Minimum; Max = Maximum; M = Mean; SD = Standard Deviation; Sk= Skewness; Kur=Kurtosis

As shown in Table 5, respondents' scores in mastery approach and performance approach sub-scale were negatively skewed, indicating that they rated themselves highly on those sub-scales. However, respondents' scores in mastery avoidance and performance avoidance were positively skewed indicating that most of them rated themselves lowly on those sub-scales. The kurtosis scores were below two, indicating that they were normally distributed.

Descriptive Analysis of Participants' Academic Achievement Scores

The respondents mean scores in the mid-term and end of Term One exam scores 2017 were transformed into Z-score and then T-scores. Table 4.9 represents the summary of the descriptive analysis of the respondents' academic achievement scores:

Table 6
Descriptive Analysis of Academic Achievement

N	Range	Min	Max	M	SD	Sk	Kur
630	45	32	78	50	10	0.219	-.684

Note. Min = Minimum; Max = Maximum; M = Mean; SD = Standard Deviation; Sk = Skewness; Kur=Kurtosis

From Table 6, the minimum academic achievement score was 32, while the maximum s was 78. The findings also indicated that the scores were positively skewed, indicated that majority of the respondents had low performance. The kurtosis score (-.684) indicated that the academic achievement scores were normally distributed. From the results, the scores had also been converted to T-scores (M =50, SD =10). The T-scores were used to categorize the respondents' academic achievement scores into low, average and high. The cut-off scores for each category were as follows: 32-47 as low achievement, 48-63 as average and 64-78 as high achievement.

Further analysis was done to establish the distribution of respondents in the three categories. The findings are as shown in Table 7.

Table 7
Participants Levels of Academic Achievement

Academic Achievement	Frequency (%)
Low academic achievement	266 (42.2)
Average academic achievement	306 (48.6)
High academic achievement	58 (9.2)
Total	630 (100.0)

As shown in Table 7, 48.6% of the respondents had an average level of performance, 42.2% had low academic achievement level, while 9.2% only had a high academic achievement level.

4.3.3 Hypothesis Testing

To determine the relationship between achievement goal orientation and academic achievement, the following null hypothesis was tested:

H01: There is no significant relationship between students' achievement goal orientation and academic achievement.

To test this hypothesis, a bivariate correlation analysis was conducted using Pearson Product Moment Correlation Coefficient. The findings are shown in Figure 1:

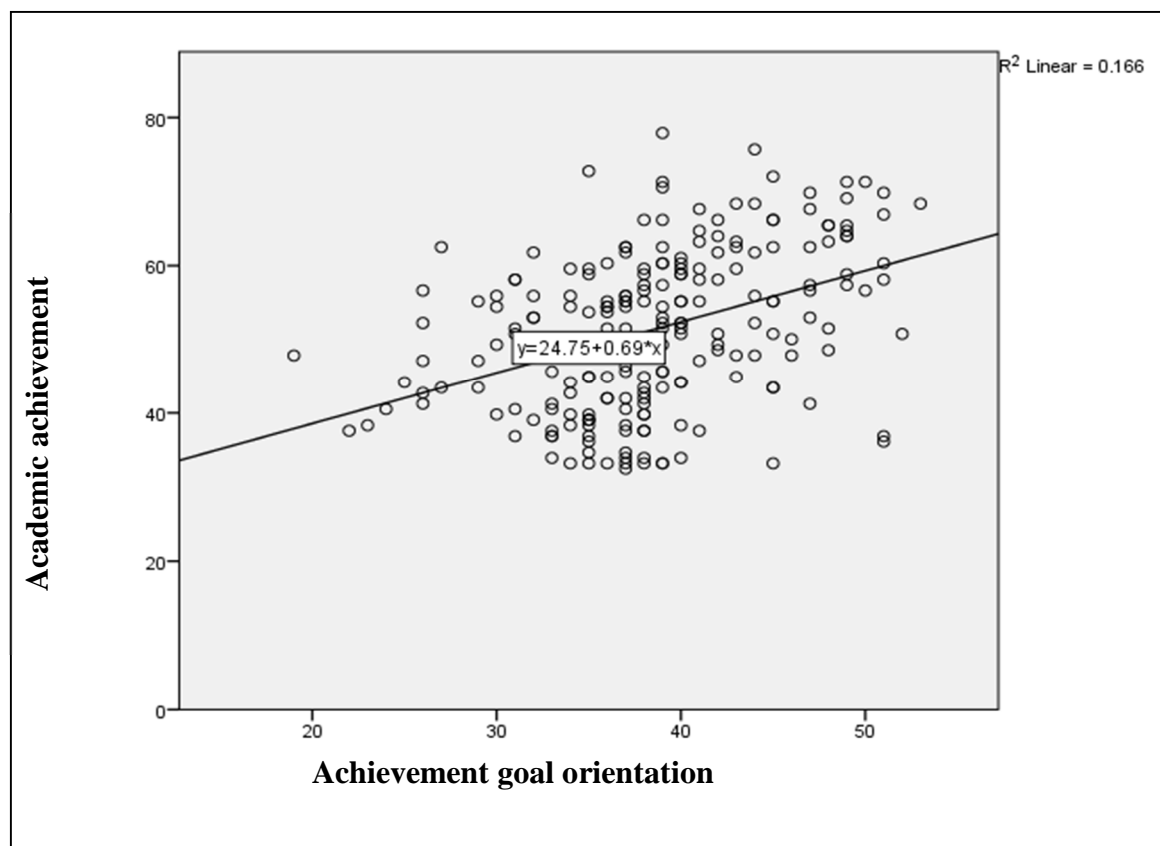


Figure 4.1. Scatter Plot on the Relationship between Achievement Goal Orientation and Academic achievement

As shown in the Scatter Plot in Figure 1, there was evidence of a linear relationship between achievement goal orientation and academic achievement, a relationship that was weak ($R^2=16.6\%$). Higher scores of achievement goal orientation correlated with higher scores of academic achievement. It was, therefore, concluded that a Pearson Product Moment Coefficient Correlation (r) could be run and its significance tested. Table 8 shows the result of the Pearson Product Moment Correlation Coefficient between achievement goal orientation and academic achievement.

Table 8***Correlation between Achievement Goal Orientation and Academic Achievement***

		Academic achievement
Achievement goal orientation	Pearson Correlation	.310**
	Sig. (2-tailed)	.000
	N	630

** . Correlation is significant at the 0.01 level (2-tailed).

Results in Table 8 indicate that there was a statistically significant weak positive relationship between achievement goal orientation and academic achievement, $r(630) = .310$, $p < 0.05$. This implied that, as achievement goal orientation increased, there was an increase in academic achievement. Based on these findings, the null hypothesis was thus rejected and alternate hypothesis accepted.

To further test the hypothesis, the following four supplementary null hypotheses were formulated:

- H_{01.1} There is no significant relationship between students' mastery approach and academic achievement.
- H_{01.2} There is no significant relationship between students' mastery avoidance and academic achievement.
- H_{01.3} There is no significant relationship between students' performance approach and academic achievement.
- H_{01.4} There is no significant relationship between students' performance avoidance and academic achievement.

In order to test the supplementary hypotheses, a bivariate correlation analysis was conducted using Pearson Product Moment Correlation Coefficient. The findings are shown in Table 9.

Table 9***Correlation between Subscales of Achievement Goal Orientation and Academic Achievement***

		MAPP	MAVO	PAPP	PAVO
Academic Achievement	Pearson Correlation	.175**	.256**	-.113**	.355**
	Sig. (2-tailed)	.000	.000	.005	.000
	N	630	630	630	630

Note. MAPP= Mastery Approach; MAVO=Mastery Avoidance; PAPP=Performance Approach; PAVO= Performance Avoidance

** . Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 9, there was a statistically weak positive relationship between mastery approach, mastery avoidance and performance avoidance, $r(630) = .175$, $p < 0.05$, $r(630) = .256$, $p < 0.05$ and $r(630) = .355$, $p < 0.05$ respectively. Also, there was a statistically significant weak negative

relationship between performance approach and academic achievement, $r(630) = -.113, p < 0.05$. Based on the findings of the results, the null hypotheses could thus be rejected and the alternative hypotheses accepted and it was concluded that different levels of achievement goal orientation was significantly related to students' academic achievement.

Discussion of the Results

The first objective of the study was to establish the relationship between achievement goal orientation and academic achievement. A significant and positive relationship was found between these two aspects as presented in Table 4.11. A significant correlation was found between the four sub-scales of achievement goal orientation (mastery approach, mastery avoidance, performance approach and performance avoidance) as shown in Table 4.12. The study findings indicated that mastery approach, mastery avoidance and performance avoidance had a positive and significant relationship with academic achievement. Performance approach had a significant negative relationship with academic achievements. An interesting finding in this study showed that mastery orientation as a pair positively predicted academic achievement.

The findings were consistent with those of Geta (2012) among college students who reported a significant correlation between achievement goal orientation and academic achievement. The result also corroborated Sideridis and Kaplan (2011) study among university students in South Greece in that mastery goals positively related with academic outcomes. However, our study found a significant relationship between performance approach and performance avoidance contrary to the Sideridis and Kaplan who found a non-significant relationship between the two levels of achievement goal orientation.

These findings also supported those of a study by Agbuga and Xiang (2008) who investigated the relationship between mastery goals, performance approach, performance avoidance and effort among Turkish students. The study reported a positive correlation between mastery goals and achievement related outcomes. However, our study reported a negative correlation between performance approach and performance avoidance with academic achievement. This was inconsistent with the findings of Agbuga and Xiang (2008) registered a non-significant correlation for performance approach and performance avoidance.

The results also corroborated the research findings of Roussel et al. (2011) who examined the link between 2 x 2 achievement goal model among students of similar age in France and found mastery approach and mastery avoidance were positive predictors and performance approach was a negative of academic related outcomes. On the contrary, this study revealed positive correlation for performance avoidance. The findings also support Diseth et al. (2012) and Hulleman and Harackiewicz (2010) empirical finding, who ascertained a significant negative relation between performance goals and academic achievement. This finding is also consistent with Diseth and Samdal (2014) who reported that mastery approach and performance avoidance positively predicted school performance.

Based on the above discussion, it could be concluded that achievement goal orientation facilitated students' academic achievement. According to Ames and Archer (1999, as cited in Stevenson, 2011) mastery oriented students displayed more adaptive motivational patterns like use of effort strategies and belief that effort and success were related. The finding seemed to indicate that performance approach was maladaptive and therefore seeking to outperform others was detrimental to achievement and was related to negative effect (Sideridis, 2011). Moreover, maladaptive emotional responses associated with normative component of performance approach goals such as anxiety and shame could explain the negative relationship with performance (Hulleman & Harackiewicz, 2010). The performance oriented students focused on social comparison, ability

attributions for performance, normative feedback and perceived their ability as low when they experienced failure. This implied that performance approach students would be highly anxious to protect their self-worth, competence in order to avoid negative evaluation.

The positive relationship between mastery avoidance, performance avoidance and academic achievement was of particular interest because majority of the studies had found negative outcomes. One possible explanation for this interesting result was that students did revise their goal after negative feedback or they simply began to pursue multiple goals (Senko et al. (2011). Our study findings seem to suggest that not all avoidance goal should be considered harmful as indicated by mastery and performance avoidance goal but could be important regulatory mechanisms in achievement settings for self enhancement. This is supported by Franklin (2000, as cited in Mwangi, 2015) who asserted that people's internal (personal) factors acted as protection to help individuals stabilize and persevere during misfortunes. The protective factors seem to enable students to explore other adaptive behaviours without seeing them as a threat to their competence.

Qualitative Data Analysis

The qualitative data were used to categorize the respondents into achievement goal orientation in Table 10.

Table 10

Qualitative Categorization of Respondent Achievement Goal Orientation

AGO	Boy	Girl	Total
Mastery Approach	15(37.5%)	12(30.0%)	27(67.5%)
Mastery Avoidance	1 (2.5%)	1(2.5%)	2(2.5%)
Performance Approach	2(5%)	3(7.5%)	5(12.5%)
Performance Avoidance	2(5%)	4(10%)	6(15%)
Total	20(50%)	20 (50%)	40(100%)

Note. AGO= Achievement Goal Orientation

The majority of the respondents were categorized into mastery approach (67.5%). This finding contrasted with the quantitative findings where majority of the respondents were categorized into performance approach. Interestingly, the number of respondents categorized into mastery avoidance was the least (2.5%). These findings were consistent with the quantitative phase of the study. The rest of the participants were categorized into performance avoidance (15%) and performance approach (12.5%).

In terms of gender, more boys were categorized as having mastery approach than girls. However, there were more girls categorized as having performance approach and performance avoidance. But no gender differences were revealed in mastery avoidance. The gender differences in the qualitative data supported those reported in the quantitative phase of the study.

The key emergent theme and sub -themes which arose from interviewees responses were analysed and discussed in relation to achievement goal orientation. The learning contexts complement motivational dispositions of achievement goals. In classroom settings which are perceived as engaging or interesting, students are drawn into the learning processes. The respondents highlighted the differences in school environmental structures and learning strategies which could be utilized to maximize students' outcomes. Majority of students reported discussion groups/peer teaching and organized contests/symposium as the most preferred methods of learning since they were collaborative. Such an approach could explain the reported positive correlation between mastery goals and performance avoidance with regard to academic achievement. According to De Castella and Byrne (2015) performance avoidant students may benefit more from having peer performance and participation in teaching competitions which could improve motivation towards learning.

Conclusions

The results of this study presented empirical evidence of the relationship between achievement goal orientation and academic achievement. Framed from Elliot and McGregor (2001) goal orientation theory, the study contributes to local and existing cross- cultural literature. Overall, when the four sub-scales of achievement goal orientation were analyzed, it was found out that achievement goal orientation could account for variances in students' academic achievement. While performance approach is maladaptive in achievement setting, mastery approach, mastery avoidance and performance avoidance were adaptive. From the qualitative analysis, it is important to note that students with avoidance orientation preferred group learning. This seems to explain why performance avoidance had the best predictive value. Thus, the positive impact of collaborative/group learning is valid and peer learning should be encouraged.

Recommendations

Based on this study's findings, the following recommendations for policy and further research were made:

Policy Recommendations

- i. Since achievement goal orientation was found to have a positive significant influence on students' academic achievement, teachers, parents and all stakeholders should create a conducive environment that can facilitate the development of personal psychological factors in learners.
- ii. In this study, performance approach had negative relationship with academic achievement but showed higher scores among students from Co- educational Day Schools. Mentorship programmes and psychological experts could help weak students to undergo cognitive restructuring. This would assist them to acquire the capacity to use more of intrapersonal standards than normative standards in performance assessment.

Recommendations for Further Research

- i. The student sample in this study was not fully representative of all schools. There is, therefore, need to study the influence of motivation among ranges of students sampled from primary and post- secondary levels of education. Such an approach could address regional differences in Kenyan students' achievement goal orientation. The cross- sectional nature of this study cannot infer causality from the findings.

- ii. Future studies could consider experimental methods for assessing academic achievement. In addition, researchers could also adopt longitudinal designs in order to track developmental changes in achievement goals over time.

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