ACADEMIC SELF-EFFICACY, STRESS AND COPING STRATEGIES AS PREDICTORS OF ACADEMIC PERFORMANCE AMONG STUDENTS IN PUBLIC PRIMARY TEACHER TRAINING COLLEGES IN CENTRAL REGION, KENYA

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DECLARATION

This Thesis is my original work and has not been presented for examination in any other university. The thesis has been complemented by referenced work duly acknowledged. Where tables, graphics, text or data have been borrowed from other works including books ,journals and the internet have been accredited with the anti-plagiarism regulations.

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DEDICATION

Thank you, Almighty God, for bringing me this far.To my loving parents for their unwavering support in all of my academic endeavours, as well as to my loving family David, Brenda, Brian, and Joy for their financial and emotional support. Lastly to my sister Ruth Mueni my encourager and prayer partner. God bless everyone.

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ABREVIATIONS AND ACRONYMS

ASE: Academic Self-efficacy

ASQ: Academic Self-efficacy Questionnaire

CSQ: Coping Strategies Questionnaire

DOC: Dean of Curriculum

FPE: Free Primary Education

GPA: Grade Point Average

KICD: Kenya Institute of Curriculum Development

KNEC: Kenya National Examination Council

P1: Primary 1

P.T.E: Primary Teacher Education

PTTCs: Primary Teaches Training Colleges

TE: Teacher Education

TSC: Teachers Service Commission

ABSTRACT

Poor performance has been reported in Kenya's Public Primary Teacher Training Colleges from 2014 onwards. The goal of this study was to see if there was a link between students' Academic Self-efficacy, Stress and coping strategies and academic performance in Kenya's Public Teacher Training Colleges in Central Region. The study's objectives were; To investigate the relationship between academic self-efficacy and academic performance among students in Primary Teacher Training Colleges in central Region. To establish the relationship between stress and academic performance among students in Public Primary Teacher Training Colleges in Central Region, Kenya. To establish the relationship between coping strategies and Academic Performance among students in Primary Teacher Training Colleges in Central region Kenya.; and lastly to establish gender differences in academic self-efficacy, stress, and coping strategies among students in Public Primary Teacher Training Colleges in Central Region. The Transactional and Self-efficacy theories were used to guide the research. The researcher employed a mixed research design. The study focused on all of Public Primary Kenya's Teacher Training colleges in Central Region. The curriculum deans, Lecturers and second-year students were the respondents. The sample size was 224 respondents, with 200 second-year students, four curriculum deans, and 20 lecturers. The central region colleges, deans, and students were all sampled using the purposive sampling method. Stratified sampling was used to get data on gender. Questionnaires, interviews, and document analysis were used to gather information based on the research objectives. The students' average grade from the mid-course tests was used to estimate their academic performance. Descriptive and inferential analysis were used to analyse quantitative data. The link between the variables was determined using Pearson Product Moment Correlation, while regression analysis was performed to determine the independent variables' predictions on the dependent variable. Thematic analysis was used to examine qualitative data. Academic self-efficacy was found to be a significant predictor of academic performance $F(1\ 195) = 189.08$, $p < 0.05$**.** (content understanding, time management, examination preparation and academic self-drive). Academic performance was also predicted by stress. $F(4,192) = 58.5$, $p < 0.05$,(academic stressors, environmental stressors, intrapersonal and social stressors) Coping strategies predicted academic performance $F(3,195) = 89.73$, $p < 0.05$. Task oriented coping strategy had a positive prediction on academic performance while emotion oriented and avoidance oriented had a negative prediction on Academic performance: Gender differences in emotion-oriented coping and avoidance-oriented coping were found in favour of female students ($t = -3.95$, $p < 0.05$) and ($t = -3.45$, $p<0.05$) respectively. The study recommended that colleges should create an enhancing environment to foster the development of academic self-efficacy and positive coping strategies. Thus, students' support systems that improve academic performance should be bolstered. There should be deliberate measures to improve positive coping strategies among female students to help them respond appropriately to stressful situations.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter discusses the study's background, problem statement, purpose of the study, research objectives, research questions, importance of the study, limitations of the study, and delimitation of the study, assumptions, theoretical framework, conceptual framework, and definition of terms.

1.2 Background to the Study

Poor academic performance in institutions of learning remains a major concern to the students, parents and all other stakeholders in education. Due to the high premium placed on academic performance in society, evaluative processes usually force learners into a dissatisfied reward in form of performance, with only a minority passing examinations, while lowering the enthusiasm and confidence of the vast majority of those who fail the exams (Liem, Ginns, Martin, Stone & Herrett, 2012).

One of the primary tasks of educators is to instill in pupils the skills and information necessary for them to operate well in society; consequently, students' academic achievement is a significant variable that both teachers and educational psychologists are interested in. The quality of students' performance has remained a goal for most educators, trainers, and researchers who have spent infinite hours researching the elements that contribute successfully to the quality performance of students at all levels of academics (Adesehinwa & Aremu, 2010; Akomolafe, 2010). Academic performance in evaluation

and measurement of success of learners is significant in all educational programmes. Examinations outcomes determines performance, though it may not show the learners actual knowledge, it is the current feasible means of inference on students cognitive ability, especially in tertiary institutions where tests are carried out repeatedly for a number of terms or semesters culminating to the final national examination (Matinez, 2015).

When students do not get the grades required for further studies or employment as reported by Matseke (2011), there is always some form of disappointment and frustration. Parents and guardians are anxious because, for the majority of them, educating their children is a long-term investment, particularly in Africa. The number of unemployed people in society is rising, which has ramifications for the youth and society as a whole. Despite the fact that more students have gained access to higher education institutions during the last decade, a variety of factors have influenced students' performance and success.

In industrialized nations, studies have been conducted to investigate and examine the factors that influence students' academic success. According to Hanson (2000), learning ability, gender, and race all have an impact on student achievement. Simmons, Musoba and Choong (2005) noted that getting education grants, attending full time classes, the level of income of the family and finishing high school level of education coursework significantly influence perseverance among first-generation college students, which leads to good performance. Patino-Pena and Cardona (2013) remarked that, the factors influencing the success of many college students are primarily family socio-economic difficulties and high-school grade point average which is the best predictor of college performance.

In the United Kingdom Smith and Naylor (2001) reported that the effect of parent's job type upon undergraduates' students' performance, was found to be linked. Students whose parents were classed as unskilled employees did much lower than students whose parents were categorised as professional workers. whose children tended to perform better and take up careers with a professional basis. Zappala and Parker (2000), revealed that in the United Kingdom particularly England, about 7.2% failed their general examinations in 2009/2010 this was due to pupils' characteristics, nutrition, race, and economic status. The study also revealed that pupils from low economic status do not perform well as compared to those from high social economic class.

Gorton, Dyer, and King (2000) research findings on "Academic performance among University students and the efficiency of learning style in predicting student academic performance and retention," established that composite score, high school core grade point average, high school class rank, and learning style appeared to be the most reliable indicators of academic success, with GPA being the greatest predictor.

Mackenzie and Schweitzer (2001) conducted a study in Australia to investigate the psychosocial, cognitive, and demographic factors of first-year university students' academic achievement. The findings revealed that, previous academic performance was recognised as the most significant predictor of university performance. Other indicators included university integration, self-efficacy, and work responsibilities. McWilliams (2015) observed that in the United States of America that, despite the government's various efforts and education reforms, many pupils continued to perform poorly academically. The findings of the same study found that students' belief systems, relationships with teachers

and classmates, and classroom management were among the numerous elements that influenced their academic success. P'Pool (2012) clearly stated that, researchers must uncover the specific factors that influence students' academic progress in order to assist educators in designing and applying innovative strategies.

In Malaysia, a survey of an urban population discovered that 14% of students had low academic performance, with 31.5 percent of that attributable to a lack of parental involvement and intrinsic drive on the part of the students. Mushtaq and Khan (2012) found out that, communication, learning facilities and family related stress were key in affecting students' academic performance in Pakistan. Poor student academic performance is a major cause of concern in governments all over the world. Notwithstanding of the fact that many academic performance studies have been undertaken throughout the years, Obrentz (2012) asserted that the factors that predict academic performance should be studied continuously due to the changing nature of the student population, the curriculum, the use of modern technology, and the measure of academic success, which may differ from one institution to the next.

According to a survey conducted by Okioga (2013) of 186 college students to determine what factors affect academic achievement students' it was found out that socio-economic background influenced academic performance, and low-income families did not participate actively in their children's schooling, which caused some concern in the students' daily life thus influencing them to perform poorly because they lacked adequate study facilities at home and parental supervision.

In Nigeria, academic performance has been a source of concern due to the great value attached to education by the parents and the government. A study carried out by Adegoke, Salako and Ayinde (2013) on student's class attendance on Information Communication Technology of Polytechnic students on factors affecting performance, showed 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. Hijazi and Naqvi (2006) asserted that success of colleges students was impacted by the education of the mother, attitudes towards studies, the level of wealth of the parents, the age of the mother and the primary characteristics like allocation of time for studies and place of residence.

Educational researchers and stakeholders have taken a lot of interest in examination performance trends in different levels as well as factors affecting performance due to the great importance attached to academic grades. Psychosocial factors like family stress, academic self-efficacy, various interactions, attitude and motivation have been found to affect academic performance Li (2012). A study in Mbarara region in Uganda among advanced level secondary schools on students' attitudes and academic performance by Kabunga, Mohamed and Mnjokava (2016) found out that attitude, age and gender were significant in students' performance in science.

Since Kenya's independence in 1963, the government's main goal has been to expand education, which is seen as a basic human right by many stakeholders and participants. Performance ranks high on the national agenda, with many educators and policy makers drawing their attention on accountability, curriculum reform, testing and teacher quality,

school choice and related concerns. Education is supposed to develop the individual intellectually, spiritually, emotionally and physically, therefore, those training to be educators need to be equipped with good knowledge skills and other qualities that are wanted in order to to push the education of the country to a higher level. A level that can develop more competent, skilled, knowledgeable, and experienced Kenyan citizens in the long run. This will help defend our country's stability and strengthen one's personal values. Education refers to the training and instruction provided to children and young people in schools and colleges in order to provide them with knowledge.

In Kenya, the government's Vision 2030 initiative identifies quality education and training as critical accelerators of human capital development, as well as a way of eradicating poverty, disease, and ignorance, and generally raising citizens' living standards. A critical component of education is the teacher education which is designed to create and administer knowledge to key instructors for the country education establishment (Kafu, 2003).

Studies conducted in Kenya indicates a number of factors influencing learners performance. These were either ambient personal or psychological variables. Some academic studies view academic achievement as being contributed by environmental factors such as school and home circumstances (Kimani, Kara, & Njagi, 2013; Kariuki, 2017).

Other studies have been done to examine how students' academic achievement is influenced by personal and psychological factors. These studies include: academic self-concept by (Kwena, 2007); self-regulated learning (Mutweleli, 2014); academic resilience (Mwangi, 2015); self-esteem (Mburung'a,2016): and motivation (Gachigi, 2018);

academic identity status (Muriithi 2015) and academic mind-set (Mutua, 2018). It is clear that research has been carried out on academic self-efficacy construct, stress and coping mechanisms outside of Kenya, but no research has been done on how these affected academic performance in Kenya, prompting the necessity for the researcher to carry out this study.

According to the conclusions of the Uwezo Report (iq4news.com), 50% of the learners in standard eight in Kenya primary schools were unable to write and read, and that implied that many learners who transfer from primary to secondary school lack reading competence. The same report states that country wide, only three out of ten children in standard three could do standard two content. The performance of students in teacher training colleges is expected to translate into performance in primary schools.

In the years between from 2014 onwards in the Primary Teacher Examination, there has been a dismal downward trend in performance (Table1.1). This relatively low performance has been attributed to ineffective classroom control and management, social behaviour changes poor planning by educational stakeholders, lack of technological advancement, ineffective and old approaches of handling college teacher trainees, and mismatch between training and placement. (Marzano, 2006; Kipkurui, 2012 & Opanda, 2014).

Analysis of the performance between 2014-2018 shows that it has been poor. An analysis compiled by Kenya National Examination Council shows that in 2014, 12% of the 17435 students failed. In the following year, 2015, the failure trend went upward to 15% of the 18838 students. In 2016, 32.5% of the 19630 students failed. In 2017, out of the 24946

students, 51% failed. That's half the number of the presented candidates. Only five teachers got a distinction while 8,773 managed a credit and 2,570 a pass. In 2018, though there was slight improvement, out of 29998 students, 35.7% failed the examination. Only 21 teachers passed with distinction while the majority of 12,388 managed a credit. Some 5,581 passed and 10723 failed. as presented in Table 1.1.

Table 1.1: Primary Teacher Education Performance 2014-2018.

Year	College	Candidates	Distinctions	Credit	Pass	Failure
2018	Public	16,809	16	7,897	2,998	5,270
	Private	13,185	5	4,491	2,583	5,453
	All	29,994	21	12388	5581	10,723
2017	Public	14,663	5	5730	1378	6963
	Private	10,313	0	3043	1,192	5786
	All	24,946	5	8773	2570	12747
2016	Public	11479	1	6690	827	3577
	Private	7951	2	1836	1083	2812
	All	19630	3	8526	1910	6389
2015	Public	10795	13	7816	807	1866
	All	18838	13	11838	1971	4427
2014	Public	10045	44	7535	1274	966
	Private	7390	19	4378	1503	1206
	All	17435	63	11913	2777	2169

KNEC (2019)

The situation presented in Table 1.1 on teachers' primary education performance has been worrying because research shows the performance has been on a downward trend. It is further worrying because, even as the number of failures has been swelling from 2014-2018, the number of applicants to teacher colleges has been falling, which could be explained by students' fear of applying as they fear failure. Out of the above findings, the central region had its share of many candidates attaining poor grades as seen in table 1.2

Table 1.2: PTE Results for Colleges in Central Region

Year	Distinction	Credit	Pass	Failure
2018	5	1084	230	571
2017	3	897	137	757
2016	1	1101	91	598
2015	5	1477	208	239
2014	9	1566	103	281
Total	**23**	**6125**	**769**	**2445**

Source KNEC 2019

According to Bandura (1997) self-efficacy is the individual's belief in own innate ability to achieve goals. Akhtar (2008) defined it as the ability for an individual to be able to meet and face challenges ahead and complete a task successfully. The Current research focused on academic self-efficacy with specific reference to the context of academic performance and focus on students belief about themselves in terms of their academic tasks, that is student's beliefs concerning academic tasks within primary teacher training colleges.

Definition of academic self-efficacy by Chemer, Hu, and Garcia (2001) is defined as "students' confidence in knowing and mastering academic subjects in the area of study. It is the amount of confidence a student exhibits in completing academic tasks. Academic self-efficacy have been found to be related to students behaviours, academic achievements and academic attitudes, through studies carried out by several researchers' (Faulkner and Reeves, 2009; Hagger, Chatzisarantis and Biddle, 2001; Schwarzer and Fuchs, 2009;

Salami, 2004, Fenollar, Roman, and Cuestas 2007).Academic self-efficacy affects performance by influencing effort, persistence and perseverance (Torres, & Solberg, 2001). A study carried out in Kenya by Ochieng (2015) based on Self-efficacy and academic achievements among secondary schools students revealed that Kenyan secondary school students lacked adequate sense of self-efficacy in the process of learning in demonstrating persistence on the various tasks when faced by academic problems and challenges.

Stress on the other hand is generally linked to physiological and behavioural symptoms which are usually activated by the sympathetic nervous system of a human being. The symptoms of the general physiological state usually include increased heart rate, increased blood pressure sweating, headache, tiredness and sleeplessness. Behavioural symptoms of stress include loss of appetite, restlessness, sleeplessness, more use of alcohol consumption. More use of tobacco like smoking, loss of interest and difficulty concentrating especially among students (Australian Psychological Association,2012). Cohen (1997) defined stress as an individual psychological perception of pressure and the body's response to it, and the expectation of self, which brings feelings of strain and pressure, thus bringing out a threating feeling on the individual.

In institutions of learning stress can have positive impact or negative impact especially if it is not given a priority in its management. From institution to another the symptoms of stress differ depending on the environment and other management practices due to the differences in their work environments. In whichever setting, stress has causes, indicators, results, and symptoms (Shields, 2001). Every student in all learning institutions has an important role to play in the development of the nation, and therefore whatever individuals

may be going through in day today life is very important. However, students face challenges due to an intricate academic environment which adversely affects their academic performance. Stress and academic achievement can be positively or negatively related. It is there of necessity to study how different stressors affect academic performance in institutions of learning, more so in teacher training college students. . The current study looked into the stressors that students in teacher training colleges face on a day to day life. These academic stressors are any academic demands which may include environmental demands, social or internal demands that causes students' to change or alter their behaviour in order to respond to the stressor (Thoits,1995).

Academic stressors are part and parcel of the learning process that affect students' academic performance, for example, examinations, excessive homework, time management, and peer competition, Glozah & Pevalin, (2014). Academic stress is known to be disastrous to students health by encouraging and promoting maladaptive behavioural coping responses such as alcohol intake and smoking tobacco.

According to Halamandaris and Power (1999) academic stress in school or college setting refers to the college/school related challenges which the students face and their ability to be able to overcome the challenges. Usually occurs when an individual/student has inadequate resources to be able to adapt or cope with academic related demands.These demands usually include examination course workload, inadequate time for revision, high expectations which do not much with individual ability, lack of interest in academic activities or some subjects, and punishment. These academic-related stressors may contribute to an increase in academic stress and poor psychological health among students.

It is therefore important that the study explored the phenomenon and examined the extent to which these stressors impacted on the academic performance of the students.

Coping can be defined as“ the person's cognitive and behavioural efforts to manage (reduce, minimize, master, or tolerate) the internal and external demands of the person and environment, which is a transaction that is appraised as taxing or exceeding the person's resources” Folkman, Lazarus, (1986). It involves cognitive and behavioural efforts utilized problem-focused and emotion-focused. Problem-focused involves strategies to modify the given problem to manage the internal and external determinants of stress. Coping strategies are defined as adaptive or maladaptive (helpful or harmful) outcomes. They are categorized as at hand by generating options to solve the problem. Emotion-focused involves learning how to manage an individual’s emotional distress that is specifically related to the situation or the issue.

Endler and Parker (1994) used a different approach to differentiating the different types of coping, but still anchored on the Lazarus and Folkman strategies of problem-focused and emotion-focused coping. They have differentiated coping into three factors, which shows coping as combined of three basic strategies or dimensions/factors, namely task oriented coping strategy, emotion oriented strategy and avoidance coping strategy. Task oriented coping and emotion oriented coping falls under the problem focused and emotion oriented coping strategy as proposed by Lazarus and Folkman (1990).The avoidance coping strategy was incorporated based on empirical evidence that show that showed that in real life people use avoidance coping strategy when faced with stressful situations by employing and making use of the social networks around them either positively or

negatively. The current research employs the use of the Endler and Parker Coping for Stressful Situations Instrument, CISS-21.

The relationship between stress coping skills and Grade Point Average (GPA) was found to be weak by Khan (2013). This was contrary to the results of Kadhiravan (2013) study which discovered that coping strategies can assist undergraduate students in enhancing their academic performance. Aun, Hernn and Ahmad (2011) in their study findings found out that coping skills among the students improved the level of class participation, students class attendance and persistence even when the students were facing setbacks or failure in general.

Active coping strategy fully mediated the association between school adjustment for gifted high school students and academic stress Park, Kwon (2014). Similarly, Sullivan (2010) proved that academic coping strategies could assist undergraduate students to perform well in their academic studies like using approach, avoidance and social support. Mahajan, (2010) discovered that the level of coping at times changed with the year of study that in the college level as emotional coping strategy is used by many first years undergraduates, while in later years the students as they mature shift towards cognitive, confrontative and painful problem solving Stemming from these perspectives, the majority of the studies in the literature on self-efficacy and academic performance involve elementary, middle, high school and university students.

The selected studies mainly majored on studies done in the developed countries whose educational experiences are different from those of developing countries like Kenya, where

the competitive nature of education provides students with a situation which is different in terms of learning and performance.

1.3 Statement of the Problem

Primary teacher training is very important in Kenya because there is a great need for qualified teachers as a result of the increased enrollment due to availability of free primary education and the transition from the 8.4.4 system of education to the 2.6.6.3 competence-based education, which necessitates more teachers. The Primary Teacher Examination takes place after two years of training. From 2014 onwards , disturbing discrepancies have been observed in the performance of most students where a large number have reported failure in academic performance.

An analysis showing that nearly half of teachers who took Primary Teacher Education (PTE) training courses in Kenya from 2014 to 2018 failed their final examinations (Table 1.1) is a concern to the education sector and stakeholders. The students who fail spend more years training because they are made to repeat the year depending on the subjects they failed or resit the examination after a year, thus missing out on employment opportunities and career advancement and wasting resources. Academic failure psychologically affects self-concept, creates fear and shock among the students, and this further affects their ability to perform. Poor performance is a threat to the individual, society and the educational sector, thus necessitating the need to further interrogate the variable performance in primary teacher training colleges.

1.4 Purpose of the Study

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

1.5 General Objective

The general objective of the study was**:**

To examine academic self-efficacy perceived academic stress coping strategies and their relationship with academic performance among students in public primary teacher training colleges in central region Kenya.

1.6 Objectives of the Study

The objectives of the study were to :

i. Examine the relationship between academic self-efficacy and academic performance among students in public primary teacher training colleges in central region in Kenya.
ii. Examine the relationship between stress and Academic performance among students in public primary teacher training colleges in central region in Kenya.

iii. Establish the relationship between coping strategies and academic performance among students in public primary teacher training colleges in central region in Kenya.

iv. Establish whether there are gender differences in students' academic self-efficacy, stress and academic coping strategies on academic performance among students in public primary teacher training colleges in central region in Kenya.

1.7 Research Hypotheses

The following hypotheses were formulated and tested for the study:

Ho_1: There is no significant relationship between academic self-efficacy and academic performance among students in public primary teacher training colleges in central region in Kenya.

Ho_2: There is no significant relationship between stress and academic performance among students in public primary teacher training colleges in central region in Kenya.

Ho_3: There is no significant relationship between coping strategies and academic performance among students in public primary teacher training colleges in central region in Kenya.

Ho_4: There is no significant gender differences in academic self-efficacy, stress and coping strategies on academic performance among students in public primary teacher training colleges in central region in Kenya.

1.8 Significance of the Study

The study findings has added more knowledge to the existing body of knowledge on how academic self-efficacy, stress, and coping strategies predict academic performance among

Kenyan students, as available studies have primarily focused on other regions, particularly Asian samples, according to the literature review.

Since the study was carried out in response to continued poor academic performance in public

Teacher Training College, the research findings could be used to guide students in developing psychological constructs which positively enhances academic performance. Educational planners will benefit from the findings, which will help them improve existing intervention tactics aimed at solving student teacher educational challenges on performance.

As a result of the findings, more knowledge for intervention programs for advice and counselling will be gathered, assisting students in improving their academic performance. The colleges administration would also use the results findings to structure the college environment to be more adaptive to influence students' academic performance Educators, planners, and researchers would use the study findings to create effective and current instructional methods for changing or improving college students' acquisition of academic self-efficacy and positive coping strategies.

Information on gender differences in students; academic self-efficacy stress and academic coping strategies, could be used to shed more light into measures aimed at reducing gender differences in students' academic performance. Findings of the research may stimulate interest and provide important directions for conducting further research in the area of academic self-efficacy, stress and coping strategies factors considered major in academic performance.

1.9 Limitation of the Study

Limitation of the study refer to the challenges the researcher encountered in the course of carrying out the research. Data constraints were a limitation because it was based on self-reported scales, which could have resulted in potential reporting bias due to respondent interpretation of the questions, desire to report own emotions, or response inaccuracies. This challenge was mitigated by giving the respondents the direction on how to fill the questionnaires of the study. Required information was not forthcoming due to suspicion among the respondents on its use. This obstacle was mitigated by assuring the respondents of confidentiality by not using names for identification and also the benefit of the study to the colleges and the community at large.

The sampled colleges were spread widely in one region and this required the researcher extra time to collect data. This was mitigated by having a research assistant during the actual data collection. Time factor was a limitation since the teacher training colleges runs on a programmed timetable making the respondents occupied throughout. To mitigate this the researcher made prior arrangement with the administration for tentative date and time. The research instruments used were developed for respondents in developed countries, and the process of adapting them may have limited the reliability of the data obtained from the respondents. This was mitigated by modifying the items to suit the required content from the respondents through a pilot study.

1.10 Delimitation of the Study

Delimitation of the study refer to the scope in which the study covered. The Study focused on Public Teacher Colleges in central region in Kenya and more so second year students

excluding private teacher training colleges since they do not have similar characteristics with the public ones in terms of Government support. The study focused on academic self-efficacy, stress and coping strategies while there could be other factors predicting academic performance among students in primary teacher training colleges. The study delimited itself to students responses, deans of curriculum and lecturers yet they could not be the only one with the information.

1.11 Assumptions of the Study

The study assumed that the end of year Mid-Course Examination gave an objective assessment of students' academic performance. The researchers and assistants would be able to access the respondents without difficulty and the instruments used to measure academic self-efficacy, academic stress, and coping strategies were valid. It was assumed that the colleges selected for the study provided the same context for the development of academic self-efficacy, stress and coping strategies, and would provide honest and objective responses to the questions asked.

It was assumed that there were differences with regard to academic self-efficacy, stress and coping strategies which led to different levels of academic performance. It was also assumed that the findings of the study would be a true representative of the students in primary teacher training colleges in Kenya.

1.12 Theoretical Framework

The research was guided by two theories: Transactional theory by Lazarus and Folkman (1991) and Self-efficacy theory by Bandura (1997).

Transactional Theory

This concept defined stress as a transaction between individual students and their environment, with the individual students' assessment of the stressful circumstance serving as a moderating variable in how they coped with it. Stress was characterized as a transaction between individual students and their environment, with the individual students' perception of the stressful condition functioning as a moderating variable in how they coped with it. By acting on the environment or on oneself, problem-focused coping alters the student-environment interaction. Emotion-focused coping involves modifying the way the stressful environment is addressed or the relational meaning of what is happening without affecting the relationship's real conditions.

Stress occurs when a student perceives a situation to be threatening and lacks the resources to deal with it. The coping method used is influenced by the student's conviction in his or her ability to handle the circumstance mentally or that the situation must be tolerated. Whatever coping approach was used, the event outcome was either favourable, unfavourable, or there was no resolution. The outcomes of the events elicited good or negative emotional responses, which could have a positive or negative impact on academic achievement. Lazarus and Folkman (1991) model indicates that, problem-focused coping reduces the level of problems that could cause stress, whereas emotion-focused coping reduces the level of internal emotional pain.

Coping is an ongoing cognitive and behavioural endeavour to manage certain external and internal demands that are deemed to be challenging or exceeding the student's resources, thereby impairing performance (Lazarus, 1993). In the current research the application of

transactional theory was appropriate in which appraisal processes and coping laid a major emphasis in explaining the students' responses and how they would influence performance. The success or failure of coping subsequently would influence the student's academic performance.

Endler and Parker (1990a, 1990b, 1994) employed a different technique to identifying the different forms of coping but remained anchored on Lazarus and Folkman approaches of problem-focused and emotion-focused coping in their research. Endler and Parker developed the CISS-21 Coping Instrument for Stressful Conditions, which depicts coping as comprised of three fundamental approach dimensions or factors: task-oriented coping, emotion-oriented coping, and evasion coping. The very first two criteria are comparable to Lazarus and Folkman's problem-focused and emotion-focused coping techniques (1984). The avoidance element was introduced and added based on scientific evidence findings demonstrating that people use avoidance when confronted with stressful situations by using and making use of the social networks within them, either positively or negatively.

Transactional theory has advantages in that it focuses a lot on the psychological determinants of stress responses, especially at the personal level. It emphasizes individual interpretation of stress and coping and what it means to them. Lastly, it also emphasizes that stressors can change over time and in different environments, and also, there are different methods of responding to stress and that enhances the importance of stress management strategies.

Self-efficacy Theory of Learning (Bandura (1997).

Bandura (1997) established the self-efficacy theory, which he defined as "belief in one's competence to organize and execute courses of action required to generate specific attainments." The crucial word here is belief, which plays an important role in affecting pupils' moods, behaviour, beliefs, and motivation. Self-efficacy is the result of external experiences and self-perception, and it is a critical component of social cognitive theory because it explains how social experiences influence cognitive processes and behaviour. Self-efficacy is a conviction that an individual has based on social experiences. The construct of self-efficacy reflects a bright side of self-belief that a person can cope with any impending difficult task or adversity, like a learning process or an examination.

The theory stated that, self-efficacy is developed through four sources: experiences or performance accomplishments, vicarious learning, persuasion, and emotional arousal (Bandura, 1997). Mastery experiences show how a previous event effects how a person deals with subsequent situations or activities. When a student completes a task successfully, he or she develops a high sense of self-efficacy. A student's self-efficacy, on the other hand, may be harmed by previously failing a task. Second, vicarious learning explains how when a person witnesses the effects of another person's actions, their self-efficacy grows if the person is successful. However, if the watched individual fails at the task, his or her self-efficacy declines. This is probably what the students in teacher training colleges experience as they watch their predecessors year in and year out fail their PTE.

Third, verbal or social encouragement from others boosts self-efficacy. This is due to the fact that encouragement aids in the removal of self-doubt. They can then focus their efforts

on completing the work. Finally, physiological or somatic elements have an impact on an individual's self-efficacy. An individual's perspective of their physiological reactions to stressful events influences their self-efficacy. Students that are effective will attempt activities because they believe they are capable of completing them. Furthermore, effective students are more likely to set tough goals and remain committed to completing these tasks despite the chance of failure. This helps to reduce stress and the likelihood of depression (Bandura, 1994).

The study suggested that, effective students are more confident in their abilities to manage stress and are more likely to utilize positive coping techniques that improve well-being and performance (Natovova & Chylova,2014). Furthermore, Bandura (1997) stated that self-efficacy is an essential motivator that promotes goal planning and achievement. Academic self-efficacy is vital in academic work because it fosters resilience, so that even when faced with difficulties, the student sees them as manageable rather than overpowering (Chemers, Hu, & Garcia, 2001). Students' feelings, thoughts, motivation, and behavior will be influenced by their efficacy beliefs (Bandura, 1986).

According to research, students who have a stronger sense of perceived self-efficacy exhibit more of the behavioral and environmental drivers of learning, are more likely to set higher goals for themselves, and are more committed to themselves. It is clear that students have many sorts of academic self-efficacy, which influence their academic outcomes. Academic self-efficacy is a motivating skill that enables pupils to succeed even when faced with overwhelming odds. In order to enhance college students self-confidence in academic activities, academic self-efficacy theory plays a significant role. Without having

confidence in themselves students will always be troubled and easily shaken when they face challenging and difficult situations. For students to be motivated towards learning and performance, most of the motivation strongly lies within the students' internal strength.

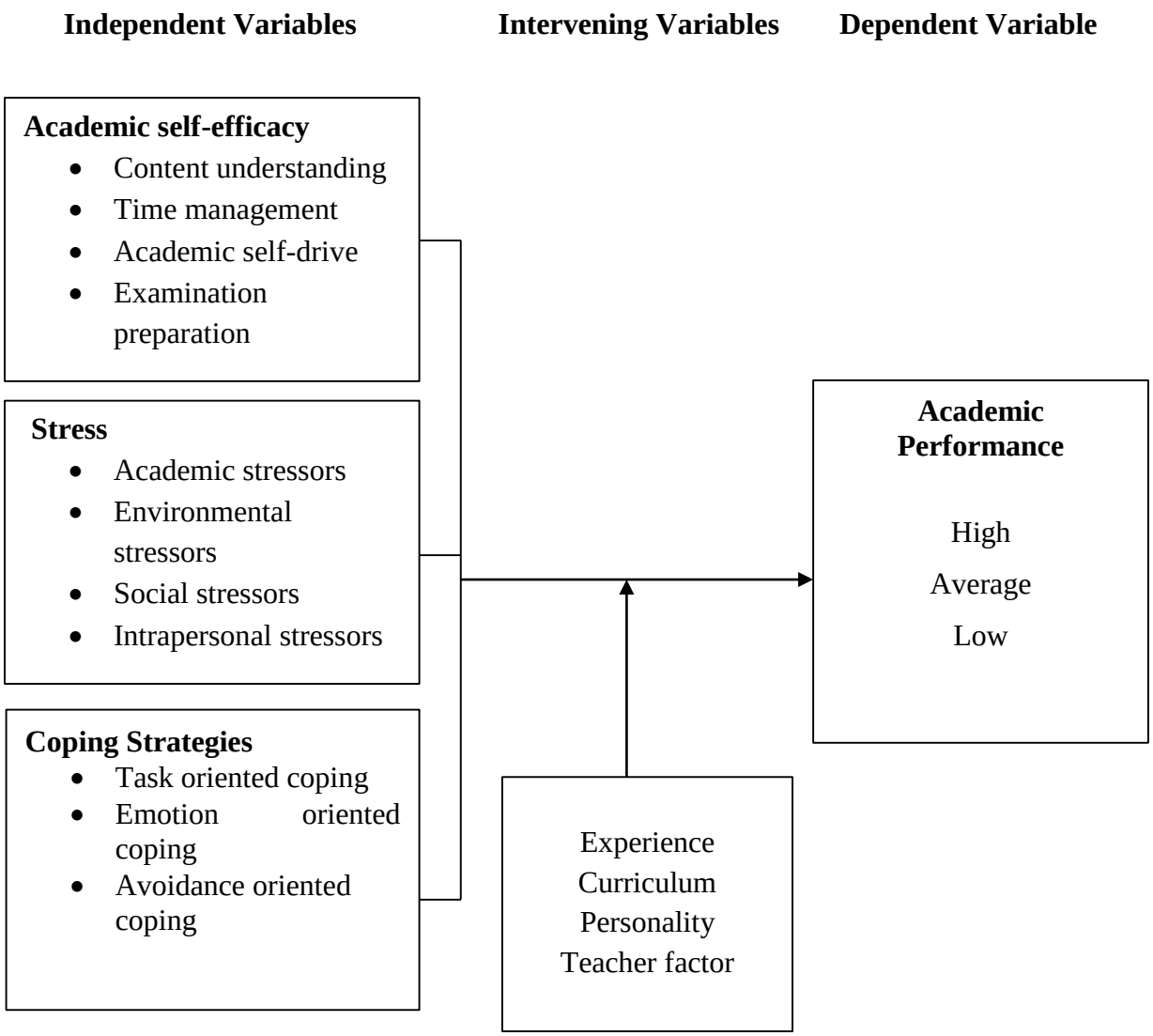
In self-efficacy theory, individuals who tend to be optimistic towards academic challenges or any other challenge or failure always believe it's a challenge like any other and will overcome it. This is unlike students who approach issues in a pessimistic way, who always feel defeated when faced with an academic challenge and in most cases will sit back without any effort to improve their academic progress. The role of the teachers comes in to help strengthen the students efficacy.

Teachers' optimism and encouragement are very critical components that students need to hear so that they can develop strong 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. One of the primary benefits of this notion is that high self-efficacy enhances one's willingness to try out new ideas and also motivates one to set higher expectations for future performance (Ormrod, 2008).

When one's self-efficacy is great, one's persistence increases, allowing an individual to focus on a given task beyond the prior one. The theory's weaknesses are that high self-efficacy beliefs do not necessarily ensure favourable outcomes, and they differ from person to person. Students who have a high sense of self-efficacy may ignore other flaws that they are unaware of. Students who lack self-efficacy may become negative, which can lead to failure (Ormrod, 2008).

1.13 Conceptual Framework.

The model presented in Figure 1.1 shows the main study variables as academic self-efficacy, stress, coping strategies, and academic performance. It also shows the interaction of factors hypothesised to predict academic performance. The conceptual model shows the independent variables as students' academic self-efficacy (content understanding. examination preparation, time management and academic self-drive), stress (academic stressors, environmental stressors, social and intrapersonal stressors) and coping techniques (task oriented, emotion oriented, and avoidance oriented) to have a relationship with the dependent variable academic performance. The intervening variables are experience, curriculum, teacher factor, intelligence and personality which may affect the strength of the relationship. The conceptual frame work is illustrated in Figure 1.1.



Source: Researcher 2020

Figure 1.1: Relatioship between Academic Self-efficacy Stress and Coping Strategies and Academic Performance among Students in Public Primary Teacher Training Colleges in Central Region, Kenya.

As shown in Figure 1.1 academic self-efficacy, stress and coping strategies are the predictor variables. Academic performance was hypothesized to be influenced by the four components of academic self-efficacy, the four stress component as well as the three coping strategies components.

1.14 Operational Definitions of Terms

This refers to the detailed explanation of technical terms used in this research.

Academic Performance: Refers to the students' measured score using the students mid-course examinations Primary Teacher Training College

Academic self-efficacy: Refers to student's beliefs about themselves regarding academic tasks in their training as P1 Teachers

Academic stress: Refers to the Students interpretation of present demands, challenges and threats in the Academic environment in relation to the available resources for coping.

Academic coping strategies: Refers to students' adaptive or maladaptive outcomes in response to academic stress.

Coping: Refers to students' cognitive and behavioural efforts to manage specific external and /or internal demands that are appraised as taxing the exceeding resources of the student.

Coping strategies: Specific efforts both behavioural and psychological that students use to manage, to tolerate, reduce or minimize stress in the course of their training as p1 teachers

Self-efficacy: Refers to the Students belief in their capability to produce

	designated levels of performance in the P1 examination and for events that affect their lives.
Gender:	Refers to the student's socially constructed characteristics of being male or female

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

The chapter includes a review of related literature from different academic experts on the study's association between academic self-efficacy and academic performance, stress and academic performance, and relationship between coping strategies and academic performance. Furthermore, the analysed data offered information on gender variations in students' academic self-efficacy, stress and coping mechanisms on academic performance, as well as a summary of the literature review and research gaps identified.

2.2 Academic Self-efficacy and Academic Performance

Empirical research on the association between academic self-efficacy and academic success has yielded conflicting results. Several scholars have explored the impact of academic self-efficacy on academic performance at various levels of specialization, such as self-efficacy for effectively completing subject-specific, which include such tasks as algebra or geometry problems (Zimmerman & Martinz-Pons, 1990). Neuville, Frenay, and Bourgeois (2007) distinguish between self-efficacy for successful performance and attainment of a certain grade in a topic and self-efficacy for success within a university course (Cassidy & Eachus, 2002; Pintrich & DeGroot, 1990).

A longitudinal study carried out by Jung (2013) reported that academic performance was predicted by academic self-efficacy. Further 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. Academic self-efficacy has been demonstrated to positively correlate with academic achievement over time, regardless of the educational institution in which it is tested. Zajacova, Lynch, and Espenshade (2005) investigated the impact of academic self-efficacy and stress on academic performance of City University of New York students. Results derived from the findings of the study revealed that, self-efficacy has a considerable and favourable influence on student academic achievement.

Tenaw (2013) conducted a survey-based study on the relationship between self-efficacy, academic achievement, and gender in analytical chemistry at Debre Markos College of Teacher Education, which revealed a significant and positive relationship between self-efficacy and academic achievement (r=0.385, p 0.01).

Maliha and Sarwat (2019) investigated the association between academic self-efficacy and academic achievement in pre-service teacher training students. The research was a descriptive correlational study, where the data was gathered via a survey method. The study included 135 students from the Department of Elementary Education, Education Institute of Education and Research, University of the Punjab. The Academic Self-Efficacy Scale, derived from Sander and Sanders, was utilized in the study. SPSS-17 was used to analyse the data. In the midterm exam, correlation analysis found a substantial correlation between self-efficacy, expected GPA, and actual GPA. Self-efficacy was shown to be substantially connected with expected GPA (r =.56, p.01), mid-term examinations (r =.34, p.01), and expected GPA was also found to be highly correlated with actual GPA (r =.41, p.01).

Another study with samples of 264 undergraduate students on academic self-efficacy was found to be a major predictor of academic achievement among 172 girls and 92 males at a university in the South Western United States carried out on undergraduate students in the university (Turner, Chandler, & Heffer, 2009). Elias and MacDonald (2007) found that prior academic achievement and academic self-efficacy could predict college academic performance. The study included 202 undergraduate students (115 females and 87 males) from a large university in the Rocky Mountain region of the United States. Academic self-efficacy beliefs were found to account for a large proportion of unique variance in predicting academic success.

A meta-analysis of early studies conducted showed that academic self-efficacy has a strong favourable effect on college students' academic achievement (Robbins 2004),. The findings of the study led to the conclusion that academic self-efficacy beliefs accounted for a greater proportion of the variance in retention and college academic accomplishment than cognitive academic predictors such as high school performance and standardized test scores. More studies have regularly reported their findings on the effect of academic self-efficacy on academic achievement in elementary and secondary schools around the world. For example, Amare (2001) found that academic competence, also known as academic self-efficacy, had a significant and favourable effect on the academic performance of 271 high school students (143 females and 128 men).

Academic self-efficacy is a complex term that spans multiple domains of functioning. Pintrich et al. (2004) discovered that academic self-efficacy is substantially related to students' learning, analytical thinking, cognitive engagement, academic commitment,

strategy utilization, 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 on their scholastic achievement, interest and educational performance. Students who are confident in their capacity to plan, execute, and manage their problem-solving skills or task performance will always display high self-efficacy, and thus good performance, regardless of the content they are given.

Ali, Wan, Wan, and Nobaya (2017) explored the levels of students' academic self-efficacy beliefs as well as the link between academic self-efficacy and academic performance among final year students in one of Nigeria's institutions of education in Nigeria. The data was collected using an 8-item questionnaire adapted from Muris, and the study used a quantitative research approach using a correlational research design (2001).The study included a total of 339 respondents who were stratified and chosen at random from the College's five faculties. The responses ranged in age from 19 to 34 years old, with an average age of 23.19 (SD= 2.64). The level of students' academic self-efficacy was analyzed using descriptive statistics such as mean, standard deviation, frequency, and percentage Pearson's Product Moment Correlation was used in inferential statistics to investigate the relationship between academic self-efficacy beliefs and students' academic achievement.

According to the data, 80.82 percent of respondents in the College showed greater levels of academic self-efficacy. There was also a positive and significant link (r=0.342, p0.01) between academic self-efficacy views and students' academic achievement. This revealed

that the higher the students reported levels of self-efficacy in academic ability the better was the academic performance. Though the study was based on a college of education, it was correlational in nature, whereas the current study used mixed methods.Adeyemo (2007) used academic self-efficacy in combination with other variables to look at the moderating effect of emotional intelligence and the link between academic self-efficacy and achievement among undergraduate students at the University of Ibadan in Nigeria. Academic self-efficacy and academic achievement were found to have a substantial and favourable relationship (r=0.28, p 0.01).

Another study, by Olanrewaju and Yadeyi (2014), looked at academic efficacy and self-esteem as determinants of academic accomplishment among school-aged adolescents in the Itesiwaju Local Government Area of Oyo State, Nigeria. The study employed a descriptive research approach. A total of 300 students were selected and assessed using relevant standardized scales (instruments) such as the academic efficacy scale, self-esteem scale, and student accomplishment scale, all of which had a high reliability coefficient of.89. The Pearson Product Moment Correlation was used to examine the data. The results revealed a strong link between academic efficacy and academic achievement among students (r=.781; P<0.05).

In Kenya, more research has been done focusing on student self-efficacy and particular subjects. Aurah (2017) investigated the connections between science self-efficacy, gender, and academic achievement in genetics among Kenyan students in form four (12th grade).A total of 2,139 pupils completed a SEMLI-S-based science self-efficacy survey (Gregory, David, & Samson 2007). Data was evaluated inferentially (MANOVA and Pearson's

Correlations) as well as descriptively (means and standard deviations). Students' science self-efficacy was found to be highly connected with academic achievement, according to the findings of the study. The results of a one-way MANOVA revealed gender differences in self-efficacy and academic achievement, with female students outperforming male students in both. The results strongly show that academic self-efficacy is a highly changeable construct that is impacted by the environment and can have a significant impact on academic performance across students at various stages of learning.

Not all research has reported a consistently significant relationship between academic self-efficacy and performance as Fenollar, Román, and Cuestas (2007) study on students' academic performance in the University of Murcia in Spain as an integrative conceptual framework and empirical analysis, a total of 553 students were chosen as samples from various faculties, with 40% of males and 60% of females being investigated. The findings of structural equation modeling showed that, there is no obvious link between self-efficacy and academic achievement among university students.

Strelnieks (2003) investigated the association between domain-specific self-concepts and self-efficacy and minority students' academic achievement using the Multidimensional self-concept measure. The researcher found out that in order to influence students' academic performance, self-efficacy tend to highly depend on some external factors like the students gender and socio-economic status.The outcome of the study revealed that self-efficacy could only predict the females academic performance and failed to predict the male students' academic achievement, At the same time self-efficacy could only predict academic performance of students with higher socio-economic backgrounds and failed to

predict students with poor socio-economic backgrounds. Saunders, Davis and William (2004) found that academic self-efficacy had an insignificant effect on academic performance. This correlated with another study carried out by Jeffreys (1998), whose findings showed inconsistent results regarding the relationship between academic self-efficacy and academic achievement of university students.

The literature review shows that academic self-efficacy has been shown to be an important construct that influences an individual's performance in a particular given area. In a learning environment, students on a day to day life deals with different academic related problems and their academic self-efficacy can assist in influencing their academic performance. Academic self-efficacy could include cognitions of perceptions as beliefs in ones capabilities to be able to achieve various academic goals, confidence in task performance and the visualization of academic success. These Perceptions often assist in enhancing the students efforts in order to perform academic tasks successfully and positively, thus influencing their academic achievements.

Most of the studies on academic self-efficacy have been carried out in western countries, thus limiting the extent to which the results can be generalized to population samples in primary teacher training colleges in Kenya. Additionally, research in the area of academic self-efficacy, academic stress and academic coping strategies and academic performance studies are few in Kenya.. In line with this, there was a need for more studies using different methods, different populations and research instruments in order to have unanimous results on academic self-efficacy and student academic performance, hence the current research.

2.3 Stress and Academic Performance.

Academic stress is stress related to academics, which refers to the unpleasant psychological situations which among students occur due to the academic performance expectations from self. Parents teachers, peers and other interested parties. Academic stress is a form of mental distress in respect to some anticipated frustrations linked with academic failure or an awareness of a possible failure.(Gupta & Khan, 1987). Students have identified stressors facing them as peer competitions, assignments, heavy workload, failures and poor relationships with other students and teachers. As noted by Schafer (1996) the most serious day to day hassles faced by students in the developed countries are related to constant pressure of reading, too little time for relaxation, taking tests and examinations, writing academic papers and boring instructors.

Researchers Jacob and Einstein (2016) conducted a study on the relationship between stress and academic performance using a longitudinal study using a sample population of 14 males and 37 females undergoing undergraduate studies at the University of Ariel in Israel. The study used the perceived stress scale instrument to measure stress, while the students GPA was used to measure the students' academic performance. The results showed that there was no significant relationship between perceived stress and student academic performance The results implied that sometimes the students are not academically affected by the stresses they face during their stay in college.

Studies in Asian countries studies carried out by (Sibnath, Esben & Jiandong 2012) on the prevalence of academic stress and examination anxiety and their association with socio-economic factors among private secondary school students in India. The study population

was 400 students in grades 10 and 12 who were selected using multistage sampling. The results of the study revealed that 35% of grade 10 and 37% of grade 12 experienced extreme levels of stress of academic stress and examination anxiety, and those with low academic grades reporting higher levels of stress than those with higher grades. That implied that the students most affected by stress performed poorly than the rest. The study differed from the current study since it focused on secondary schools and combined academic stress with socio-economic factors in predicting performance. Alam and Kumar (2018) established the differences in academic stress and academic performance among students in secondary school in Bengali medium Malda District. The researchers adopted the Academic Stress Scale by Kim (1990). The research findings showed that there was a significant association between academic stress and academic performance.

Students depended on high academic performance for their future pursuits despite the sources of stress. Generally it is estimated that 10% to 30% of all the students who attend college experiences academic stress and that translates to poor academic performance in most cases (Sinha, Sharma, & Nepal, 2001).Academic stress is said to have a lot of negative effects on the academic performance of the students and also on their wellbeing in that it interferes with the students way of life and cognitive processes and adaptive behaviours.

Another study was carried out by (Rafidah, Azizah, Norzaid, Chong, Salwani, & Norainii 2009) to identify the relationship between stress factors and academic performance of pre-diploma students at the University of Technology in Malaysia. The results showed that there was moderate effects of stress on the students but there was no significant effect on academic performance of the students.. However at the end of the semester a significant

relationship was noted between levels of perceived stress and academic performance. A large number of students reported experiencing other problems like not getting enough sleep and nutritional problems throughout the semester. The results of the study gave new insights into how universities can manage the tress of their students..

Slaven and Windle, (1999) examined the effects of academic stress on the performance of different cognitive tasks. The outcome predicted that stress caused by study of mathematics would interfere with study memory, leading to a disconnect in mathematical related performance. The environment in which students learn, high expectations from significant others, overload of information learned, academic pressure, high competition and unrealistic ambitions are some of the major causes of stress. In a study by Dahlin, Joneborg, and Runeson (2005), among undergraduate students, it showed that students experienced the highest form of stress due to pressure related to academics. The students reported going through the phases of academic stress especially stress from studying and taking examinations, class/grade competition and the large amount of content to master within a short period of available academic time.

In their study, Talib and Zai-ur-Rehman (2012) discovered that academic performance was affected by stress caused by heavy course load as indicated by 53% of the students. During the time for examinations, students felt stressed due to the prospect of facing the examination because the content to be revised was too much in a short duration. Mani (2010) noted that it was not only the examination that induced stress but for the students the fact that there was a possibility of failing or passing the examination that was the life line of shaping their career and professional and also the social life. The students believed

that once an individual went to college, the definition of what one ended up becoming started and that is why passing an examination was very crucial to the life of a student.

Generally poor academic performance gave students negative feedback about their capability which in turn leads to anxiety, stress and eventually depression. Ang and Huan (2006), furthermore, reported that most of the students who took note of sensitive remarks made parents, teachers or peers affected them leading to stress. Negative remarks that was made to demean the students or to downplay their performance caused them stress. Academic stress also correlated with the students high expectations of their own performance. Furthermore, the living environment of the students, both physical, psychological and social, contributed to the levels of academic stress. The environmental demands were usually different from one student to another. Zeidner, (1992) highlighted that supportive environment when the students were undergoing their studies was very crucial for motivation. In the current study, environmental stressors were crucial in the study since it was one of the major subscales meant to show the indicators of stress within the colleges.

In college the students in their first year of study were said to be more prone to stress as compared to other students in other years of study. This was as a result of absence of social support frameworks and the day today transitional nature of the college life that required adjustment to the new environment amidst new responsibilities and challenges. In most cases, the first year students were leaving home for the very first time and therefore needed to adjust to the newfound freedom as well as maintain a high level of academic performance (Robotham,2008). In contrast, the current research dealt with second year

students who had been in college for a long and had developed strong social bonds which they could rely on during times of stress. Senior students experienced higher levels of stress, Shaikh et al (2004) that ranged about 95% and 98% for fourth and final year students respectively due to academic demands like having supervised clinical rotations. Furthermore, final year students had more requirements like writing their research dissertations which they claim brought in more stress, meaning that there could be differences in stress levels based on the year of study due to the nature and amount of work.

Sources of stress among students of high and low academic performance was done by Rao (1986) using a questionnaire which was administered to 656 students taking pure science and applied science courses in Bangalore City. Stressful Life Events Inventory tool was used and academic performance used the previous semesters end term results. The findings of the study noted majority of the students believed that education generally was a source of stress and that affected their performance.

Evaluation done on stress levels by Babar, Nawaz, Khan and Khan (2004), among students in medical college where 94% of the male students experienced more stress than the females. A cross-sectional study using a semi-structured self-administered questionnaire was carried out over four weeks. The sample population was 264 students. In the research findings, majority of the students, 49% said that they had been affected by stress in one time of their life. This was in contrast with the current study since it was based on teacher training colleges where the setting was different from medical school settings.

Common symptoms of stress was among students were inability to concentrate, low moods and loss of temper. In learning institutions academics and examinations were the serious stressors, while sports, music, hanging out with friends, sleeping or going into isolation were various coping mechanisms. The prevalence of perceived stress seemed to be high among medical students, which tended to affect not only their academic performance but also their health. More leisure time activities, better interaction with the faculty and proper guidance, advisory services and peer counseling on campus could do a lot to reduce stress. Statistically significant differences in the strategies to deal with stress due to the variables of gender, nationality, faculty, academic achievement and level of stress were reported.

Although stress experiences were reported by many students not all stress affected academic performance negatively as shown by Rahim, Saat, Aishah, Arshad and Suhaimi (2016) who investigated the association between academic workload and the stress level among medical student at Kuala Lampur University. The sample size consisted of 14 males and 90 females. A general health questionnaire was used to measure the level of stress among the students. The association between stress and academic performance was tested using a chi square and it was found not to be statistically significant. The researchers concluded that stress could be caused by other complex situations not within the scope of the study. The findings show that the outcome of the studies depended on the variable being studied.

Stressors generally was found not to always lead to poor academic performance Siraj and Salan (2014).This conclusion was arrived at by the researchers investigating the correlation

between academic performance and stress of undergraduate students at University of Kabangsaan Malaysia. The researchers used a sample of 50 male and 129 female students in their fourth year of study. The medical students' stress questionnaire (MSSQ) was used while the general grade point average (GPA) was used to measure academic performance. In the findings, 84% of the students had severe stress and 49% had high stress. The researcher observed that stress did not have a significant effect on academic performance. Other intervening factors could have affected the relationship.

The variables under perceived academic stress were studied under academic stressors, environmental stressors, intrapersonal stressors and social stressors. On academic workload, in an academic setting students were perceived as individuals who are stressed due to real or imagined academic workload. Academic related stressors refer to any academic activities such as examinations, co-curricular activities, academic workload time management and others (Saat, Lubis & Ghazali, 2011). Workload could also be defined as the amount of work that in a learning institution could be assigned to students in a specified period of time. This work could be lesson attendance, assignments, continuous assessment tests, class questions, examinations, term papers, projects class presentations and practical.

Heavy academic workloads were a source of stress as they caused feelings of frustration, nervousness and anxiety, which eventually led to stress when they lingered for a long time as reported by Yusoff, Rahim and Yaacob (2010) who proved that the best predictor of students' stress level was workload. Previous research has been done by Kausar (2010) among undergraduate students at the University of Pakistan which noted that there was a positive relationship between academic workload and perceived stress among the students.

Weerasinghe, Batagod, Chandrika and Siriwardans, (2012) carried out a research in a public University in Sri lanka Colombo region among undergraduate students. The findings showed that heavy academic workload was a prominent factor affecting the performance of students as shown by 90% of the stressors. Tests and examinations in general were among the highest cause of stress among the students, with examinations related stress showing 63% as compared to 50% of psychological stressors. The reported stress showed up both before and after examinations as reported by Ganesh, Kavitha, Anandarajan and Chandrasekar (2012), the study found that, students developed anxiety and fear of examinations before the examination. After the examination, more stress presented itself as the students developed anxiety and fear of the unknown as they waited for the examination outcome.

The relationship between stress, time management, anxiety and leisure satisfaction among students in the University was done by (Misra & Mckean,2000). The findings showed that the students experienced anxiety and used time management to alleviate academic stress. In the semester system, stress-inducing academic demands include grade competition, lack of time and issues relating to time or task management. In a college setting stress is more prevalent due to the nature of the curriculum and due to the hectic and demanding time schedule being important as it also interferes with students' performances. This called for the students to adapt to the new challenges to be able to survive and finish the assigned tasks.

In relation to environmental factors associated with stress, most research show that the factors included inadequate safety and security, change in the living environment, lack of

recreational facilities, inadequate water supply, absence of a peaceful calm environment and the general environmental look (Amr et al., 2011). The change in the environment could have been due to the differences in the culture and language among the students, which they could be unfamiliar with in the learning institution. The lack of basic services including water supply were important factors that could have an effect on human health. The students included environmental stressors like overcrowding in the dormitories lack of study area, lack of quiet and calm environment, inadequate water supply, lack of tight security and changes in the living environment. Few students reported lack of or inadequate use of technology for recreation like the internet.

Intrapersonal factors have been considered in previous research as a variable on its own or in combination with other variables. Self is consistently associated with positive academic achievement outcomes. Sharma and Kaur (2011) discovered that the greatest intrapersonal stressors related with stress were emotions of homesickness, changes in sleeping habits, and an overall loss in physical health. Further, Chilukur et al (2012) ascertained that about 80.4% of the students who said that intrapersonal issues were stressors were seen to be really stressed truly stressed. In the closed–ended questions the students mentioned some stressors which are intrapersonal issues like pretending to fell okay about the self, experiencing fear of failing, dealing with oneself issues, not being able to think and coordinate clearly and feeling hopelessness All these intrapersonal issues could be tackled by good social support and counselling within the community or the institution the student was placed.

Social stress referred to the strain that came about as a result of a person's relationship with the social environment. This kind of stress from ones friendship groups and struggles Social stressors were the most common types experienced by the society though not recognised as a major type at home. The students recognized that social stress was a vast problem faced by many students, but it was often overlooked by the bureaucrats of the education system, Chilukuri et al (2012) and 92% of the student body believed they experienced social stress on a daily basis, while 84% of students claimed that adults exacerbated the social stress put on teenagers.

In colleges, all the students were way from home and their families, in which they connected and thought about each other. According to most cultures especially Africans and Asian cultures, the family system was complicated in comparison to the family system in western countries. For example, the children were still attached to their parents until they married and had their own families. Due to this change in the social setting, the students developed an emotional reaction which could affect their health and quality of life evidenced by their declining health and changing sleeping patterns.

The findings of Sharma and Kaur (2011) revealed that fighting with close friends and conflict with roommates were the major problems that were associated with stress related to interpersonal factors. These conflicts could arise due to the differences between cultures among the students. A study presented supportive evidence that found students were engaged in conflict which was accompanied by stress among them. Interpersonal stressors were the second common source of stress emanating from parental expectations, change in social activities, lack of cooperation from friends, disagreement and lack of intimate friends

Intrapersonal factors were chosen to be the focus of this study because although it is impossible to ignore the impact of interpersonal/contextual variables (peer influence, parental support, etc.) on academic outcomes, the self is critical to success since it displays, procrastination, perfectionism, perceived level of stress, and coping style.

In Kenya, Oketch and Odiemo 2018 carried out a study on the relationship between stress and academic performance among undergraduate students sponsored by the government at the University of Nairobi using a cross-sectional survey design. The population sample consisted of 319 students. Academic performance was measured by referring to the students' academic transcripts for successive semesters. The findings showed that 64.4% had moderate to high levels of stress, while 35.6% had low levels of stress. The relationship between stress and academic performance was statistically significant ($\chi 2 = 9.49$, N=584, df=4, p=0.048), and the relationship between stress level and academic performance was significant between 19 to 22 years and 23 to 26 years.

Based on the above literature on stress and academic performance, it emerged that stress could affect students in two dimensions, it could be positive or negative. When stress led to a positive track, it enhanced performance, helped with confidence building and brought out excellent results. But when it took a negative trend, it demoted performance and psychological strain on the students and eventually affected performance in a way. Stress was considered both positive as well as negative when it came to managing it.

In a number of research stress was reported to negatively affect academic performance of students in different levels of study. To discover more it was of necessity to find out further

the different challenges the students faced in relation to academic performance and stress. From the reviewed literature not much has been done in Kenya in relation to stress among students at the teacher training level. The current research has been undertaken to unravel the situation among students in teacher training colleges in central region in Kenya.

2.4 Coping Strategies and Academic Performance.

College students are prone to exposure to a considerable amount of stress, which calls for ever changing successful coping strategies. Stressors are of diverse types, which include pressure from both external and internal sources, as seen in the review on stress and academic performance. Coping comes in handy when faced with stress and it depends on the student's perception and intensity of what caused the stress. Infective coping strategies can lead to anxiety, drinking problems, depression and other related mental health problems among students.

Research conducted over the years looked at college students' response to stress. When stress becomes elevated in the lives of students, it calls for coping strategies which would dictate the type of coping strategies and how it could impact on academic performance. A decline in academic accomplishment and a host of other physical and mental issues could be very disturbing to the life of a student (Scott 2009). Studies in developed countries state that negotiating a way to make adjustment to the demands of college life could be a source of stress which can negatively affect the motivation and achievement of students (Pritchard & Wilson 2003). Coping strategies are defined as "conscious, self-willed efforts to regulate emotions, cognition, behaviour, physiology, and the environment in response to stressful events or circumstances" (Compas, Connor-Smith & Saltzman, 2012).

In the primary teacher training colleges, there are numerous adjustments which the students must face based on the demands posed by college life. Devonport and Lane (2006) carried out a study on coping skills and academic performance with a population sample of 808 undergraduates at a Spanish university using the Coping Strategies Inventory Scale. Academic performance was evaluated by the grade point average. The findings revealed that coping skill could influence academic success because the amount of effort students invested in reaching a certain outcome was dependent on how they cope with negative emotions and obstacles. That level of effort and the way students cope with stress were also influenced by their beliefs in themselves, how capable they were, and how much control they had over the outcome and academic engagement and academic success. Maladaptive coping was negatively related to performance, but there were no significant correlations between maladaptive coping and any academic engagement dimension**.** In contrast to the current study, the sample population was teachers in primary teacher colleges who had no work engagement but learning.

A lot of researchers have attempted to identify groups of coping strategies which students use to cope with various challenges as they pursue their studies. Lazarus and Folkman (1991), categorised them into two major categories. Problem focused coping strategies are active efforts to change the problem affecting a person or change the situation in an effort to reduce the stress associated with it. Emotion-focused coping strategies involve an attempt to change the emotions associated with the stressor, with no direct attempt to change the stressor itself.

Studies were conducted in Asia by Linatda and Mohamad (2014) with undergraduate students from Ratchamangala University of Technology consisting of 35 females and 35 males using the academic coping instrument in data collection by Sullivan (2010). The results showed strong evidence that the students' coping strategies assisted them in their academic work. The results revealed the use of the following coping strategies: 86% avoidance strategy, 84.5% approach strategy and 86.5% social strategy. Thus, social support strategies were popular among all students, proving that the undergraduates preferred to say and share their difficulties with their peers family and teachers. There were students undergraduates who solved their difficulties by sharing and at times not taking any positive action to solve them. (84.5%). Besides, the third group who practiced approach strategy tried hard to solve their academic problems during their studies. Sullivan (2010) reported that coping variables would be positively (approach) or inversely (avoidance) related to self-efficacy, mastery goals, and self-regulation.

As students strategized and took action in reaching a set goal, rather than avoiding the situation doing nothing or avoiding the situation, positive outcomes could be attained. Nader (2006) research coping strategies among students at Qatar University, using a sample of 284 students, 144 males and 140 females randomly selected. The study used the variables of academic achievement, gender, level of study, specialization, nationality and the impact of these variables on coping strategies. The findings revealed that students used positive thinking, religion and emotional support in day today's stress-related challenges. In relation to the current study, only three variables of study were used;

academic self-efficacy, stress and coping and their relationship with academic performance.

A task oriented coping strategy is classified under the problem oriented coping strategy. Its main purpose is to attempt to limit the real impact of the stressful situation. It involves the person affected by the stress situation facing it and acting to be able to alter the situation and reduce the amount of stress Bouteyre, Maurel and Bernaudl (2007) carried a study among first year psychology students in a French University on daily hassles and depressive symptoms. They found out that task oriented coping strategy was negatively correlated with depression, whereas emotion-cantered coping was positively correlated with depression, which in turn affected performance. Emotion-oriented coping worked at limiting the emotional impact of stress instead of solving the situation which was causing stress. Students who used emotion oriented coping usually directed all efforts at altering the emotional responses to stressors, reframing or putting them in a different form the problem causing stress to make it inactive in evoking a negative emotional response and eliciting less stress (Mattlin 1990).

Emotion oriented coping could be discussed as a construct which represents thinking and behaviour and variety of cognitions which are initiated in times of stressful encounters, whose aim is usually tolerating or reducing the physical arousal and emotional responses of the person affected by stress without necessarily solving the problem.(Carver et al.,1989). Other coping strategies under emotion-oriented coping, such as the ventilation of emotions or behavioural disengagement, may be adaptive, especially during the first stages of coping following the time when the stress occurred. But later, they could be

considered dysfunctional and harmful to the person experiencing stress in the long run. The use of the avoidance-oriented coping often will prevent the solution of the stressful situation as well as the accompanying positive changes in the situation. Emotion coping can contribute to a more functioning and long-term health and satisfaction if it ends up initiating problem focused actions.

According to studies, emotion-focused coping is positively correlated with poor mental health, as reported by Solomon, Avitzur and Mikulincer (1990), who found that emotion-focused coping is related to the presence of psychiatric symptoms in soldiers who have been involved in war. An avoidance-oriented coping strategy uses distraction and diversion unrelated to the stressful situation to reduce stress. It encompassed strategies like denying its existence, avoiding the situation or losing hope (Lazarus & Folkman,1984). The stressed individual could also engage in indirect efforts to adjust to the stressor by usually creating a distance from the stressor, by evading the problem or by directing efforts to unrelated activities to the stressor (Roth & Cohen, 1986). Avoidance-oriented coping strategies are usually characterised by the absence of any use of any attempts to try and alter the situation.

More research on stress and adaptation among learners pursuing distance education was done by (Kwaah & Essilfie, 2017). The research findings showed that high recurrence of assessment, academic workload, family and marriage issues and budgetary issues of students' were the significant reasons for the existence of stress among the students. The students are said to have been utilizing different coping strategies like praying and meditation, self-diverting exercises for example listening to music or watching television which are in most cases correlated negatively with academic performance.

Matthew (2017) carried out another research to assess stress and adapting techniques among undergraduate students. The research surveyed the degree of stress encountered by undergraduate students and the adaptive coping strategies the students utilized to manage the stress experienced. The outcome of the research demonstrated that the mean of 26.94 suggested that the average number of the students' participants experienced a reasonable degree of stress and coping at a mean of 48.40 meaning that the students used an average level of coping strategies.

A further study by Causey and Dubow (1993) investigated the use of coping strategies among university students using the Pearson Product Moment Correlation Coefficient in analysis of the relationships, it was found out that coping strategies were significantly associated to perceived academic stress and hence academic performance. The correlation also noted that perceived academic stress with task-oriented coping had a significant negative correlation **(**$r = -0.16$, $p < 0.05$), while with emotion-oriented coping was significantly positively ($r = 0.20$, $p < 0.01$). Avoidance was also positively correlated with academic stress even though as noted it was not significant. The findings informed that students experiencing academic stress utilized mainly emotional and oriented coping strategies. The task-oriented coping strategy correlated with academic stress, since it focused on dealing with that which was causing stress.

Task-oriented coping strategy was the method commonly used, followed by avoidance and then emotion oriented coping strategy among the students of both years. The mean score of the task oriented coping strategy was 62.80 for the first years and 59.6 for the third year students. The emotion coping strategy was also used the least with a mean score of

43.44 for the year one and 42,42 for third year. Between the first and third year medical students a significant difference was observed in the task oriented coping strategy at (p=0.022).No significant difference was observed between avoidance-oriented and emotion-oriented strategies between the first and third year students. The findings meant that the level of learning presented differences in the use of the strategy.

More research by Aspinwall and Taylor (1992) gave more support in that the number of students who used avoidant coping strategy were expected to be less successful at adjustment to college and the ones who used avoidant coping strategies had higher rates of depression and anxiety.

In south Africa, Govender (2015) investigated the cause of stress and coping strategies utilized by undergraduate occupational therapy students at a tertiary institution in South Africa. The study was aimed at finding out the recurrence of stressors and the type of adapting strategy. The study revealed that emotion-focused and problem-focused strategies were highly employed by the students in response to stress. The findings showed that individual stressors were the most serious overall stressors among the students and academic stressors were ranked the highest in causing stress.

An investigation done in Kenya by Okoro (2018) using a descriptive design to evaluate the issues related to stress and tactics for dealing with stress among undergraduates, brought into attention that coursework/scholastic demands were the major demands which were seen as the greatest cause of perceived cause of stress among the students. Further study/life equalization, lack of funds were also classified to have had a significant cause of stress

during the period of study. Active coping strategy was widely recognized as the most adapting strategy among the students. However, denial that the stressor was not in existence was the least basic technique utilized by the students.

2.5 Gender Differences in Academic Self-efficacy and Academic Performance.

Between the sexes several studies have reported significant differences in the level of self-efficacy. Cheong, Elias, Mahyuddin, Muhamad and Noordin (2006) conducted research using a descriptive correlational method upon 1,146 students from eight different secondary schools in Petaling district in Selangor on The association between students self-efficacy and English language achievement. One of the main variables that was investigated was sex differences. The findings showed that girls had higher self-efficacy than boys.

Hackett and Betz (1989) researched on the relationship between college students mathematics self-efficacy and students mathematics achievement, their choice of mathematics-related degree programs and their attitudes towards mathematics. The research findings found out that there were positive correlations between the students level of self-efficacy and mathematics achievement and mathematics attitudes and masculine sex-role orientation. In addition the researchers related the mathematics achievement gap between the sexes to girls and boys differing perceptions of their abilities in mathematics

Much of the literature available reveals that there are differences between females and males' perceptions of mathematics efficacy. The different perceptions focus on the female gender lower performance in mathematics and lower participation rates in careers related

to mathematics. This was supported by Lent, Lopez and Bieschke (1993) who researched on the relationship between students mathematics self-efficacy, students prior mathematics achievement, outcome expectations and the interest of the students. The study comprised of 692 students in high school with 284 female and 692 male students with a mean age of 16.28. Random sampling method was used to select high school students with the students representing different fields of study, such as science, social sciences, Turkish-mathematics, and foreign languages. The outcome of the study indicated that students mathematics self-efficacy related positively to their interest in science and mathematics and males performed better than females.

The findings were further supported by a study on mathematics self–efficacy by Matsui and Ohnishi (1990), who explored the mechanisms underlying mathematics self-efficacy in Japanese college students with a total of 97 males and 66 female first-year undergraduates. The study discovered that the females had lower mathematics self-efficacy than the males The two genders were further examined by Pajares and 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 females and it is higher among the females.

The academic self-efficacy being higher in females was consistent with other studies Gheibi, Arefi and Danesh (2012); Zabihollahi, Yazdan, Gholamali and lavasani (2012) which also found females to have higher academic self–efficacy than the males. The researchers' possible explanation for the higher levels of self-efficacy in girls than the boys

was due to the fact that girls had higher motivation and passion for education and also a lack of confidence in boys as a result of poor socialization.

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," using a sample consisting of 180 students, 78 men (43%) and 102 women (57%) ranging from age 19 to 31 years old. The results showed that there was no significant difference in the level of self-efficacy between the females and academic performance.

In Egypt, an examination of 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 Assiut University in Egypt by (Abd-Elmotaleb & Saha, 2013). Academic self-efficacy was measured using the college student self-efficacy scale instrument, while performance was done using the students' GPA scores. The data was analysed using Pearson Product Moment Correlation, simple multiple regression and T-test. The findings revealed that perceived academic climate and academic self-efficacy significantly correlated with academic performance and academic self-efficacy had a negative significant correlation between the sexes.

The findings were supported by Mohamed (2020) through a study done among students in senior secondary in Niger state, Nigeria based on gender analysis of differences in academic self-efficacy and achievements using a descriptive survey design. A sample population of 435 students (294 females and 141 males) was used, selected through a proportionate stratified sampling technique. The researcher used the scale of academic

self-efficacy and academic achievement tests in Mathematics and English as instruments of data collection. The standard deviation, the mean, and the independent sample t test was used to analyze the data. There was no significant differences in academic self-efficacy and academic achievement between females and male students according to the findings.

The results, however, showed that the mean value of the male students indicated a higher level of academic self-efficacy (mean 78.36) than the female students (78.16). A significant difference in academic achievement was also seen between male and female students. It showed that females had a mean of 100.58 while males had a mean of 105.42, meaning that the males performed better. Therefore, it means that academic self-efficacy does not have significant gender differences in academic performance. The inconsistency gives room for further research into the study.

2.5.1 Gender Differences in Stress and Academic Performance.

There are various studies which have been done on academic stress in relation to general students' performance at different levels of learning. Some studies have revealed results that are inconsistent concerning gender differences in different domains of school achievement. This was supported by a study done by Singh and Upadhyay (2008) on academic stress within the context of age and sex differences among some college students in India with a sample population of first year and third year male and female students (N = 400). The results showed that female students experienced more academic stress in comparison to their male counterparts.

In agreement with the above findings was Supe (2002), who undertook a study on the academic stress of boys and girls in higher secondary school students with a population of 150 males and 150 females who were randomly selected in Malda District, West Bengall. The findings showed that male students had a significant negative moderate correlation ($r = -41$, $p < 0.01$) between academic performance and academic stress , while female students, had a significant negative weak correlation ($r = -274$, $p < 0.01$) between academic performance and academic stress. This showed that the female students had more academic stress as compared to the male students. Another study done by Mathew and Jaya (2006) upon a group of 10^{th} grade adolescents from a group of schools in Ranchi, India reinforced the findings. It was based on a population sample of 200 students, 100 from government schools with fifty males and fifty females and 100 from private schools with fifty males and fifty females. Academic stress scale instrument with 80 items was used. The findings showed that female students were found to experience more academic stress than male students and this had an impact on academic performance.

Prabu (2011) carried out a study on the students level of academic stress among higher secondary students with 250 students in higher secondary schools situated in the Namakkal District of Tamil Nadu, India. To select the participant's a simple random sampling was used. The findings revealed that higher secondary tended to have a moderate level of academic stress and male students had higher academic stress than female students. Thus disagreeing with the previous research by (Misigo, 2011).

Research on the sources of stress and its relationship across male and female students by Yogesh, Abass and Singh (2014) was done to determine the prevalence of stress levels

among students in a medical school in India. The sample size consisted of 100 first year students. The data was reported from a self-rating questionnaire known as Medical Students Stress. In the results stress was more in male students at 82.2% as compared to female students at 61.8%. Moderate to high academic stress was present among 79% of the students. In the interpersonal domain, females perceived more stress by 12.7 % with the score differing from males.

Investigation of the perception and experience of stress along gender lines in different setting was an exciting undertaking because the study findings regarding stress in relation to gender was somehow conflicting. Some have shown that the females and the males differ in their perception and reaction to stress like Jogaratnam and Buchanan (2004) study which concluded that there important differences in relation to males and females when it comes to the issues of time pressure dimension of stress. Misra, McKean West, and Russo's (2000) research findings suggested that stress levels vary by the students gender and type of stress being experienced. The levels of academic related stress differed between male and female students, with female students being more prone to more academic stress than their male counterparts (Abouserie, 1994; Misra & Mckean, 2000).

In Kenya, Misigo (2011) conducted quantitative research using a cross-sectional survey design among students in public Universities in western part of Kenya, to investigate the perceive stress levels of female and male students in the Universities. This was done using a population drawn from the fourth year students from three public Universities. The researcher identified I87 participants using stratified simple random sampling. The findings of the study showed that there were gender differences, and the females had higher

levels of stress than the males. The findings also indicated that female participants had adaptive coping scores than male participants and sought support from counsellors more than males.

In relation to the differences, stress would also depend on what the researcher was measuring, bearing in mind that males and females have different psychological makeup, which may account for how they respond to stressful situations. Further research by Watson (2002) found no significant difference in the perceived stress between females and males students when the researcher made a comparison of the perceived stress levels and coping styles of junior and senior students in Nursing and Social Work programs. The findings were inconclusive and this gave room for further research, especially among teacher training institutions. There was no literature review on teacher training college students, though the age range ties with the review for undergraduates in universities but different environments.

2.5.2 Gender Differences in Students Coping Strategies and Academic Performance.

Coping has been viewed as a stabilizing factor that may help an individual in psychosocial adaptation during stressful events (Walton, 2002). In a cross-sectional study carried out by Samira, Bamuhair and Ali (2015),the perceived stress, stressors and coping strategies of medical students, who were randomly selected from a university in Turkey were explored. The findings reported out of the 378 students in medical school participated in the study, 53% of the students most of the time felt stressed and a third felt that at times stress overwhelm them. A total of 82% were stressed by studies and 64.3% were not sleeping well. Low self-esteem was reported by half the students.

In studying in general interpersonal conflict, worrying about the future, having low self-esteem were statistically significant for perceived stress scores. Coping strategies that were statistically significantly applied more often were seeking advice and help from others, finding comfort in religion, and blaming oneself and being self-critical. The females students were more stressed than the males but employed use of more coping strategies than the males. Shahana, Lotha and Kamat (2014) carried out a study among medical students on gender and coping strategies which gave similar findings. It was found out that support seeking was used more by the females as evidenced by the more use of instrumental support seeking and emotional support seeking in comparison to the males. Use of humour a positive emotion strategy and self-blame, a maladaptive strategy were used more by the males.

Research findings by Haart and Morash (1999) on gender differences found that significant gender differences existed with respect to use of avoidance coping strategies with the female reporting significant higher use of avoidance coping than the males. It was also found that males are inclined towards task-oriented coping which favours solving problems while females are inclined towards emotion oriented coping and social coping (Rawson, Palmer & Henderson, 1999). Male students in the undergraduate who used task-oriented coping reported that they experienced less distress less distress (Higgins & Endler1995), while those who used emotion oriented coping strategies were seen as a significant positive predictors of distress in both female and male students.

The relationship between sex, specific sources, and coping strategies was also investigated using a questionnaire based on the stress assessment inventory and a stress coping

inventory based on the revised Coping Orientation for Problem Experienced model (Zuckerman & Gagne, 2003). The results showed that the college female students experienced higher levels of stress and used more the emotion-focused coping strategies than the male students and had more roles to play and at the same time, they engaged in multitasking activities often.

The students also reported different strategies for the specific different stressors, but overall the emotion focused coping strategies were used more than the problem- solving strategies for both the male and female students. From the findings, since the problem-solving strategy dealt more with focusing on solving that which was stressing students, it was important that any research intervention programs should be geared towards more use of the problem-solving strategy among students in the event that they faced stress.

The study was in conformity with Nader Zeuod (2006) on the coping strategies for stress, academic achievement, nationality specialization and their impact on the students coping strategies. The study was carried out among students at Qatar University from a sample population of 284 with 144 males and 140 females, who were randomly selected to fill out questionnaires based on a stress scale. The findings were that the students used venting of emotions and religion to cope with stress, thus agreeing with previous research that the use of emotional strategies is very common in students in the college setting. The study also found no statistically significant differences in the use of the strategies between the gender variable and all nationalities.

2.6 Summary of Literature Review and Research Gap

Based on the literature review, it has been noted that the majority of studies have shown there existed a relationship between academic self-efficacy and academic performance. stress and academic performance and coping strategies and academic performance. However, the researcher noted that majority of the studies on academic self-efficacy, stress and coping strategies on academic performance has been carried out in developed countries and more so among undergraduate students in universities like (Zeidner, 1993; Sibnath et al., 2012; Rao, 1986; Rafidah et al., 2009). Few other studies have been done among high school students.

A few available studies on students in other regions largely concentrated on Asian samples, making it hard to generalize the findings in teacher training colleges. Therefore the study filled the gap in the Kenya context. Also, most of the studies on stress and coping have been done within medical schools among students taking courses related to medicine, like studies by Rahim et al (2016); Samira et al (2015); Watson (2002); and Yogesh et al (2014),Ttherefore the current research focused on students within educational institutions training students to be primary school teachers, where the learning experiences are different.

From the literature review, the suggestion was that all the three variables, academic self-efficacy, academic stress and coping strategies and their effects on academic performance had reported a relationship, while in other studies there was no relationship making the results inconsistent and inconclusive as in academic self-efficacy and academic

performance studies by Jeffery (1998), strelnieks (2003), Amare (2001), Adeyemo (2008) and Tenaw (2013) among others mentioned in the reviewed literature.

Most of the studies carried out, especially on academic self-efficacy, were specific to some subjects especially mathematics and English, Hackett and Betz (1989) and Lent et al (1995) necessitating a need to focus on the general performance of all subjects in teachers training colleges. From the available literature there was no research in Kenyan institutions of learning which explored on joint influence of the independent variables as determinants of academic performance.

The effects on gender were also not conclusive, some of the studies found gender differences and others found no gender differences, especially where gender was combined with other variables like age, economic status, year of study, nationality and others (Lotha & Kamat, 2014; Harr & Morash, 1999); & Nader, 2006). This gave room for further investigation into the variables in relation to academic performance among students in primary teacher training colleges in the Kenyan context.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction.

The chapter highlights the research design, research location. Description of the target population, sample size, and sampling procedures, research instruments, pilot study, data collection procedures, validity and reliability, data analysis and ethical considerations.

3.2 Research Design

A mixed methods design was used since the researcher applied both quantitative and qualitative approaches. The quantitative approach was descriptive while the qualitative approach involved interviews. Mixed methods research design usually comprises the collection of both quantitative and qualitative data in response to the stated research hypothesis and objectives and also the analysis of both the qualitative and quantitative data (Johnson, Onwuegbuzie & Turner (2007). When conducting mixed method research the procedures should be done rigorously for both quantitative and qualitative data like adequate sampling, using proper steps in finding sources of information and data analysis steps**.**

In mixed method research the forms of data are integrated into the design analysis through connecting, merging or embedding the data. Creswell (2014) has noted that the key assumption of this mixed method approach is that both quantitative and qualitative data provides different type of information, sometimes participants detailed view of the information through qualitative discussions and scores on instruments quantitatively, and

both they give results that should be similar. The design was chosen since the researcher required to combine different types of data. The researcher was able to collect quantitative and qualitative data which together gave the results that are expected to be similar. For quantitative data, questionnaires regarding academic self-efficacy, stress and coping strategies were administered to the participants, while the qualitative data interviews were prepared and conducted to selected number of the dean of curriculum and the lecturers who were part of the in order to get their personal views regarding the students' academic self-efficacy, stress and coping strategies.

3.3 Location of the Study

The study was carried out in the central region which covers an area of 13,191 km^2, located north of Nairobi and west of Mt Kenya and is one of the most populous regions in Kenya with a population of 4,383,743 inhabitants (2009 census). It covers the counties of Kiambu, Murang'a and Nyeri with four (4) public PTTC's (Thogoto, Murang'a, Kilimabogo and Kamwenja).

Kiambu is located in the central highlands of the Kenya region, south of Nairobi County the capital. It lies between latitudes of -1^0 10' 0.01 South and longitudes 36^0 49' 60 East and covers a total area of 2,543.5 Km2. It has a warm climate with temperatures ranging between 12^0c and 18^0 c, this cool climate makes it a very conducive area for living and farming. The county is sustained by agricultural activities especially cash crop farming like coffee and dairy farming and industrial activities take the lead. The expansion of the Thika super highway has opened the county and led to the explosion of real estate market with key projects being Tatu city, Thika Greens and Four-Ways junction. It is the home of some

of the best universities in the country like Kenyatta University, Jomo Kenyatta University of Agriculture, Mt Kenya University and St Paul University. Thogoto Teachers College is off the Dagoretti Corner-Kikuyu road, and Kilimambogo teachers' college is located along Thika-Garissa road approximately 25 km from Thika town.

Murang'a County is located in the central highlands of Kenya and lies between latitudes of 0^0 44' 59 North and 37^0 27' East. It lies between 914 metres above sea level in the east and 3353 above sea level along the slopes of the Aberdare's mountains in the west covering an area of 2543.42 km^2. It is considered as one of the wealthiest county in Kenya and an innovative and commercial hub. It is known for good climate with good fertile soils for agriculture, best for tea and coffee growing. Murang'a Teachers College is situated within the town off Nairobi-Nyeri Highway.

Nyeri County lies between Mt Kenya and the Aberdare's ranges, covering an area of 3,337.2 km^2 and situated between longitudes 36^0 38' East and 37^0 20' East, between the equator and latitudes 0^0 38^0 South. The main physical features are Mt Kenya which is (5,199 m) to the East of the Aberdare's ranges (3,995 m) to the West. The main rivers running across the county, like the Sagana river and the Chania river make the county self-sufficient in water resources for domestic and industrial development. Kamwenja Teachers' College is located in the Central District 8 Kilometres North West of the Town.

The colleges represent the basic teacher education institutions in the country, which have had declining performance trends from 2014 onwards. The colleges in the region had their fair share of failures, which rose steadily between 2014 and 2018 to a total number of 2445

(see Table 3.1) that is 16.54% of the public colleges in academic failures in PTE, thus an ideal setting for the researcher's interest. The concern for poor performance is critical since it resulted in low chances of selection for employment as TSC considers quality of grade as a criterion.

The poor performance is also a grave concern to educational stakeholders and other sponsors in education who have invested in huge resources together with the Kenyan government in the education sector. Therefore, the factors that impact on poor academic performance at colleges needed to be well understood in the context of this research. No particular educational research has been carried out in the region on students' academic self-efficacy, stress and coping strategies and how they impact on academic performance in teachers training college students. The colleges within this region experienced poor performance, where 33.26% performed below the required quality performance as shown in table 3.1

Table 3.1: PTE Results for Colleges in Central Region.

Year	Distinction	Credit	Pass	Failure
2018	5	1084	230	571
2017	3	897	137	757
2016	1	1101	91	598
2015	5	1477	208	239
2014	9	1566	103	281
Summary	23	6125	769	2445

Source: Knec 2019

3.4 Target Population

The target population is comprised of all students in the public teacher training colleges in the central region the Deans of curriculum and the lecturers. All the colleges were mixed and boarding. The accessible population were the second year students in the four colleges with a population of 2002 students, 682 males and 1314 females according to the data obtained from the ministry of education, four deans of curriculum and 218 lecturers. The choice of second year students was because they had been in the colleges longer and were expected to display maturity in responding to the research instrument. They also had done a major examination known as mid-course whose results the researcher inferred to get data on students' academic performance. Specialization of subjects in science or art subjects was also in second year and at the same time, the students were preparing for their final PTE.

3.5 Sampling Procedure and Sample Size.

The study applied various techniques in sampling and selection of the sample size.

3.5.1 Sampling Procedure.

Sampling is the process of selecting a portion of the main population (Polit & Bernadette, 1995**).** The sample was drawn from a population of 2002 students from the four colleges in the central region. The researcher used various sampling procedures to get the samples. Central region was selected using purposive sampling. Teacher training colleges, the deans of curriculum and the second years was also selected using purposive sampling. Stratified sampling was used to select students by gender. The sampling procedure used is based on the researchers ability or expert judgement to be able to come up with units that are

representative or typical of the population under. (Orodho 2009). For the qualitative part of the study, the lecturer respondents were selected using simple random sampling. In each college the researcher organized with the administration to visit the college during normal class time.

3.5.2 Sample Size Determination.

Data obtained from the ministry of education county offices within the three counties there were 2002 students in the second year of study in the four sampled colleges. Simple random sampling was used to select 50 participants of equal gender from each of the four colleges making a total sample of 200 students (100 males and 100 females). This student sample was based on (Vanvoorhis & Morgan, 2007) 'a sample size of 10 per cent or above of the accessible' population is large enough for detecting differences.'Stratified sampling ensured representative of male and female student participants (25 males and 25 females). For the qualitative data sample, simple random sampling was used to select one lecturer from each of the 5 academic departments, Mathematics, English, Social Sciences, Education, Creative Arts and Languages making a total of 20 lecturers. Finally, 4 deans of curriculum were purposely selected, one from each sampled college as shown in Table 3.2.

Table 3.2: Population Sample.

Category	Target population	Sample	Sampling
Students	2002	200	Purposive
Deans of curriculum	4	4	purposive
Lecturers	218	20	purposive

Source. Researcher 2020

3.6 Research Instruments.

The following research instruments were used: questionnaires, interview schedules and document analysis.

3.6.1 Students' Academic Self-efficacy Questionnaire (ASQ).

Academic self-efficacy was assessed using an instrument adapted from Byrne and Matoti (2014), which was adapted to suit the context of the current research. It featured 16 items which were rated using a five point Likert scale ranging from (5-1) Strongly Agree to Strongly disagree. 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 were summed and totalled. The higher the score, the greater the level of self-efficacy. During the pilot study, the instrument posted a reliability index of $\alpha = 0.70$ against the existing reliability 0.791 which was considered good enough for its use in the study.

3.6.2 Students' Stress Questionnaire (SSQ).

The students stress questionnaire was adapted from the perceived academic stress instrument by McCartyet et al (2007) and Agolla (2009) which was a self-reported 14 item instrument that measures four types of stressors, academic stressors, environmental stressors, social stressors, and intrapersonal stressors. The questionnaire measured the students' perceptions in relation to academic, environmental, social and intrapersonal stressors. The score was based on five point summated rating scores from 5 (strongly agree) to 1 (strongly disagree).

3.6.3 Students' Coping Strategies Questionnaire (SCSQ).

The coping inventory used for the study was adapted from (CISS-SF Coping Inventory for Stressful Situations-Short) designed by Endler and Parker (1999) referred to as CISS-21. The CISS has three subscales or coping types: task oriented, emotion oriented and avoidance oriented. The Likert scale was rated on a five-point scale and the responses ranged from 5 (almost always) to 1 (almost never). The responses to all the 7 items of each subscale in the CISS-21 were summed together to obtain aggregate scores for the three coping strategies. The dominant coping style of each individual participant was determined by score acquired from the triple dimension of the coping strategy. For any behaviour which recorded a higher score on the scale it was said to be the preferred coping strategy of the individual student.Cronbach's alpha coefficients of task- oriented, emotion-oriented, and avoidance- oriented coping styles were 0.831, 0.781 and 0.730 respectively.

3.6.4 Interview Schedule.

An interview is described as a verbal technique for data collection Bell (1993), interviewing is an appropriate method in educational research because it assists the researcher to probe the variables under study for clarification. The interview provided qualitative data whose purpose was to build on the quantitative data collected. It was collected from 20 lecturers randomly chosen to represent each of the five academic departments, namely Mathematics, Languages, Education, Social Sciences and Creative Arts in the sampled colleges and 4 Deans of curriculum. The interview solicited information on students' academic performance, academic self-efficacy, academic stress and academic coping strategies.

3.6.5 Document Analysis-Mid course Examination Results.

Each participant's academic performance record was given by the student in point form aggregate which was used by the researcher to further infer from the colleges' mid-course performance records availed by the Administration through the dean of curriculum in the respective colleges. The students' total marks in mid-course examination were calculated and the average score was used. The researcher converted the students' scores for standardization from standard Z-scores then to T scores using the formula; $T= 10 (Z) + 50$.

3.7 Pilot Study.

The research instruments were piloted on a random sample of thirty students (15 males and 15 females) and 10 lecturers and 1 dean of curriculum at Machakos Teachers College in Machakos county, which was purposively selected due to its similar characteristics to colleges in the sampled population. It helped the researcher to check on the appropriateness

of statistical analysis and also helped modify ambiguous or vague items in the questionnaire,correct language use, and check whether the instruments generated the required information prior to the performance of the full scale research. Some changes were made for example item 5 in academic self-efficacy was changed from 'I have a personal study plan to I have a personal study plan for all subjects which I follow strictly.' Item 13 0n academic self-efficacy was changed from 'I pass all exams to I pass all tests and examinations I undertake'. Question 14 was also changed from 'I always revise before an examination to I always revise continually.' On academic stress question 1 was changed from heavy workload to heavy academic workload and question 10 on the same was changed from congested facilities to poor facilities like hostels toilets and classes. The interview schedule questions wording was modified for clarity purposes.

3.7.1 Validity of the Research Instruments.

According to Best and Khan (2009) a test is said to be valid to the degree that it measures what it is supposed to measure. According to Borg and Gall (1996) validity is the degree to which the sample of a test item represents the content which the test is designed to measure. To determine the content validity of the research instruments expert judgement was sought from the researcher's supervisors and a few areas were modified in order for the objectives of the study to be adequately addressed. Peer review and consultations with other experts in the area of educational psychology were sought to ensure the items in the instruments represented the true constructs. The validity of the qualitative methods was ensured by allowing the respondents an opportunity to check the data obtained from their responses to confirm that is what they had meant.

3.7.2 Reliability of the Research Instruments.

According to Fraenkel and Wallen (2003), reliability refers to the consistency of the scores obtained i.e. how consistent they are for each individual from one administration of an instrument to another and from one set of items to another. Reliability measures the stability of the research instruments across two or more attempts and also gives information on the ease of use, clarity and ease of comprehension. The Split half method was used which involved the administration of the instrument once in halves which were correlated and the calculation of inter item correlation of items to determine the instrument reliability using the Pearson Product Moment Correlation Coefficient. The item correlation was also compared to the original scales. Cronbach alphas of 0.5 and above indicated that the instrument was reliable for the study (Creswell 2009).

Table 3.3: Reliabilities of the Instruments.

Variable	**Average Inter Item covariance**	**Number of items in the scale**	**Cronbach Alpha**
Academic self-efficacy	.439	16	.909
Stress	.310	14	.854
Stress coping strategies			
Task oriented coping strategies	.139	7	.698
Emotion oriented coping strategies	.179	7	.840
Avoidance oriented coping strategies	.139	7	.797

Researchers': 2020

Cronbach's alpha results indicated that all the three (3) scales had an alpha value of 0.7 and above and this confirmed data reliability and adequacy. The internal consistency of

academic-self-efficacy was 0.90 against the original which was 0.79, while stress was 0.85 against the original 0.80 and Lastly coping strategies for task oriented were 0.69 against the original 0.831 for emotion oriented was 0.84 against the original 0.781 and lastly for avoidance it was 0.79 against the original 0.73. The reliability of the qualitative instrument was ensured by proper designing of the instruments and documentation of all the procedures followed. The interview questions and the responses were written for clarity and reference purposes. The researcher ensured reliability by referring to other scholarly studies in order to collaborate on the study findings.

3.8 Data Collection Procedures.

The researcher sought informed consent from the participants of the study prior to data collection through a consent form (See Appendix A). Only the students who gave consent participated in the study. To ensure confidentiality, the researcher assured the participants that the purpose of the exercise was purely for the study undertaken and that the data would not be used whatsoever in any other circumstances. The researcher explained to the students' step by step how to fill out the questionnaire.

The questionnaire was identified by serial numbers 1-200.The students who filled out the questionnaires were identified through a list of names against the serial number in order to confirm the mid-course results given by the students. The researcher explained to the participant the study variables and gave them instructions on how to go about filling the questionnaire.The process took 20-30 minutes and the filled questionnaires were collected by the researcher, who thanked the participants for their cooperation. Academic

performance in the mid-course examination was given by the students in part A of the questionnaire.

The second phase was the researchers' analysis of the Mid-course results records availed by the Administration through the through the dean of curriculum. The third phase of data collection involved the interview schedule where the participants were the 4 deans of curriculum and the 20 lecturers from the five academic departments namely, Mathematics, Languages, Education, Social Sciences and Integrated Science.

3.9 Data Analysis Procedures.

The completed instruments were coded and the responses scored and keyed into computer data file. All the statistical analyses were run using the Statistical Package for Social Science (SPSS) version 26 computer programme. Analysis of data in the quantitative form from the structured questions was analysed using descriptive and inferential analysis. The descriptive analysis assisted the researcher to gain information on the basic characteristics of the data collected using percentages, frequencies, means and standard deviations.

The inferential analysis assisted in analysing the relationships that existed between the dependent variable and the independent variables. The Pearson Moment correlation coefficient was used to test the relationships between the dependent variable and the independent variables, t-test established the gender differences between the independent variables and dependant ,variable while in Regression analysis, bivariate and multiple linear regression were used to analyse the prediction of the independent variables on the dependent variable. All the tests were undertaken at a 95% confidence level . The following null hypotheses were tested:

H_{O1} There is no significant relationship between academic self-efficacy and academic performance among students in public primary teacher training colleges in central region, Kenya. Statistical test: Pearson Product Moment Correlation Coefficient

$Ho_{2:}$ There is no significant relationship between Perceived academic stress and academic performance among students in public primary teacher training colleges in central region, Kenya . Statistical test: Pearson Product Moment Correlation Coefficient

Ho_3: There is no significant relationship between academic coping strategies and academic performance among students in public primary teacher training colleges in central region, Kenya. Statistical test: Pearson Product Moment Correlation Coefficient

Ho_4: There are no significant gender differences in academic self-efficacy, stress, coping strategies and academic performance among students in public primary teacher training colleges in central region, Kenya. Statistical test: Independent sample t- test.

3.10 Logistical and Ethical Consideration.

The researcher obtained an authorization letter from Machakos University graduate school. Research permit was obtained from the National Commission for Science, Technology, and Innovation (NACOSTI) and the Ministry of Education**.** The researcher sought permission from the colleges' administration prior to administering the research questionnaires. The researcher presented a consent letter for the participants to voluntarily sign.

3.10.1 Ethical Consideration.

Research ethics concerns the acquiring and dissemination of trustworthy information in ways that cause no harm to the study participants. Ethical considerations help to legitimize research and render it credible. Ethical considerations also regulate research studies by setting limits and directions for what can, cannot and should not be done. In contemporary research, it is important for research to articulate the significance of ethical concerns in order to ensure the protection of the respondents, since ethical issues are part of the research process (Mwinzi. 2012).

The researcher informed the respondents that participation was voluntary and assured them that no private information would be divulged to a third party. Additionally, respondents were assured that the information provided would only be used for the specific purposes of the study. The nature and purpose of the research was explained to the students the deans of curriculum and teacher respondents by the researcher before data collection to ensure that the participants understood the benefit of taking part in the study. If the participants felt uncomfortable participating, they were free to withdraw. It was also obligatory that information obtained from the respondents was to be protected. That meant the data is securely kept, such as personal data, facts and opinions about an individual respondent (Kombo & Tromp, 2006).

Based on Kombo and Tromp (2006) scholarly work, protection of data is very important in research because it includes regulations for processing personal information. The importance of protecting the data compels the researcher to make available the completed report to the respondents to allow them to make their comments**.** Finally, the findings of the study were

shared with the colleges and the public at large through the available knowledge sharing platforms.

CHAPTER FOUR

PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction.

The chapter presents the research findings based on data collected, the interpretation and discussions. This was guided by the objectives of the study. Descriptive and inferential statistics were conducted for each stated hypothesis. The chapter was divided into four sections: Section one is an introduction, while section two is the participants' general and demographic information. Section three presents the quantitative results using both descriptive statistics and the appropriate inferential statistics for each stated hypothesis and a qualitative discussion of the study. The last section presents the interpretation and discussion of the results.

The study aimed to:

i. Examine the relationship between academic self-efficacy and academic performance among students in public primary teacher training colleges in central region, Kenya.

ii. Examine the relationship between stress and academic performance among students in primary teacher training colleges in central region, Kenya.

iii. Establish the relationship between academic coping strategies and academic performance among students in public primary teacher training colleges in central region, Kenya.

iv. Establish whether there are gender differences in students' academic self-efficacy, stress and coping strategies and performance among students in public primary teacher training colleges in central region, Kenya.

4.2 General Information and Demographic Data.

In this section the researcher presents the general information of the questionnaire return rate and the demographic data.

4.2.1 General Information.

The researcher with the research assistant visited all the colleges and administered the questionnaires to the students. A total of 200 questionnaires were administered to the students in the four colleges under study. That is,100 females and 100 males as shown in (Table 4.1). All the questionnaires were collected, but during the data coding and sorting, three questionnaires were discarded since they were returned unfilled. The researcher therefore analyzed responses from 197 participants, which is 98.5% as shown in (Table 4.1). The response rates of respondents were considered adequate in line with the assertions by Kothari (2013), who considered a response rate of 50.0% and above adequate for analysis and reporting. The findings also implied that the data collection strategies applied by the researcher were efficient. Twenty lecturers who were sampled for the study were interviewed and also four deans of curriculum. Table 4.1 presents the questionnaire return rate.

Table 4.1: Students' Questionnaire Response Rate.

Gender	Target Frequency	Actual Frequency	Return Rate%
Male	100	98	49 %
Female	100	98	49.5 %
Total	**200**	**197**	**98.5 %**

N=197

4.2.2 Demographic Data of the Participants.

The Participants' age, gender and teaching as a career choice were tabulated and the results indicated that there were 98 males (49.75%) and 99 females (50.75%). This meant that more females participated in the study than males. The participants' age was categorised into three strata that is (18-20 years), (21-30 years) and (31-40 years). The results showed that the participants between 18 -20 years old were 33 (17.17%), the participants between the ages of 21-30 were 155 (78.68%). Lastly, the participants between ages 31-40 were 7 (3. 55%). The implication was that there were more students in the teacher training colleges between 21-30 years old. In terms of teaching being their career of choice 99 chose it (50.51%) while 97 (49.49) said it was not their career choice as shown in Table 4.2.

Table 4.2: Demographics data on Gender, Age and Training Choice.

Item	Category	Frequency	Percentage (%)
Gender	Male	98	49.75%
	Female	99	50.25%
Age (Years)	18-20 years	35	17.17%
	21-30 years	155	78.68%
	31-40 years	7	3.55%
Training Choices	Yes	99	50.51%
	No	97	49.49%

The data on the findings shows that most of the students did not apply to join teacher training after their secondary training immediately because of other employment opportunities. In the study 49.49 of the respondents reported that teaching was not their career choice but they eventually trained to be teachers. This was supported by a study done in Tanzania on choice of careers, among student teachers, in which only 10% of males and 15% said that the teaching profession was not their career choice and 37 percent said they had been unable to follow their first choice because their grades were too low (Towse, Kent, Osaki & Kirua, 2002). "One of the teacher trainees interviewed in the study explained: *"I scored below the qualification level at which the government sponsored most of the applicants at the university*." *"There was no chance of getting into the military because I was rejected so I opted for teaching"*.

One of the teacher trainees reported that *'having failed to pursue their first choice of career, most students faced the need for an alternative and that was teaching'*. Thus, while only

some students initially wanted to teach, others had accepted their academic or financial limitations and opted for teaching as the only feasible alternative.

4.3 Results of the Study.

This section presents the research findings in line with the objectives of the study. The descriptive statistics for each of the study objectives were discussed, followed by the specific inferential statistics to test the hypothesis then qualitative discussion.

4.3.1 Relationship Between Academic Self-efficacy and Academic Performance.

The first objective of the study was to establish the relationship between academic self-efficacy and academic performance using a scale with 16 items divided into four subscales (content understanding, time management, academic self-drive and examination preparation). Each subscale contained four items measured on a five point Likert scale of (5) strongly agree to (1) strongly disagree. The participants' academic performance was measured using the mean score mark obtained from the mid-course results obtained at the completion of the first year in 2019.

4.3.2 Frequency Distribution of Participants Responses for Academic Self-efficacy.

To identify the specific academic self-efficacy practices which the college students engaged in, a frequency distribution analysis for each item on academic self-efficacy was computed. The distribution was expressed in the form of a proportion of the participants who responded to each of the five Likert scales of (strongly disagree, disagree, not sure, agree, strongly agree). The information was presented graphically in figure 4.1.

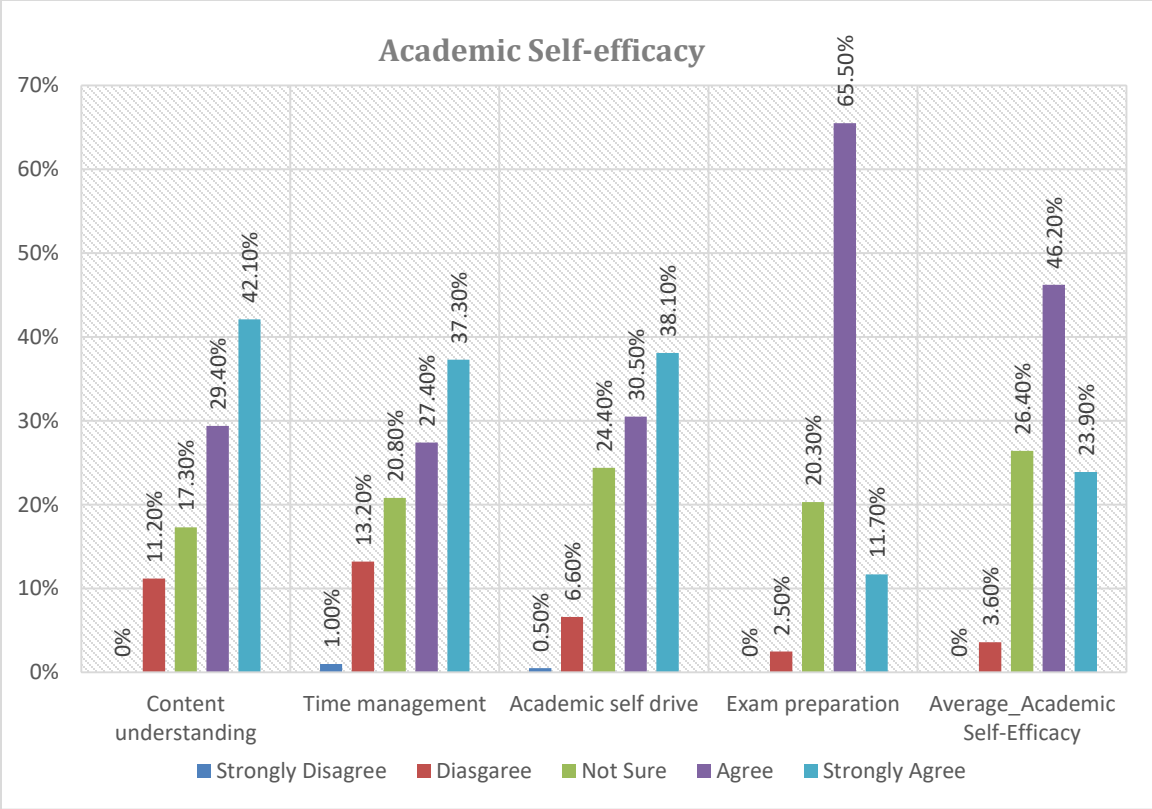


Figure 4.1: Frequency Distribution of the Participants Responses on Academic Self-efficacy.

On content understanding the student's responses for strongly disagree was 0.0% for disagree 11.2%, students not sure 17.3%, agree was 29.4% and the highest was strongly agree with 42.1%. On time management the student's responses were for strongly disagree 1%, disagree13.2%, not sure20.8%, agree 27.4% and strongly agree 37.4%. Responses on academic self-drive were for strongly disagree 0.5% disagree 6.6% not sure 24.4%, agree 30.5% and strongly agree 38.1%. On examination preparation 0.0% of student rated on strongly disagree, 2.5%, disagree 20.3%, not sure while11.7 % strongly agreed. The total summated rating for the participants was as follows strongly disagree 0.0%, disagree 3.6%, not sure 26.4%, agree 46.2% and strongly agree 23.9%. The findings implied that most of the students rated themselves on agree on the concept of academic self-efficacy.

4.3.3 Analysis of Participants Academic Self-efficacy.

The participants' academic self-efficacy scores were analysed to get the range, minimum. Maximum, mean, standard deviation, skewness and kurtosis as shown in Table 4.3

Table 4.3: 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

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

Data in Table 4:3 showed that the 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.

4.3.4 Level of Academic Self-efficacy.

The participants' level of academic self-efficacy was analyzed in order to get the low, average and high level. It was observed that the lowest participants rated 15.7 % while the average had 42.1% and the highest rated 42.1% in academic self-efficacy. The findings implied that most of the students in teacher training colleges had average and high rating on academic self-efficacy that means they believed in their academic ability concerning their P1 course.

4.3.5 Analysis of the Subscales of Academic Self-efficacy.

Academic self-efficacy comprised of four subscales (content understanding, time management, academic self-drive, and examination preparation), therefore an analysis was done to find out the range, minimum, maximum, mean, standard deviation, skewness and kurtosis of the individual subscales. The results are shown in Table 4.4.

Table 4.4: Descriptive Analysis of the Subscales of Academic self-efficacy.

Subscale	N	Range	Min	Max	Mean	SD	Skewness	Kurtosis
CU	197	12	8	20	15.12	3.0	.43	-0.78
TM	197	14	6	20	14.78	3.3	-.38	-0.80
AS	197	14	6	20	15.02	2.9	-.44	-0.59
EP	197	10	9	19	14.55	1.8	-.62	0.55

Key: CU= content understanding, TM=time management, AS= academic self-drive EP=Examination Preparation, Max=Maximum Min=Minimum, and SD=Standard deviation.

Table 4:4 showed that the highest mean score was 15.12 and the lowest was 14.55 obtained on content understanding and time management scores respectively. The distribution of scores for time management, content understanding, academic self-drive was found to be negatively skewed meaning that the students rated themselves highly on these constructs. The values of kurtosis for content understanding, time management and academic self-drive were 0.78, -0.80 and -0.59 respectively, meaning that the scores were less than zero for normal distribution. On examination preparation it was more than zero meaning the distribution skewed to the right away from the mean that the students rated themselves low on examination preparation.

4.3.6 Correlation of the Subscales of Academic Self-efficacy.

The interrelation between the four subscales of academic self-efficacy was further analysed using the bivariate Pearson Product Moment Correlation Coefficient and the results were presented in Table 4.5.

Table 4.5: Correlation Matrix of the Subscales of Academic Self-efficacy.

Sub-scale		Content understanding	Time management	Academic self-drive	Exam preparation	Academic Self Efficacy
Academic Self-efficacy	Pearson Correlation	.894**	.870**	.853**	.579**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	197	197	197	197	197

**correlation significant at 0.01

Table 4.5 implied that the subscales related to academic self-efficacy and were significantly correlated, the highest was between content understanding and academic self-efficacy ($r = 0.89$, $p<0.01$) followed by the relationship between time management and academic self-efficacy ($r =0.87$. $p<0.01$) then the relationship between academic self- drive and academic self-efficacy ($r =0.85$, $p<0.01$) and examination preparation ($r = 0.58$, $p<0.01$)**.** The results implied that an increase in content understanding score, time management score, academic self-drive score and examination preparation score led to an increase in academic self-efficacy.

4.3.7 Description of Participants Academic Performance.

To make the participants scores comparable across the colleges, the mean scores in the mid-course examination for the year 2018-1019 were transformed into T scores as shown in Table 4.6.

Table 4.6: Descriptive Analysis of Participants' Academic Performance.

N	Range	Min	Max	Mean	SD	Skewness	Kurtosis
197	60	22	83	50	10	.526	1.44

Key = Min=Minimum, Max=Maximum, SD=Standard Deviation.

Data on table 4.6 identified the Minimum score as 22, while the maximum score was 83. The results indicated that the scores were skewed positively and that means majority of the participants had low scores. Further the participants scores showed that they had been transformed into T scores with (mean= 50 and standard deviation=10). Kurtosis score was 1.44 meaning that it was within the range of normal distribution. The findings implied that majority of the students had scored average in the mid-course examination.

4.3.8 Participants' level of Academic Performance T-scores.

The participant's academic performance scores were further categorized into low, average and high. The cut off scores for each category were categorised as, for low below 54, for average 55-64 and high performance 65-83, as shown in Table 4.7.

Table 4.7: Descriptive Statistics of Participants' level of Academic Performance T-scores.

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**

Data on table 4.7 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 in P.T.E.

4.3.9 Hypothesis Testing between Academic Self-efficacy and Academic Performance.

The study first null hypothesis was stated as;

Ho_1 There is no significant relationship between students' academic-self-efficacy and academic performance.

In order to test the hypothesis, a bivariate correlation analysis was performed by computing the Pearson Product Moment Correlation Coefficient. The findings are shown in Table 4.8.

Table 4.8: Hypothesis Testing for Academic Self-efficacy and Academic Performance.

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

Analysis of data in Table 4.8 show that academic self-efficacy and academic Performance had a significant positive relationship ($r = 0.7$, $p < 0.05$). That means the null hypothesis was rejected. That meant that an increase in academic self-efficacy attributes among the students led to better performance. The findings were supported by a study by Adeyemo (2007) among students of University of Ibadan, Nigeria which showed significant and positive correlation between academic self-efficacy with academic achievement ($r = 0.28$, $p < 0.01$).

Further studies by Olanrewaju and Oyadeyi (2014) on academic self-efficacy and self-esteem as predictors of academic achievement among school adolescents in Itesiwaju local Government area of Oyo State Nigeria, in which the results showed that there was significant positive relationship between academic efficacy and students 'academic Achievement ($r= .781$, $P<0.05$). The study outcome supports that academic self-efficacy which is the students' confidence in the ability to carry out academic tasks with ease correlated with students' academic performance.

4.3.10: Hypothesis Testing for Academic Self-efficacy Scales and Academic Performance.

Based on the findings in 4.8 the researcher further correlated the subscales of academic self-efficacy with academic performance to find out the relationship between the subscales and academic performance. The following supplementary hypotheses were formulated,

1. $Ho_{1,1}$ There is no significant relationship between content understanding and academic performance among students in public primary teacher training colleges in central region, Kenya.
2. $Ho_{1,2}$ There is no significant relationship between time management and academic performance among students in public primary teacher training colleges in central region, Kenya.
3. $Ho_{1,3}$ There is no significant relationship between academic self-drive and academic performance among students in public primary teacher training colleges in central region, Kenya.
4. $Ho_{1,4}$ There is no significant relationship between examination preparation and academic performance among students in public primary teacher training colleges in central region, Kenya.

To test the hypotheses, the subscales were subjected to bivariate correlational analysis using Pearson Product Moment Correlation, the outcome is shown in Table 4.9

Table 4.9: 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

*Correlation significant at 0.05(2 tailed)
N=197

The data analysis in Table 4.9 Showed a significant positive relationship between content understanding and academic performance ($r = 0.68$, $p<0.05$), therefore the first supplementary null hypothesis was rejected. Content understanding significantly correlated positively with the participants' academic performance. The interpretation meant that the participants who understood the content of the subject matter performed better than those who rated themselves low on content understanding.

There was a significant positive relationship between time management and academic performance ($r =0.63$, $p<0.05$) leading to rejection of the second supplementary null hypothesis, concluding that time management correlated positively with academic performance. This meant that the participants who managed their time properly in relation to academic tasks 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 ($r =0.63$, $p<0.05$). Therefore, the third null supplementary hypothesis was rejected, concluding that academic-self-drive correlated positively with academic performance. That meant, that the participants who rated high on academic self-drive

performed better than those who rated themselves low. Thus, participants' academic self-drive led to high academic performance. Lastly, there was a significant positive relationship between examination preparation and academic performance ($r= 0.21$, $p < 0.05$). Therefore, the fourth supplementary hypothesis was rejected, This suggested that students who prepared well for exams performed better academically. Examination preparation did, in fact, correspond with students' academic success.

Using bivariate multiple regression, the data was subjected to further analysis to determine the prediction of the relationship and the best predictor of academic self-efficacy on academic performance.

4.3.11 Regression Analysis between Academic Self-efficacy and Academic Performance.

A Bivariate Multiple regression analysis was performed on the students' academic self-efficacy in order to find out the extent the students' academic self-efficacy predicted academic performance, as shown in Table 4.10.

Table 4.10: Model summary of Academic Self-efficacy on Academic Performance.

Model	R	R squared	Adjusted R Squared	Std error of estimate
1	0.70	0.492	0.490	7.148

The results showed that the adjusted R^2 academic self-efficacy predicted students' academic performance. The R^2 value of 49% of the variation in academic performance was due to the students' academic self-efficacy. The significance of the model was further tested by generating an F statistic. The results showed that the relationship between academic self-efficacy and academic performance was significant (F (1 195)

=189.08, p<0.05**.**That meant that students' performance could be predicted on the basis of the students' academic self-efficacy beliefs. The results correlated with Zajacova, Lynch and Espenshade (2005), who concluded that academic self-efficacy is a strong predictor of academic success and students whose academic self-efficacy was high could predict higher grades in their examinations. The predictive weight of the subscales of academic self-efficacy was performed to determine further the best predictor of academic success as shown in Table 4.11.

Table 4.11: Beta Coefficient of Students' Academic Self-efficacy 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	.000
TM	.707	.215	.235	3.287	.001
E P	-.663	.289	-.122	2.294	.023
AS	.865	.211	. 252	0.584	.000

Key: CU=Content understanding, TM=Time Management, EP=Examination Preparation, AS=Academic Self-drive

Table 4.11 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 ($\beta = .23$, $p<0.05$) and lastly examination preparation with negative prediction of ($\beta = -0.12$, p, <0.05) leading to the following prediction model.

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

Ў=predicted academic performance

EP=Examination preparation

TM=Time management

ASD=Academic self-drive

CU=Content understanding.

4.3.12 Qualitative Analysis of Students' Academic Self-efficacy.

Through the interview, the four deans of curriculum perspectives concerning students' academic self-efficacy were sought. Being in charge of the students' academic affairs, it emerged that a number of students lacked confidence in believing in their academic ability. This was witnessed when students were failing simple tests like continuous assessment tests and class projects which were not too demanding. From the deans, it also emerged that the students believed they could pass their examinations, but as they focused on the previous students' results, they developed a fear of failure.

The twenty lecturers who represented different academic departments reported that on content understanding, all students were attentive and they wrote notes during lecture times, but through dictation or coping directly from the lecturer's notes. When given an opportunity to prepare their own notes, they tended to copy from the text book word for word. This made the lecturers believe that some students did not believe in themselves and their academic self-efficacy.

In testing the content, quite a number were not able to interpret simple questions, meaning they needed a lot of coaching to internalize the content. At the same time, the bright students demonstrated mastery of content, especially during class presentations and in projects. In the language department, one lecturer reported that most of the

students who failed to show content mastery had language problems, which made it hard for them to express themselves. But she noted that the bright students who had a mastery of the English language were able to demonstrate content mastery. In content understanding the majority of lecturers reported that the commonest method of teaching was lecture method, which, in some circumstances, especially for slow learners, could have been a problem. The bright students were able to express their opinions when they lacked understanding of the content the lecturer was teaching.

On time management, all the lecturers reported that the colleges had an official time management programme for all the students from the morning up to the time of switching off the lights to sleep. The programme was supposed to be followed strictly with dire consequences for those who failed to follow it. The lecturers argued that it was a way of modelling good time management habits into the student's life. The students were able to make personal study plans which a few followed, while the others needed constant supervision and guidance from the lecturers.

Still on time management, quite a number of students' formed study groups and made a study timetable to follow. One lecturer from the language department observed that the students she taught did not have sustained academic self-efficacy, since they tended to give up easily when faced with academic challenges like failure in continuous assessment tests, assignments and projects. For a larger group of students, the lecturers had to keep on verbally motivating them in order to believe in their academic abilities. The students who believed in themselves had the confidence to ask the lecturers for assistance when faced with academic difficulties than those who had less confidence.

A lecturer who doubled as a guidance counsellor reported that most of the issues the students presented for counselling were academic related, especially constant fear of failure and real failure in already completed internal examinations. In counselling the students, the lecturer noted that those who were habitual failures had very low academic self-efficacy and this was confirmed by the outcome of the research findings that students who performed poorly also had low academic self-efficacy.

A lecturer from the mathematics department reported that students who opted for the mathematics option had good judgement on their capabilities to compete and complete the designated tasks successfully. Most of them were able to persist in the face of challenges to avoid failing in mathematics, which many students believed was hard. Few students were singled out. Those who attended college above twenty-five years seemed to be serious and worked harder than the others who were young and had just left secondary school schooling with a strong belief in passing their PTE.

The current study was carried out in response to the falling academic performance of the students. Therefore examination preparation was very key in preparing the students to be confident. On examinations, most of the students needed a lot of guidance and constant reminders just like in high schools, yet they were at post-secondary level. In the research findings, examination preparation had a negative prediction on academic performance. Previous performance in examinations, according to the lecturers, influenced academic self-efficacy.

Students who posted good grades in high schools were more confident than those whose grades were lower, and students who continually prepared and passed all internal examinations were reported to have prepare well during examinations. But generally,

the majority of students had poor examination preparation as a result of poor study habits and last minute preparation. The lectures observed that a certain group of students believed that they could get examination leakage through any means, like the internet and this explained why their level of examination preparedness was low, and such students always ended up failing. Some of the students, about 49% who had reported that teaching was not their career choice displayed hopelessness and were not so focused. The spirit of competition among them was low, unlike the students who had chosen to train in teaching as a career choice.

Financial problems, which were an intrapersonal stressor, were mentioned as one reason why students had poor preparation for the examination. This was because most of the time they were out of college due to fees related issues. In most internal examinations, once the results were presented, the students disowned the results and made comments like 'those cannot be my results' since they believed they could pass all examinations. The lecturers noted that some students during examination invigilation displayed nervousness and uneasiness when doing the examination, a sign of poor preparedness and lack of confidence. Students who possessed high self-efficacy revised constantly to be sure of the content learned, but the majority of the interviewed lecturers reported that the majority of the students revised seriously at the end of the term when examinations were forthcoming.

On academic self-drive, the research findings pointed out that it had a significant positive relationship with academic performance. When teaching, lecturers noted that the students who were hardworking and performers had higher academic self-drive than the weak students. The characteristics of those students, as noted by the lecturers were always seeking assistance when faced with an academic problem. They visited the

library more often for research on the content learned and to write additional notes. A lecturer from the creative arts department noted that students who were performing well always visited the art room to do practical lessons on their own, while weak students only participated in the lecturer initiated practical.

Another lecturer from the science department noted that students with high academic self-drive always participated in all practical without being coarsened to do so. The lecturers from most departments reported that academic self-driven students always participated in group assignments and volunteered to make class presentations. A lecturer from the language department noted that in literature class presentations it was not uncommon to find some students' names missing, meaning that they never participated in the group work. A lecturer from the education department reported '*I always pick on students at random to make presentation of the group assignment and most of the time I find some students never participated in the discussion'* this failure to take the initiative to be part of a group discussion was a manifestation and characteristic of low academic self-driven students which affected the students' academic self-efficacy, which in turn affected performance as seen in the research findings.

One key characteristic of students with high academic self-drive was being focused and having a belief that they could finish the course without failing. From past PTE results in (Table 1.1) quite a number of students failed, meaning that they had to retake the examination. Most lecturers in the process of teaching kept on appealing to the students to work hard and finish the course in the stipulated two-year duration and yet some ended up spending up to three years due to failure or maternity leaves for the ladies. A lecturer reported '*Most of the student's belief that they can finish the course in the*

stipulated two years and they work hard and pass' while others believe that they can finish the course on time, but they fail to translate those words into practice'.

4.3.13 Discussion of the Results.

The findings revealed a positive significant relationship between academic self-efficacy and academic performance ($r = 0.7$, $p < .0.05$) meaning that, the higher the academic self-efficacy the better was the students' academic performance. On the subscales of academic self-efficacy, there was a significant positive relationship between content understanding and academic performance ($r = 0.68$, $p<0.05$). That meant that the students who rated themselves that they understood the content well led to increased performance in their academics.

There was a significant positive relationship between time management and academic performance, ($r = 0.63$, $p<0.01$). That signified that the students who rated themselves as having good time management schedule managed to also perform well. There was a significant positive relationship between academic self-drive and academic performance ($r = 0.63$, $p<0.05$). This also meant that the students who rated themselves as having had academic self-drive were bound to perform better in academics. The results also revealed a correlation between examination preparation and academic performance ($r = 0.21$, $p <0.05$).

It also emerged that academic self-efficacy had a significant prediction on academic performance. And all the subscales had a significant predictive weight on academic performance. Data from interview showed that students who had high academic self-efficacy directly accounted for the improvement in academic performance. The findings were supported by Zajacova et al (2005) in a study on effects of self-efficacy

on academic performance that concluded that academic self-efficacy was a strong predictor of academic success, while Maliha (2019) found that academic self-efficacy was a predictor of academic performance of students in pre service teacher training ($F,1\ 133) = 32.94$, $p<0.05$).

Charmers and Garcia (2001) in their study 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 ($r = 0.23$, $p < 0.01$) and had better academic performance ($r = 0.45$, $p < 0.01$). Generally, in all the colleges under study the lecturers believed that academic self-efficacy had profound influence on student's outcomes and students with low academic self-efficacy for academic success tended to underachieve while students with high academic self-efficacy tended to achieve better in examinations.

The strong or significant impact of academic self-efficacy is understood well when it is realized that the learners who possess high levels of self-efficacy are always brave and challenges and problems do not intimidate them. These learners view the various challenges encountered when carrying out complex assignments and projects as opportunity for mastery and growth. Students with high self-self-efficacy tend to face difficult situations within the learning environment like failure with ease, They continue to persist until they get the desired success. To such students, failure is a temporal challenge that they had to face.

On a broad perspective the study was consistency with previous research done by Ali et al (2017) which investigated the students level of academic self-efficacy beliefs and relationship between academic self-efficacy with academic performance among final

year students in a Nigerian college of education using correlational design. Academic performance was measured using actual final year first and second semester Grade Point Average. The results were analysed using Pearson Product-Moment Correlation and showed that, there was a significant and positive relationship between student academic self-efficacy belief and academic performance. This consistence of academic self-efficacy predicting academic performance show that high self-efficacy among the student is an important aspect of their boost to success.

Findings based on correlational analysis study by Maliha et al (2019) who examined the relationship between academic self-efficacy and academic achievement of students in pre-service teacher training programs, revealed a significant relationship among students' academic self-efficacy, expected GPA and actual GPA in the midterm examination. Academic Self-efficacy was significantly correlated with expected GPA ($r = 0.56$, $p< 0.01$) mid- term examinations ($r= 0.34$, $p< 0.01$) and expected GPA was also correlated to actual GPA ($r = 0.41$, $p< 0.01$). A significant and positive correlation between academic self-efficacy with academic achievement ($r= 0.28$, $p < 0.01$) of undergraduates' students of Ibadan university were also revealed by Adeyemo (2007)

Most studies agreed with the research findings, that academic self-efficacy influenced the level of students' academic achievement, concluding that students who belief in themselves and their academic ability were likely to be academic performers in PTE.The important impact of the academic self-efficacy was best understood when teachers at the classroom level realised that students who possessed high levels of academic self-efficacy were bold and rarely intimidated and the teacher could notice

them straight away in order to take advantage of the belief in themselves to enhance academic performance.

Unfortunately based on the outcome of the PTE performance for a period of five years, these characteristics are possessed by students who are a small fraction of the total population. 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.The students with high academic self-efficacy were prone to be sure of themselves by displaying confidence when facing difficult tasks and were able to search for solutions and wait patiently for solutions, they tend also to be highly motivated and puts greater effort to be successful academically. These characteristics of students with a degree of academic self-efficacy could predict their performance.

On how to assist the students the lecturers agreed that they could play a role in improving the students' academic self-efficacy through teaching with confidence and motivating the students through formal and non-formal channels of communication and also integrating self-talk in student's daily life. They noted that the students needed to be taken through verbal persuasion so as to be able to organize and implement learning behaviour in order to achieve academic performance and come up with different ways of accomplishing different academic tasks. The implication of the findings was that academic self-efficacy not only affected students in western and Asian cultures, but also affected students in Kenya and other developing counties in Africa.

It is worth noting that academic self-efficacy plays an important role in students' academic performance. Generally, from the findings the students with high academic

self-efficacy rated high in academic performance and students with low academic self-efficacy rated low in academic performance. Therefore, the outcome of this study confirmed the findings of Bandura (1989), Zimmerman et al (1992) and Akomolafe (2010) and (Chemmers et al (2001), Green, et. al (2004), and Sharma and Silberreisen (2007) that academic self-efficacy significantly influenced academic success.

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

The relationship of the students domain specific self-concept and self-efficacy to academic performance of minority students was examined by Strelnieks (2003. The results revealed that academic self-efficacy could influence student academic performance depending on some external factors like gender and socio-economic status of the students. The results further revealed that self-efficacy was only able to predict females academic performance but failed to predict the males academic performance. 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 and William (2004) reaffirmed 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.

4.4 Relationship between Stress and Academic Performance.

The second objective was to establish the relationship between stress and academic performance using a scale with 14 items divided into four subscales (academic social, environmental, interpersonal,). Each subscale contained four items measured on a five point Likert scale from 5 strongly agree to 1 strongly disagree.

4.4.1 Frequency Distribution of Participants Responses on Stress.

To identify stress and the specific stress coping strategies practised by the college students, a frequency distribution analysis for each coping strategy was computed as presented in Figure 4.2.

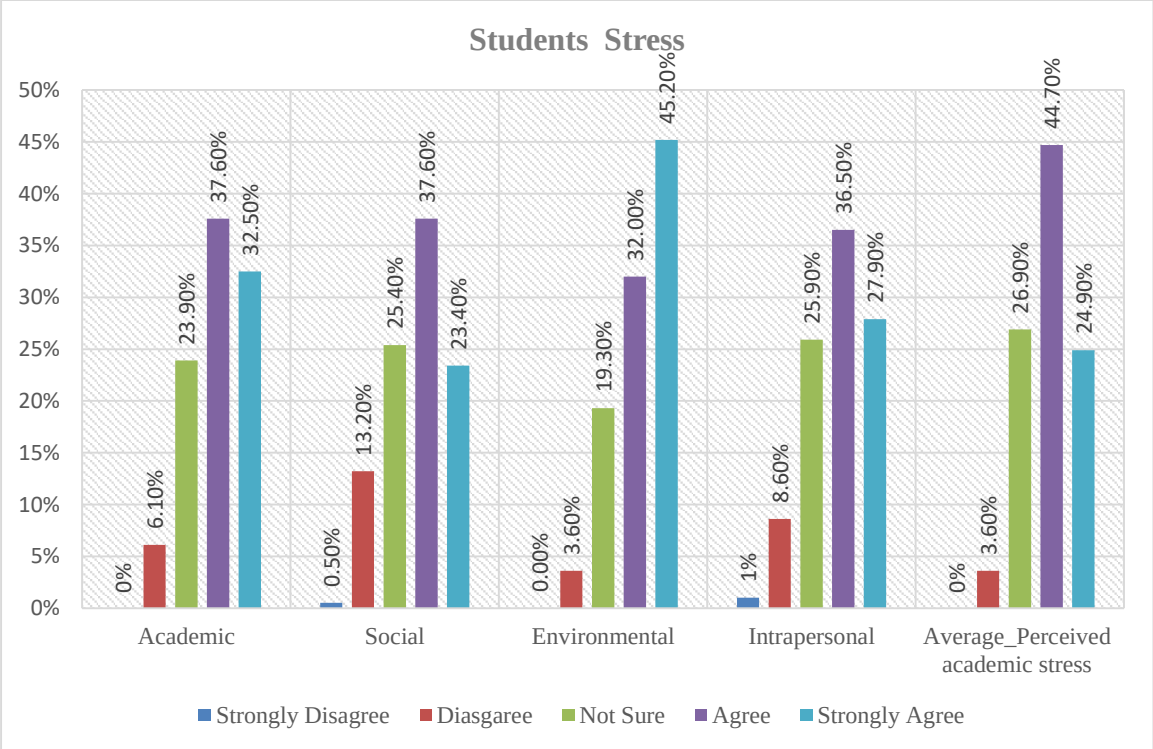


Figure 4.2: Frequency Distribution of the Participants' Responses on Stress.

Figure 4.2 show the frequency distribution as expressed in the form of a proportion of the participants who responded to each points of the five Likert scale of (strongly disagree, disagree, not sure, agree and strongly disagree). The student's responses on academic related issues as source of stress was 0.0 % strongly disagreed, 6.15 % disagreed, 23.9% were not sure,37.6 % agreed and 32.5 % strongly agreed. On social related issues 0.5% strongly disagreed,13.3% disagreed, and 25.4% were not sure while 37.6% agreed with 23.4% strongly agreeing.

On environmental sources of stress 0.0 % strongly disagreed, 3.6 % disagreed,19.3% were not sure while 32.0% agreed, with 45.2 % strongly agreeing that environmental related issues caused them stress. Lastly intrapersonal issues were rated as 1.0% strongly disagreed,8.6% agreed while 25.9% were not sure, with 36.55 agreeing and 27.95 strongly agreeing. The total ratings for the perceived academic stress was, strongly disagreed 0.0%, disagreed 3.6%, not sure 26.9%, agreed was 44.7% and strongly agreed was 24.9%. This implied that the students concurred that in the course of their studies they faced a lot of stress since the rating for all sources ranged between agree to strongly agree.

4.4.2 Description of Stress.

The participants stress was analysed based on the scores. The analysis aimed at getting the range, minimum, maximum, mean and standard deviation.

The results show that minimum and maximum score were 26 and 67 and the range was 40, the mean score was 45.38 and the standard deviation was 9.7. The distribution of

the perceived academic stress was positively skewed (skewness .30) Further analysis was carried out for the subscales Stress as shown in Table 4.12.

Table 4.12: Descriptive Statistics of the Subscales of Stress.

Sub-Scales	N	Range	Min.	Max.	Mean	Standard deviation	Skewness	Kurtosis
Academic	197	10	5	15	10.87	2.3	0.004	-1.07
Environmental	197	16	4	20	11.15	3.8	0.334	-0.61
Social	197	11	4	15	10.64	2.3	-0.162	-0.26
Intrapersonal	197	14	5	19	12.72	3.5	0.095	0.17
Total	**197**							

Findings in Table 4.12 show that the range was highest within environmental subscale (range=16) while the least was among academic subscale (range=10) the others being intrapersonal stressors (range =14) and social stressors (range =11). The highest mean score was observed in intrapersonal stressors (mean=12.72) scores and the least was observed in social stressors (mean = 10.64). Standard deviation was in environmental stressors was (standard deviation=3.8) which was the highest while the lowest was academic stressors (standard deviation= 2.36). Coefficient of skewness was negative for Social stressors (skewness -0.162) while the others were positive on academic (0.004), environmental, (0.334) and intrapersonal (0.095). Kurtosis was negative for all the scores. Based on the findings intrapersonal stressors had the highest mean meaning that most students experienced a lot of stress when it came to issues within themselves like financial problems.

4.4.3 Level of Stress.

The scores were further used to categorize the participants' scores as being low, average, and high. As shown in Table 4.13.

Table 4.13: Levels of Stress.

Levels	Frequency	%
Low(<42	92	46.7
Average(43-56)	69	35.0
High (57-70)	36	17.3
Total	**197**	**100**

The findings showed that the participants rated 46.7% on low level, 35% on average and high 17.3%. Stress was categorised into subscales depending on the source of stress academic stressors, environmental stressors social stressors and intrapersonal stressors. The implication of the finding was that 52% of the students experienced average and high stress within the institution as they progressed with their studies. The scores were further described within the subscales in terms of range, minimum, maximum, mean, standard deviation**,** kurtosis and skewness as shown in Table 4.14.

Table 4.14: Descriptive Statistics of the Level of Subscales of Perceived Academic Stress.

Level	Low Frequency	%	Average Frequency	%	High Frequency	%	Total	%
Academic	13	6.6	83	42.1	101	51.3	197	100
Environmental	17	8.6	81	41.1	99	50.1	197	100
Social	79	40.1	77	39.1	41	20.8	197	100
Intrapersonal	34	17.3	98	49.7	65	33.0	197	100

From the results academic related stress rated the highest with (51.3 %) frequency which included academic workload, academic competition with peers, too much content to cover and poor performance in examinations, which the students rated as the most sources of stress. This was followed by the college environment which in the questionnaire comprised of inadequate resources like books, computers/ internet services, poor facilities like hostels and toilets, with (50.1%). Intrapersonal stressors like missing classes, low motivation, uncertainty about the future, and financial problems with (33.0%). Social stressors which included conflict with peers, high expectation from parents and teachers, unfair treatment by boy/girlfriend and conflicts with lecturers which was rated (20.3%) respectively.

The outcome resonated well with Agolla and Ongori, (2009) study on assessment of academic stress among undergraduate students: Stressors related to time, academic pressure and academic environments were explored. The results showed that academic workload, inadequate resources, low motivation, poor performance, overcrowded

lecture halls and not sure of getting a job led to stress among students. Further findings from Kadapatti and Vijayalaxmi (2012) emphasized that stressors like academics, social, emotional and financial had a great impact on the academic achievements of students in college. More revelation from Maheshwari and Deepa (2013) in India revealed that the factors mainly associated with curriculum and workloads together with economic deprivation were accountable for academic stress among college students, and improper time management, economic hardships, lack of sleep and societal engagements.

4.4.4 Relationship Among the Subscales of Stress.

The researcher investigated the relationship among the different subscales and stress, by running a correlation matrix as shown in Table 4.15.

Table 4.15: Correlation Matrix between Subscales of Stress.

		Academic	Social	Environment	Intrapersonal	Stress
Perceived academic stress	Pearson Correlation	.818*	.85*	.634*	.879*	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	197	197	197	197	197

* Correlation is significant at 0.05

The results showed that all the scores were positively correlated with stress, with the highest being ($r = 0.87$, $p<0.05$) between intrapersonal stressors and stress then social stressors ($r = 0.85$, $p <0.05$) and academic stressors ($r = 0.85$, $p<0.05$) while the lowest was between environmental stressors and stress ($r = 0.63$, $p<0.05$). This implied the level of response to the stressors within the college environment led to increase in stress.

4.4.5 Analysis of level of Stress and Academic Performance.

Based on the study on determining the relationship between stress and academic performance the researcher did a cross tabulation of the participant's level of stress and Mean academic performance. The results showed that 92 participants categorised as having low level of stress had the highest mean of 56.95, while 69 participants had average level with 45.22 mean and 36 participants had high level of stress at 41.40 mean.

4.4.6 Hypothesis Testing between Stress and Academic Performance.

In order to determine the relationship between stress and academic performance the following null hypothesis stated:

H_{02} There is no significant relationship between stress an academic performance.

The hypothesis was tested through the data being subjected to a bivariate correlation analysis by use of Pearson's Product Moment Correlation Coefficient as shown in Table 4.16.

Table 4.16: Hypothesis Testing on the Relationship between Stress and Academic Performance.

		Academic Performance
Perceived Academic stress	Pearson correlation	-0.68.
	Sig (2tailed)	0.000
	N	197

The results showed that there was a negative significant relationship between stress and academic performance at ($r = -0.68$ $p<0.05$) Therefore the null hypothesis was rejected. It was therefore concluded that stress significantly correlated with academic

performance. The finding was in support of other research by Alam and Kumar (2018) who established the differences in academic stress and academic performance among students in secondary school in Bengali medium Malda District in India. The research findings showed that there was a moderate and statistically significant relationship between academic stress and academic performance at ($r = -0 .363$, $p < 0.05$). Further findings showed that majority of the students perceived education related issues as more stressful, and this led to some students performing low in their academic studies just like in the current study (Mohamed & Kaleem. 2018).

4.4.7 Hypothesis Testing between the Subscales of Stress and Academic Performance.

The researcher carried out a further analysis to establish the individual subscales of stress on how they correlate with academic performance. A formulation of four supplementary hypothesis based on the subscales of perceived academic stress was done.

1. $H_{o2,1}$ There is no significant relationship between academic stressors and stress among students in public primary teacher training colleges in central region, Kenya.
2. $H_{o2,2}$ There is no significant relationship between environmental stressors and stress among students in public primary teacher training colleges in central region, Kenya.
3. $H_{o2,3}$ There is no significant relationship between social stressors and stress among students in public primary teacher training colleges in central region, Kenya.

4. $H_{o2,4}$ There is no significant relationship between intrapersonal stressors and stress among students in public primary teacher training colleges in central region, Kenya.

To test the four supplementary null hypothesis, a bivariate correlation analysis by Pearson Product Moment Correlation coefficient was computed as shown in Table 4.17.

Table 4.17: Hypothesis Testing between the Subscales of Stress and the Relationship with Academic Performance.

Subscales		**Academic Performance Sig**
Academic	Pearson correlation	-0.711
	2 tailed	.000
Environmental	Pearson correlation	-0.294
	2 tailed	.000
Social	Pearson correlation	-0.557
	2 tailed	.000
Intrapersonal	Pearson correlation	-0.618
	2tailed	.000

Key=Sig =Significant

Observation from Table 4.17 showed a significant negative relationship between academic stressors and academic performance ($r= -0.71$, $p < 0.05$) thus the supplementary null hypothesis was rejected. Conclusion made that there was a significant negative relationship between academic stress and academic performance,

that meant that academic stressors led to low students' academic performance. There was a significant moderate negative relationship between environmental stressors and academic performance ($r = -0.29$, <0.05), thus the second supplementary null hypothesis was rejected and a conclusion was drawn that environmental stressors led to low academic performance. The third null hypothesis also showed that there was a significant negative relationship between social stressors and academic performance at ($r = -0.55$, $p.< 0.05$) rejecting the supplementary null hypothesis. That meant that social stressors led to low academic performance. Lastly there was a significant negative relationship between intrapersonal stressors and academic performance at ($r = -0.61$, $p<0.05$), thus the supplementary null hypothesis was rejected. Thus a significant relationship between intrapersonal stress and academic performance meant that intrapersonal stress led to low students' academic performance. Further analysis using multiple regression was performed to determine the strength of the relationship and to find out the percentage of stress predicting academic performance among the students in teacher colleges in central region in Kenya.

4.4.8 Regression Analysis of Stress and Academic Performance.

The researcher performed multiple regression analysis of the students' total stress attributes in order to find out to whether the students stress predicted academic performance as shown in Table 4.18.

Table 4.18: Model summary of Stress on Academic Performance.

Model	R	R squared	Adjusted R Squared	Std error of estimate
1	.68	.466	.463	.7323

Key Std = standard

The results in Table 4.18 show that stress explained a significant proportion of academic performance among the college students in teacher training colleges in the study institutions. This is explained by the coefficient of determination R squared of 0.466 which meant that 46% of stress attributes among the students in the colleges under study explained academic performance. The rest 54% was explained by other factors not considered in the study. The findings shows that stress was a significant predictor in explaining performance among the students.

The researcher through the findings sought to find out the significance of the model for the relationship between stress and academic performance among students in teacher training colleges in central region in Kenya. This was done by generating the F statistics by performing simple linear regression analysis as shown in Table 4.19.

Table 4.19: Regression Analysis of Stress and Academic Performance.

Model	Sum of squares	df	Mean square	AdjR^2	F	Sig
1 Regression	10757.281	4	2691.82	0.46	58.5	.000
Residual	88327.20	192	46,004			
Total	196000.001	196				

N=197

Key

Df=degree of freedom

AdjR2= Adjusted R squared

F=critical f value

Sig= Significant

Table 4.19 showed that the model used in showing the relationship between stress and academic performance among the students was significant (F, 4,192) =58.5, $p < 0.05$. Based on the findings the researcher further sort to find out the predictive power of the subscales on academic performance as shown in Table 4.20.

Table 4.20: Prediction of Students Stress Subscales on Academic Performance.

Model	Unstandardized coefficient B	Std error	Standardized coefficient Beta	T	Sig
Constant	82.561	2.672		30.896	0.000
	-2.150	. 298	-0.509	-7.215	0.000

Academic stressors	-.419	.171	-0.160	-2.433	0.015
Social stressors					
Environmental stressors	-187	.229	0.044	.817	0.415
Intrapersonal stressors	-.511	.211	-0.180	-2.422	0.016

Data findings in Table 4.20 showed that the best significant predictor of academic performance was academic stressors (β= -0.50, $p < 0.05$). while the others had insignificant prediction on academic performance therefore the prediction model was illustrated as

The prediction model was $\check{y}$=82.5-.50(AS)-18(IS)-16(SS)+.04 (ES) R^2 =.46, p<0.05

$\check{y}$ = Predicted academic score

AS=Academic stressors,

SS=Social stressors,

ES=Environmental stressors and

IS=Intrapersonal stressors.

Based on the findings it was concluded that students stress had a significant prediction on academic performance and on the subscales only academic stressors predicted academic performance significantly at ($\beta = 0.50$, $p < 0.05$). The findings were in agreement with Malik and Balda (2006) who examined academic achievement and stress and found out that stress significantly predicted academic performance and Bharti (2013) who supported the current study that institutional based stress predicted poor academic performance among the students in teacher training colleges.

4.4.9 Qualitative Analysis of Participants Stress.

The transition of students from high school, and for other the old students from work environment to college environment could easily be a source of stress to many students. The level and educational setting of colleges have had profound differences in the methods of teaching, the new academic requirements and expectations and new relations which can bring about stress among the students.

The summary of the interview carried out with the four deans of curriculum in charge of the students' academic affairs correlated with the current research. That the students in teacher training colleges face many challenges in the course of their training and this results in all manner of stress. They particularly single out financial related stress which made students to miss classes and examinations due to failure to pay college fees on time. Another significant cause of stress which the deans came into contact with was academic failure especially for the students who have had to resist examinations once or twice until the met the course requirements.

The deans of curriculum reported that reports of mass failure generally in teacher training colleges had created fear and anxiety among the existing students leading to stress and inability to concentrate as they kept on visiting the deans of curriculum for reassurance.

The twenty lecturers who responded to the interview reported that Teacher training college students were prone to a lot of stress due to the nature of the training with three breaks for teaching practice within two academic years. Workload was identified as one of the key cause of stress among the students due to the many subjects the students were supposed to undertake. A total of thirteen subjects some of them like art and craft and

music being the first time the students were learning and bearing in mind the subjects were not taught in primary schools before the competence based curriculum.

Before the introduction of the competence based curriculum the students were seeing the subjects a burden since the subjects were not being taught in the primary curriculum. From the PTE results most failures were under these subject's art, craft and music. On the heavy workload the calendar for teacher training colleges was too congested with academic studies, three teaching practice within the two-year period and co-curricular activities not forgetting three major examinations, the Mid-course, mock and PTE.

Since the last five years of academic decline in teacher training colleges the students had been under pressure to perform academically. As a result, there were intense competition among the students for better grades and this caused stress for the few who were struggling to compete with peers who were academically better than them. One lecturer from the guidance and counselling department reported that some depression related illnesses within the students were as a result of pressure to perform '*I am the weakest in class' 'I will amount to nothing'* these were statements the lecturer often heard from students during counselling sessions.

The lecturers agreed that students who kept on failing continuous assessment tests and internal examinations worked under stress as the other students were progressing. They were always preparing for examination resits. Low motivation was also recognised as cause of stress among the students especially when they had in mind that they would not secure government employment immediately they finished college lamenting '*why work hard*.'

On the issue of inadequate resources like books and access to computers and the internet the lectures agreed that was a cause of stress, especially the languages department since the students had to buy set books and other supplementary reading materials. Most of the computer laboratories the lecturers reported that lacked modern efficient computers and internet for the students use to do research. A few students were also stressed by high expectations from the parents and guardians who especially made calls to the lecturers to find out about the students' performance since most parents were always looking forward to attend graduation of their sons and daughters.

The most challenging cause of stress among the students was financial problems which led to lack of fees and daily upkeep as reported by the lecturers, who acted as class supervisors and had first-hand information about the financial woes of the students. In Teacher training colleges the Kenya government had not allocated funds for the students to apply for through the Higher Education Loans board, like the university students and the technical industrial vocational and entrepreneurship training students. The lecturers reported that the most affected students were those who were mature, had own families and were paying their own fees. In most cases they were forced to take financial leave for a whole year. In one college five lecturers reported that they had on many occasions paid fees for students in their classes. The lecturers felt that a large number of self-supporting students failed due to stress related to financial problems.

Another cause of stress among the students was poor old facilities within the colleges. Most of the government teacher training colleges were constructed years back and most of the facilities especially in the hostels were broken down. One college for example had no running water in the hostels most of the time. One lecturer who combined as head of department and attached to the dean of students' office reported that the

common complains the students reported to the deans of students' office were related to broken down old items in the hostels. When prompted about poor content delivery as a cause of stress hence poor academic performance, a few lecturers reported that it was true especially from among the young lecturers who had left college or transferred from high schools since they were not conversant with the primary school teaching methodology. The Teachers service commission and the colleges had no policy of refresher courses for such teachers before joining colleges.

On conflicts between the students themselves and between the students and the lecturers reported there was significant source of stress. Between the students the conflicts were due to male /female student's relationships when they disagreed. This was a major concern since most students with depression and other mental related challenges were due to these relationships with unfair treatment by either gender. There was also conflicts between spouses which extended from home to the college affecting the spouse who was the learning. The lecturers also reported endless fights between spouses in the dean of student's office emanating to reported unfaithfulness. Conflicts were also reported between the students and the lecturers especially over non-attendance to classes.

On uncertainty about the future, it minimally caused stress and especially for the students who were constantly failing internal examinations since they were stressed about the final PTE. There were still some students who got pregnant with fellow students and this brought a lot of stress especially among the female students who had to take maternity leave for a whole year and by the time they reported back the male partner had already left the college. All documented suicide attempts by the students in one college was related to failed relationships. Most of the students who attempted

suicide failed their final examinations. In conclusion the lecturers shed more light on the would be causes of stress and apart from the few mentioned they reported in the interview there are more detailed potential sources of stress among college students.

Asked on how they could help the students when it came to stress affecting them, lecturers reported that it called for maturity since everybody was undergoing stress, and students were not exempted. One lecturer reported that as long as students were taught, given food and accommodated, they needed to refocus and concentrate on their studies. Another lecturer reported that in each and every college there was the department of guidance and counselling which needed strengthening so that the students could get the needed professional advice. The students also had class supervisors and tutor tutee mentors who were available at any time to assist them.

4.4.10 Discussion of the Results.

Objective number two of the study was to establish the relationship between stress and academic performance. The findings revealed a statistically significant negative relationship between stress and academic performance. The researcher also found out that between the subscales of stress and academic performance there was a significant negative relationship for all. Specifically, the results revealed a significant negative correlation between academic stressors and academic performance and between environmental stressors and academic performance. Also between social stressors and academic performance and between intrapersonal stressors and academic performance.

From the findings the less a student responded to any of the stress cause the better was the academic performance and the more the students responded to any of the stress cause the worse the academic performance.. Based on the findings from the regression

analysis it was concluded that students stress had a significant prediction on academic performance and on the subscales only academic stressors predicted academic performance significantly at ($\beta = 0.50$, $p<0.05$).Therefore although all the subscales showed a relationship with academic performance, it was only academic stressors that predicted academic performance.

Various research findings correlated with the findings that there was a significant relationship between academic performance and stress . Slaven and Windle (1999) carried out a study on the effects of academic stress on performance of different cognitive tasks. The results showed that stress caused by study of mathematics would interfere with study memory resulting to disconnect between mathematics and related performance. Dahlin, Joneborg, and Runeson (2005), showed among undergraduate students that the students experienced a lot of stress due to academic related pressure. Students reported experiencing academic stress specifically stress from taking and studying for examinations, class/grade competition, and the large content to master within a short period of available academic calendar.

Course load in the colleges and Universities in relation to the available time was a strong cause of stress. Talib and Zai-ur-Rehman (2012) discovered that 53% of the students reported that stress emanated from heavy academic course load leading to low performance. During the time for examinations the prospect of facing the examination was stressful because the content to be revised was too much within a short duration. These findings was supported by the qualitative findings were it was reported that too much content coverage was stressing the students. Mani, (2010) explained that it was not the examination itself that induced stress but the fact that the possibility of failing

or passing the exam could shape the course of one's academic career and professional life and also the social life.

Zeidner (1992) noted that support from teachers, parents and peers was crucial when students were studying ,This support gave the students the motivation to study and overcome the obstacles towards academic excellence. In addition, the students own academic expectations and performance were also found to correlate with high levels of academic stress. Further the environment in which the students lived both physical, psychological and social contributed to the levels of academic stress. Environmental stress caused discomfort within the area an individual lived or studied. Dirty and untidy environment, noise, water and air pollution were sources of environmental stress and when they were prevalent on a teacher training college they could affect the students' academic performance

Stress interfered with student's ability to concentrate and this affected the productivity of the students by making them spend fewer hours in doing tasks related to academics. When students were stressed they would not make adequate time for examination preparation and this would lead to academic failure. Stressed students lacked the ability to solve problems as required and in the long run caused them to perform poorly.

The relationship between stress and academic performance correlated with a study by Oketch and Odiemo (2018) on 'the relationship between academic performance and stress among undergraduate students studying under the government sponsored program at Nairobi University in Kenya. The results revealed that most students (64.4%) had moderate to high levels of stress while (35.6%) had low levels of stress. The relationship between stress and academic performance was statistically significant

($\chi 2$ =9.49, N=584, do=4, p=0.048), and the relationship between stress level and academic performance was significant within 19 to 22 years and 23 to 26 years.

Further findings on the relationship between stress and academic performance collaborated with Redhwan et al (2009) on stress and coping strategies among management and science University Students which explored the associated factors related to cause of stress among 39 students of Medical Science and Biomedicine, on their second semester from Management and Science University in Malaysia. From the findings the most important cause of stress reported by the students were financial, academic workload, and friends' and family problems, thus corroborating with the results of the current research study in which academic stressors predicted academic performance among the students in teacher training colleges in central region in Kenya.

The outcome of the study was further confirmed by Zeidner (1993) where course load and time available were cited to be stressful factors within the academic environment. (Mani, 2010) revealed that students perceive course load to be high in their first year of study, and that the perception of course load positively correlated with examination stress. Talib and Zai-ur-Rehman (2012) confirmed that majority of the students (53%) claimed that course load was the source of their stress which in turn affected their GPA.

Further research on prevalence of academic stress and examinations anxiety and its association with socio economic factors among students in private secondary schools in India by Sibnath et al (2012) revealed that, 35% of grade 10 and 37% of grade 12 experienced very high levels of academic stress and examination anxiety. Also those with lower grades reported higher levels of stress than those with higher grades consistent with the current research where students with low performance experienced

high stress than the students with high academic performance. Therefore, academic factors like examination are key causes of perceived academic stress which in turn affects academic performance. Further collaboration of the results revealed that majority of the students' perceived education as more stressful, and this stress led to some students performing low in academic performance.

A similar study by Bennett (2003) with business undergraduate's students reported similar findings that stress is significantly correlated with poor academic performance. Keller (2002) agreed with the conclusion of the current study that increased stress is linked to poor academic performance, this was in reference to a study carried out among international students at Michigan University in the United States of America. It established that there was a relationship between cultural stress and academic performance and it was also noted that students with severe cultural stress tended to fail exams.

Keller (2000) revealed again that stress affected students' self-esteem which made the students participate at minimal levels at group or class discussions leading to poor performance. The qualitative findings revealed that academic related stress was the major cause of failure among the students in the sampled teacher training colleges in central region in Kenya as reported by the deans of curriculum and the lecturers.

However, some studies had contrasting results not in favour with the findings, Rafidah, et al (2009) examined the relationship between stress factors and academic performance of pre- diploma students at the University of Technology in Malaysia**.** The reported results showed that the students experienced moderate levels of stress and there was no significant effect on academic performance. However, a significant relationship was

noted between the levels of perceived stress at the end of the last semester with academic performance at ($r(62) = 0.20$, $p<0.01$).

4.5 Relationship between Coping Strategies and Academic Performance.

The third objective was to establish the relationship between coping strategies and academic performance. Coping strategies instrument had 21 items divided into 3 subscales (Task oriented, Emotion oriented and avoidance oriented). Each subscale contained seven items measured on a five point Likert scale of (5 most times) to (1 never). To identify the specific coping strategies as practised by the college students, a frequency distribution analysis for each coping strategy was computed.

4.5.1 Frequency Distribution of Participants Coping Strategies Responses.

For the frequency distribution the distribution was expressed in form of a proportion of the participants who responded to each point of the five Likert scale (Never, seldom, occasionally, often and most times) as shown in Table 4.21.

Table 4.21: Frequency Distribution of Participants Coping Strategies Response.

		Frequency	and	Percentages	
Subscale	Never(1)	Seldom(2)	Occasionally(3)	Often(4)	Most(5)
Task oriented	0.0%	0.0%	10.2%	67.0%	22.8%
Emotion oriented	1.0%	46.2%	47.7%	5.1%	0.0%
Avoidance oriented	1.0%	41.6%	51.8%	5.6%	0.0%
Summation	**0.0%**	**1.0%**	**92.9%**	**6.1%**	**0.0%**

Table 4.21 showed that the participants rated themselves, on task oriented rated as 0.0% never, 0.0% seldom 10.2% occasionally while 67% rated often and 22.8% most times. On emotion oriented 1.0% rated never, 46.2 seldom, while 47.75 rated occasionally and 5.1% most times. On avoidance oriented the participants rated 1.0% never, 41.6% seldom ,while 51.8% rated occasionally and 5.6% often and 0.0% most times. The information was graphically represented in Figure 4.3.

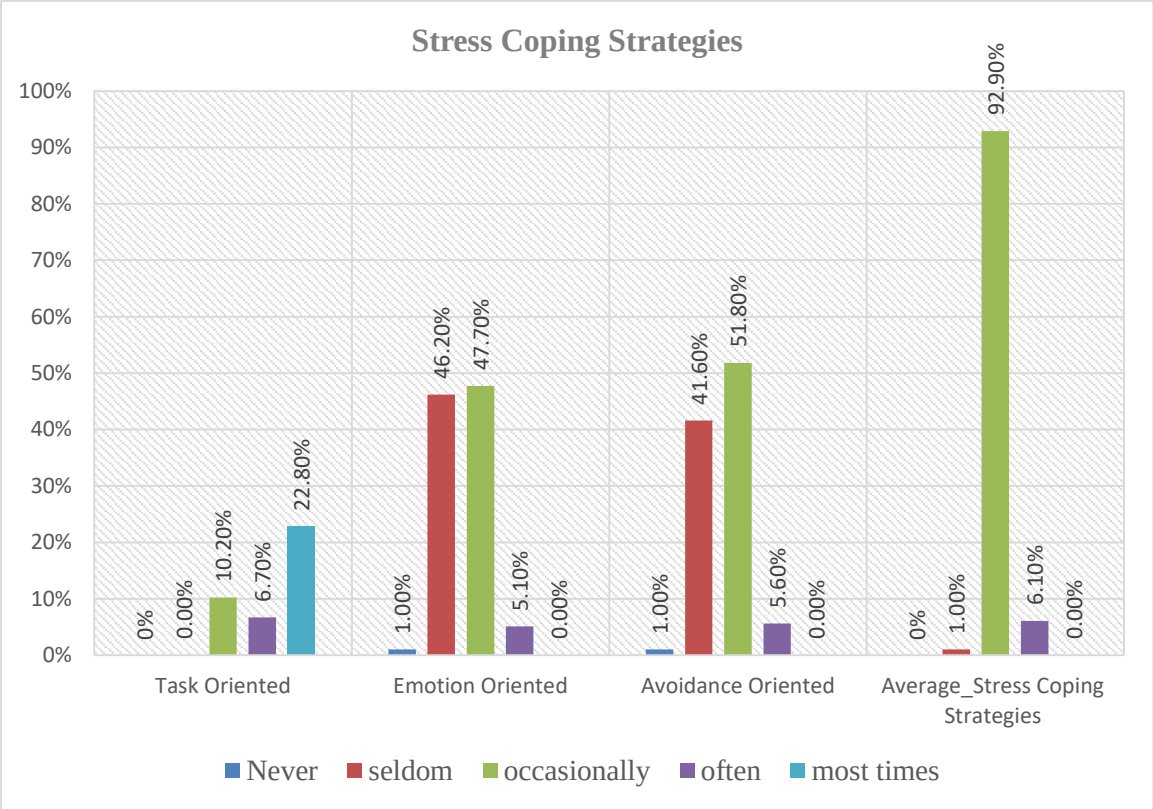


Figure 4.3: Frequency Distribution of the Participants Response on Coping Strategies.

In reference to the coping strategies scales, task oriented coping aimed at facing the problem and solving it by cognitively reconstructing the problem, or attempting to change the situation. The main aim of task oriented was the emphasis on the task facing the students and from the study 67% of the students used it often. Emotion oriented coping described the emotional reactions that were centred on self whose main aim was

to reduce stress which in most cases was not always successful. Reactions related to emotion oriented included emotional responses (e.g., blame myself for being too emotional, get angry, become tense), self-preoccupation, and fantasizing (daydreaming reactions). In some cases, the reactions when they were intense increased stress (e.g., become very upset, become very tense). The reaction in emotion oriented was usually towards the self. Avoidance oriented coping involved activities and cognitive changes aimed at avoiding the stressful situation. The avoiding could occur through distracting oneself with other situations, like social diversion as a means of alleviating stress, the distraction away from self-led to distracting habits like drugs and substance abuse.

4.5.2 Descriptive Analysis of Coping Strategies.

The participants' coping strategies were analysed based on the scores attained. The analysis was used to get the range, the mean and the standard deviation of the scores. The results are presented in the Table 4.22.

Table 4.22: Description Analysis of Coping Strategies.

	N	Range	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
SCS	197	20	55	75	64.55	4.1	0.057	-0.366

Key=SD=Standard deviation

The participants' coping strategies scores were analyzed to get the range, minimum score, maximum score, mean, standard deviation, skewness, and kurtosis. The outcome was presented in Table 4.22, the range was 20, the minimum and maximum was 55 and 75 scores respectively. The mean was 64.55 and standard deviation was 4.1, skewness was calculated to be 0.057 and kurtosis was -0.366 implying that most of the scores

were concentrated to the left away from the mean which could mean the students rated themselves highly.

4.5.3 Level of coping strategies.

The participants' scores were further analyzed to get the levels in term of low scores, average scores and high scores which is presented in Table 4.23.

Table 4.23: Levels of Coping Strategies.

Level of coping strategies	Frequency	Percent
Low (21-49)	0	0.0
Average (50-76)	197	100.0
High (77-105)	0	0.0
Total	**197**	**100.0**

All the participants rated themselves within the average category when all the coping strategies were combined making 100%. And since coping strategies had three categories, students total scores on each category was used to get the statistical measure on each of the category as presented in Table 4.24.

Table 4.24: Descriptive Statistics of the Subscales of Coping Strategies.

	Task Oriented		Emotion Oriented		Avoidance Oriented	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Low (7-16)	0	0.0	30	15.2	16	8.1
Average (17-25)	134	68.0	167	84.8	181	91.9
High (26-35)	63	32.0	0	0.0	0	0.0
Total	**197**	**100.0**	**197**	**100.0**	**197**	**100.0**

The results showed that 68% of the participants in the task oriented coping rated themselves average and 32% rated themselves high. On emotion oriented coping 84.8%

rated themselves average while avoidance was 91%. This implied that most students rated themselves in the average category.

4.5.4 Descriptive Analysis of the Subscales of Coping Strategies.

The researcher further sought to find out the range, minimum, maximum, mean, standard deviation, skewness and kurtosis of the coping strategies sub-scales. The results showed that the highest range was 15 for both emotion and avoidance coping strategies. While task oriented had a minimum of 20 and the highest of 34. The highest mean score was task oriented with 27.2 and standard deviation of 3.13, avoidance coping strategy had a mean of 18.9 and standard deviation of 2.92 and emotion oriented coping strategy had a mean of 18.4 with standard deviation of 3.23. All the sub-scales had negative kurtosis the highest being -0.39 for avoidance coping, task oriented coping -0.40 and emotion oriented coping with -9.6.

4.5.5 Correlation of the Subscales of Coping Strategies.

Further analysis to find out the correlation between coping and stress coping strategies, as shown in Table 4.25.

Table 4.25: Correlation matrix of the Sub-Scales of Coping Strategies.

		Task	Emotions	Avoidance	Stress Coping Strategies
Coping Strategies	Pearson Correlation	0.35*	0.83*	0.85*	1
	Sig. (2-tailed)	.000	.000	.000	
	N	197	197	197	197

**. Correlation is significant at the 0.05 level (2-tailed).

As observed in Table 4.25 the results showed that both emotion and avoidance oriented coping strategies were positively correlated to coping strategies. The highest correlation was between avoidance oriented and coping strategy ($r= 0.85$, $p< 0.05$) and the next positive correlation was emotion oriented which correlated with coping ($r= 0.83$, $p<0.05$). Task oriented had significant negative correlation with coping strategies ($r= -0.35$, $p<0.05$. Further the participants' level of coping and mean academic performance was presented computed and the mean for the students coping strategies was 64.55 while the corresponding academic performance mean score was 50.

4.5.6 Hypothesis Testing between Coping Strategies and Academic Performance.

The third objective was to determine the relationship between coping strategies and academic performance, and from this the null hypothesis was stated as

Ho_3 There is no significant relationship between coping strategies and Academic Performance among students in primary teacher training colleges in Kenya central region.

A bivariate correlation analysis was performed to test the hypothesis using Pearson Product Moment Correlation. The outcome showed that there was significant negative

relationship between coping strategies and academic performance (r= -0.56, p < 0.05) the null hypothesis was therefore rejected.

Table 4.26: Hypothesis Testing between Coping Strategies and Academic Performance (N=197).

		Academic Performance
Coping Strategies	Pearson correlation	-56*
	Sig (tailed)	.000
	N	197

**Correlation significant at P <0 .05 level (2 tailed)

The findings implied that students use of the coping strategies led to low academic performance.

4.5.7 Hypothesis Testing for the Participants Subscales and Academic Performance.

From the results in table 4.26, the researcher performed further analysis to establish the individual sub-scales of coping strategies on how they correlate with the students' academic performance, this led the formulation of three supplementary hypotheses

1. $H_{o3,1}$ There is no significant relationship between task oriented coping and academic performance among students in public primary teacher training colleges in central region ,Kenya
2. $H_{o3,2}$ There is no significant relationship between emotion oriented coping and academic performance among students in public primary teacher training colleges in central region, Kenya.

3. $H_{o3,3}$ There is no significant relationship between avoidance oriented coping and academic performance among students in public primary teacher training colleges in central region, Kenya.

To test the three supplementary null hypothesis, a bivariate correlation analysis by Pearson Product Moment Correlation Coefficient was computed as presented in Table 4.27.

Table 4.27: Hypothesis testing for the Subscales of Coping Strategies and Academic Performance.

		Academic score	performance Sig(2 tailed)
Task oriented	Pearson (2 tailed) Sig	0.68*	.000
Emotion oriented	Pearson (2 tailed) sig	-0.75*	.000
Avoidance oriented	Pearson (2 tailed) sig	-0.68*	.000

Key: Sig=Significant

Observation from Table 4.27 showed that, there was a significant positive relationship between task oriented coping and academic performance ($r= 0.68$, $p <0.05$) leading to the rejection of the supplementary null hypothesis. It was therefore concluded that the students use of task oriented coping led to high academic performance. There was a significant negative relationship between emotion oriented coping and academic performance ($r = -0.75$, $p< 0.05$) leading to the rejection of the second supplementary null hypothesis, concluding that the students use of emotion oriented coping led to low academic performance. Lastly there was a significant negative relationship between avoidance oriented coping and academic performance ($r = -0.68$, $p < 0.05$), thus the null supplementary hypothesis was rejected and a conclusion made that participants use of avoidance coping strategy led to low academic performance.

Further analysis through multiple regression was performed to quantify the strength of the relationship of the coping strategies and academic performance of the students in the sampled institutions.

4.5.8 Regression Analysis between Coping Strategies and Academic Performance.

The researcher performed Multiple regression analysis of the students' total coping strategies in order to find out to what extent the students coping strategies predicted academic performance. The findings showed that the adjusted R^2 value of coping strategies was (R^2=.315 implying that 31.5 % of the variations in academic performance was due to the students coping strategies as shown in Table 4.28.

Table 4.28: Model Summary of Coping Strategies and Academic Performance.

Model	R	R Squared	Adjusted R Squared	Std.Error of the Estimate
1	.561	.315	.312	8.296

The researcher further tested the significance of the model for the relationship between coping strategies and academic performance among students in teacher training colleges in central region Kenya. This was arrived at by generating the F statistics. The results showed that the relationship between coping strategies and academic performance among the students in teacher training colleges was significant (F 3,195) =89.73, $p<0.05$ as shown in Table 4.29.

Table 4.29: Regression Analysis of Participants Coping Strategies and Academic Performance.

Model	Sum of squares	df	Mean squares	F	Sig
Regression	6176.447	1	6276.447	89.732	.000
Residual	13423.554	195	68.839		
Total	**19600.001**	**196**			

Dependent - Academic performance

Independent - Coping strategies total

The researcher further did an analysis to determine the predictive weight of the subscales of coping strategies on academic performance as shown in Table 4.30.

Table 4.30: Predictive weight of Participants Coping Strategies Subscales on Academic Performance.

Model	Unstandardized B	coefficient Std error	Standardized Beta	t	Sign
Constant	59.86	10.0		5.966	.000
Task	.831	.229	.260	3.966	.000
Emotion	-1.546	.320	-.501	-4.828	.000
Avoidance	-211	.328	-.062	-643	.521

Dependent variable academic performance T score.

The findings showed that the best significant predictor of academic performance was task oriented coping identified as (β=0.26, p <0.05). Emotion oriented had negative significant prediction at (β= -0.50, p, <0.05) while avoidance had negative and insignificant prediction at β= -0.06, p,>0.05. Therefore, the following prediction model was illustrated,

$\breve{Y}$= 59.86-0.50(EOC)- 0.06 (AOC)+0.26(TOC) (R^2 =59), p<0,05

$\breve{Y}$= predicted academic performance score

EOM=emotion oriented coping

AOC=avoidance oriented coping

TOC=Task oriented coping

Students coping strategies predicted academic performance while among the individual subscales task oriented and emotion oriented had significant predictive weight on academic performance but avoidance oriented coping had an insignificant prediction. These findings corroborated with Jean and Katrina (1992) in their study measuring coping as a response to stress which found out that task oriented coping predicted course grade, and avoidance oriented coping predicted aggregate course grade. This was in agreement with Ingrid, Brdar, Mjada and Dark (2006) who analysed the variances of problem focused where task oriented and emotion oriented coping were combined to find out if the two coping strategies differed in school achievement, the Groups differed significantly in both coping strategies problem-focused coping: ($F3,1036$) =41.71, $p<0.01$).and emotion focused ($F3\ 1036$) = 14.67 $p<p\ 0.01$) but they predicted academic achievement.

4.5.9 Qualitative Analysis of Students Coping Strategies.

In order to get the deans of curriculum and lecturers perspectives on the students use of coping strategies an interview was carried out among the four deans of curriculum and the twenty sampled lecturers. The study placed the studied respondents according to the three coping styles Task-oriented coping style, emotion-oriented coping style, and avoidance-oriented coping style. Task-oriented coping styles was used to describe coping based on actions that the students use to decrease or eliminate stress. Task-

oriented behaviors included searching for more information about the task, changing the cognitive structure of the task, and prioritizing the steps for addressing the task.

Emotion-oriented coping styles describe the styles in which the students do best to decrease his undesirable emotions, which include coping styles like crying, anger and disappointment, turning to criticizing behaviors, mental preoccupation and daydreaming. Finally, avoidance-oriented coping styles aim at avoiding the stressful situation and employing one's social networks or by distracting oneself through engaging in self-rewarding activities like eating and shopping Endler and Parker (1994).

Based on the above the four deans of curriculum responded and concurred that majority of the students used the emotion and avoidance coping. One dean of curriculum stated that all the students with discipline related issues displayed avoidance coping as they tried to displace their stressful situations with drinking, sneaking out of college and other avoidance behaviours. Another dean of curriculum reported that bright students who faced academic failure used the task oriented coping as they were concerned when they failed and wanted to make a follow up even if resitting for the examination. Low and average performing students were said to use more of avoidance coping, as they tend to give excuses as to the reasons behind academic failure.

The lecturers had earlier reported that the students were faced by different stressors and in coping they also used different coping strategies depending on their personality and the socialization process. According to the research findings, the task oriented coping had a significant positive relationship with academic performance a, the lecturer's responses also concurred explaining that students who used task oriented coping tended

to be the bright students who were serious with their work. When faced by stressful situations, one lecturer observed that the students used task oriented coping focused on the issues to see how to solve them. This was more so for the students who were facing academic failure. A lecturer from the science department mention that *'after failing a bright student would present the marked script and request I go through it question by question with him'*. In task oriented coping the students were able to come up with a course of action for the stress they were undergoing 'in issues of fees payment the student would breakdown the amount into small portions and promise to pay within a stipulated time frame.'

'One student I remember so well got 24% in a maths examination and I requested the student to drop mathematics for another option, the students requested that he would be coming at any time so as to explain in-depth some concepts instead of following my request' responded the mathematics lecturer.' This scenario was that the student instead of withdrawing from the problem he decided to face it head on. In guidance and counselling the students who were able to confront the issues facing them and causing them stress were those who were able to think about the issue stressing them and take corrective action. Love relationship between the students was stated as one issue which caused stress, some students sunk into depression but the focused ones were able to make an analysis of the relationship before reacting and taking measures.

The lecturers reported that since each student is stressed by different issues and have different personalities their responses would always be varying. In most cases academic failure lead to blame on lack of learning materials, teacher related inadequacies and the entire administration this according to the classification was emotion oriented coping. The guidance and counselling lecturers reported that most of the students operated on

the emotional oriented coping since they displayed symptoms related to emotional coping style like self- blame, blaming the significant others in their lives like failure of parents to pay fees on time to avoid missing examinations. On use of emotion oriented coping some students especially the ladies when not able to cope became anxious and this led to lack of concentration hence low academic performance.

Another lecturer from the teaching practice department also noted that students who were not ready for teaching practice used a lot of emotion coping strategies of saying that they were not aware of what they were supposed to do, others to faked sickness and emotional outburst to gain sympathy. Students who engaged in drugs and substance abuse to alleviate stress later wished that they could change what had happened to them. Continuous failure also led to some students to always focus on their general inadequacies and this made them to believe that they were failures and could not make it academically. ‘One such student at one time parked her belongings and left the training for another course’.

On the use of avoidance coping strategy a larger group of students developed a team of friends whom they spend time together chatting and getting into mischief instead of engaging in academic activities. A lecturer noted ‘on weekends students are sported at the fields partying’ and on observation some of those students still had unfinished assignments and other academic tasks. A lecturer who was also a dormitory supervisor reported that during examination time cases of indiscipline were higher than ordinary days as the students became unruly and displayed indiscipline behaviours like sneaking at night and coming back drug with alcohol and drugs. This psychologically was a way of responding to examination stress where the students avoided facing the stressor and escaping to other activities.

The office of the deputy principal in charge of discipline was busiest during the time for examination, not that the students had changed it was a misplaced way of dealing with stress related to examinations. Dugs and substance abuse was reported in all the colleges to be one of the greatest challenge which the colleges were facing. The extent of drug abuse led some of the students to be taken for rehabilitation and had to repeat a year or resit examinations. A lecturer noted that the students visited the dispensary most times during examination time and during the time for teaching practice with all kind of mild sicknesses some even requesting for bed rest. This was the students' inability to deal with the stresses around them and engaging in avoidance coping behaviours.

Asked on how they helped the students cope with stress within the academic setting most of the lecturers were for the view that if possible the stressors which could be dealt with needed to be addressed. The students needed to be taught on how to respond to stress positively without it affecting their academic performance. Through the guidance and counselling department the students needed help through motivational talks and also be taught resilient skills so as to be able to face life challenges with ease.

The lecturers also pointed out that the students should be given an opportunity to choose where to stay instead of forcing them to stay in the hostels which they noted was one cause of stress they had to respond to. It was the researcher's interest to find out the relationship between perceived academic stress and coping strategies although it was not part of the hypothesis since in coping the students were responding to some stress in their college environment.

4.5.10 Discussion of the Results of Participants' Coping Strategies.

Based on the findings in the third research objective of the study which sought to establish the relationship between coping strategies and academic performance, the findings revealed a significant negative relationship with academic performance .From the findings those students who responded well to stress by facing the stressor and doing something about it performed highly in most studies this was categorised under problem focused coping where the students faced the task at hand and looked for ways of dealing with it. While the students who faced the stressor by engaging in emotional and avoidance responses performed average and low this was categorised under emotion focused coping or maladaptive coping in which the user does not directly deal with that which was causing stress. Task oriented coping strategy was positively used by the participants who performed well in academic performance.

Task oriented coping in this study referred to purposeful effort aimed at solving the problem, or reconstructing the problem cognitively. It also meant that the students were trying to alter the stressor by focusing on it to see how to solve it or determine the cause of action to take on the problem at hand (Endler & Parker,1990). Many researchers have mentioned that the use of the task oriented coping was the best way to solve stressful situations than to create or allow the problem to occur and then solve it (Yates et al, 2008). This had significance implication for the college administration when trying to solve the issues of academic failure among the students based on the findings in this research especially on how to help the students to deal with stressful situations.

It was important to note that not all tasks or issues facing the students could be eliminated but task oriented coping strategy was the most effective method of dealing with stressors among the students as per the findings. Yahya (2005) remarked that

incorporating task-oriented coping skills in group counselling of students was helpful. Group counselling appeared to be strategy that could appeal to these trainee teachers that needed to be incorporated in counselling interventions to help them cope effectively with stressful situations. Both students who scored high and low on the task-oriented coping scale could benefit from counselling therapies that incorporate elements of task-focused solutions to stressful problems like taking corrective action immediately failure occurs, analysing the problem before reacting or working hard to understand the problem being faced.

Emotion oriented coping strategy had a negative significant relationship with students' academic performance. It referred to the emotional reactions that are mainly centred on the self, like blaming oneself, feeling anxious about not being able to cope or blaming self for being too emotional that means the problems encounter receives an emotional response (Yahiya 2005). In the current study those who used emotional oriented coping were also low on academic performance.

When students reacted using emotions when faced by failure it led to the increased use of stress and sometimes giving up on solving the would be cause of stress. Why the students would prefer to use emotion oriented coping could be explained by the fact that at the teacher training colleges level majority of the students lie in between 21-30 years and within category people's emotions have not yet stabilized.

Other possible reason why students would prefer using the emotion oriented strategy is that it could look easier since the problem will not be addressed like becoming upset or crying. The emotions were produced by the many feelings and emotions the students experience which were to some extend difficult to control. For the students who scored

high on emotion oriented coping they can be assisted through counselling through use of cognitive behavioural therapy in order to provide more insights as to why use of emotions automatic thoughts, and irrational beliefs would never be the best way to adopt in order to solve any stressful situation, Other strategies to deal with students' stress were recommended that pastoral care mechanism need to be enhanced to identify and support those students who are prone to.

The avoidance-oriented coping strategy was also used and the participants who used it performed lowly academically. In the context of this study avoidance-oriented coping referred to activities and cognitive changes aimed at avoiding the stressful situation which occurred through the students distracting themselves with other situations or unrelated tasks or diversion to social activities as a means of alleviating the stress. These activities can be going out with friends, making phone calls and eating and drinking alcohol among others. The strategy would provide temporary relief from the problem but the problem would remain making it unresolved thus rendering the coping strategy ineffective (Yahya, 2005). The use of the avoidance coping strategy was associated with students who were in disciplined and engaged in anti-social behaviours automatically leading to poor performance academically.

The outcome of the findings on coping strategies and academic performance was supported by Gustems et al (2019) who examined stress among teacher education students based on three objectives: to describe different degree of stress and coping strategies: to study the relationship between stress, coping strategies and academic achievement; and to find out whether increased age can moderate the effects of stress on academic achievement among 334 students in the University. According to the findings a lot of students experienced stress and used more of avoidance coping

strategies; the students under less stress engaged less in cognitive avoidance and more in problem-focused coping(task-oriented) and were also students who made a lot of academic achievement. The students who were under more stress performed worse. In learning institutions it is important for students to recognize the harmful effects of stress on the well-being and academic achievement, to avoid long term problems in professional and personal life

A study done at a Spanish University with a sample population of 808 undergraduates using the coping Strategies Inventory and the Utrech work Engagement Students Scale by Devonport and Lane (2006) showed that coping could influence academic success because the amount of effort student invested to reach a certain outcome was dependent on how they coped with the negative emotions and obstacles. The level of effort and the coping of the students also was influenced by their beliefs and how capable they were and how much control they had over the outcome and academic engagements and academic success. The research evaluated the relationship between coping strategies, work engagement and academic performance. Academic performance was evaluated by the grade point average and the findings were, that adaptive coping and academic engagement and academic performance was positively correlated and maladaptive coping was negatively correlated to performance

Causey and Dubow (1993) carried a research to investigate the use of coping strategies among university students using the Pearson Product Moment Correlation Coefficient in the analysis of the relationships. The study found out that coping strategies were significantly correlated to perceived academic stress hence academic performance. The correlation was noted on perceived academic stress with task-oriented coping which had a significant negative correlation **(**$r = -0.16$, $p < 0.05$), unlike in the current study,

while emotion-oriented coping was significantly positively correlated with academic performance, thus inconsistent with the current study. Avoidance was also positively correlated with academic stress even though it was not significant. The findings informed that students experiencing academic stress utilize mainly emotion oriented and avoidance coping strategies.

Alberto (1999) examined coping strategies and its relationship to academic performance among Filipino Undergraduate Students. The research instrument used in the study was the modified ways of coping questionnaire of Folkman and Lazarus (1988). The results showed that each of the dimensions of the coping strategy was positively and significantly correlated to the students weighted average with the r values ranging from .52 to .70, $p < 0.01$.therefore with confidence level of 95 it was assumed that the more adaptive and tolerable the students to academic and personal stress was, the better their academic performance. The students coping strategies were a significant predictor of Academic performance (F 1 195)=89.5, $p<0.05$. The outcome was supported by Muthukrishnan, and Xiani, (2019) who investigated the kind of coping strategies adopted by children using the Children Coping, Strategies Checklist (ayers,1991). Correlation and multiple regression analyses were done to analyse the association between the predictors and academic performance. The outcome of the study showed the coping strategies significantly correlated with academic performance, and multiple regression model with all 11 predictors resulted in R^2 =30.2, F (11, 174) =6.852, $p < 0.01$.Kadhiravan and Kumar, (2012) also reported that coping strategies predicted undergraduates students' academic performance.

More studies by Ngozi and Ukaegbu (2017) revealed that there were a significant relationship between coping and university adjustment and academic performance

0.544, R2 = 0.296, $p<0.05$. This was in agreed with another study by Abdullah et al (2010) whose study on the relationship between coping and University adjustment and academic performance among first year undergraduates in a Malaysian public University, found that there was a significant and positive prediction between students' coping and their overall university adjustment and academic performance. The findings from the qualitative analysis revealed that most of the students used emotion and avoidance coping strategies which were found to negatively correlate with academic performance.

Task oriented according to the lecturers was used by a few students which unfortunately had significant positive relationship with the students' academic performance in the teacher training colleges in central region in Kenya.

On the other hand, the findings of the study on coping strategies and academic performance being correlated was not supported by a study carried out in an Australian University by Brett and Emilia (2014). The study used quantitative approach to identify the challenges facing distance education students and their relative levels of satisfaction, coping and academic performance on 295 students, 64 males and 231 females. The finding showed that there was no clear connection on the use of coping strategies and academic performance thus disagreeing with the findings of the current research.

4.6 Relationship between Stress and Coping Strategies.

The respondents stress scores and coping strategies scores were analysed to find out the relationship between them. This was done by subjecting the data to a bivariate

correlation analysis by use of Pearson's Product Moment Correlation Coefficient as shown in Table 4.31.

Table 4.31: Relationship between Subscales of Coping Strategies and Stress.

		Stress
Task oriented	Pearson (2 tailed)	-.62**
	Sig	.000
Emotion oriented	Pearson (2 tailed)	.68**
	sig	.000
Avoidance oriented	Pearson (2 tailed)	.58**
	sig	.000

From Table 4.31, emotion oriented coping strategy was found to have a significant positive relationship with stress ($r = 0.68$, $p<0.05$). Avoidance oriented coping strategy was also found to have a significant positive relationship with stress ($r= 0.58$, $p<0.05$) That meant that the more the students used emotion oriented coping and avoidance oriented coping strategies the more was the stress. Task oriented coping strategy was found to have a significant negative relationship with stress at ($r = -0.62$, $p<0.05$). That implied that the more the students used task oriented coping strategy the less was the stress.

The study was supported by other studies by Ganesan , Talwar Norsiah & Oon (2018) who analysed the relationship between stress and coping strategies among Eighty-six university students using the perceived stress scale and the Adolescent Coping Scale. The findings showed that majority of the students experienced stress at ($r = -0.57$, $p < 0.05$). Turashvili and Japaridze (2013) summed up that university students were able to decrease the negative effect of stress if they know how to cope with it well. In general,

the research findings showed that majority of the students when faced by stress at the college used more of emotion oriented coping and avoidance oriented coping while the more the students were stressed the less the students used task oriented coping strategy.

Use of emotion and avoidance oriented coping led to poor academic performance while, those students who used the task oriented coping performed better in their examination. That meant that the students who never addressed the issues facing them as they pursued their academic endeavours within the college setting were affecting their academic performance. They turned to criticising behaviours and excuses and engaged in other social activities unrelated to academics thus avoiding the stressors. Through the findings of this research and other reviewed findings the researcher had noted that the way a student approached the coping strategy in response to stress and the amount of stress experienced was very important in determining academic success. For the students knowing how to cope with stress seemed to be more important and depending on how the student is affected by the stress, it is important for the student to understand how to cope with the stress in a positive way. Most of the times the students who coped with stress best tended to perform better academically.

4.7 Gender differences in Academic Self-efficacy, Stress, Coping Strategies and Academic Performance.

The fourth objective of the study was to examine gender differences in academic self-efficacy, stress and academic performance.

4.7.1 Analysis of Gender differences and Academic Self-efficacy.

The respondents' academic self-efficacy scores were analysed by gender in order to get the mean and standard deviation of the scores. From the findings, females had a higher

academic self-efficacy score (mean=59.47) than males (mean=59.46) although the difference was very slight, meaning that the rating for both genders was almost the same. This prompted the researcher to find out the gender differences in academic self-efficacy levels, as shown in Table 4.32.

Table 4.32: 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**

From the findings in Table 4.32 more females 53.0 % than males were found to be at the average levels of academic self-efficacy, while the males had the highest score of 50.6% at 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.

4.7.2 Gender differences in the Subscales of Academic Self-efficacy.

The researcher compared the means of the different subscales of academic self-efficacy by gender as presented in Table 4.33.

Table 4.33: Gender differences in the Subscales of Academic Self-efficacy.

Subscales of Academic self-efficacy	Gender	N	Mean	Standard deviation
Content understanding	Male	98	15.09	2.92
	Female	99	15.14	3.27
Time management	Male	98	15.01	3.39
	Female	99	14.56	3.29
Academic self-drive	Male	98	14.86	2.98
	Female	99	15.17	2.84
Examination preparation	Male	98	14.50	1.85
	Female	99	14.51	1.84

Results in Table 4.33 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 believed that they understood the content more in relation to academic self-efficacy, while the males managed time well in relation to academic self-efficacy.

4.7.3 Description of Gender differences and Stress.

The students stress were analyzed to get the mean and standard deviation The results showed that females had higher mean (M = 45.72 and SD = 9.8) than the males (45.04 and SD =9.4 that implied that the female students had higher response rate to stress than the males The researcher further did a cross tabulation of gender and levels of perceived academic stress, the results shown in Table 4.34.

Table 4.34: Levels of Stress with Gender.

			Stress Low	Average	High	Total
Gender	Male	Frequency	46	36	16	98
			46.9%	36.7%	16.3%	100.0%
	Female	Frequency	46	33	20	99
			46.5%	33.3%	20.2%	100.0%
Total		**Frequency**	**92**	**69**	**36**	**197**
			46.7%	**35.0%**	**18.3%**	**100.0%**

Results in Table 4.34 showed that the male students had a high score at 46.9% against the females with 46.5% and males had the highest average score at 36.7% against the females with 33.3%, while the females had the highest high score 20.2% against the males 16.3% in stress. The implication of the levels show a scenario that the females experienced more stress than the males.

4.7.4 Analysis of the Subscales of Gender differences in Stress.

A further analysis was done on the subscales stress and gender, the results showed that the females had higher scores in academic stressors with a mean score of 10.78 also in social stressors with a mean score of 11.42 and in intrapersonal stressors with a mean score of 12.84. The males had a high mean score of 10.81 in environmental stressors. That implied that females tended to experience more stress than males within the college settings. Table 4.35.

Table 4.35: Gender differences in the Subscales of Stress.

Stress	Gender	N	Mean	Standard deviation
Academic	Male	98	10.78	2.28
	Female	99	10.97	2.50
Social	Male	98	10.37	3.59
	Female	99	11.42	4.09
Environmental	Male	98	10.81	2.21
	Female	99	10.48	2.53
Intrapersonal	Male	98	12.59	3.41
	Female	99	12.84	3.60

4.7.5 Description of Gender differences in Coping Strategies.

The researcher analysed the participants' coping strategies to get the mean and standard deviation as shown in Table 4.36.

Table 4.36: Gender differences in Coping Strategies.

Academic coping strategies	Gender	N	Mean	Standard deviation
	Male	98	63.07	3.59
	Female	99	66.01	4.06

The data findings in Table 4.36 showed that the females had the highest mean score of 66.01 and a standard deviation of 4.06 while the males had a mean score of 63.07 and a standard deviation of 3.59. Further analysis of the levels of coping strategies through

cross tabulation was done. All the participants rated themselves within the average category when all the coping strategies were combined. The females rated themselves slightly higher than the males with 50.3% and 49.7 respectively.

4.7.6 Description of Gender differences of the Subscales of Coping Strategies.

Since coping strategies were categorised into subscales the researcher investigated the gender differences within the subscales as shown in Table 4.37.

Table 4.37: Gender differences of the Subscales of Coping Strategies.

Academic coping strategies	Gender	N	Mean	Standard Deviation
Task	Male	98	2.68	4.41
	Female	99	2.72	0.45
Emotion	Male	98	1.55	0.50
	Female	99	1.83	0.43
Avoidance	Male	98	1.70	0.49
	Female	99	1.81	0.41

From the results in table 4.37 the females had the highest mean score in task oriented coping M=2.74 and SD=0.45, in emotion oriented coping M= 1.83 and SD= 0.43 and avoidance coping with M=1.81 and SD=0.41, this implied that when confronted by stressful situations the females used more of each of the coping strategy than the males.

4.7.7 Hypothesis testing for Gender differences in Academic Self-efficacy, Stress and Coping Strategies.

In relation to the fourth hypothesis which was to test if there were significant gender differences in students' academic self-efficacy, stress and coping strategies, the hypothesis was formulated as;

Ho_4 There are no significant gender differences in students' academic self-efficacy, stress and coping strategies. For it to be testable three supplementary hypotheses were formulated these were:

1. $Ho_{4.1}$ There are no significant gender differences in students' academic self-efficacy among students in public primary teacher training colleges in central region, Kenya.
2. $Ho_{4.2}$ There are no significant gender differences in students' stress among students in public primary teacher training colleges in central region, Kenya.
3. $Ho_{4.3}$ There are no significant gender differences in students' academic strategies among students in public primary teacher training colleges in central region, Kenya

Testing the First Supplementary Hypothesis

$Ho_{4.1}$ There are no significant gender differences in students' academic self-efficacy among students in primary teacher training colleges in central region, Kenya. The researcher described the respondents' academic self-efficacy scores by gender to find the mean and the standard deviation. The results showed that females had higher mean score than the males although the difference was very minimal. Females=Mean 59.47, standard deviation= 9.1 than Males Mean= 59.46 and standard deviation= 9.3.

4.7.8 Hypothesis Testing for Gender differences in Academic Self-efficacy.

To test whether these means differences were statistically significant an independent sample t test for the students' academic self-efficacy was carried out as shown in Table 4.38.

Table 4.38: 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

N=197

The results in Table 4.38 results revealed that there were no significant gender differences in academic self-efficacy between males and females. (t =-0.01, p>.05) therefore the null hypothesis was retained. That implied that between the two genders belief their academic self-efficacy when it came to academic performance was the same.

The researcher investigated further the gender differences in the subscales of academic self-efficacy by subjecting the data to the independent samples t test, the results are presented in Table 4.39.

Table 4.39: Independent Sample t Test for Gender differences in the Subscales of Academic Self-efficacy.

Subscales of Academic self-efficacy	t	df	Sig(2tailed)
Content understanding	-.112	197	.911
Time management	.959	197	.339
Academic self-drive	-.757	197	.450
Examination preparation	-402	197	-.688

From the findings in Table 4.39 there was no significant gender differences in students' academic self-efficacy in all the subscales $p>0.05$. The findings were in agreement with Shikullaku (2013) on "The Relationship between Self-efficacy and Academic Performance in the Context of Gender among Albanian Students aged from 19 to 31 years. The results showed that there was no significant difference in level of self-efficacy between male and female students and academic performance.The findings further agreed with Mohamed (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'. The study used a descriptive survey design and a sample population of 435 students (294 females and 141 males) which was selected through a proportionate stratified sampling technique. The results findings showed that there were no significant differences in academic self-efficacy subscales and academic achievement between females and male students. The results however showed that the mean value of the male students indicated a higher level of academic self-efficacy (mean 78.36) than the female students (mean 78.16).

However, (Abdullah, Cheong, Elias, Mahyuddin, Muhamad, & Noordin 2006) did research using a descriptive correlational method on 1,146 students from eight different secondary schools in Petaling District in Selangor on 'the relationship between students' self-efficacy and English language achievement'. One of the main variables that was investigated was sex differences. The findings confirmed that girls had higher self-efficacy than boys. This was in agreement with Abd-Elmotaleb and Saha (2013) who examined the mediating influence of academic self-efficacy and the link between perceived academic climate and the Aussit University in Egypt. The results showed that perceived academic climate academic performance among 272 university

undergraduates at and academic self-efficacy significantly correlated with academic performance and further academic self-efficacy had a negative significant correlation between the sexes.

4.7.9 Hypothesis Testing for Gender difference in Participants Stress.

In line with objective four of the study, to find out whether there are gender differences in regard to students stress, the hypothesis was stated as:

$Ho_{4.2}$ There is no significant gender differences in students' stress among students in primary teacher training colleges in central region, Kenya

The data was subjected to independent sample t test and the results are presented in Table 4.40.

Table 4.40: Independent t Test for Gender difference in Participants Stress.

Variable	t	df	Sig(2 tailed)
stress	-0.48	195	.62

The results in table 4.40 showed that there was no significant gender difference in students stress ($t = -0.48$, $p>0.05$). Gender differences in the subscales of stress was further tested, by subjecting the variables data to the independent sample t test as presented in Table 4.41.

Table 4.41: Independent Sample T test for the Subscales of Stress.

Variables	t	df	sig
Academic stressors	-575	195	.566
Social stressors	-1.023	195	.306
Environmental stressors	1.835	195	.345
Intrapersonal stressors	-499	195	.625

The findings in Table 4.41 showed that there were no significant gender differences in all the subscales as shown, despite intrapersonal stressors having the highest mean of 12.8 as noted earlier which was not statistically significant. This outcome of the study was in agreement with Watson (2002) who found no significant difference in the perceived stress between male and female students, when the researcher made a comparison of the perceived stress levels and coping styles of junior and senior students in Nursing and Social Work programs. The outcome was also supported by Alam and Kumar (2018) who found ($t = -1.32$, $p > 0.05$) meaning that the difference was not statistically significant.

Other research disagreed with the findings and stated that there were significant gender differences in stress. One such study was by Singh and Upadhyay (2008) 'on academic stress within the context of age and sex differences among some college students in India.' The study was done using a sample population of first year and third year male and female students ($N = 400$). The results findings showed that female students perceived more academic stress in comparison of their male counterparts**.**

In agreement with the positive findings Supe (2002) undertook to study on 'academic stress of boys and girls of higher secondary school students.' A population of 150 males and 150 females were randomly selected in Malda District West Bengall. The findings showed that male students had significant negative moderate correlation ($r = -0.41$, $p < 0.01$) between academic performance and academic stress, while the female students, had a significant negative weak correlation ($r = -0.274$, $p < 0.01$) between academic performance and academic stress. This showed that female students had more academic stress as compared to male students.

A study conducted by Mathew & Jaya (2006) on a group of 10^{th} grade adolescents from a group of schools in Ranchi, India, using a population sample of 200 students from government schools. From the findings, female students were found to experience more academic stress than male students and this had an impact on academic performance.

4.7.10 Hypothesis Testing for Gender differences in Coping Strategies.

In line with the fourth objective of the study, to find out whether there are gender differences in regard to students coping strategies, the hypothesis was stated as

$Ho_{4.3}$ There are no significant gender differences in students coping strategies among students in primary teacher training colleges in central region, Kenya. The data was subjected to independent sample t test and the results were presented in Table 4.42.

Table 4.42: Independent Sample t test for Gender differences in Coping Strategies.

Variable		t	df	Sig(2tailed)
Coping strategies	Equal variances assumed	-5,37	195	.000
	Equal variances not assumed	-5.37	192.5	.000

As shown in Table 4.42 there were significant gender differences in coping strategies as (t= -5.37, p<0.5), therefore the supplementary null hypothesis was rejected and a conclusion made that there was a statistically significant gender differences in students coping strategies and academic performance. This meant that males and female students do not cope the same when responding to stressful situations. The findings prompted the researcher to find out if there were gender differences in the subscales of coping strategies, this was done by performing an independent sample t test as shown in Table 4.43.

Table 4.43: Independent Sample t test for the Subscales of Coping Strategies(N=195).

Variables	t	df	Sig(2 tailed)
Task oriented	.504	195	.61
Emotion oriented	-3.95	195	.00
Avoidance oriented	-3.45	195	.00

The results in Table 4.43 showed that there were significant gender differences in respect to emotion oriented coping (t = -3.95, p < 0.05) and avoidance oriented coping (t = -3.45, p<0.05). This difference was in favor of the female students since they had

higher means than the males. The female students used more of emotion and avoidance coping strategies which involved the students engaging in blaming themselves and feeling anxious, becoming upset and focusing on general inadequacies as far as their response to academic performance was concerned. Matud (2004) found out that women used more of emotion- oriented coping where they displayed their emotions and feelings openly, whereas men were more likely to hide their emotional reaction to stress. Fox (2004), noted that the female gender was more likely to engage in more crying in order to relief stress as crying was healing. There was no significant gender difference in task oriented coping ($t = 0.50$, $p>0.05$) therefore the null hypothesis was retained.

4.7.11 Gender differences in Participants' Academic Performance.

The researcher sought to find out if there were gender differences in the students' academic performance, even though it was not one of the stated hypothesis. A descriptive analysis of gender and performance was done to get the mean and standard deviation for gender differences and academic performance.

Table 4.44: Descriptive Analysis of Students Gender differences in Academic Performance T- Scores.

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

The results showed that 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.

Table 4.45: Independent Sample t Test for Gender differences in Academic Performance.

		t	df	Sig (2 tailed)
Academic Performance	Variance assumed	0.74	195	.45
	Variance not assumed	0.74	195	.45

The results in Table 4.45 showed that there were no significant gender differences in students' academic performance (t= 0.74, 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 individual differences not gender differences which informs academic performance.

4.8 Relationship Between the Participants' Age and Academic Performance.

Although it was not part of the hypothesis, the researcher was interested in finding out whether there was a relationship between the respondents' age differences and academic performance. This was done by subjecting the data to a bivariate correlation analysis by the use of Pearson's Product Moment Correlation Coefficient.

The findings showed that there was no significant relationship between age of the respondents and academic performance (r =0.02, p > 0.05). That meant that students' academic performance was not influenced by the differences in age of the respondents.,

This was in agreement with Bitrus Apagu , Hamsatu and Pur (2016) who stated that with respect to age it was noted that it was not a significant predictor of academic performance of students in colleges of education in Nigeria's North Eastern states. This meant that age among the students did not seem to speak much about their academic performance since all the students were provided with the same platform to excel in their academic studies.

The studies age findings were further consistent with Naderi, Abdullah, Aizan and Kumar (2010) studies which discovered that there was no significant relationship between undergraduate students' age and academic performance at the University of Malaya. Murray Harvey (1993) also found out that there was no significant relationship between the college grade point aggregate and the age of students at Queensland University. Similarly.

Mcevoy (1989) also discovered that the age of the students was largely unrelated to academic performance among college going in the United States of America. Therefore, from the above findings it was concluded that middle aged college going student adults can also learn as well as younger students and achieve academic success especially when there is equal opportunity for learning and equal motivation. In theories of motivation it has been noted that when it comes to learning motivation is usually the driving force and the more a student is motivated the better the performance.

4.9 Discussion of the Findings.

The results on gender differences showed that there were no significant gender differences in academic self-efficacy and academic performance ($t = -0.01$, $p > .05$). This was in support to a study carried out by Shikullaku (2013) on "The Relationship

between Self-efficacy and Academic Performance in the Context of Gender among Albanian Students." The population sample ranged from age 19 to 31 years the same age range as the college students in teacher training colleges. The results showed that there was no significant difference in the level of academic self-efficacy between males and females and academic performance.

The findings were in agreement with Mohamed (2020) in his study among senior secondary students in Niger state Nigeria on the analysis of gender differences in academic self-efficacy and achievement using a descriptive survey design. The researcher used the academic self-efficacy scale and the academic achievement tests in English and mathematics as instruments of data collection. The results findings showed that there were no significant differences in academic self-efficacy and academic achievement between females and male students.

More findings were found to be in disagreement like Pajares and Miller (1994) who examined the two genders and confirmed that there was a relationship between gender and academic self-efficacy. That meant that the level of academic self-efficacy was different in males than female and it was higher in females. This agreed with the current study where females were found to have higher academic self-efficacy than males. This finding was consistent with Gheibi et al (2012) and Zabihollahi et al (2012) who also indicated the same findings of females having higher academic self-efficacy**.** Abd-Elmotaleb and Saha (2013) study on the influence of gender on academic self-efficacy and the link between perceived academic climate and academic performance among university undergraduates at the Auusit University in Egypt. The research findings confirmed that perceived academic climate and academic self-efficacy correlated with academic performance, while academic self-efficacy had a negative and

significant relationship among males and females, thus disagreeing with the current research.

There were also no gender differences in students stress and academic performance ($t = -0.48$, $p > 0.05$). The outcome was in agreement with previous research by Watson (2002) who did a research on academic stress among college students enrolled in a state college in the Philippines in respect to gender differences. The outcome was that significant differences between males and females in the perceived stress since the females students had mastered time management and coping strategies like the male counterparts.

Meanwhile Eun-Jun (2009) study among international students found that female students scored higher scores on the perceived stress scale, whereas in the current study there was no difference. Similarly, Matud (2004) found that females scored significantly higher than males when it came to chronic stress and many other minor daily stressors. In another interesting turn Sulaiman et al (2009) discovered that male students on the other hand experienced less stress as compared to female students stress. This was unlike Misigo (2015) whose study among public universities in Kenya found gender differences in the perceived level of stress. Females had high levels of stress than male undergraduate students. And the females used more adaptive coping strategies than the males. This study also revealed that female students were more likely to seek support from counsellors and friends than male students.

The difference in the perception of stress between females and male students by Gentley et al (2007) suggested that significant gender differences exist in the experience of stress. The researcher believed that this could be attributed to differences in the

perception that genders had towards stress, although the study was on adult not students. Additionally, the claim that males and females differ in their perception of stress was proven in another study conducted the research among American international students' study by Misra and Castillo (2004) which found that the perception of males and females regarding stress differed and that the females had higher scores than the males in their perception of stress. It concluded that perception and reaction to stress is different in both genders, while Jogaratnam and Buchanan (2004) found a significant difference between male and female students on the time pressure factor of stress.

There were significant gender differences in coping strategies as ($t = -5.37$, $p < 0.5$), This outcome on gender differences was in line with Matheny, Ashby and Cupp (2005) who found out that there were gender differences in students coping strategies. The study noted that females used social support and help seeking behaviour to cope with stress and Men on the hand, responded to stressful situations by choosing either active coping strategies or avoidant strategies such as alcohol or drug use. The females' use of social support correlated with the current research where females were said to use more of emotion and avoidance strategies.

Lotha and Kama (2014) discovered that coping strategies, support seeking were more in females as evidenced by the increased use of instrumental support seeking (problem-focused) and emotional support seeking (emotion-focused) in comparison to males. Humour, a positive emotion-focused strategy and self-blame, a maladaptive strategy, were used more by males. Women often chose emotionally focused coping strategies such as seeking support or positive reinterpretation.

Sulaiman, et al (2009) found out that males and female students experience different levels of stress and an explanation could be because females are more likely to be emotional than males in reaction to their environment. The females reported that the use of emotional support was more than for the males (F[1, 105] =13.82, P<.001). No sex differences were evident in the use of positive reframing, self-blame, or venting. Thoits (1995) concluded that although gender is thought to have an effect on the relationship between stress and the type of coping skill chosen, these results are not always consistent.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction.

Chapter five provides a summary, conclusions and recommendations of the study. Starting with the summary of the main findings then the conclusions based on the findings and lastly the recommendations of the study and further research**.**

5.2 Summary.

This section presents a summary of the major findings of the study guided by the study objectives. The study focused on academic self-efficacy, stress and coping strategies as predictors of academic performance among students in teacher training colleges in the central region of Kenya. It also focused on the gender differences in students' academic self-efficacy, stress and coping strategies for academic performance. The study was done among a sample of 197 students in their second year of study consisting of 97 females and 98 males.4 deans of curriculum and 20 lecturers from the 4 colleges in central region Kenya. Questionnaires semi structured interviews and document analysis was used in collecting data.

In objective, one the researcher sought to examine the relationship between students' academic self-efficacy and academic performance. The results revealed that there was a significant positive relationship between students' academic self-efficacy and academic performance. Further analysis of all the subscales of academic self-efficacy revealed that content understanding , time management and academic self-drive had significant positive relationship with academic performance. Examination preparation had a positive moderate relationship with academic performance

The study found that academic self-efficacy had a significant predictive weight on academic performance at (F (1 195) =189.08, p<0.05) and all the subscales were significant predictors of academic performance with the highest being Content understanding (β =0.39, p <0.05) followed by Academic self-drive (β = 0.25, p <0.05) and time management (β =.23, p<0.05) and lastly examination preparation with negative prediction of (β= - 0.12, p, <0.05).

The second objective was to examine the relationship between perceived stress and academic performance. The results revealed that there was a statically significant negative relationship between stress and academic performance. Further analysis of the subscales of stress revealed that all of them had a statistically significant negative relationship with academic performance. Students' academic stress had a significant predictive weight on academic performance (F,4, 192) = 58.5, p,< 0.05 with academic stressors being strong predictors of academic performance(β=0.50,p,<0.05),while social stressors, environmental stressors, and intrapersonal stressors were not significant predictors of academic performance.

The third study objective was to establish the relationship between coping strategies and academic performance. The results showed that there was a statistically significant negative relationship with academic performance. Further analysis of the subscales showed that task oriented coping had a significant positive relationship with academic performance, while emotion oriented and avoidance oriented had a significant negative relationship with students' academic performance Coping strategies had a significant predictive weight on academic performance (F,1, 195) = 89.5, p < 0.05, with task oriented and emotion oriented subscales being significant predictors of academic performance. At (β=0.26, p < 0.05). Emotion oriented (β= -0.50, p, <0.05) respectively.

The fourth objective of the study establish whether there were gender differences in students' academic self-efficacy, stress and coping strategies. The results showed that there were no significant gender differences between academic self-efficacy and academic performance ($t = -0.01$, $p>0.05$). All the subscales had non-significant relationship with academic performance. There were no significant gender differences in students' academic stress and academic performance $t = - 4.8$, p, > 0.05). All the subscales had non-significant gender difference with academic performance. Lastly there was significant gender differences in coping strategies and academic performance ($t = -5.7$, $p < 0.05$). Further analysis of the subscales of coping strategies revealed emotion oriented coping had a significant gender difference with academic performance $t = -3.95$, $p < 0.05$ and also avoidance oriented coping had significant gender difference with academic performance at ($t= -3.45$, $p < 0.05$) More females used emotion and avoidance oriented coping than the males. Task oriented coping had non-significant gender difference with academic performance at ($t= 0.50$, $p > 0.05$).

On the qualitative data analysis, the summary of the findings revealed that the deans of curriculum and lecturers' responses correlated with the findings of the study. On academic self-efficacy and performance, the four deans of curriculum agreed that most students lacked self-confidence and this led them to have less belief in their academic abilities. Generally, the students believed that they could pass their examination even though the deans noted that they were failing in internal examinations.

The lecturers on the other hand on academic self-efficacy noted that on content understanding students had believed in their academic abilities but faced difficulties internalizing what they had learned. They understood the content but it was noted that they had problems with content interpretation, and only bright students with good

English language mastery for expression displayed content mastery. On time management most of the students lacked proper time management and that was why the college had devised an official time management program for the students known as college routine so that the students could be assisted in managing time.

On examination, preparation all the lecturers agreed that the students were very poor at planning and preparing for the examinations and needed constant guidance and follow up. They majored on last minute preparation for the examination, and that the lecturers concluded that, could be one reason most of the students failed examinations. On perceived academic stress the deans and lecturers agreed that academic stress was rated the highest among students due to the loaded curriculum, lack of adequate facilities like lack of enough text books, computers, practical materials for practical subjects, and internet services for research.

On coping strategies the deans and lecturers agreed that most of student used emotional and avoidance coping strategies when faced with stress. The majority of student who engaged in drug and substance abuse used emotion and avoidance strategies. Generally, majority of the deans and lecturers' responses showed a correlation with the findings of the quantitative research.

5.3 Conclusions.

Evidence from the results of this study has been presented about the effects of academic self-efficacy, stress and coping strategies on predicting academic performance. The first objective on the relationship between academic self-efficacy and academic performance among students in teacher training colleges. The study established that academic self-efficacy had a significant positive relationship with academic

performance. Analysis of the various subscales of academic self-efficacy revealed a significant positive relationship with academic performance, with the highest relationship being observed in content understanding followed by academic self-drive then time management and lastly examination preparation. Given the increased educational accountability for the performance of students, the study is important for understanding how academic self-efficacy influences performance. The findings provide a clear picture of the variables that positively promote academic performance. This study confirmed that students with high academic self-efficacy attributes contributed to higher academic performance than students with low academic self-efficacy.

On educational implication academic self-efficacy was an important factor that influenced students' academic performance. It was therefore important that educational programs should put emphasis on developing students' academic self-efficacy. Programmes on academic self-efficacy should be enhanced and increased among students so that the students' performance can be improved. This will enable the students to strengthen their positive self-beliefs about learning and examinations. This points to the need for colleges to create an environment that promotes academic self-efficacy to empowers students to optimize their academic potential. Since the study findings discovered that the content understanding subscale was the highest predictor of academic performance, the teacher training colleges had the responsibility of finding out how the students could be assisted to understand the content and interpret it. Lecturers should be educated on how to boost students' self-confidence in their academic abilities. The college curriculum should provide students with tools to explore

and strengthen the academic self-efficacy. Academic self-efficacy can also be embedded in the colleges programs and practices like guidance and counselling.

The students should be exposed to academic self-efficacy intervention programs to have more confidence and feel that they can perform. The lecturers should help the students to be able to organize cognitive components of learning in memory so as to be able to recall content correctly. The lecturers should guide students to recognize the importance of effort and persistence for learning and achieving goals by developing resilient self-efficacy, based on the efficacy theory of Bandura (1989).

In the course of content presentation, the lecturers should give the students difficult tasks and hard work so that they develop resilience. Academically, good students should be assisted to enhance their high academic self-efficacy through intrinsic motivation so as to set higher goals of achievement. Student self-efficacy towards academic tasks should be enhanced by the lecturer's motivational messages through continuous guidance to develop the students' self-confidence regarding performance and a positive attitude even when faced with failure (Schunk, 1989). Based on the previous PTE performance in Table 1.1 the students could be encouraged to do observational learning by observing the output of their predecessors as significant models, especially those who performed well and learn lessons on improving their grades. Peer models have a greater impact on developing self-efficacy.

The second objective of the study, to examine the relationship between stress and academic performance among the students in teacher training colleges in central region, Kenya in which a statistically significant negative relationship was found between stress and academic performance. All the subscales of stress had a significant negative

relationship with performance, meaning that the more the students endorsed stressors, the less they performed. Academic stressors were strong predictors of academic performance, while social stressors, environmental stressors and intrapersonal stressors did not predict academic performance. The educational implication of the study was that stress was both a major and risk factor in influencing students' academic performance. Therefore where possible, colleges should come up with programs to alleviate stress since it contributed to poor academic performance, according to the findings of the research.

Further implication was that college institutions should work on improving the quality of the learning environment by ensuring that students have sufficient support services like guidance and counselling to assist them in learning how to live and face stressful environments and events. Teacher training colleges should step out to reduce students' stress for proper mental health and ability to perform well academically by enhancing students' ability to face and manage academic stress in a professional way. There was need for students to be given opportunities to manage their time privately instead of the control imposed by the colleges on time management so that they could take responsibility for their studies and ways of coping with stress should be embedded within school programs.

The third objective of the study was to establish the relationship between coping strategies and academic performance, in which a significant negative relationship was found between coping strategies and academic performance among students in primary teacher training colleges in central region. Task-oriented coping had a significant positive relationship with academic performance, while emotion and avoidance coping had a significant negative relationship with academic performance.

When task-oriented coping was used in stressful academic situations the higher was the indicator for the students' academic performance. And the more emotion and avoidance coping were used in academic stressful situations the lower was the indicator for students' academic performance. In the prediction model only task oriented coping and emotion-oriented coping predicted academic performance. Based on the literature review Bouteyre, Maurel, and Bernaudl (2007) reported that daily hassles and depressive symptoms among first-year psychology students at a French university found that task-centred coping was negatively correlated with depression, whereas emotion-centred coping was positively correlated with depression which in turn affected academic performance. Emotion oriented coping worked at limiting the emotional impact of stress instead of solving the situation which was causing stress. Students who used emotion-oriented coping usually directed all their efforts at altering their emotional responses to stressors which in turn affected them.

The educational implication was that the college administration should step out and help students on make use of positive coping strategies more frequently to help them buffer the negative impact of stress on academic performance. There was a need for colleges to design programs to assist students in building a large repertoire of coping strategies, especially task-oriented coping, which had a significant positive relationship with academic performance.

The fourth objective was to establish whether there were gender differences in academic self-efficacy, stress and coping strategies with academic performance among the students in Primary teacher training college in central region. The findings revealed that there were significant gender differences in coping strategies and academic performance. Further analysis found out that emotion and avoidance oriented coping

had significant gender differences in academic performance in favor of female students, implying that the females who performed poorly used more emotion and avoidance coping strategies. The lecturers in the delivery of the subject matter should take into account the diversity of students' characteristics since, as seen, it determines the level of academic performance. Since females used emotional and avoidance coping strategies which had a statistically significant gender difference, it is imperative for the intervention measures to focus on ways to help the female students to be able to use positive coping strategies which promote academic performance.

There were no gender differences between task oriented coping and academic performance. There were no gender differences between academic self-efficacy and academic performance, and there were no gender differences between stress and academic performance. A conducive learning environment should be provided in all the colleges and in order to enhance learning for good academic performance. Students should be assisted regardless of gender to have strong academic-efficacy beliefs and enhance their coping strategies against academic stress so as to increase their academic performance.

When gender and academic performance were tested, results findings showed that there were no significant gender differences in academic performance and likewise there were no gender differences between age and academic performance. The overall findings of the present study have important implications for lecturers in teacher training colleges as well as educational and counselling psychologists. The lecturers should realise that generally academic performance is influenced by several factors within and without the students with which academic self-efficacy, stress and coping strategies as some of the fundamental factors.

The findings showed that students with high academic self-efficacy skills perform better than those who have low academic self-efficacy skills. Therefore, academic self-efficacy as a construct should be learned since it is rooted in learning by observation and direct personal experience. The learning process should provide opportunities where students can observe and experience the content being presented. Primary teacher education should be designed in such a way that a lot of emphasis is laid on giving students an opportunity to voice their concerns in decision making and participation in school activities in order to bring to light what works and what does not work when it comes to training. College or institution administration should work to improve the quality of the learning environment.

In conclusion, a significant relationship between the variables of study in predicting the students' academic performance has been generated. The researcher beliefs that the study will call attention from college policy makers in assisting college students as they pursue their academic pursuits successfully within the stipulated time frame.

5.4 Recommendations.

From the findings of the study the researcher recommends the following regarding policy and further research.

5.4.1 Policy Recommendations.

The study has given important information and deep insight into the variables surrounding academic performance of primary teacher training colleges students as they go through the challenges associated with studying in a teacher training college. Academic self-efficacy was found to be a good predictor of academic performance. Therefore,

i).Curriculum developers' should ensure integration of topics on academic self-efficacy in the curriculum so that there will be continuous growth of academic self-efficacy beliefs among the students. The lecturers should provide and maintain a supportive and appealing pedagogical environment and use teaching and evaluation methodologies focusing on the students' performance and general development. The lecturers should instill a sense of self-confidence and high self-efficacy among the students by using interesting teaching methods. The lecturers should also develop a high level of content understanding in their content delivery to be able to apply learning that suits the environment.

ii).To the college administration, the study findings should help the administration to focus on active and identifiable methods of supporting students' academic-self-efficacy by initiating programs, seminars and conferences targeting college students in order to assist them in achieving academic performance successfully.

iii) The college administration and counselling psychologists should develop and provide the students with essential conditions and instruments for the students success in the colleges, hence improving their academic performance.

The second objective of the study found that there was a significant negative relationship between stress and academic performance and stress was a significant predictor of academic performance therefore,

i) The college administration should ensure that student support services are set in place and make students aware of potential stress that could occur in the period of transition from school to college life as well as provide trainings to help students handle stress within the colleges

ii) Need for the Ministry of education to allocate more funds to colleges to improve the colleges infrastructure for conducive learning especially the boarding facilities.

iii) In the research findings, academic workload was the highest reported cause of stress, therefore, Kenya Institute of Curriculum Development should see how the PTE curriculum can be harmonised with the current primary school curriculum to avoid teaching subjects which are not taught in primary schools, thus congesting the current PTE syllabus. The last time the PTE syllabus was reviewed was in 2003. Therefore, the content could have been overtaken by events and affected by emerging issues.

iv) The researcher recommends KNEC to consider breaking the PTE into module systems instead of the current one major examination at the end of the entire course. This could help students reduce examination related stress since the content would be manageable at any given time.

The findings of the third objective found that there was a significant negative relationship between coping strategies and academic performance with the exception of task oriented coping strategy which had a significant positive relationship with academic performance therefore,

i)The TSC should employ and engage competent and trained counsellors to help students learn how to negotiate and counter the effects of stress on academic performance.

ii)The college administration should train Peer counsellors for easy reach of stressed students among the student population.

On the fourth objective of the study, to find out gender differences between academic self- efficacy, stress and coping strategies, on academic performance, the results showed that there were no gender differences apart from emotion and avoidance coping strategies which had significant gender differences in favour of female students therefore,

i) Since females used destructive coping strategies which did not promote academic performance it was important for the colleges to create a learning environment which was more gender friendly in favour of the females.

ii)The lecturers assisted by counsellors should reach out to the students individually in order to understand them and be able to engage them more effectively in the use of coping strategies which promote academic performance

iii)Teachers and parents should encourage females to be confident and use positive coping strategies in order to be able to address any academic stress they may be facing since they focused more on coping strategies which led to poor performance. .

5.4.2 Recommendation for Further Research.

The study was carried out among students in public teacher training colleges. The study could be extended to private teacher training colleges in Kenya.

A comparative study can also be done between public and private teacher training colleges concerning the study variables. The study was carried out in the central region, so it can be generalised to other regions in Kenya.

The findings of this study were based on a study on primary teacher training college students. For further understanding of the relationship between academic self-efficacy,

stress and coping strategies on academic performance, it should be replicated among primary and secondary school students after modifying the instruments.

The study can be replicated by doing a comparative study between option A (science option), and option B (arts option) students in order to see whether the choice of subjects would have a difference in response to academic self-efficacy, stress and coping strategies. Significant gender differences in coping strategies was found in favour of the female students in the study. However in other studies it was noted that there were no significant gender differences, this inconsistencies call for further research to explore the results further.

A study could be carried out to find out the relationship between coping strategies and deviant behaviour among students.

REFERENCES

Abd-Elmotaleb, 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),* 117-129

Abdullah, M. C., Cheong, L. S., Elias, H., Mahyuddin, R., Muhamad, M. F., & Noordin, N. (2006). The relationship between students' self-efficacy and their English language achievement. *Journal Pendidikda Pendidikan,* 61–71.

Abdullah, M.C., Elias, H., Uli, J. & Mahyrudin, R. (2010). Relationship between coping and university adjustment and academic achievement amongst first year undergraduates in a Malaysian public university. *International Journal of Arts and Sciences, 3* (11), 379-392.

Abouserie, R. (1994). Sources and Levels of Stress in Relation to Locus of Control and Self-esteem in University Students. *Educational Psychology, 14*(3), 323-330. doi: 10.1080/0144341940140306.

Adesehinwa, O. A. & Aremu, A. O. (2010). The relationship among predictors of child, family, school, society and the government and academic achievement of senior secondary school students in Ibadan, Nigeria. *Procedia Social and Behavioral Science, 5*, 842–849.

Adediwura, A. A. & Tayo, B. (2007). Perception of teachers' knowledge, attitude and teaching skills as predictor of academic performance in Nigerian secondary schools. *Educational Research and Reviews, 2*(7), 165.

Adegoke, B.O. Salako, R.J. Ayinde, L A. (2013). Impact of Attendance on Students' Academic Performance in ICT Related Courses: Faculty of Engineering, Osun State Polytechnic, *Journal of Education and Practice, 4(16), 95-99.*

Adewuya, A. O. (2005). Validation of the Alcohol Use Disorders Identification Test (AUDIT) as a screening tool for alcohol related problems among Nigerian university students. *Alcohol Alcoholism, 40*, 575–577.

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), 199-213.

Adeyemo, D.A. & Adeleye, A.T. (2008). Emotional intelligence, religiosity and self-efficacy as predictors of psychological well-being among secondary school adolescents in Ogbomoso, Nigeria. Europe. *Journal of Psychology February, 4*(1), https://doi.org/10.5964/ejop.v4i1.423.

Agarwal, A. (2011). Impact of Academic Stress upon Academic Achievement and Mental Health of the Adolescents. *International Journal of Management and Social Sciences, 1*(1)79-87.

Agolla, J. E. & Ongori, H. (2009). An Assessment of Academic Stress among Undergraduate Students: The Case of University of Botswana. *Educational Research and Review, 4*(2), 63- 70.

Akhtar, M. (2008). *What is self-efficacy? Bandura's 4 sources of efficacy beliefs. Positive Psychology.* Retrieved from http://positivepsychology.org.uk/self-efficacy-definition-bandura-meaning.

Akomolafe, M.J. (2010). Measured Influence of Self-efficacy and gender in secondary school Students academic performance in Ondo State Nigeria. *Educational Thought Journal, 7*(1), 1-10.

Alam, K. & Kumar, H. (2018) Academic stress and academic performance among high secondary students. A gender analysis, *International Journal of Creative Research Thoughts, 6(*1), 687-692.

Aldwin, C. M. (2007). *Stress, Coping, and Development*: An Integrative Perspective (2nd ed.). New York, NY US: Guilford Press.

Ali, G. 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) 22*(1), 75-80.

Ali, N. K., Jusoff, K., Ali, S., Mokhtar, N., Syafena, A., & Salamat, A. (2009). The Factors Influencing Students' Performance at Universiti Teknologi MARA Kedah, *Malaysia. Management Science and Engineering*, *3*(4), 81-9.

Alyami, M., Melyani, Z., Al Johani, A., Ullah, E., Alyami, H., Sundram, F. & Henning, M. (2017) The Impact of Self-esteem, Academic Self-efficacy and Perceived Stress on Academic Performance: A Cross Sectional Study of Saudi Psychology Students. *European Journal of Educational Sciences, 4*(3), 568.

Amare, S. (2001). Effects of Academic Competence, Self-determination and Motivation on School Performance in Tana Haiq Secondary School. *The Ethiopian Journal of Education 21*(1), 165-193.

Amin, M.E. (2005). *Social Science Research: Conception, Methodology and Analysis.* Kampala: Makerere University Press,

Amr, M., El-Gilany, A. H., El-Moafee, H., Salama, L., & Jimenez, C. (2011). Stress among Mansoura (Egypt) baccalaureate nursing students. *Pan African Medical Journal, 8,* 1–9. https://doi.org/10.4314/pamj.v8i1.71083.

Ang, R. P., & Huan, V. S. (2006). Academic Expectations Stress Inventory: Development, factor analysis, reliability, and validity. *Educational and Psychological Measurement, 66,* 522-539.

Aspin wall, L. G. & Straudinger, U. (2003*). A Psychology of human strengths: Fundamental questions and future directions for a positive psychology*. Washington, DC: American Psychological Association.

Auerbach, M. S., & Gramling, E. S. (1998). *Stress Management: Psychological Foundations* (1st ed.). Upper Saddle River, N.J: Prentice Hall.

Aun, W., Kimura, L., Hern, C. & Ahmad, S. (2011), "Psychological Factors in Academic Performance among College Students", *3rd International Conference on Teaching and Learning, Park royal Penang, Penang, Malaysia*.

Aurah, C. M. (2017). Investigating the Relationship between Science Self-Efficacy Beliefs, Gender, and Academic Achievement, among High School Students in Kenya. *Journal of Education and Practice.*

Babar, N. & Khan, K. (2004) Students, Stress and Coping Strategies: A Case of Pakistani Medical. *Education for Health 17*(3), 346-53.

Bamuhair, S. S., Al Farhan, A. I., Althubaiti, A., Agha, S., Rahman, S., & Ibrahim, N. O. (2015). Sources of stress and coping strategies among undergraduate medical students enrolled in a problem-based learning curriculum. *Depression journal*, *20*, 33.

Bandura, A. (1986). *Social foundations of thought and action*: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman and Company.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.

Bell, Judith. (2005). *Doing Your Research Project: A Guide for First-Time Researchers in Education and Social Science*. Retrieved from http://lst-iiep.iiep-unesco.org/cgibin/wwwi32.exe/[in=epidoc1.in]/t2000=027124/(100).

Bempechant, J. & Drago–Severson, E. (1999). Cross –national differences in academic achievement: beyond ethic conceptions of children's understandings *Review of Educational research, 69*(3), 281 –314.

Bennett, R. (2003). Determinants of undergraduate student dropout rates in a university business studies department. *Journal of Further and Higher Education*, *27*(2), 123-141.

Best, J. W. & Kahn, J.V. (2009). *Research in Education* (9th ed.). New Delhi, India: Prentice Hall of India.

Bharti, R. (2013). Effect of Institutional Stress on Academic Achievement of Adolescents. *International Journal of Educational Science and Research (IJESR*), *3*(5), 53-58.

Biddle, S. J. H. (2001*). Enhancing motivation in physical education*. In G. C. Roberts (Ed.), *Advances in motivation in sport and exercise, 77*(2), 41-51.

Bitrus, G. A., Apagu K. B. & Hamsatu, P. J. (2016). Marital Status and Age as Predictors of Academic Performance of Students of Colleges of Education in the North- Eastern Nigeria. *American Journal of Educational Research*, *4*(12), 896-902.

Bong, M. & Skaalvik, E. M. (2003). Academic self-concept and self-efficacy: How different are they really? *Educational psychology review*, *15*(1), 1-40.

Brett, F. & Emilia, G. (2014). Comparing satisfaction, life stress, coping and academic performance of counselling students in and on campus and distance education learning environments. *Australian journal of guidance and counselling*, *24*(1), 115-117.

Brougham, R. R., Zail, C. M., Mendoza, C. M. & Miller, J. R. (2009). Stress, sex differences, and coping strategies among college students. *Current psychology*, *28*(2), 85-97.

Byrne, M., Flood, B. & Griffin, J. (2014). Measuring the academic self-efficacy of first-year accounting students. *Accounting Education, 23*(5), 407– 423

Cabanach, R. G. Valle, A. Rodríguez, S. Piñeiro, I. & Freire, C. (2010). *The coping scale of academic stress questionnaire* (A-CEA). *Rev. Iber. Psicol. Salud1,* 51–64

Carolyne, M. E. & Carol, S. W. (2006). *Handbook for classroom management*: Research Practice and contemporary issues. New Jersey: Lawrence Erlbaum.

Carver, C. S. Scheler, M. F & Weintraub, J. K. (1989). Assessing Coping Strategies; A Theoretically Based Approach. *Journal of Personality and Social Psychology, 56*, 256-283.

Cassidy, J. C. & Johnson, R. E. (2002). Cognitive test anxiety and academic performance. *Contemporary Educational Psychology*, *27*, 270–295.

Cassidy, S. & Eachus, P. (2002). The development of the general academic self-efficacy scale (GASE). *Paper presented at the British Psychological Society Annual Conference, Blackpool, UK.*

Causey, D. L. & Dubow, E. F. (1993). Negotiating the transition to junior high school: The contributions of coping strategies and perceptions of the school environment. *Prevention in Human Services, 10*, 59-81.

Chao, R. (2012). Managing Perceived Stress among College students: The Role of Social Support and Dysfunctional Coping Strategies. *Journal of College Counselling, 15* (1), 5-21.

Chatzisarantis, N., Biddle, S. J. H. & Meek, G. A. (1997). A self-determination theory approach to the study of intentions and the intention-behaviour relationship in children's physical activity. *British Journal of Health Psychology, 2*, 343–360.

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), 55-64.

Chiang, C. X. (1995). A study of stress reactions among Adolescents. *Chinese Journal of School Health, 26*, 33-37

Chilukuri, H., Bachali, S., Naidu, J.N., Basha, A.S. & Selvam, S.V. (2012). Perceived stress amongst medical and dental students Andhra Pradesh. *Journal of Psychological Med, 13*(2), 104-107.

Choi, N. (2005). Self-efficacy and self-concept as predictors of college students' academic performance. *Psychology in the Schools, 42*, 197-205.

Clark, E. J. & Rieker, P. P. (1986). Gender differences in relationships and stress of medical and law students. *Journal of Medical Education, 61*(1), 32-40.

Cohen, S., Kessler, R. C., & Gordon, L. U. (Eds.). (1997). *Measuring stress: A guide for health and social scientists.* London: Oxford University Press.

Compas, B. E. Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., and Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: problems, progress, and potential in theory and research. *Psychol. Bull., 127*, 87–127

Covington, M. V. (2000). Goal theory, motivation and students' achievement: An integrated Review. *Annual Review of Psychology, 51*, 171 –200.

Creswell, J. (2007). *Qualitative inquiry & research design*: *Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage Productions.

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. New York: Sage Publications.

Dahlin, M., Joneborg, N. and Runeson, B. (2005). Stress and depression among medical students A cross-sectional study. *Medical Education, 39,* 594-604.

Devonport, T. J. & Lane, A. M. (2006). Relationships between self-efficacy, coping and student retention. *Social Behavior and Personality, 34,* 127–138.

Donaldson, D. Prinstein, M.J., Danovsky, M. & Spirito, A. (2000). A pattern of children's coping with life stress: Implications for clinicians, *American Journal of Orthopsychiatry, 70*(3), 351-359.

Downs, P. A. (2005). *A comparison of student and parent perceptions of academic efficacy, abilities and support: Their impact on Native American high school student's academic achievement*. PhD thesis, Brigham Young University.

Dubow, E. Schmidt, D, & Mcbrigt, J. (1993). Teaching Children to Cope With Stressful Experiences: Initial Implementation and Evaluation of a Primary Prevention Program. *Journal of clinical child psychology, 22*(4), 428-440. doi: 10.1207/s15374424jccp2204_3.

Elfering, A., Grebner, S., Semmer, N. K., Kaiser-Freiburghaus, D., Ponte, S. L. Del, & Witschi, I. (2005). Chronic job Stressors and job control: Effects on event-related coping success and well-being. *Journal of Occupational and Organizational Psychology, 78*(2), 237–252.

Elias, S. M., & MacDonald, S. (2007). Using past performance, proxy efficacy, and academic self-efficacy to predict college performance. *Journal of Applied Social Psychology, 37*(11), 2518–2531. https://doi.org/10.1111/j.1559-1816.2007.00268.

Endler, N.S., Parker, J.D.A. (1999). *Coping Inventory for Stressful Situations (CISS*): Manual. 2nd Ed.), Toronto: Multi-Health Systems.

Eun-K. & Chan, K. (2009). Religious/Spiritual and Other Adaptive Coping Strategies Among Chinese American Older Immigrants. *Journal of Gerontological Social Work. 52*, 517-33. doi.10.1080/01634370902983203.

Faulkner, G. & Reeves, C. (2009). *Primary school student teachers' physical self-perceptions and attitudes towards teaching physical education*. Retrieved from http://www.Cbabstracts.plus.org/abstracts/Abstract.aspx?

Fenollar, P., Roman, S. & Cuestas, P. J. (2007). University students' academic performance: An integrative conceptual framework and empirical analysis. *British Journal of Educational Psychology, 77,* 873-891.

Ferla J, Valcke M. & Cai, Y. (2009). Academic self-efficacy and academic self-concept: reconsidering structural relationships. *Learn Individual Differences, 19*(4), 499–5

Folkman S., Lazarus R. S. (1985). If it changes it must be a process: study of emotion and coping during three stages of a college examination. *Social. Psycholog, 48,* 150–170.

Fox, C. L., & Boulton, M. J. (2005). The social skills problems of victims of bullying: Self, peer and teacher perceptions. *British Journal of Educational Psychology, 75*(2), 313-328.

Fraenkel, J. K., & Wallen, N. E. (Eds.). (2003). *How to design and evaluate research in education.* New York: The McGraw-Hill Company.

Freidman, H. S. & Silver, R. (2007*). Foundations of healthy psychology*. New York University press.

Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research: An Introduction* (6th ed.). White Plains, NY, England: Longman Publishing.

Ganesan Y., Talwar, P., Nosiah, F. & Oon, Y. (2018). A study on stress level and coping strategies among undergraduate students. *Journal of cognitive sciences and Human development,* 3(2).

Ganesh, G., U. Kavitha, B. A. & Chandrasekar, M. (2012). A study to analyse various factors contributing to stress in first year MBBS students during examination. *Int. J. Biomed. Adv. Res*., *3,* 700-703.

Garton, B L., Dyer, J.E. & 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), 46-53.

Geiser, S. & Santelices, M.V. (2007). Validity of high-school grades in predicting student success beyond the freshman year: high-school record vs. standardized tests as indicators of four-year college outcomes. *Research & Occasional Paper Series: CSHE.6.07.* University of California, Berkeley.

Gentry, L. A., Chung, J. J., Aung, N., Keller, S., Heinrich, K. M., & Maddock, J. E. (2007). Gender Differences in Stress and Coping among Adults Living in Hawai`i. *Californian Journal of Health Promotion, 5*(2), 89-102.

Gheibi, M., Arefi, M. & Danesh, E. (2012). Relationship between learning style and self-efficacy in students of Academic Groups *Journal of applied psychology*. *6*(21).

Glozah F. N. & Pevalin, D. J. (2014). Social support, stress, health, and academic success in Ghanaian adolescents: A path analysis. *Journal of Adolescence, 37,* 451- 460.

Govender, P., Mkhabela, S., Hlongwane, M., Jalim, K., & Jetha, C. (2015). OT student's experiences of stress and coping. *South African Journal of Occupational Therapy*, *45*(3), 34–39. doi:10.17159/2310-3833/2015/v45n3/a7.

Grant, S. & Langan-Fox, J. (2006). Occupational stress, coping and strain: The combined/interactive effect of the Big Five traits. *Personality and Individual Differences*. *41,* 719-732. 10.1016/j.paid.2006.03.008.

Greene, B.A., Miller, R.B., Crowson, M., Duke, B.L., & Akey, K.L. (2004). Predicting high school students' cognitive engagement and achievement: Contributions of classroom perceptions and motivation. *Contemporary Educational Psychology*, *29*, 462-482.

Gregory, J. (2007). Parenting Effects on Self-Efficacy and Self-Esteem in Late Adolescence and How Those Factors Impact Adjustment to College. *Social Science Journal, 4,* 114-118.

Gupta, B. & Khan, N. (1987). Anxiety level as a factor in concept formation. *Psychological Reports, 31,* 187-192.

Gustems, J., & Calderon, C. (2013). Coping strategies and psychological well-being among teacher education students. *European Journal of Psychology of Education 28(4):* 1127–1140.

Haarr, N.H., & Morash, M. (1999). Gender, race and strategies of coping with occupational stress in policing. *Justice Quarterly*, *16*(2), 303-336.

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.

Hagger, M. S., Chatzisarantis, N. & Biddle, S J. (2001). *Journal Sports Sci.* 19(9), 711-725.

Halamandaris, K. F., & Power, K. G. (1999). Individual differences, social support, and coping with the examination stress: A study of the psychosocial and academic adjustment of first year home students. *Personality and Individual Differences*, *26*, 665-685.

Hanson, J.B. (2000). Student performance and student growth as measures of success: An evaluator's perspective. *Paper Presented at Annual Meeting of The American Educational Research Association, New Orleans. Louisiana*.

Hart, P.M. (1999). Predicting employee life satisfaction: a coherent model of personality, work and non-work experiences, and domain satisfactions. *Journal of Applied Psychology, 84,* 564–584.

Higgins, J. E. & Endler, N. (1995). Coping, life stress, and psychological and somatic distress. *European Journal of Personality*, *9*, 253-270.

Hijazi, S.T. & Naqvi, S. (2006). Factor Affecting Students' Performance: A case of Private Colleges. *Bangladeshe Journal of Sociology*, 3(1). Retrieved from http://www.researchersworld.com/vol3/issue4/vol3_issue4_1/Paper_07.pdf.

Ireri, A. (2015). *Academic Identity Status and achievement goal orientation as predictors of academic achievement among form three students in Embu County, Kenya.* PhD thesis, Kenyatta University.

Jacob, T. & Einstein, O. (2016). Stress among bachelor of physical Therapy students in Israel and its association with academic Achievement. Results of longitudinal study. *The Internet Journal of Allied Health Sciences and Practice.14,* 1-110.

Edwards, J. M. & Trimble, K. (1992). Anxiety, coping and academic performance. *Anxiety, Stress, & Coping*, *5*(4), 337–350. Retrieved from https://doi.org/10.1080/10615809208248370.

Jeffreys, M. R. (1998). Predicting non-traditional student retention and academic achievement. *Nurse Educator, 23*(1), 42-48.

Jogaratnam, G. & Buchanan, P. (2004). Balancing the demands of school and work: Stress and employed hospitality students. *International Journal of Contemporary Hospitality Management*, *16*(4), 237-245.

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of mixed methods research*, *1*(2), 112-133.

Jung, K. R. (2013). *The mediational effect of academic self-discipline (ASD) between academic self-efficacy (ASE) and college GPA.* PhD thesis, University of Minnesota, MI. Retrieved from http://hdl.handle.net/11299/157688.

Kabunga, A. Mohamed, H. & Mnjokava, C. (2016). Learners' Attitudes and Performance in Science Subjects in A-Level in Secondary Schools, in Mbarara, Uganda. *The Journal of Educational Research. 1*(2) 10-25.

Kadapatti, M. G. & Vijayalaxmi, A, H. (2012). Stressors of Academic Stress - A study on Pre-University Students. *Indian Journal of Scientific Research*, *3*(1), 171-175.

Kadhiravan, S., & Kumar, K. (2012). Enhancing stress coping skills among college students. *Journal of Arts, Science & Commerce*, *3*(4), 49-55.

Kafu, P.A. (2003). *Teacher Education: Its implications to quality of Teachers in Kenya* (Unpublished paper), Moi University.

Karanche, S. & Kulkarni, M. (2005) Poor School Performance. Mumbai, India. *Indian Journal of Paediatrics, 72,* 961-967.

Kariuki, D.G. (2017). *Personal, family and school factors as correlates of Achievement Motivation among form two students in Nairobi County Kenya*. PhD thesis, Kenyatta University.

Kausar, R., (2010). Perceived stress, academic workloads and use of coping strategies by university students. *J. Behav. Sci., 20,* 31-45.

Kerlinger, F.N. (1986). *Foundations of behavioural research* (3rd Ed.) Fort Worth: Harcourt Brace College Publishers.

Khan, M. (2013). Academic Self-Efficacy, Coping, and Academic Performance in College. *International Journal of Undergraduate Research and Creative Activities, 5(4).*

Khramtsova, I., Saarnio, D. A., Gordeeva, T. & Williams, K. (2007). Happiness, life satisfaction and depression in college students: relations with student behaviours. *American Journal of Psychological Research, 3*(1), 8-16.

Kifle, G-K. (2004). *Self-efficacy, academic achievement motivation and study habits as related to general secondary school students' academic performance: The case of general secondary school students in Tigray*. Master's thesis, Addis Ababa University, Addis Ababa, Ethiopia.

Kimani, G.N., Kara A.M. & 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.

Kipkurui, K. J. (2012). *Factors influencing quality training in public primary teachers' colleges in Rift Valley*. Master thesis, Moi University.

Kumaraswamy, N. (2013). Academic Stress, Anxiety and Depression among College Students- A Brief Review. *International Review of Social Sciences and Humanities Counselling Psychology, 5*(1), 135-143.

Kwaah, C. Y. & Essilfie, G. (2017). Stress and coping strategies among distance education students at the University of Cape Coast, Ghana. *Turkish Online Journal of Distance Education TOJDE*, 18(3), 120-134.

Kwena, J. S. A. (2007). *An investigation into selected factors on academic self-concept among primary school pupils in Bondo District.* PhD thesis, Kenyatta University.

Lazarus, R.S. & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer.

Lazarus, R.S. (1999). *Stress and Emotion*: *a new synthesis*. New York: Springer.

Lebcir, R. M., Wells, H. & Bond, A. (2008). Factors affecting academic performance of international students in project management courses: a case study from a British Post 92 University. *International Journal of Project Management.26*(3), 268-2740.

Lent, R. W., Lopez, F. G., & Bieschke, K. J. (1993). Predicting mathematics-related choice and success behaviors: Test of an expanded social cognitive model. *Journal of Vocational Behavior, 42*(2), 223-236.

Li, L. K. Y. (2012). A study of the attitude, self-efficacy, effort and academic achievement of city students towards research methods and statistics. *Discovery SS Student E-Journal, 1:* 154-183.

Liem, G. A. D., Ginns, P., Martin, A. J., Stone, B. & Herrett, M. (2012). Personal best goals and academic and social functioning: A longitudinal perspective. *Learning and Instruction, 22,* 222-230. doi:10.1016/j.learninstruc.2011.11.003.

Lin, H. J., & Yusoff, M. S. B. (2013). Psychological distress, sources of stress and coping strategy in High School Students. *International Medical Journal, 20(*6), 1– 6. Retrieved from https://www.reearchgate.net.

Linatda, K. & Abdul, M. (2014). Coping Strategies on Academic Performance among Undergraduate Students in Thailand. *The SIJ Transactions on Industrial, Financial & Business Management (IFBM), 2*(3), 58-61.

Loo, C. W. & Choy, J. L. F. (2013). Sources of self-efficacy influencing academic performance of engineering students. *American Journal of Educational Research*. *1*(3), 86-92.

Lopez, E. G., & Lent, R. W. (1992). Sources of mathematics self-efficacy in high school students. *Career Development Quarterly*, 41, 3–12.

Macharia, R. W. (2011). *Investigation on factors influencing academic self-concept and academic achievement among day secondary students in Githoboko-ini division, Gatundu District*. Master thesis, Kenyatta University.

Mahajan, A. (2010). Stress in Medical Education: A Global Issue or much Ado about Nothing Specific. *South-East Asian Journal of Medical Education, 4*(2), 9–13.

Maheshwari, K. & Deepa, M. (2013). *A Research Study on the Impact of Stress upon the Academic Performance of B-School Students*, Coimbatore: KCT Business School.

Maliha, N. & Iqbal, S. (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), 33–42.

Malik, P. R. & Balda, S. (2006). High IQ adolescents under stress: Do they perform poor in academics. *Anthropologist, 8*(2), 61-62.

Mani, V. (2010). Students' perception of the impact of course works on exam stress. *International Journal of Arts and Sciences*, *3*, 104-110.

Martinez, A. (2015). *Parental involvement and its effects on students' academic performance.* Master thesis, California State University, Stanislaus.

Marzano, R.J. & Pickering, J.D. (2006). *Classroom management that work. Research based strategies for every teacher.* Alexandria: Association for Supervisors and Curriculum Development.

Mathew, B & Jayan, C. (2006). Academic Stress and Coping Styles among Plus-two Students. *Indian Psychological Review,* 66.

Mathew, C. P. (2017). Stress and coping strategies among college students. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, *22*(8), 40–44.

Matseke, P. M. (2011). *The influence of learning strategies on learners' self- efficacy and academic achievement.* Master thesis, University of South Africa. Retrieved from uir.unisa.ac.za/bitstream/handle/10500.

Matsui, T., Matsui, K. & Ohnishi, R. (1990). Mechanisms underlying math self-efficacy learning of college students. *Journal of Vocational Behavior, 37,* 225-23.

Mattlin, J. A., Wethington, E. & Kessler, R. C. (1990). Situational determinants of coping and coping effectiveness. *Journal of Health and Social Behavior*, *31*(1), 103–122. https://doi.org/10.2307/2137048.

Mattlin, J. A., Wethington, E. & Kessler, R. C. (1990). Situational determinants of coping and coping effectiveness. *Journal of Health and Social Behavior*, *31*(1), 103–122. https://doi.org/10.2307/2137048.

Matud, M. P. (2004). Gender differences in stress and coping styles. *Personality and Individual Differences*, *37*(7), 1401–1415.

Mburung'a, R. N. (2016). *Students' and teachers' retention perception as predictors of self-esteem and academic achievement in secondary schools in Meru County, Kenya.* PhD thesis, Kenyatta University.

McEvoy, G. M. (1989). Cumulative evidence of the relationship between employee age and job performance. *Journal of Applied Psychology, 74*(4), 11-17.

McIlroy, D., Bunting, B. & Adamson, G. (2000). An evaluation of the factor structure and predictive utility of a test anxiety scale with reference to students' past performance and personality indices. *British Journal of Educational Psychology, 70*(1), 17-32.

McKenzie, K. (1999). *Correlation between Self-efficacy and Self-esteem in students*. Master of Science thesis, The Graduate College University of Wisconsin-Stout Retrieved from http://www.uwstout.edu/lib/thesis/1999/1999mckenzie.pdf Accessed 18/2/2019.

McWilliams, E. C. (2014). *Self-efficacy, implicit theory of intelligence, goal orientation, and the ninth grade experience*. PhD thesis, North-eastern University. Retrieved from http://hdl.handle.net/2047/d20128412.

Misra, R. & Castillo, L. G. (2004). Academic Stress among College Students: Comparison of American and International Students. *International Journal of Stress Management, 11*(2), 132-148.

Misra, R. & McKean, M. (2000). College students' academic stress and its relation to their anxiety, time management and leisure satisfaction. *Am. J. Health Stud., 16,* 41-51.

Mohamed, I. B. (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.

Mohamed, S. & Kaleem, R. (2018). Impact of stress on students' academic performance in secondary school level at District Vehari India. *International Journal of Learning and Development, 8*(1), 84-93.

Momanyi, J.M., Ogoma, S. O. & Misigo, B. L. (2010). Gender differences in self-efficacy and academic performance in science subjects among secondary school students in Lugari District. Kenya. *Educational Journal of behavioral Sciences, 1*(1), 62-77.

Muraina, K. & Oyadeyi, B. (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, 5*(22),169-175.

Muris, P. (2001). A brief questionnaire for measuring self-efficacy in youths. *Journal of Psychopathology and behavioural Assessment, 23(14),* 145- 149.

Murray-Harvey, R. (1993). Learning styles and approach to learning review of instrument; the peps and spq. *Report prepared for the Queensland Department of Education, Metropolitan East Region Professional Development Unit.*

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/

Mustofa, A. (2006). *Self-efficacy, achievement motivation, attitude and gender difference of students' science performance in Debre-Brhan General Secondary* School. Master's Thesis, Addis Ababa University.

Muthukrishnan, P. & Xiani, W. (2019). Coping Strategies as Predictors of Academic Achievement of the Left-Behind Children in Henan Province, China. *International Journal of Academic Research in Business and Social Sciences, 9(*3), 1028–1043.

Mutua, J.N. (2018). *Academic Mindset as Predictors of Academic Achievement among Public Secondary School Students in Nairobi County, Kenya*. PhD thesis, Kenyatta University.

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*. PhD thesis, Kenyatta University.

Mwangi, C. (2015). *Predictors of academic resilience and its relationship to academic achievement among secondary school students in Kiambu county, Kenya*. PhD thesis, Kenyatta University.

Mwinzi, J. M. (2012). *Integrating philosophy of education and the goals of education in education practice at Kenyan high schools*. PhD thesis, University of South Africa.

Nader, A. (2006). *Culture, religion and spirituality in coping*: *The example of cancer patients in Sweden.* Uppsala: Uppsala University.

Naderi, H., Abdullah, R. & Kumar, R. (2009). Creativity, age and gender as predictors of academic achievement. *Journal of American Science*, *5*(5), 101-112.

Natovová L, Chýlová H, (2014). "Is there a relationship between Self-efficacy, Well-being and Behavioural Markers in Managing Stress at University Students?" J*ournal. on Efficiency and Responsibility in Edu. and Sci*., *7*(1), 14-18

Neuville, S., Frenay, M., & Bourgeois, E. (2007). Task value, self-efficacy and goal orientations: Impact on self-regulated learning, choice and performance among university students. *Psychologica Belgica, 47,* 95-117. doi: http://dx.doi.org/10.5334/pb-47-1-95.

Nkpa, M. (1997). *Educational Research for Modern Schools* (4th Ed.). Enugu: Fourth Dimension Publishing Company.

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.

Ochieng, W. (2015). *Self-efficacy and academic achievement among secondary schools in Kenya. Mathematics Perspectives*. Unpublished Project, University of Nairobi.

Oketch, O. Odiemo L. (2018). Relationship between level of stress and performance among University of Nairobi students. *International Journal of Learning and Development, 1*, 51-66.

Okioga, C.K. (2013). The impact of students' socio-economic background on academic performance in universities, a case of students in Kisii University College. *American International Journal of Social Science, 2*(2), 38-46.

Okoro, E. (2018). *Assessment of stress related issues & coping mechanisms among college students*. Master's thesis, Minnesota State University, Mankato, Minnesota.

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, 5,* 22-2014.

Opanda J A (2014). Implication of the mismatch between training and placement in teacher training colleges, a case of Mosoriot teacher training college, Kenya. *Mier Journal of Education Studies Trends and Practices, 4*(1), 88-100.

Orodho, J. A. (2009*). Techniques of writing research proposals and reports in education and. Sciences* Nairobi: Kanezja Publishers.

Owiti, D. S. O. (2001). *Gender difference in attitudes toward Mathematics: A case of secondary school students in Eldoret Municipality, Uasin Gishu District, Kenya.* M.Phil. Thesis, Moi University, Eldoret, Kenya.

Owino, E.A. (2014). *50% of school children cannot read and write*. Retrieved at http://www,iq4news.com/note/78607. Accessed 2/1/2014.

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, F. (1994). Self-efficacy beliefs in academic settings. *Review of Educational Research, 66*(4), 543-578.

Park. M. Kwon Y. & Shin, H. (2014). Coping strategies as a mediator between gifted students` academic stress and school adjustment. *Korea Youth Research, 21*(8), 1–25.

Patiño, Peña, L. & Cardona, A. (2013). Review of some studies on university student dropout in Colombia and Latin America. *Acta Universitaria, 23*(4), 37-46.

Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. *Educational Psychology Review, 16,* 385-407. doi:10.1007/s10648-004-0006-x.

Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology, 82,* 33–40.

Pomerantz, E. M., & Eaton, M. M. (2001). Maternal intrusive support in the academic context: Transactional socialization processes. *Developmental Psychology, 37,* 174–186.

Prabu, S. P. (2015). A Study on Academic Stress among Higher Secondary Students. *International Journal of Humanities and Social Science Invention, 4*(10), 63-68.

Pritchard, M. E., Wilson, G. & Yamnitz, B. (2003). *What predicts adjustment among college students*? *A Longitudinal Panel Study*. *Journal of American college health : J of ACH*, 56(1), 15–21. https://doi.org/10.3200/JACH.56.1.15-22.

Rafidah, K., Azizah, A., Norzaid, M. D., Chong, S. C., Salwani, M. I. & Noraini, I. (2009). The Impact of Perceived Stress and Stress Factors on Academic Performance of Pre-Diploma Science Students: A Malaysian Study. *International Journal of Scientific Research in Education, 2*(1), 13-26.

Rahim M, Saat M, Ashard A (2016) Relationship between academic workload and stress among biomedical science students in Kuala Lampur. *Journal of Applied Science 16*(3) 108-122.

Rao, R.B. (2012). *A Study of Academic Stress and Adjustment Styles of Teacher Trainees*. Unpublished Thesis, Education, Acharya Nagarjuna University. Retrieved from http://shodhganga.inflibnet.ac.in/handle/10603/8093.

Rawson, H.R., Palmer, D. W. & Henderson, J. (1999). Coping resources and self-esteem differences between students selecting a large and small college. *Affairs Journal, 18*(2), 72-80.

Redhwan, A.A. Sami, A., Karim, R. C. & Zaleha, M. (2008). Stress and Coping Strategies among Management and Science University Students: A Qualitative Study. *The International Medical Journal. 8*(2), 11-15.

Reynolds, A. L. & Weigand, M. J. (2010). The relationships among academic attitudes, psychological attitudes, and the first-semester academic achievement of first year college students. *Journal of Student Affairs Research and Practice*, *47*(2), 175-195.

Richardson, M., Bond, R., & Abraham, C. (2012). Psychological correlates of university students 'academic performance: A systematic review and meta-analysis. *Psychological Bulletin, 138,* 353-387.

Robbins, S. B., Lauver, K., Le, H., David, D., & Langley, R. (2004). Do psychosocial and study skill factors predict college outcomes? A meta-analysis. *Psychological Bulletin, 130,* 261-288.doi: 10.1037/0033-2909.130.2.261

Robotham, D. (2008). Stress among higher education students: Towards a research agenda. *Higher Education, 56*, 735-746.

Roth, S., & Cohen, L. J. (1986). Approach, avoidance, and coping with stress. *American Psychologist, 41*(7), 813–819.

Ryan-Wenger, N. M. (1992). A taxonomy of children's coping strategies: A step toward theory development. American. *Journal of Orthopsychiatry, 62*(2), 256–263.

Saat, N.Z.M., I. Ishak, S.H. Lubis, S.H. & Wen, S.N. (2010). Stress and its (relationship with body mass index among biomedical science students in Kuala Lumpur, Malaysia. *ASEAN J. Psychiatry, 11,* 190-197

Sadi, O. & Uyar, M. (2013.) The Relationship Between Self-Efficacy, Self-Regulated Learning Strategies and Achievement: A Path Model. *Journal of Baltic Science Educ. 12*(1):21–33.

Sahana, M, K.S. & Latha, K. (2014). Stress, Coping and Gender Differences in Third Year Medical Students *Journal of Health Management, 16*(2), 315-326.

Salami, S.O. & Ogundokun, M.O. (2004). Emotional intelligence and self-efficacy as predictors of academic performance. *European journal of educational studies. 25*(3), 175-185.

Sanders, A. E. & Kurt, L. (2001). Effect of Perceived Stress on Student Performance in Dental School. *Journal of Dental Education, 66*(1), 75-81.

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), 65–73.

Schafer, W. (1996). Saunders, J., Davis, L., Williams, T., & Williams, J.H. (2004). Gender differences in self-perceptions and academic outcomes: A study of African American High School Students. *Journal of Youth and Adolescents, 33*(1) 81-90.

Schafer, W.E (1996). *Stress Management for Wellness.* Orlando: Harcourt Brace.

Schallert, D. L. (2006). Middle school students' self-efficacy, attitudes, and achievement in a computer-enhance problem-based learning environment. *Journal of Interactive Learning Research, 17*(3), 225-242.

Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational psychologist, 26*(3-4) 207- 231.

Schunk, D. H. & Hanson, A. R. (1985). Peer models: Influence on children' self-efficacy and achievement, *Journal of Educational Psychology, 77*(3), 313 – 322.

Schwarzer, R. & Fuchs, R. (2009). Self-efficacy and health behaviours. *In* M. Conner & P Norman (Eds.) *Predicting health behaviour: Research and practice in social cognition models.* London: The Open University Press.

Schwarzer, R. (1992). *Self-efficacy: Thought control of action.* New York: Taylor & Francis

Schwarzer, R. (2001). Stress, resources, and proactive coping. *Appl. Psychol. Int. Rev. 50*(3*)*, 400–407.

Scott,E, M.S. (2009). *Stress in College. Common Causes of Stress in College*. Saarbrücken, Germany: Lambert Academic Publishing.

Scott, S. L. Carper, T. M., Middleton, M., White, R., Renk, K., & Grills-Taquechel, A. (2010). Relationships among locus of control, coping behaviors, and levels of worry following exposure to hurricanes. *J. Loss. Trauma, 15,* 123–137

Shaikh, B. T., Kahloon, A., Kazmi, M., Khalid, H., Nawaz, K., Khan, N. A. & Khan, S. (2004). Students, stress and coping strategies: A case of Pakistani medical school. *Education for Health, 17,* 346-353.

Sharma N. & Kaur A. (2011). Factors Associated with Stress among Nursing Student, *Nursing and Midwifery Research Journal*, 7(1): 12-21.

Sharma, D., & Silbereisen, R. (2007). Revisiting an era in Germany from the perspective of adolescents in mother-headed single-parent families. *International journal of psychology, 42,* 46-58. 10.1080/00207590600663299.

Shields, N (2001) "Stress, active coping, and academic performance among persisting and Non persisting college students". *Journal of Applied Behavioral Research, 6,* (2), 65-81.

Shkullaku, R. (2013). The Relationship between Self –Efficacy and Academic Performance in The Context of Gender Among Albanian Students. *European Academic Research,1(4).*

Sibnath, D, Esben S, & Jiandong, S. (2014). Academic-related stress among private secondary school students in India. *Asian Education and Development Studies, 3*(2), 118-134.

Simmons, A.B., Musoba, G.D. & Choong, C.G. (2005). Persistence among First Generation College Students in Indiana: *The Impact of Precollege Preparation, College Experiences, and Financial Aid. Indian Project on Academic Success (IPAS) Research Report* No. 05-01.

Singh, A., & Upadhyay, A. (2008). Age and sex differences in academic stress among college students. *Social Science International* 24(1), 78-88.

Sinha, U. K., Sharma, V., & Nepal M. K. (2001). Development of a scale for assessing academic stress: A preliminary report. *Journal of the Institute of Medicine, 23,* 96-102.

Siraj, H.H, Slan, A. & Roslan, R. (2014). Stress and its association with academic performance of undergraduates in Malysia. *The International Medical Journal 13(1) 19-24.*

Slaven, G. M., & Windle, C. M. (1999). Cognitive performance over 7 days in a distressed submarine. *Aviation, space, and environmental medicine*, 70(6), 604-608.

Smith, J., & Naylor, R. (2001). Determinants of Degree Performance in UK Universities: A Statistical Analysis of the 1993 Student Cohort. *Oxford Bulletin of Economics & Statistics*, 63(1), 29-60.

Sohail, N. (2013). Stress and academic performance among medical student *journal of coll physicians surg pak, 23*(1) 67-71.

Solomon, Z. Mikulincer, M. & Avitzur, E. (1988). Coping, Locus of Control, Social Support, and Combat-Related Posttraumatic Stress Disorder: *A Prospective Study. Journal of personality and social psychology*. *55*, 279-85. Doi 10.1037/0022-3514.55.2.279.

Spinath, B., Freudenthaler, H. H. & Neubauer, A. C. (2010). Domain-specific school achievement in boys and girls as predicted by intelligence. *personality and motivation. Personality and individual differences, 48(*4), 481-486. Doi:10.1016/j 2009.11.028.

Stanat, P. & Kunter, M. (2003). Acquisition of competencies, participation in education and school career of girls and boys in comparison of German Federal States *International Journal of Environment and Science Education, 5*(1).

Stewart, S.M, Lam, TH, Betson CL, Wong, C.M. & Wong, A.M. (1999). *Prospective analysis of stress and academic performance in the first two years of medical schoo*l, *33*(4), 243-250.

Strelnieks, M. (2003). *The relationship of students' domain specific self-concepts and self-efficacy to academic performance*. PhD thesis, Marquette University, Wisconsin.

Struthers, C. W., Perry, R. P. & Menec. V. H. (2000). An examination of the relationship among academic stress, coping, motivation, and performance in college. *High. Educ.* 41, 581–592.

Sullivan, G. (2011). The Relationship Between Hope, Eustress, Self-Efficacy, and Life Satisfaction Among Undergraduates. *Social Indicators Research, 101*(1), 155-172. Retrieved September 14, 2020, from http://www.jstor.org/stable/41476424.

Supe, A.N. (2002. A study of stress in medical student at Seth GS Medical College. *Journal of Postgraduate Medicine*, 44(1), 1-6.

Talib, N. & Zia-ur-Rehman, M. (2012). Academic Performance and Perceived Stress among University Students. *Educational Research and Review*, 7(5): 127-132.

Tao, S. Dong, Q., Pratt M.W., Hunsberger, B. & Pancer, S.M. (2000). Social support: Relations to coping and adjustment during the transition to university in the People's Republic of China. *Journal of Adolescent Research*, 15(1), 123-144.

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),* 3-28.

Thawabieh, A. M. & Qaisy, L. M. (2012). Assessing Stress among University Students. *American International Journal of Contemporary Research*, 2(2), 110-116.

Thoits, P. A. (1995). Stress, coping, and social support processes: Where are we? What next?. *Journal of Health and Social Behavior*, 35, 53-79. doi:10.2307/2626957

Torres, J. & Solberg, V. (2001). Role of self-efficacy, stress, social integration and family support in Latino college student persistence and health. *Journal of Vocational Behaviour, 59*(1), 53–63.

Towse, P. Kent, D. Osaki, F. & Kirua, N. (2002). Non-graduate teacher recruitment and retention: Some factors affecting teacher effectiveness in Tanzania. *Teaching and Teacher Education. 18,* 637-652. 10.1016/S0742-051X (02)00024-0.

Turashvili, T., & Japaridze, M. (2013). Coping Strategies of University Students in Georgian Context. *Problem of Education in the 21st Century, 56*, 144-149.

Turgut, M. (2013). Academic Self-Efficacy Beliefs of Undergraduate Mathematics Education Students. *Acta Didactica Napocensia*, *6*(1), 33-40.

Turner, E. A., Chandler, M. & Heffer, R. W. (2009). The influence of parenting styles, achievement motivation, and self-efficacy on academic performance in college students. *Journal of College Student Development, 50*(3), 337–346. https://doi.org/10.1353/csd.0.0073.

Uwezo Kenya. (2016). Are our children learning?: Uwezo Kenya sixth learning assessment report. Retrieved from https://learningportal.iiep.unesco.org/en/library/are-our-children-learning-2016-uwezo-kenya-sixth-learning-assessment-report.

Vanvoorhis, C. R. W. & Morgan, B. L. (2007). Understanding power and rules of thumb for determining sample sizes. *Tutorials in Quantitative Methods for Psychology*, *3*(2),43-50.

Villavicencio, F. & Bernardo, A. (2013). Negative emotions moderate the relationship between self-efficacy and achievement of Filipino students. *Psychological Student. 58*(3):225–32.

Wambugu, L & Emeke, A. (2013). *Relationship between Entry Qualification and Academic Performance in Undergraduate Science Courses at the University of Nairobi, Kenya*. Retrieved from http://oasis.col.org/bitstream.

Watson, R. L. *A.* (2002). *Comparison of perceived stress levels and coping styles of junior and senior students in nursing and social work programs*. PhD thesis, West Virginia Marshall University, Huntington.

Watson, S., Goh, Y. & Sawang, S. (2011). Gender influences on the work-related stress-coping process. *Journal of Individual Differences*, *32*(1):39-46.

Weerasinghe, T., Batagod, C., Chandrika, K. & Siriwardans, W. (2012). Prevalence and determinants of stress among undergraduates: A study of public universities in

Colombo region. *Proceedings of the 7th International Research Conference on Management and Finance, University of Colombo, Sri Lanka.*

Yalew, E. (2005). The effects of grade, self-efficacy, learned-helplessness, and cognitive engagement on liking Mathematics among primary school students. *Ethiopian Journal of Development Research, 27(*2), 81-107.

Yates, J. James, D. & Aston, I. (2008). Pre-existing mental health problems in medical students: a retrospective survey. *Medical Teacher*, *30*(3), 319-321.

Yogesh S., Albha. S. & Priyanka S. (2014) Gender correlation of stress levels and source of stress among first year students. *Indian Journal of Psychology and Pharmacology 58*(2), 147-151.

Yusoff, M.S.B, Abdul Rahim &. Yaacob, M.J. (2010) The development and validity of the Medical Student Stressor Questionnaire (MSSQ). *ASEAN J. Psychiatry, 11*(1), 231-235.

Zabihollahi, K., Yazdani varzaneh, M., gholamali lavasani, M. (2012). Academic self-efficacy and self-destabilising in high school student. *Evolutionary psychology: Iranian psychology*, 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*),* 677–706.

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

Zeidner, M. (1992). Sources of academic stress: The case of first year Jewish and Arab college students in Israel. *Higher Education, 24*, 25-40.

Zimmerman, B. J. & Martinez-Pons, M. (1990). Student differences in self-regulated learning: Relating grade, sex and giftedness to self-efficacy strategy use. *Journal of Educational Psychology, 82*(1), 51-59.

Zuckerman M. & Gagne, M. (2003). The COPE revised: Proposing a 5-factor model of coping strategies. *Journal of Research in Personality, 37,* 169-204.

Zusho, A. & Pintrich, P. A. (2003). Skill and will: The role of motivation and cognition in the learning of college chemistry. *International Journal of Science Education, 25,* 1081-1094.

APPENDICES

APPENDIX A: LETTER OF CONSENT

Dear Participant,

My name is Elizabeth Muema, a student at Machakos University I am doing a study to understand academic self-efficacy, Stress and Coping Strategies as predictors of Academic Performance in Public Primary Teacher Training colleges in central region, Kenya. You have been selected to participate in this study and I kindly request you to fill in the questionnaires provided as accurately as possible. There are no right or wrong answers. The information you give is confidential. Do not write your name on the questionnaires. The information you give will only be used for the purposes of this study. Kindly sign in the space provided to agree to participate in the study._____

Thank you.

Elizabeth Muema

Machakos University

APPENDIX B: STUDENTS QUESTIONNAIRE

Instructions

- Do not discuss the questionnaire with your colleagues.
- Responses will be kept confidential.

Section 1. Demographic Information

1. Please indicate your sex (Tick (√) where appropriate**)**

Male	
Female	

2. Indicate your age (Tick where appropriate)

18-20	
21-30	
31-40	

3. Was P1 Training Your Career choice? (Tick where applicable)

Yes	
No	

4 Mid-course results_____

SECTION 2. ACADEMIC SELF-EFFICACY QUESTIONNAIRE (ASQ)

Some statements concerning your academic beliefs are given below carefully read each statement and decide to what extent it is true in your case there is no correct nor wrong answer Then mark' X in the column of the given response against the statement.

5. Strongly agree

4. Agree

3. Not sure

2. Disagree

1. Strongly disagree

	Statement	**5 Strongly agree**	**4 Agree**	**3 Not sure**	**2 Disagree**	**1 Strongly Disagree**
	Content understanding					
1	I ask and respond to questions during lecture times					
2	I can explain subject matter learned clearly and correctly					
3	For me to understand content I must pay attention during class time					
4	I express my opinions when I don't understand the content the lecturer is teaching					
	Time Management					
5	I have a personal study plan for all subjects which I follow strictly .					
6	I plan time well during my examinations.					

7	I meet all the deadlines for my projects and assignments submission					
8	I push the my group to attempt to meet deadlines for group assignments.					
	Academic Self-Drive					
9	When faced by an academic problem I ask for help from my lecturers/friends					
10	I always research and write additional notes on content learned					
11	I can finish the course without failing					
12	In group assignments I always volunteer to make class presentations					
	Examination Preparation					
13	I pass all my Tests/ examinations I take.					
16	When I do an examination the results I get is true of me always					
15	I feel nervous when doing my examinations					
16	I always revise continuously.					

SECTION 3. STUDENTS STRESS QUESTIONNAIRE (SSQ)

This scale consists of 14 items describing the sources of stress in your life in college. You can indicate the level of stress you feel for each item by marking X mark against each statement.

	Statement	5 Strongly agree	4 Agree	3 Not sure	2 Disagree	1 Strongly disagree
1	Heavy Academic workload					
2	Competition with my peers for grades is quite intense					
3	Poor performance in cats and exams					
4	Low motivation					
5	Inadequate resources like books computers/internet services					
6	Conflicts with peers/classmates					
7	High expectations from parents/teachers					
8	Financial problems/ lack of fees/daily upkeep					
9	Uncertainty about my future					
10	Poor facilities like e g hostels, toilets,					
11	Poor content delivery methods					
12	Missing classes					
13	Unfair treatment by boy/girl friend					
14	Conflict with lecturers					

SECTION 4. COPING STRATEGIES (CS)

There are many ways to try to deal with stress as a student. This section asks you to indicate what you generally do and feel when you experience stressful situations/ events by putting an X in the box

5=Most times 4= Often 3= Occasionally

2=Seldom 1= Never

		Most times	**Often**	**Occasionally**	**Seldom**	**Never**
1	**Task oriented coping** I Focus on the problem and see how to solve it					
2	I think about how I solved a similar problem					
3	I determine a course of action and follow					
4	I work hard to understand the situation causing stress					
5	I take corrective action immediately					
6	I think about the problem and learn from my mistakes.					
7	I analyze the situation before reacting					
	Emotion oriented coping					
8	I blame myself for the situation I find myself into					
9	I feel anxious about not able to cope					

		Most times	**Often**	**Occasionally**	**Seldom**	**Never**
10	I blame myself for being too emotional					
11	I always become emotional about the situation stressing me					
12	I blame myself for not knowing what to do					
13	I wish I can change what had happened to me					
14	I always focus on my general inadequacies					
	Avoidance oriented coping					
15	I Buy myself my favorite drink					
16	I Visit a fellow student					
17	I Buy myself something good					
18	I Spend time with a friend					
19	I Go out to have fun					
20	I phone a friend to chat					
21	I take some time off and get away from the situation					

APPENDIX C: SEMI STRUCTURED INTERVIEW SCHEDULE FOR DEAN OF CURRICULUM AND LECTURERS

A) Dean of Curriculum

1. Do the students belief in their academic ability?

2. What is the level of students' time management in the college?

3. When faced by academic problems which of students seek for help in your office?

4. What are the major causes of stress among the students?

5. In which ways do students respond to stress?

6. What do you think causes examination failure among the students?

B) Semi Structured Interview Schedule for Lecturers

a) Academic Self-efficacy

1. When teaching does the students understand the content without difficulty

2. The students are good time managers' in

a) Class attendance True/Not True

b) Finishing assignments True/ Not true

3. The students are self- driven in accomplishing academic tasks

4.How can you help the student to develop high academic self-efficacy.

b) Stress

4. What are the major causes of stress among the students in teacher training colleges?

5. Syllabus coverage is stressful for the lecturer and the students

6. The outcome of the PTE examination stresses the existing students True/Not True

7.Students relationships are a major cause of stress among the students, do you agree?

c) Coping Strategies

1 How do students respond to stress under the following headings a) task oriented b) emotion oriented c) avoidance oriented

2. Some students take drugs and alcohol True /Not true

3. Most of the students seek for help from the lecturers when stressed True /Not True

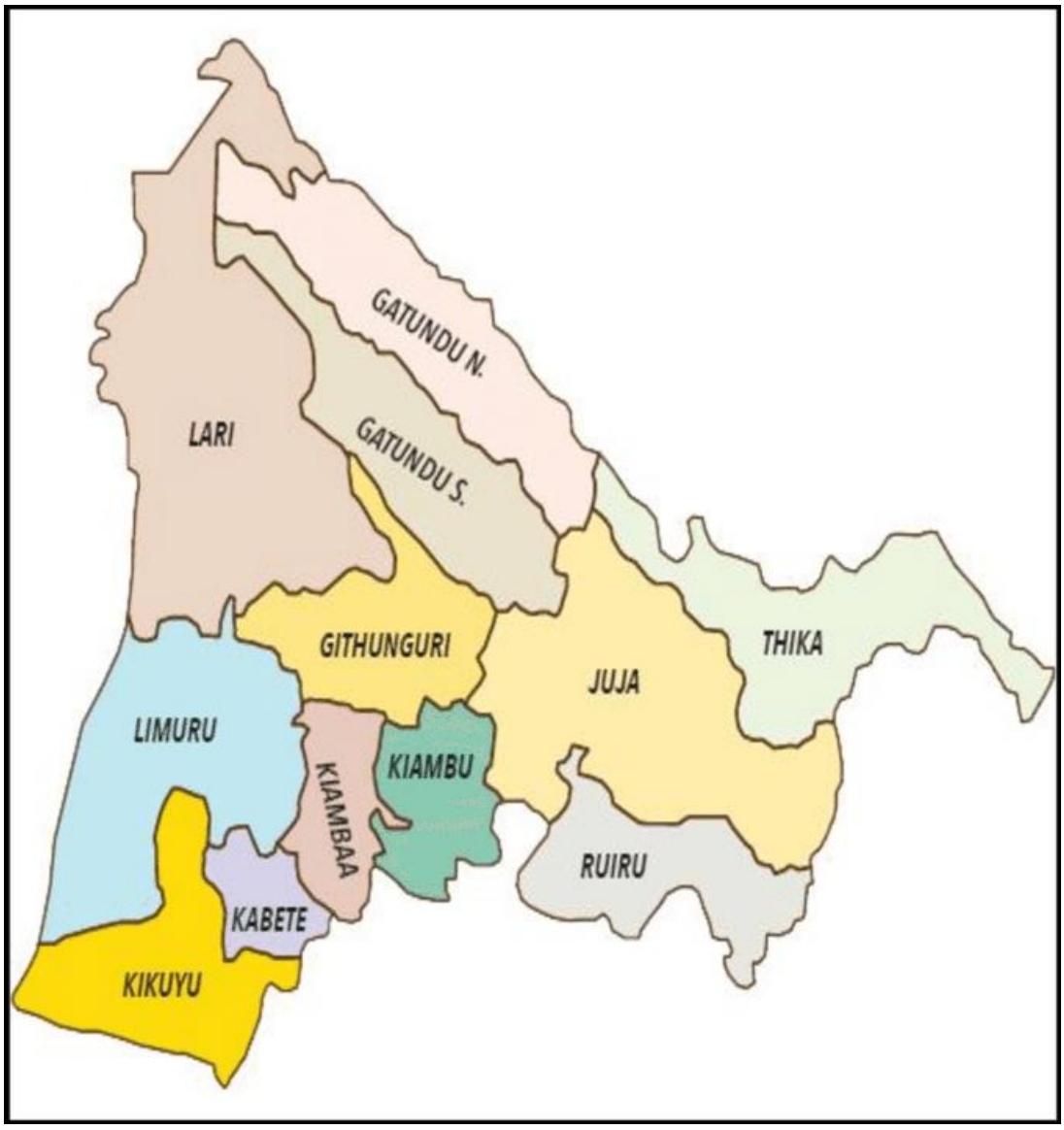
d) Academic Performance

1. What are the reasons that have led to poor performance among students in TTCs

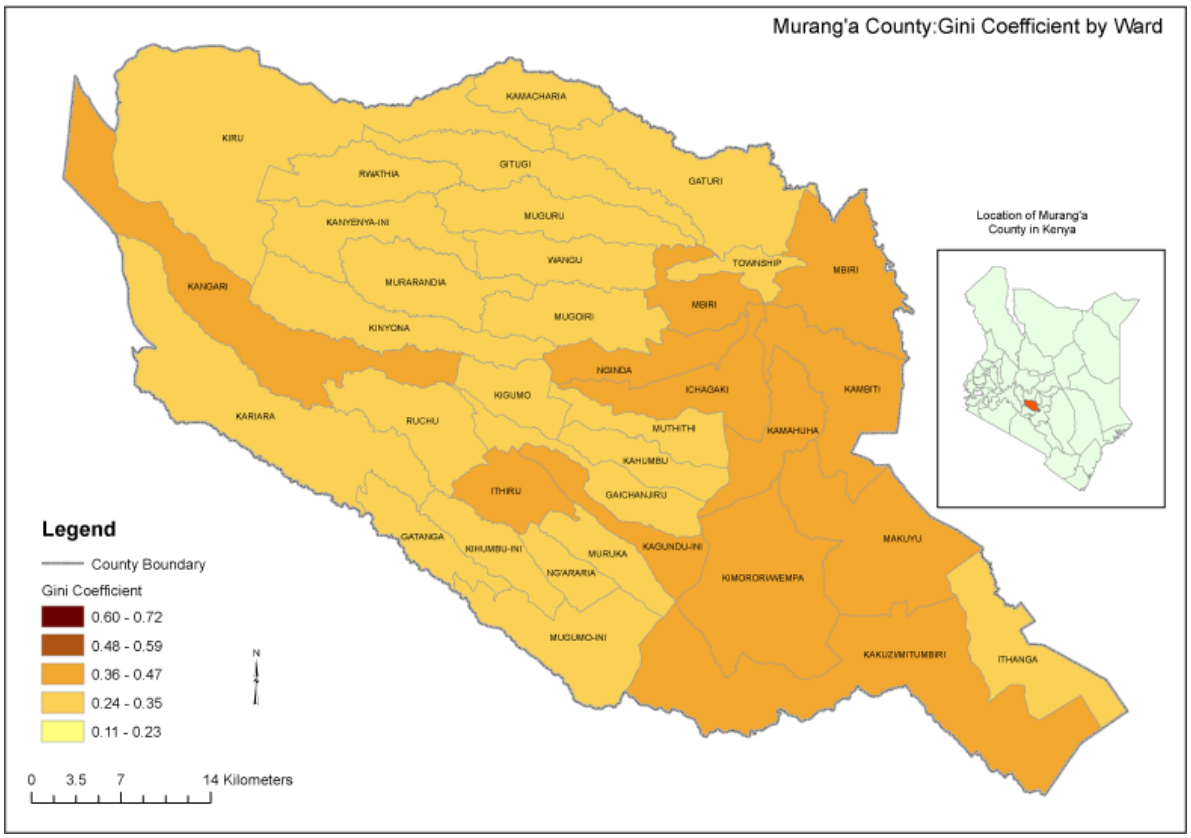
APPENDIX D: STUDENTS PROFORMA

SERIAL	OVERAL AGGREGATE
1	
2	

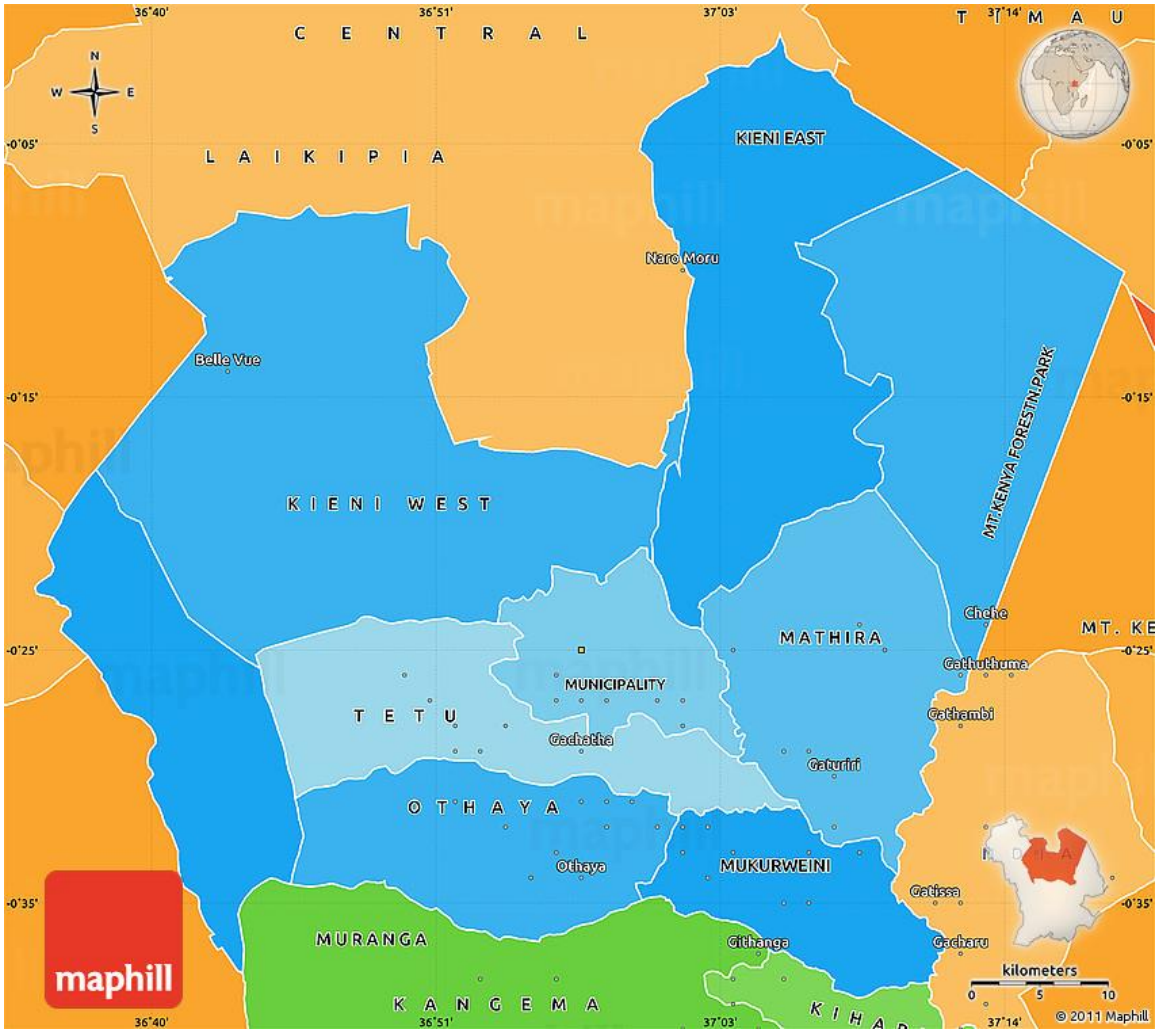
APPENDIX E: MAP OF KIAMBU COUNTY



APPENDIX F: MAP OF MURANGA COUNTY



APPENDIX G: MAP OF NYERI COUNTY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APPENDIX H: RESEARCH AUTHORIZATION LETTER

MACHAKOS UNIVERSITY
OFFICE OF THE DEAN GRADUATE SCHOOL

Telephone:254-0)735247939, (0)723805929
Email:graduateschool@mksu.ac.ke
website:www.machakosuniversity.ac.ke

P.O.Box 136-90100
Machakos
KENYA

REF.MKsU/GS/SS/012/VOL.1

17th December, 2019

The Director
National Commission for Science, Technology and Innovation
P.O. Box 30623
NAIROBI

Dear Sir,

RE: ELIZABETH MUEMA– D83/7311/2016

The above named is a PhD student in the second year of study and has cleared her course work. The University has cleared her to conduct research entitled: **"Academic self-efficacy, stress and coping strategies as predictors of academic performance among students in public primary teachers training colleges in Kenya".**

Kindly assist her with a research permit in order to undertake the research.

Thank you.

DEAN OF GRADUATE SCHOOL P.O.Box 136 - 90100, MACHAKOS MACHAKOS UNIVERSITY 17 DEC 2019

DR. KIMITI RICHARD PETER, PhD
AG. DEAN GRADUATE SCHOOL
KRP/gdm

APPENDIX I: RESEARCH LICENCE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **541456**

Date of Issue: **03/February/2020**

RESEARCH LICENSE

This is to Certify that Ms.. ELIZABETH MUEMA ELIZABETH MUEMA of MACHAKOS UNIVERSITY, has been licensed to conduct research in Kiambu, Muranga, Nyeri on the topic: ACADEMIC SELF EFFICACY,STRESS AND COPING STRATEGY AS PREDICTORS OF ACADEMIC PERFORMANCE AMONG STUDENTS IN PRIMARY TEACHER TRAINING COLLEGES IN CENTRAL REGION, KENYA for the period ending : 03/February/2021.

License No: **NACOSTI/P/20/3637**

541456

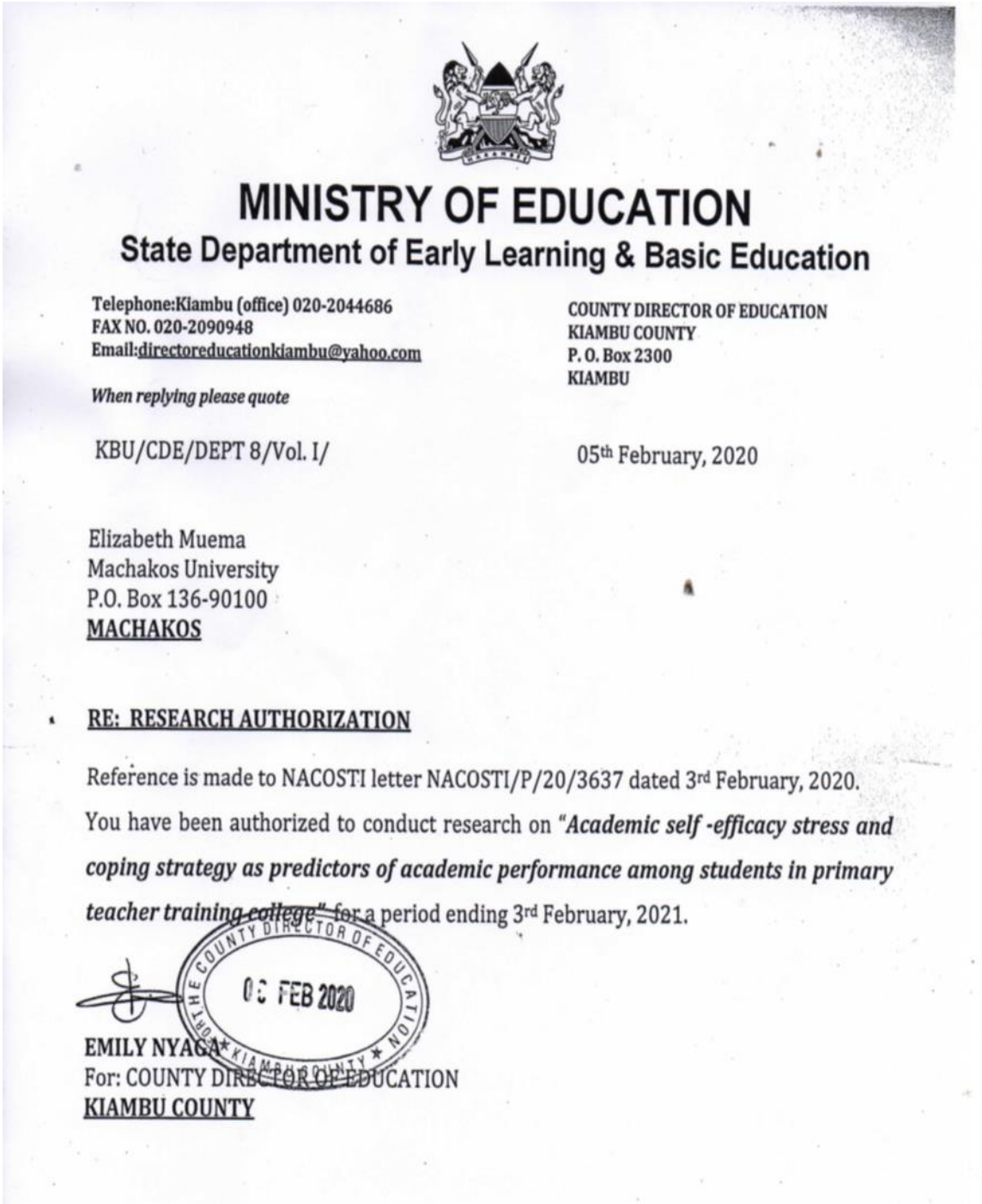
Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

APPENDIX J: MINISTRY OF EDUCATION RESEARCH AUTHORIZATION KIAMBU COUNTY.



MINISTRY OF EDUCATION

State Department of Early Learning & Basic Education

Telephone:Kiambu (office) 020-2044686
FAX NO. 020-2090948
Email:directoreducationkiambu@yahoo.com

When replying please quote

COUNTY DIRECTOR OF EDUCATION
KIAMBU COUNTY
P. O. Box 2300
KIAMBU

KBU/CDE/DEPT 8/Vol. I/

05th February, 2020

Elizabeth Muema
Machakos University
P.O. Box 136-90100
MACHAKOS

RE: RESEARCH AUTHORIZATION

Reference is made to NACOSTI letter NACOSTI/P/20/3637 dated 3rd February, 2020.

You have been authorized to conduct research on *"Academic self -efficacy stress and coping strategy as predictors of academic performance among students in primary teacher training college"* for a period ending 3rd February, 2021.

COUNTY DIRECTOR OF EDUCATION ★ KIAMBU COUNTY ★

05 FEB 2020

EMILY NYAGA
For: COUNTY DIRECTOR OF EDUCATION
KIAMBU COUNTY

APPENDIX K: MINISTRY OF EDUCATION RESEARCH AUTHORIZATION MURANGA COUNTY

MINISTRY OF EDUCATION

STATE DEPARTMENT OF EARLY LEARNING AND BASIC EDUCATION

Email: cdemuranga@gmail.com
Telephone: 060 2030227
When replying please quote

COUNTY DIRECTOR OF EDUCATION
P.O BOX 118 – 10200
MURANG'A

REF: MGA/CTY/EDU/RESEARCH/GEN/64/VOL.II/39 **28th February, 2020**

Elizabeth N.Muema
P.O.Box 136 - 90100
MACHAKOS

RE: RESEARCH AUTHORIZATION

The County Education office is in receipt of your request and authority letter from National Commissioner for Science, Technology and Innovation Reference No. 541456 dated 3rd February, 2020 to carry out a research on **"Academic Self Efficacy, Stress and Coping Strategy as Predictors of Academic Performance among Students in Primary Teachers Training Colleges in Murang'a County".**

Permission is hereby granted to carry out research in **Murang'a County** for a period ending **3rd February, 2021.**

You are kindly advised to deposit a copy of the final research report to the County Director of Education office.

Anne Kiilu
County Director of Education
MURANG'A

APPENDIX L: MINISTRY OF EDUCATION RESEARCH AUTHORIZATION

NYERI COUNTY

REPUBLIC OF KENYA

MINISTRY OF EDUCATION
STATE DEPARTMENT OF EARLY LEARNING AND BASIC EDUCATION

E-Mail –centralpde@gmail.com
Telephone: Nyeri (061) 2030619
When replying please quote

OFFICE OF THE COUNTY
DIRECTOR OF EDUCATION
P.O. Box 80 - 10100,
NYERI

CDE/NYI/GEN/23/VOL.IV/12

3rd March, 2020

Elizabeth Muema
Machakos University
P.O. Box 136-90100
MACHAKOS

RE: RESEARCH AUTHORIZATION

Reference is made to Secretary National Commission for Science, Technology and Innovation letter Ref. NACOSTI/P/20/3637 of 3rd February, 2020 on the above subject.

I wish to inform you that you have been given authority to do your research on "*Academic self efficacy, stree and coping strategy as predictors of academic performance among students in Primary Teachers Training college – Kamwenja*" in Nyeri County for a period ending 3rd February, 2021.

COUNTY DIRECTOR OF EDUCATION
P. O. Box 80,
NYERI.
Tel: 061 - 2030658

NELLY MWANGI
FOR: COUNTY DIRECTOR OF EDUCATION
NYERI

c.c.
National Commission for Science
Technology and Innovation
P.O. Box 30623-00100
NAIROBI