



INFLUENCE OF ACADEMIC SELF-EFFICACY ON ACADEMIC PERFORMANCE AMONG STUDENTS IN PRIMARY TEACHER TRAINING COLLEGES IN CENTRAL REGION KENYA

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Abstract:

This study was designed to determine the relationship between academic self-efficacy on academic Performance among students in teacher training colleges in central region in Kenya. It was guided by Self-efficacy theory and adopted descriptive survey design. The study targeted all second year students in Public Primary Teacher Training Colleges in central region in 2019. Purposive sampling was used to select central region, second years' students and Simple random sampling was used to select 197 students, and stratified sampling to select gender. The instrument used to collect data was academic self-efficacy scale. Academic Performance was inferred from the students mean grade obtained from the mid-course examinations. Means and standard deviations were used to describe the data, while quantitative data was analyzed using SPSS version 26. The relationships among the variables was examined using Pearson Product Moment Correlation Coefficient and regression analysis was used to measure the strength of the relationship, independent sample t test was used to examine gender differences. Overall,

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academic self-efficacy positively and significantly correlated with academic performance with ($r = .70$, $p < 0.01$, $n = 197$). The highest relationship was between content understanding and academic performance ($r = .68$, $p < 0.01$, while the other variables measured as follows, time management ($r = .63$, $p < 0.01$), academic self-drive ($r = .63$; $p < 0.01$) and examination preparation ($r = .21$, $p < 0.01$). On regression analysis, academic self-efficacy had a significant predictive power on academic performance ($F(1, 195) = 189.08$, $p < 0.05$). And finally, there were no significant gender differences in students' academic self-efficacy ($t = .74$, $p > 0.5$). Based on the findings it was recommended that Educators, lecturers and other education stakeholders should create an enabling environment in order to enhance students' academic self-efficacy which is a key determinant of academic performance.

Keywords: academic self-efficacy, students, teacher training colleges, academic performance, gender

1. Introduction

Academic performance is inferred from grades, tests and examinations scores that from time to time show students' academic standing. All over the world good grades acts as a way of progressing academically and in social mobility. Lewin, Wasanga & Somerst (2011) stated that students grades in national examinations are determinants of the wellbeing of the students, the society and the nation at large. The society attaches a lot of significance to examination grades because they are very valuable to the individual to the society and the nation at large. Globally looking at examination grades through various studies the outcome reveals significant trends and disparities.

In the United States of America, it was reported by McWilliams (2015) that although the government had taken many steps and education reforms many students still continue to perform poorly academically. The findings revealed that among the many factors that influence students' academic performance include the students' belief systems, relationship with teachers and peers and classroom management. Gorton, Dyer & King (2000) in their research findings done on academic performance among university students to evaluate the efficiency of student learning style and other university admission variable in predicting student academic performance, found out that composite score, high school class rank, high school core grade point average, and learning style were used as predictors, and the results showed that GPA was the best predictor for predicting academic performance of first year of college.

In the United Kingdom particularly England about 7.2% failed their general exams in 2009/2010 this was due to pupil's characteristics, nutrition, race, and economic status Zappala & Parker (2000), the study also revealed that people from low economic status do not perform well as compared to children from high social economic class. Smith and Naylor (2001) reported that the effect of parent's job type in the United Kingdom undergraduates' students' performance and found that the students whose parents were classified as unskilled workers their children performed significantly worse than the

students whose parents worked as professional workers whose children tended to perform better and take up careers with a professional basis.

Mackenzie & Schweitzer (2001) study in Australia to examine the psychosocial, cognitive, and demographic predictors of academic performance of first year university students. The findings demonstrated that previous academic performance was identified as the most significant predictors of university performance; other predictors were Integration into university, self-efficacy, and employment responsibilities. Mushtaq & Khan (2012 in Pakistan reported that, social and economic development of any country is directly linked to the students' academic performance at whatever level. Communication, learning facilities and family related stress were key in affecting students' academic performance.

Obrentz (2012) asserted that even though there have been many studies on academic performance for decades, the factors which predict academic performance should be studied continuously due to the changing nature of the student's population, the curriculum, use of modern technology and the measure for academic success which could differ from institution to another. P'Pool (2012) asserted the importance of researchers in identifying the specific factors that contribute to students' academic performance so to be able to give a helping hand to educators to develop and use effective teaching methods which could enhance academic performance in all institutions.

Study on student's class attendance on Information Communication Technology of Polytechnic students on factors affecting performance, Adegoke, Salako and Ayinde (2013) found out that there was significant prediction on the students' performance based on how a student attended college, that is the more a student missed school the worse the performance was. Kabunga et al (2011) studied students' attitudes and academic performance in Mbaara region in Uganda among Advanced level secondary schools and found out that attitude, age and gender were significant in students' performance in science. The significance attached to academic grades prompted educational researchers and stakeholders to take interest in examination performance trends at various levels as well as in factors influencing students' performance.

In Kenya research indicated that a variety of factors affected students' academic achievement. Such factors were either contextual personal, or psychological. Some studies tend to consider students' academic achievement as an outcome related of contextual factors like school and family factors (Kimani, Kara, & Njagi, 2013; Kariuki, 2017). More studies examined how academic achievement was influenced by personal and psychological factors. These include: academic self-concept (Kwena, 2007); self-regulated learning (Mutweleli, 2014); academic resilience (Mwangi, (2015)

Academic self-efficacy is defined by Chemer, Hu, and Garcia (2001) as "*students' confidence in mastering academic subjects*". It is the amount of confidence a student exhibits in completing academic tasks. Academic self-efficacy affected performance by influencing effort, persistence and perseverance Torres, & Solberg, (2001). A Study in Kenya by Ochieng (2015) on Self-efficacy and academic achievement among students in secondary schools revealed that the students in Kenyan secondary schools lack adequate

sense of self-efficacy necessary to demonstrate persistence on tasks when faced with academic challenges, this study sought to establish further on academic self-efficacy among college students and how it related with.

2. Purpose of the Study

The purpose of this study was to establish the extent to which academic self-efficacy predict academic performance among students in Teacher Training Colleges in Central region in Kenya. The study also explored whether there existed significant gender differences in students' academic self-efficacy on academic performance so that appropriate measures could be taken to reduce these differences which may lead to poor performance in examinations.

The objectives of the study were: to examine the relationship between academic self- efficacy and academic performance. established gender differences in academic self-efficacy and academic performance. It was hypothesized that There was no relationship between academic self-efficacy and academic performance, and there are no gender differences between academic self-efficacy and academic performance.

2.1 Theoretical Framework

The theory explains that self-efficacy is gained from four sources, which are experiences or performance accomplishments, vicarious learning, persuasion and emotional arousal (Bandura, 1997). Mastery experiences explain that when a person has had a previous experience, it influences how they deal with subsequent situations or task. If a student is successful at a task, it leads to the development of strong self-efficacy. On the other hand, a students' self-efficacy, may be weakened by previously failing a task. Secondly, vicarious learning also explains that when a person observes the consequences of another's actions their self-efficacy develops if the person is successful. However, self-efficacy is weakened if the observed person is unsuccessful at the task this probably what the students in teacher training colleges experience as they watch their predecessor's year in year out failing their PTE. Thirdly, verbal or social persuasion from others also improves one's self-efficacy. This is because encouragement helps to clear self-doubt that is held by an individual. They are then able to concentrate their energy on achieving the task. Lastly, physiological or somatic factors influence an individuals' self-efficacy. The perception an individual hold about their physiological reactions to stressful situations affects their self-efficacy. When students are efficacious, they will attempt tasks because they believe they have the ability to accomplish it. Also, efficacious students are more likely to set challenging goals and maintain strong commitment to achieving these tasks despite the possibility of failure. This helps to reduce stress and the risk of depression (Bandura, 1994). The study informs that efficacious students have more confidence in their ability to manage stress and are more likely to use positive styles of coping that promotes well-being and performance. Academic self-efficacy is important in academic work because it produces resilience.

Efficacy beliefs influences how students feel, think, motivate themselves and behave (Bandura, 1986). Research showed that students with greater sense of perceived self-efficacy displayed more of the behavioral and environmental determinants of learning and were more likely to set higher goals for themselves and have a firmer commitment to self. It was evident that students have different types of academic self-efficacy which determine their academic outcomes. The theory explains that Academic self-efficacy is a motivational tool that empowers students to achieve even in the face of difficulties. In order to enhance the college student's self-confidence in academic activities, academic self-efficacy theory plays a significant role. Without having confidence in themselves students would always be troubled and easily shaken when they face challenging and difficult situations. For the students to be motivated towards learning and performance most of the motivation strongly lies within the students' internal strength.

The role of the teachers comes in order to help in strengthening the student's efficacy. Teachers optimism and encouragement are very critical components that the students need to hear so that that can be able to develop strong self-confidence. When students become optimistic within themselves the encouragement and support, they receive from the teachers their motivation level towards learning and performance is boosted.

2.2 Review of Related Literature

Academic self-efficacy is generally a very multidimensional construct cutting across different domains of functioning. Research conducted by Pintrich et al. (2004) have shown that academic self-efficacy is significantly associated with the students learning, analytical thinking, cognitive engagements, academic commitment, strategy use, persistent, susceptibility to negative emotions and achievement. Research has shown that students beliefs in their own efficacy to control their own education processes and outcomes and to become resilient in challenging subject matter will likely have a great impact in their scholastic achievement, interest and educational performance. When it comes to students, those that are confident in their capability to organize, execute and regulate their problem solving skills or task performance at all the given content with high competency will always demonstrate high self-efficacy hence high performance.

Obrentz (2012) reported that students with high levels of academic performance also presented high levels of academic self-efficacy compared to the students who had average and low academic performance. The findings highly suggest that academic self-efficacy is a highly malleable construct that is influenced by the environment and can highly influence academic performance among students in different levels of learning.

Despite the educational setting in which it is measured, academic self-efficacy has over time been shown to positively correlate with academic performance. Zajacova, Lynch, & Espenshade (2005) did a study on the joint effects of academic self-efficacy and stress on the academic performance of students in one of the City University of New

York. The research findings showed that self-efficacy had a significant and positive influence on student academic performance.

Further Ali G, Wan M. Wan J., Nobaya B. (2017) investigated the levels of students' academic self-efficacy beliefs and relationship between academic self-efficacy with students' academic performance among final year students' in one of Nigerian Colleges of education. The findings revealed that, 80.82% of the respondents had higher levels of academic self-efficacy in the College. Also positive and significant relationship between academic self-efficacy beliefs with students' academic performance ($r=0.342$, $p<0.01$) were recorded This revealed that the higher the students reported levels of self-efficacy in academic ability the better was the academic performance.

Tenaw (2013) at Debre Markos College of Teacher Education did a study using survey method on relationship between self-efficacy, academic achievement and gender in analytical chemistry, which showed that, there was significant and positive relationship between self-efficacy and academic achievement ($r=0.385$, $p<0.01$). Maliha Nasir and Sarwat Iqba (2019) designed a study to examine the relationship between academic self-efficacy and academic achievement of students in pre service teacher training programs. Correlation analysis revealed a significant correlation among self-efficacy, expected GPA and actual GPA in the midterm examination. Self-efficacy was significantly correlated with expected GPA ($r = .56$, $p< .01$) mid- term examinations ($r= .34$, $p< .01$) and Expected GPA was also correlated to actual GPA ($r = .41$, $p< .01$).

More research was presented with academic self-efficacy combined with other variable by Adeyemo (2007) who examined the moderating influence of emotional intelligence and the link between academic self-efficacy and achievement among undergraduate students of University of Ibadan, Nigeria, the study revealed a significant and positive correlation between academic self-efficacy with academic achievement ($r=0.28$, $p < 0.01$). The findings were supported by Olanrewaju & Oyadeyi (2014) who investigated academic efficacy and self-esteem as predictors of academic achievement among school going adolescents in Itesiwaju Local Government Area of Oyo State Nigeria The results showed that there was significant relationship between academic efficacy and students' academic Achievement ($r= .781$; $P<0.05$). In terms of achievement academic self-efficacy which is the students' confidence in the ability to carry out academic tasks without failing is a very important construct when it comes to performance.

However not all research done reported consistently significant relationship between academic self-efficacy and performance as Fenollar, Román, & Cuestas (2007) study on students' academic performance in the University of Murcia in Spain as an integrative conceptual framework and empirical analysis, the results from Structural Equation Modelling revealed that there was no direct relationship between self-efficacy and academic performance of the students in the university.

Using the Multidimensional self-concept scale Strelnieks (2003) examined the relationship of student's domain specific self-concepts and self-efficacy to academic performance of minority students. The results revealed that self-efficacy could only

predict females' academic performance and failed to predict male's academic achievement. Self-efficacy could only predict academic performance of students with higher socio-economic background and failed to predict students with poor socio-economic backgrounds. Saunders, Davis & William (2004) found that academic self-efficacy had insignificant effect on academic performance; this was correlated with another study carried out by Jeffrey (1998) who reported inconsistent findings regarding the relationship between academic self-efficacy and academic achievement of university students.

The literature review informs that academic self-efficacy has shown to be an important construct that influenced an individual performance in a particular given area. In a learning environment, students have to deal with academic related problems their academic self-efficacy may help to influence their academic performance. Academic self-efficacy may include cognitions of perceptions as beliefs in one's capabilities to be able to achieve various academic goals, confidence in task performance and the visualization of academic success. The perceptions usually help to enhance their efforts in order to perform academic tasks successfully and positively thus influencing their academic.

Most of the studies have been carried out in western countries thus limiting the extent to which the results can be generalized to population samples in teacher training colleges in Kenya. Based on the findings, there was need for more studies using different methods and research instruments in order to have unanimous results on the academic self-efficacy on student academic performance. In the study academic self-efficacy was based on the variable of content understanding, time management, academic self-drive and examination preparation.

2.3 Gender Differences in Academic Self-efficacy and Academic Performance

Several studies report significant differences on level of self-efficacy between sexes. (Abdullah, Cheong, Elias, Mahyuddin, Muhamad, & Noordin 2006) conducted a research student from different secondary schools in Petaling District in Selangor on the relationship between students' self-efficacy and English language achievement, one of the main variable that was investigated was sex differences the findings showed that girls had higher self-efficacy rather than boys.

Abd-Elmoteleb & Saha (2013) examined the mediating influence of academic self-efficacy and the link with perceived academic climate and academic performance among university students was done using a sample size of 272 undergraduates at the university of Assiut Egypt, the results showed that perceived academic climate and academic self-efficacy significantly correlated with academic performance and further academic self-efficacy had negative significant correlation between sexes.

Hackett & Betz (1989) explored the relationship between college students' mathematics achievement and mathematics self-efficacy, their attitudes towards mathematics, and their choice of mathematics related degree programs. The findings discovered positive correlations among students' mathematics achievement and their levels of self-efficacy, mathematics attitudes, and their masculine sex-role orientation. In

addition to sex differences in attribution patterns, researchers have related the mathematics achievement gap between the sexes to boys and girls differing perceptions of their abilities.

Much of the literature available reveals that there are differences in female and male's perception of mathematics efficacy suggesting that these different perceptions relate to girls' relatively lower mathematics performance and lower participation rates in mathematics-related career.

The two genders were also examined by Pajamas & Miller (1994) who confirmed that there was a relationship between gender and academic self-efficacy meaning that the level of self-efficacy is different in males than female and it is higher in girls. Academic self-efficacy being higher in the females was inconsistent with (Ghebi & Danesh, 2012 & Yazdan, Gholamali & Lavasani, 2012) which also indicated the same findings of females having higher academic self-efficacy. The researchers' possible reasons for higher levels of self-efficacy in girls than boys are that they give higher motivation and passion for education and also lack of confidence in the boys.

Shikullak (2013) disagreed with the findings through a study on "The Relationship between Self-efficacy and Academic Performance in the Context of Gender among Albanian Students". The results showed that there was no significant difference in level of self-efficacy between male and female and academic performance.

The findings were supported by Mohamed I (2020) through a study done among senior secondary students in Niger state Nigeria on the analysis of gender differences in academic self-efficacy and achievement using descriptive survey design. The findings of the study showed that there were no significant differences in academic self-efficacy and academic achievement between females and male students. Therefore, signifying that academic self-efficacy does not have a significant gender differences in academic performance. The inconsistency gave room for further researcher.

3. Methodology

The study adopted a descriptive survey design to investigate academic self-efficacy and how it related with academic performance. Academic self-efficacy was assessed using an Instrument adapted from Byrne and Matoti (2014). It covered self-efficacy attributes related to content understanding, examination preparation, academic self-drive and time management. The respondents indicated the extent to which each level applied to them. The scores for the 16 items was summed and totalled. The higher the score the greater the level of self-efficacy. Students' academic performance was inferred from the mid-course examination scores.

4. Results of the Study

4.1 Analysis of Participants Academic Self-efficacy

The participants' academic self-efficacy scores were analysed as shown in Table 1.1.

Table 1.1: Analysis of Participants' Academic Self-efficacy

N	Range	Min	Max	Mean	SD	Skewness	Kurtosis
197	35	39	74	59	9.2	-0.467	-0.905

Min=Minimum, Max Maximum, SD=Standard deviation.

Data showed that range was 35, the minimum and maximum score was 39 and 74 respectively the anticipated minimum and maximum scores were 16 and 80. The mean was 59. and standard deviation was 9.2. The skewness was calculated to be -0.46 meaning it was moderately skewed to the left. Kurtosis was -0.90 below zero meaning that most scores were normally distributed.

Table 1.2: Descriptive Statistics of Participants' Level of Academic Performance

Level of Academic Performance T-Score	N	Percentages	Mean Academic Performance T-Score
Low (<54)	39	19.8%	36.74
Average (55-64)	127	64.5%	50.16
High (65-83)	31	15.7%	65.99
Total	197	100.0%	50.00

The results showed that 64.5% of the participants had an average level of performance, 19.8% had low academic performance while 15.7% had high performance. The results reflect that majority of the students were within average and low performance of 84.3%, this outcome confirms the existing trend of average and low performance among the students on P.T.E.

4.2 Hypothesis Testing between Academic Self-efficacy and Academic Performance

Ho: There was no significant relationship between students' academic-self-efficacy and academic performance.

Table 1.3: Hypothesis Testing between Academic Self-efficacy and Academic performance

	Academic Performance	
Academic Self-efficacy	Pearson correlation	.70
	Sig (2tailed)	.000
	N	197

Data show that academic self-efficacy and academic performance had a significant positive relationship ($r = 0.7$, $p < 0.01$). That means the null hypothesis was rejected.

5. Discussion of the Results

The findings were supported by a study done earlier by Adeyemo (2007) among students of University of Ibadan, Nigeria which showed significant and positive correlation between academic self-efficacy with academic achievement ($r = 0.28$, $p < 0.01$). Confirmed by another study by Olanrewaju & Oyadeyi (2014) who investigated academic efficacy

and self-esteem as predictors of academic achievement among school going adolescents in Itesiwaju Local Government Area of Oyo State Nigeria. The results showed that there was significant positive relationship between academic efficacy and students' academic Achievement ($r = .781, P < 0.05$). The results show that academic self-efficacy which is the students' confidence in the ability to carry out academic tasks without failing was an important construct when it comes to performance.

Key characteristics of efficacious students were that they tended to view challenges encountered as seen as opportunities for growth and mastery when carrying out difficult assignments and projects. Such students with high academic self-efficacy when they faced difficult situations like failure tend to continue to persist until success is achieved. They always viewed academic failure as temporal challenge that they could be faced. Unfortunately based on the outcome of the PTE performance for a period of five years these characteristics are possessed by students are a small fraction of the total population

Time management predicted academic performance. Time management was seen as a significant predictor of academic performance as it involved setting of goals and setting priorities, proper utilization and control of the time available, time planning, task organization and time control.

However, the findings of the study did not agree with the findings of Fenollar et al, (2007) who conducted a study on students' academic performance as an integrative conceptual framework and empirical analysis in University of Murcia, Spain. Sample was drawn of 553 students. The results from Structural Equation Modelling revealed that there was no relationship between self-efficacy and academic performance of the students.

The relationship of student's domain specific self-concepts and self-efficacy to academic performance of minority students was examined by Strelnieks (2003). The researcher found out that whether academic self-efficacy could influence student academic performance depended on some external factors like gender and socio-economic status of the students. The results revealed that self-efficacy could only predict females' academic performance and failed to predict male's academic achievement. And also, self-efficacy could only predict academic performance of students with higher socio-economic background and failed to predict students with poor socio-economic status. Saunders, Davis & William (2004) found that academic self-efficacy had insignificant effect on academic performance, and finally Jeffrey' (1998) reported inconsistent findings regarding the relationship between academic self-efficacy and academic achievement of University students.

Based on the results four supplementary hypotheses were formulated to measure the relationship between academic self-efficacy subscales and academic performance.

Ho₁: There is no significant relationship between content understanding and academic performance.

Ho₂: There is no significant relationship between time management and academic performance.

Ho₃: There is no significant relationship between academic self-drive and academic performance.

Ho₄: There is no significant relationship between examination preparation and academic performance.

The data was subjected to Pearson Product Moment Correlation Coefficient and the findings shown in Table 1.4.

Table 1.4: Hypothesis Testing for the Subscales on the Relationship between Academic Self-efficacy and Academic Performance

		Academic performance	Sigf
Content understanding	Pearson (2 tailed)	.68**	.000
Time management	Pearson (2 tailed)	.63**	.000
Academic self-drive	Pearson (2 tailed)	.63**	.000
Examination preparation	Pearson (2 tailed)	.21**	.003

Results showed that there was a significant positive relationship between content understanding and academic performance ($r = .68$, $p < 0.01$), therefore the first supplementary null hypothesis was rejected. That meant that the participants who understood the content of the subject matter performed better than those who rated themselves low on content understanding content.

There was also a significant positive relationship between time management and academic performance ($r = .63$, $p < 0.01$) leading to the rejection of the second supplementary null hypothesis, concluding that time management had correlated positively with academic performance. That meant that the participants who managed their time properly performed better than those who rated themselves low on time management thus proper time management led to high academic performance.

There was a significant positive relationship between academic self-drive and academic performance ($r = .63$, $p < 0.01$). That meant, that the participants who rated high on academic self-drive performed better than who rated themselves lowly thus, participants' academic self-drive led to high academic performance.

Lastly there was positive relationship between examination preparation and academic performance ($r = .21$, $p < .01$). Therefore, the fourth supplementary hypothesis was rejected, that meant that students examination preparation had an impact on academic performance.

4.3 Regression Analysis between Academic Self-efficacy and Academic Performance

Multiple regression analysis was performed on the students' academic self-efficacy in order to find out to what extent the students' academic self-efficacy predict academic performance as shown in Table 1.5.

Table 1.5: Regression Analysis of Academic Self-efficacy and Academic Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9649.151	1	9649.151	189.088	.000
	Residual	9950.850	195	51.030		
	Total	19600.001	196			

Students' academic self-efficacy was a significant predictor of academic performance ($F(1, 195) = 189.08, p < 0.05$). The findings show that academic self-efficacy was a significant predictor of the students' academic performance, and that meant that students' performance matters could be predicted on the basis of the students' academic self-efficacy. The results were consistent to Zajacova, Lynch and Espenshade (2005) who summed up that academic self-efficacy was a strong predictor of academic success. That meant that the students whose academic self-efficacy was high could predict higher grades in their examinations.

Table 1.6: Prediction of Students' Academic Self-efficacy sub scales on Academic Performance

Model	Unstandardized coefficient	Standardized coefficient	t	Significant
	B	Std Error	Beta	
Constant	16.901	4.015	4.210	.000
CU	1.278	.251	.395	5.08
TM	.707	.215	.235	3.287
EP	-.663	.289	-.122	2.294
AS	.865	.211	.252	.584

Dependent Variable: academic performance

Cu=Content understanding; TM=Time Management; EP=Examination preparation; AS=Academic Self-drive.

Results showed that the best significant predictor of academic performance was content understanding identified as ($\beta = 0.39, p < 0.05$). Academic Self-drive had a positive significant prediction at ($\beta = 0.25, p < 0.05$) and time management with a prediction of ($\beta = 0.23, p < 0.05$) and lastly examination preparation with negative prediction of ($\beta = -0.12, p < 0.05$) leading to the following prediction model

$$\hat{Y} = 16.9 - 0.12(EP) + 0.23(TM) + 0.25(ASD) + 0.39(CU) \quad (R^2 = 0.49), \quad p < 0.05$$

Academic self-efficacy therefore had a significant prediction on academic performance. And all the subscales had a significant predictive weight on academic performance. The findings were in agreement to Zajacova et al. (2005) on effects of self-efficacy on academic performance and concluded that academic self-efficacy was a strong predictor of academic success. Maliha (2019) findings on academic self-efficacy as a predictor of academic performance of students in pre-service teacher training also revealed that academic self-efficacy was a strong predictor of academic performance ($F(1, 133) = 32.94, p < 0.05$). Charmers & Garcia (2001) also found that students' self-efficacy in

first year at the University was a strong predictor of future academic performance as Students with higher high school GPA were more efficacious ($r = .23, p < .001$) and had better academic performance ($r = .45, p < .001$).

4.4 Gender Differences in Academic Self-efficacy

The respondents' academic self-efficacy scores were analysed. From the findings the females had higher academic self-efficacy score (mean=59.47) than (males=59.46.) although the difference was very slight. Gender differences in academic self-efficacy levels were sought and shown in the table below.

Table 1.7: Level of Academic Self-efficacy by Gender

			Academic Self Efficacy			Total
			Low	Average	High	
Gender	Male	Frequency	17	39	42	98
			54.8%	47.0%	50.6%	49.7%
	Female	Frequency	14	44	41	99
			45.2%	53.0%	49.4%	50.3%
Total		Frequency	31	83	83	197

The findings showed that more females 53.0 % than the males were found to be in the average levels in academic self-efficacy, while the males had the highest score 50.6% in the higher level of academic self-efficacy. In total the females had 50.3% in academic self-efficacy than the males with 49.7%. That implied that the female students rated themselves higher in academic self-efficacy meaning that they believed in their academic ability slightly more than the males

The means of the different subscales of academic self-efficacy by gender was compared. The results showed that the female students had the highest mean score (M=15.14 and SD=3.27) in content understanding and in academic self-drive (M=15.17 and SD=2.84) while the males had the highest mean score in time management (M=15.01 and SD=3.39) subscales of academic self-efficacy. That means the females understood the content more in relation to academic self-efficacy, while the males managed time well in relation to academic self-efficacy

4.5 Gender Differences in Participants' Academic Performance

The researcher sought to find out if there were gender differences in the students' academic performance. A descriptive analysis of gender and performance was done to get the mean. and standard deviation for gender differences and academic performance.

Table 1.8: Descriptive analysis of Student Gender Differences in Academic Performance

	Gender	N	Mean	Standard deviation
Academic performance	Male	98	50.3	10
	Female	99	49.4	9.9

The results showed that the males' performance in the mid-course examination was better than that of females with mean score of 50.3. Independent sample t test was performed to find out gender differences in student academic performance. The results showed that there were no significant gender differences in students' academic performance ($t=.74, p>0.5$). These findings were consistent with Goni et al. (2015) who found out that there were no significant gender differences in academic performance, that in academics its more of individual differences than gender differences.

4.6 Hypothesis Testing for Gender Differences in Academic Self-efficacy and Academic Performance

H₀₁: There are no significant gender differences in students' academic self-efficacy and academic performance.

Table 1.9: Independent Sample t Test for Gender Differences in Academic Self-efficacy

Variable		t	df	Sig (2 tailed)
Academic self-efficacy	Equal variances assumed	-.012	195	.991
	Equal variances not assumed	-.012	194.7	.991

Results showed that there were no significant gender differences in academic self-efficacy between males and females. ($t = -.01, p>.05$) therefore the null hypothesis was retained. That implied that between the two genders beliefs on their academic self-efficacy when it came to academic performance had no differences, despite the males having had performed better than the females in the mid-course examination. The findings were in conformity with Shikullak (2013) on "The Relationship between Self-efficacy and Academic Performance in the Context of Gender among Albanian Students". The results showed that there was no significant difference in level of self-efficacy between male and female and academic performance.

The findings were supported by Mohamed I (2020) who analyzed senior secondary students in Niger state Nigeria on the analysis of gender differences in academic self-efficacy and achievement using descriptive survey design. The results showed that there were no significant differences in academic self-efficacy and academic achievement between females and male students.

5. Conclusions

Generally, the findings showed that there was a significant correlation between students' academic self-efficacy and academic performance and academic self-efficacy predicted students' academic performance. There were no significant gender differences in students' academic performance. The implication was that lecturers and school counselors should focus on student's academic self-efficacy beliefs in order to be able to motivate them. Motivation and student's self-optimism towards academic performance should be enhanced. The constructs of academic self-efficacy beliefs provided evidence

that they correlated well with academic self-efficacy hence academic performance, therefore teachers should ensure that the students understood the content well, had academic self-drive and managed time well in the process of learning. An enabling environment for proper development of academic self-efficacy should be ensured within the colleges' settings.

6. Recommendations

Academic self-efficacy is based on learning by observation and personal experiences, that means the colleges should structure programs in colleges towards developing academic self-efficacy of the students in the process of learning. Through various forums there should be awareness creation for teachers on different ways of enhancing students' academic self-efficacy in order to promote academic performance. Motivational talks should be strengthened for the students to enhance their beliefs and confidence in academic tasks.

References

- Abd-Elmotalieb, M. Saha, S. K. (2013). The Role of Academic Self-Efficacy as a Mediator Variable between Perceived Academic Climate and Academic Performance. *Journal of Education and Learning*, 2(3), pp117-129.
- Adeyemo, D. A. (2007). Moderating influence of emotional intelligence on the link between academic self-efficacy and achievement of university students. *Psychology & Developing Societies*, 19(2), pp. 199-213.
- Ali Garba K., Wan M. B. Wan J. Nobaya B. A. (2017). Relationship between Academic Self-Efficacy Believed of College Students and Academic Performance. *IOSR Journal of Humanities and Social Science (IOSR-JHSS) Volume 22, Issue 1, Ver. 6 (Jan. 2017) PP 75-80.*
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman and Company.
- Byrne, M., B. Flood, & J. Griffin (2014). Measuring the academic self-efficacy of first-year accounting students. *Accounting Education* 23(5), 407– 423.
- Chemers, M. M., Hu, L., & Garcia, B. F. (2001). Academic self-efficacy and first-year College student performance and judgment. *Journal of educational psychology*, 93(1), pp 55-64.
- Fenollar, P., Román, S., & Cuestas, P. J. (2007). University students' academic performance: An integrative conceptual framework and empirical analysis. *British Journal of Educational Psychology*, 77, pp873-891.
- Garton, B. L., Dyer, J. E. and King, B. O. (2000). The Use of Learning Styles and Admission Criteria in Predicting Academic Performance and Retention of College Freshmen. *Journal of Agriculture Education*, 41(2), pp46-53.

- Gheibi, M., Arefi, M., Danesh, E. (2012). Relationship between learning style and self-efficacy in students of Academic Groups *Journal of applied psychology*. v 6. 21.
- Hackett, G., & Betz, N. E. (1989). An exploration of the mathematics self-efficacy/mathematics performance correspondence. *Journal for Research in Mathematics Education*, 20(3), 261–273. <https://doi.org/10.2307/749515>.
- Lewin, K. M., Wasanga, P., Wanderi, E. & Somerset, A. (2011). Participation and Performance in Education in Sub-Saharan Africa with Special Reference to Kenya: Improving Policy and Practice. Create pathways to Access. *Research Monograph No. 74*: University of Sussex.
- Jeffreys, M. R. (1998). Predicting non-traditional student retention and academic achievement. *Nurse Educator*, 23(1pp 42-48).
- Kabunga, Amir & Mohamed, Habiba & Mnjokava, Christina (2016). Learners' Attitudes and Performance in Science Subjects in A-Level in Secondary Schools, in Mbarara, Uganda. *The Journal of Educational Research*. 2. 10-25.
- Kariuki, D. G. (2017). *Personal, family and school factors as correlates of Achievement Motivation among form two students in Nairobi County Kenya*. (Unpublished doctoral dissertation). Kenyatta University, Nairobi, Kenya.
- Kimani G. N., Kara A. M. and Njagi L. W. (2013). Teacher Factors Influencing Students' Academic Achievement in Secondary Schools in Nyandarua County, Kenya. *International Journal of Education and Research* (1):3 145 -158 March 2013. ISSN 2201 – 6333.
- Kwena, J. S. A. (2007). *An investigation into selected factors on academic self-concept among primary school pupils in Bondo District*. (Unpublished doctoral thesis). Kenyatta University, Nairobi, Kenya.
- Maliha Nasir, Siqbal (2019). [Academic Self Efficacy as a Predictor of Academic Achievement of Students in Pre Service Teacher Training Programs](#). *Bulletin of Education and Research* 41 (1), 33-4.
- McKenzie, K. (1999). *Correlation between Self-efficacy and Self-esteem in students*. Retrieved 18/2/2019.
- McWilliams, E. C. (2014). *Self-efficacy, implicit theory of intelligence, goal orientation, and the ninth grade experience*. (Doctoral Dissertation, North-eastern University). Retrieved from <http://hdl.handle.net/2047/d20128412>.
- Mohamed Ibrahim (2020). Analysis of gender differences in academic self-efficacy and achievement among senior secondary students in Niger Nigeria. *People International journal of social sciences* 5(3) 659-675.
- Mushtaq, I., & Khan, S. N. (2012). Factors affecting students' academic performance. *Global Journal of Management and Business Research*, 12(9). Retrieved from <http://creativecommons.org/licenses/by-nc/3.0/>.
- Mutweleli, S. M. (2014). *Academic motivation and self-regulated learning as predictors of academic achievement of students in public secondary schools in Nairobi County, Kenya*. (Unpublished doctoral dissertation). Kenyatta University, Nairobi.

- Mwangi, C. (2015). *Predictors of academic resilience and its relationship to academic achievement among secondary school students in Kiambu county, Kenya*. (Unpublished doctoral dissertation). Kenyatta University, Nairobi, Kenya.
- Obrentz, S. B. (2012). Predictors of Science Success: The Impact of Motivation and Learning strategies on College Chemistry Performance. *Educational Psychology and Special Education Dissertations*. Paper 77. Retrieved from http://scholars.gsu.edu/epse_diss
- Ochieng W. (2015). *Self-efficacy and academic achievement among secondary schools in Kenya. Mathematics perspectives*. Unpublished project Nairobi University.
- Olanrewaju & Oyadeyi (2014). Academic Efficacy and Self Esteem as Predictors of Academic Achievement among School Going Adolescents in Itesiwaju Local Government Area of Oyo State, Nigeria. *Journal of Education and practice volume 5 no 22-2014*.
- P'Pool, K. (2012). *Using Dweck's theory of motivation to determine how student's view of intelligence affects their overall academic 172 achievement*. (Master's thesis). Retrieved from <http://digitalcommons.wku.edu/thesis/1214>.
- Pajares, (1994). Self-efficacy beliefs in academic settings. *Review of Educational Research*, 66(4), 543-578.
- Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, 82, pp 33–40.
- Sanders, M. R., & Woolley, M. L. (2005). The relationship between maternal self-efficacy and parenting practices: implications for parent training. *Child: care, health and development*, 31(1) pp 65–73.
- Shkullaku, R. (2013). The Relationship between Self-efficacy and Academic Performance in The Context of Gender Among Albanian Students. *European Academic Research*,1(4).
- Smith, J., and Naylor, R. (2001). Determinants of Degree Performance in UK Universities: A Statistical Analysis of the 1993 Student Cohort. *Oxford Bulletin of Economics & Statistics*, Vol. 63(1), 29-60.
- Strelnieks, M. (2003). *The relationship of students' domain specific self-concepts and self-efficacy to academic performance*. Unpublished PhD Thesis". Marquette University, Wisconsin pp.467-478
- Tenaw, Y. A. (2013). Relationship between Self-Efficacy, Academic Achievement and Gender in Analytical Chemistry at Debre Markos College of Teacher Education. *Ajce*, 3(1), pp3-28
- Zabihollahi, K., Yazdani Varzaneh, M., Gholamali Lavasani, M. (2012). Academic self-efficacy and self disabling in high school student. *Evolutionary psychology: Iranian psychology. Nineteen-year* p. 34.
- Zajacova, A., Lynch, S. M., & Espenshade, T. J. (2005). Self-efficacy, stress, and academic success in college. *Research in Higher Education*, 46(6), pp. 677–706.

Zappala, G., B. Parker (2002). *Learning for life programme, a decade of poverty and educational disadvantages Background Paper No I* research Advocacy.

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