

**RELATIONSHIP BETWEEN SOCIAL ADJUSTMENT INDICES AND
ACADEMIC ACHIEVEMENT OF STUDENTS IN SECONDARY SCHOOLS**

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**A THESIS SUBMITTED TO THE BOARD OF POSTGRADUATE STUDIES IN
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DEGREE OF DOCTOR OF PHILOSOPHY IN EDUCATIONAL
PSYCHOLOGY OF JARAMOGI OGINGA ODINGA
UNIVERSITY OF SCIENCE & TECHNOLOGY**

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DECLARATION AND APPROVAL

DECLARATION

This PhD Thesis is my original work and has not been presented for the award of a degree in any other University.

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DEDICATION

This PhD thesis is dedicated to my beloved Wife Teresia Wanjiku Miringu and children Humphrey, Jemimah, Isaac and Maureen. Better your best my beloved ones.

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ABSTRACT

The number of students quitting school before passing their matriculation examination is a major cause for concern. A highly qualified workforce is necessary due to the acceleration of technological advancement and the emergence of new, more challenging job prospects. Since underachievement hinders the growth of the labor force, it follows that each student should be encouraged to perform at his best level. With a perfect school environment, there are better chances of a better performance. However, many students in Kenya particularly, Githunguri Sub-County, whose performance has been very low, and the underlying Social Adjustment Indices that influence their Academic Achievement at secondary school have not received appropriate research. Determining the Influence of Social Adjustment Indices on Academic Achievement among students in public secondary schools in Githunguri Sub-County, Kenya, was the main goal of the current study. Among students in public secondary schools in Githunguri Sub-County, the following objectives were set: to determine the relationship between peer acceptance and academic achievement; to establish the relationship between aggression and academic achievement; to find out the relationship between social withdrawal and academic achievement; and to determine the relationship between altruism and academic achievement. Social learning and classical conditioning theory were both used in the study. Utilizing Creswell's mixed method technique, concurrent embedded research design was used. The selection of the participating schools and students was done using stratified random, purposive, and saturation sampling procedures. A population of 2787 students, 38 deputy principals, and 38 teachers of guidance and counseling were selected for the study from which 350 form two students, 15 deputy principals, and 15 instructors of guidance and counseling made up the study sample. For data collection, the present study included questionnaires, interview schedules, and document analysis. A pilot study was carried out using 35 form two students from four public secondary schools in the Githunguri Sub-County. Two specialists from Jaramogi Oginga Odinga University of Science and Technology verified the validity of the instruments. By using Cronbach's alpha, internal consistency was employed to determine the instrument's reliability, and a reliability coefficient above 0.7 was found. The Statistical Package for Social Sciences (SPSS) version 22.0 was used to examine quantitative data. Inferential statistics involved Pearson Product Moment correlation coefficient, simple and multiple regression analysis, and ANOVA, and descriptive statistics covered frequency counts, percentages, averages, standard deviation, and variance. Hypotheses were evaluated at a 5% level of significance. Thematic analysis was employed to examine qualitative data. Peer Acceptability and Academic Achievement were shown to be positively correlated ($n=308$, $r = .187$; $p = .001$), while Altruism and Academic Achievement were also found to be positively correlated ($n=308$, $r = .144$; $p = .012$). The results also showed a somewhat negative association between Aggression and Academic Achievement ($n=308$, $r = -.568$; $p.05$) and a negative relationship between Social Disengagement and Academic Accomplishment ($n=308$, $r = -.345$; $p.05$). According to the present study's findings, Social Adjustment Indices should be incorporated into school guidance and counseling policies and practices since they have a major impact on academic attainment.

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ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
GPA	Grade Point Average
IQ	Intelligent Quotient
KCSE	Kenya Certificate of Secondary Education
MOE	Ministry of Education
MSS	Mean Standard Score
NACOSTI	National Commission for Science Technology and innovation
PAR	Peer Academic Reputation
SAIRR	South African Institute of Race Relations
SPSS	Statistical Package for Social Sciences
USA	United State of America
UNICEF	United Nations Children’s Fund
WHO	World Health Organization
UN	United Nation
UNESCO	United Nations Education, Scientific and Cultural Organization
NHS	National Household Survey
JOOUST	Jaramogi Oginga Odinga University of Science and Technology

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Social adjustment is psychological process which essentially refers to efforts made by a person to comply with standards, demands, needs and values of a society (Coplan and Rubin, 2010). Since learners use majority of their time in the learning institutions than with their parents at home, this situation of life presents young people with difficulties in both social and academic areas. Young people's academic and social-emotional development depends on education, and academic failure can be costly to both a person and society. Students in today's schools are expected to be very active both socially and academically. (Coplan & Rubin, 2010).

From the time learners transit from Primary to Secondary school, they suffer adjustment issues that, if not properly addressed, may have an impact on their academic performance (Yellaiah, 2012); (Thakar and Modi, 2014); and (Devi, 2015). Additionally, Verma and Kumari (2016) emphasized the necessity between student adjustment in secondary schools and academic performance. It was necessary to determine how closely social adjustment and academic achievement connect to one another (Bano and Naseer, 2014). According to Gehlawat's (2011) study, there are no gender-related variations in pupils' social, emotional, academic, or overall adjustment. Male and female secondary school students showed different levels of adaption to different conditions. Students of color adjusted more slowly (Mahbood & Iqbal, 2015).

Poor performers in secondary schools are likely to have experienced difficulties transitioning to school, while girls' school has better emotional adjustment than male secondary school students (Pooja, 2016). Furthermore, Makwana and Kaji (2014) looked into how well students adapted to the secondary school setting and found that while there was no significant mean difference in

secondary students' emotional, academic, or home adjustment in relation to their gender, there was a significant mean difference in their social adjustment, with boy students being found to be better adapted than girls to the secondary school setting.

The change from elementary to secondary school places the child in a completely new setting. The secondary education teaching and learning process varies, as do the rules and regulations. Time management, accommodations, and catering services encourage students to a more independent lifestyle than what they would experience in elementary school. This implies that students must cultivate their life skills in order to overcome and manage the social and academic problems they encounter (Jean, 2010). The social environment that a student interacts with is measured by social adjustment indices, which also predict whether or not the student will successfully complete their studies and earn good grades. The student's participation in or absence from the social environment may influence how they perceive their academic achievement or failure (Jean, 2010).

Education is crucial to the growth of the individual and the broader society. It fosters the growth of a balanced, valuable personality. It emphasizes aggressive conduct while also addressing other facets of personality. Aggressive behavior ranges from verbal, nonverbal, to physical actions that cause direct or indirect harm to another person while also generating unintended benefits for the aggressor. Another crucial element of education, and more specifically formal education, is the school atmosphere. The most important stage of formal education is secondary school.

In order to be prepared for post-secondary education, all students should master the learning outcomes for 21st century skills, which include altruism. According to The Partnership for 21st Century Skills (2015), students should be encouraged to improve their leadership and responsibility skills in order to acquire the career and life skills required for success in the twenty-

first century (Phyrom, 2022). The leadership and responsibility domains include specific outcomes for leading by example and sacrificing for others, as well as acting with the interests of the larger community at heart. Comprehensive high schools must create programming that allows students to take part in volunteer and charitable activities if they are to attain these objectives experientially. Altruism, prosocial behavior, and volunteering are all interconnected within the theoretical framework of helping people in need.

Social disengagement is a tendency to withdraw or avoid situations where interaction is expected (Allen, 2021). Students who are socially isolated may feel lonely, rejected by their peers, and without friends, they face the risk of experiencing difficulties in school and having social-emotional adjustment issues (Allen, 2021). Socially isolated teenagers are more prone than their peers to experience suicide thoughts, lower levels of self-efficacy and self-esteem, higher levels of sadness, and social anxiety. Additionally, they are more likely to perform poorly in school. Socially isolated youth are also more likely to have trouble adjusting as adults. Due to these risks, it's critical to understand what causes social disengagement in students to get better or worse as they age.

Due to their actions, some students are constantly the focus of attention in their social group. They are highly appreciated as a result of their prosocial characteristics. Some people are usually classified as antisocial due to their unfavorable reactions to society. Social scientists first used prosocial to refer to the opposite of antisocial behavior (Li, 2020). Understanding prosocial conduct in an academic setting is essential because schools give students the chance to grow their prosocial competencies through both official and informal contacts with peers, such as cooperative and collaborative learning activities and play and friendship-building (Yang, & McGinley, 2022). Positive connections and relationships with teachers and peers lead to pleasant

classroom behavior, and this prosocial behavior fosters the development of academic achievement

In order to be prepared for post-secondary education, all students should master the learning outcomes for 21st century skills, which include altruism. According to The Partnership for 21st Century Skills (2015), students should be encouraged to improve their leadership and responsibility skills in order to acquire the career and life skills required for success in the twenty-first century.

The leadership and responsibility domains include specific outcomes for leading by example and sacrificing for others, as well as acting with the interests of the larger community at heart. If students are to achieve these goals experientially, comprehensive high schools must develop programming that enables students to participate in voluntary and charitable activities.

Within the theoretical framework of assisting those in need, altruism, prosocial conduct, and volunteering are all interconnected (Aboramadan, 2019). The scientific community mostly concentrates on adults, college students, and young students when studying altruism and volunteering among people. Social psychology, which focuses on people's individual motivations, is built on the principle of altruism. According to the social psychology school of thought, people mostly act in their own best interests rather than out of a sincere or altruistic desire to care about others (Aboramadan, 2019). This interpretation of the selfish person is consistent with egoistic viewpoints of people acting to further their own interests, such as obtaining mental tranquility by avoiding guilt and shame (Aboramadan, 2019). Egoism is shown to be in direct conflict with a person's ability to act solely in their best interests. Altruism Schools are crucial in helping students learn values. Although there isn't agreement on the principles that

will be taught to pupils at this time, a list of the values that should be taught and turned into behavior in a democratic school culture can be listed as Altruism, independence, pluralism, diligence, love, equality, tolerance, patriotism, respect for differences, compassion, benevolence, success, peace, responsibility, integrity, diligence, freedom, fairness, sensitivity, solidarity, and happiness are just a few of the virtues that people who exhibit these traits exhibit (Häyry, 2022).

Social psychologists as well as other social scientists and intellectuals have long been intrigued by the altruism conundrum. Altruistic acts for others might occasionally lead to the paradox of altruism. This goes against the tenet of motivational theories that claim people only act in their own self-interest. One of two approaches can be used to overcome the altruism issue. One tactic is to search for the underlying personal incentives that may act as a motivator for what may appear to be altruistic prosocial activity. The second is the claim that regardless of any potential for profit, an individual act in ways that benefit others. Theories and research on prosocial behavior employ both strategies to address the altruism conundrum (Berry, Hoerr, Cesko, Alayoubi, Carpio, Zirzow, & Beaver, 2020).

Peer acceptance predicts academic accomplishment, whereas rejection lowers it. The association between acceptance and rejection has been noticed to exist from early childhood education to secondary school independent of the evaluation method utilized, for instance, either academic evaluations made by the teacher or scores of standardized exams, according to Hall, Bierman, & Jacobson, meta-analysis (2022). Peer acceptance shows that your classmates like you or that you have friends in the classroom, but peer rejection shows that you are hated in the classroom. More parental and peer acceptance is positively connected with higher levels of education and academic accomplishment. On the other hand, poorer academic success and performance are connected to a rise in parental and peer rejection. Similar to how parental approval and

disapproval affect academic achievement in preadolescence, peer acceptance and rejection also have an impact (Hall et al. 2022). Academic achievement benefits from a variety of peer acceptance-related factors.

There are many methods for encouraging academic performance among peers. For instance, better academic support, increased school well-being, a sense of comfort in the classroom, and higher levels of peer acceptability have all been connected to students' academic achievement. Preadolescents who are accepted by their peers may benefit academically and socially from attending school. One's standing within the peer group has a tremendous impact on one's social and academic development. For instance, peer acceptance encourages pupils to develop their academic skills, whereas peer rejection increases the risk of behavioral problems becoming even more externalized (Hall et al. 2022).

Peer acceptance increases the likelihood that students will advance in their cognitive, social, and behavioral development both now and in the future (Bett, 2013). In contrast, students who experience social rejection from their peers suffer with several challenges at once and are much more likely to have suicidal thoughts, use drugs, perform poorly in school, commit crimes, and participate in other negative behaviors as adults. Students who have positive peer relationships typically perform better academically than those who have bad peer relationships, according to Feldman, Ojanen, Gesten, Smith-Schrandt, Brannick, Totura, and Brown (2014). These unfavorable peer interactions might result in low school involvement, subpar academic performance, high absenteeism, and school dropout.

Academic success is impacted by low social acceptance in a variety of ways. Students may find it more difficult to concentrate in class and to comprehend and remember material as a result of increased anxiety (fear of being laughed at or left out) brought on by peer rejection. Kim, Longo,

& Riser; Papafratzeskakou; (2011). In comparison to socially acceptable students, students who don't have many school friends often have lower academic self-esteem and depend more on their teachers for academic support (i.e., they ask them for help from them more frequently) (Flook & Repetti, 2015). Students who feel rejected or socially isolated sometimes worry about being bullied or teased, which makes them skip school more frequently, which reduces their opportunities to learn intellectual material in the classroom and eventually lowers their academic ability (Knack, Tsar, Vaillancourt, Hymel, & McDougall, 2012).

The most common trajectory for the development of physical aggression is a peak between the ages of 3 and 4 years, followed by a steady decline. Despite developmental fluctuations in the average degree of physical aggression, students who consistently exhibit high levels of physical aggression can be identified (Girard, Tremblay, Nagin, & Côté, 2019). Childhood and adolescent aggression raise the risk of developing psychiatric and substance use disorders, as well as criminal behavior. This is particularly true if childhood aggressiveness is intense and continues throughout puberty. A lack of job possibilities, a poorer work-life balance, long-term unemployment, and social exclusion can result from aggressive students and teens struggling in school, performing poorly, and dropping out.

Because aggressive students are more likely to be shunned by their peers, social acceptance and aggression are associated (Bowker, Ostrov & Raja, 2012). When physical and verbal aggressiveness persist at a high level in relation to developmental norms (for instance, substantially falls when students approach middle childhood), aggressive students are more likely to experience current and future academic, social, and behavioral problems (Parker, 2016). Students that are aggressive often achieve less than their non-aggressive peers (Hinshaw, 2012). Aggression has just a weak or insignificant correlation with IQ and overall cognitive ability, but

it is highly connected with underachievement, including lower GPA and school failure. Students that are aggressive frequently have more disagreements with teachers and administrators, which may be a factor in their subpar academic performance.

Disruptive, aggressive behavior issues in the classroom frequently lead to disciplinary measures like suspension and expulsion (Coie & Dodge, 2018). Additionally, belligerent students frequently perceive harsh and unfair school discipline measures (Urlick and Bowers, 2014). A negative and unsupportive school climate may encourage aggressive students to disengage, increasing their likelihood of skipping school and dropping out (Graham, Bellmore & Mize, 2016).

Extreme cases of violence may be directly linked to psychopathy, claims Danese, & Widom, (2020). It is possible for aggression to escalate into violence and criminal conduct. The relationship between aggression and reflecting pain or suffering makes it special. An individual's social network size, interactions with peers, and social skill level are all factors that affect aggressive conduct. Due to each of these factors, aggressiveness may manifest as aggressive behavior that is physical, verbal, wary, or resentful (Martínez-Ferrer, Moreno, & Musitu, 2018). Student aggressiveness can be divided into four groups. These include mistrust, anger tinged with bitterness, and physical or verbal aggression toward others. Verbal aggression includes any act of abusing or hurting others verbally, reflect the instrumental or motor component of the conduct. The emotional or affective component of anger, which includes physiological arousal and preparedness for aggression, was defined as anger by Kruithof, Klaus, & Schutter, (2022). According to Kruithof et al. suspicion is made up of feelings of animosity and unfairness that reflect the cognitive component of behaviour.

The World Bank (2013) states that based on academic accomplishment, education systems around the world continue to be seen as active socialization agents that create human capital, establish values, and promote social cohesion. Day schools are one sort of public school system that has steadily increased in Great Britain and other European nations in contrast to the United States of America and Canada to assure quality and justice in the provision of educational services (Hemphill, Templin & Wright, 2015). According to United Nations Educational, Scientific, and Cultural Organization (UNESCO, 2016) and World Bank (2012) Conferences on Education Creation in Africa, the majority of industrialized countries are dedicated to the development of an effective and efficient secondary school system. This is due to the fact that test results, which gauge academic success, continue to serve as the primary marker of students' advancement in formal education. Simiyu (2015).

A 2011 UNICEF survey found that the majority of students, defined as those between the ages of 10 and 19, have dim prospects. The violent behavior of senior secondary school students is one of the current topics attracting the interest of both the media and parents. Because of an increase in aggressive conduct in schools, researchers are interested in this topic (Guney, Kaya, Yavascaoglu, Gurbet, Selmi, Kaya & Kutlay, 2012). Obi and Obikeze (2013) showed that over the course of a year, there were 225 physical fights among male high school students in Sweden, 44 percent in the US, and 76 percent in Israel, using a large-scale study by Guney et al. (2012). Males are more likely to participate in violent incidents, whether they result in death or not. One of the most striking differences between fatal and nonfatal incidents is that while guns are regularly used in fatal events, more fists, kicks, drills, and cutting instruments are utilized in nonfatal incidents (Walsh, Molcho, Craig, Harel-Fisch, Huynh, Kukaswadia & Pickett, 2013).

Violence-related offenses that do not end in death significantly increase during middle adolescence (ages 14 to 16) and the early years of adulthood (17-20).

On the other side, every day in England, there are about 14 students, aged 18 or younger, who are suspended from school for attacking a teacher or other students (Ardzejewska, McMaugh & Coutts, 2010). In Nepal, male students have been charged with touching female students indecently, including buttocks, breasts, and even undoing bras. The majority of these sexual harassment incidents, nevertheless, went unreported (Dunne, Sabates, Bosumtwi & Owusu, 2013).

Social adjustment at school has many facets and can be considered to include those who engage in violent activity as well as those who are the victims of it, as well as feelings of fear and insecurity, criminal and antisocial behavior, and the disciplinary system that the school has put in place (Sherer and Nickerson, 2010). Because they have been connected to school dropout rates, which at the national level have averaged 30% of all pupils, social adjustment issues inside the public school system in America have reached a crisis point (Reimer & Smink, 2015). At some point throughout their academic careers, every student who drops out of high school had social adjustment issues; however, not every student with social adjustment-related issues does so (Reimer & Smink, 2015). Table 1.1 showed scenario of school dropout in America

Table 1.1: High School Dropout Rates Nationally and in the Various Geographic Regions of the United States of America.

Geographic Region	North East	Midwest	South	West	Nationally
School Dropout Rates	27%	23%	35%	31%	30%

Source: Reimer & Smink, (2010) pg 12

Additionally, one suicide occurs in the US every seventeen minutes. Suicide is the second most common cause of death for college students and the third most common cause of mortality for Americans under the age of twenty-one. More young people died from suicide in 1995 than from AIDS, cancer, stroke, pneumonia, influenza, birth defects, and heart disease combined. The World Health Organization reports that in 1998, suicide surpassed both homicide and conflict as the main cause of mortality, accounting for nearly 2% of all fatalities globally. Adolescents who report having depression symptoms range from 20 to 30 percent. The average age of development of depression today is 15, when it was traditionally thought to be an adult illness. In the previous five years, over 9 percent of high school students made suicide attempts. The possibility that an adolescent can have a successful adult life is increased by early detection and treatment of mental health conditions (Bean & Baber, 2011).

About 375 out of the 4,150 schools in Brazil that were surveyed nationally by UNICEF in 2011 reported violent incidents. Table 1.2 lists the investigation's findings. Reviewing Brazil's output

of school failure from 1996 to 2006 has demonstrated that violence not only encourages failure but also fosters aggressive behavior among teachers and students, excluding young people from educational chances (Parkes and Heslop, 2013).

Table 1.2: Types of Violence Experienced by School Students in Brazil and their Prevalence

Type of Violence	Physical Aggression	Adult Aggression Towards Students and Adolescents	Derogatory Comments
Prevalence Rates	66%	28%	20%

Source: UNICEF (2009), page 46

There is a significant increase in violent episodes that do not result in death during middle adolescence (ages 14 to 16) and early adulthood (17-20). In South Africa, barely 3.5 percent of victims of violence were less than 13 years old, and 21.9 percent of them were between the ages of 22 and 35. Early adolescents are much more likely than late adolescents to encounter nonfatal violence (WHO, 2012).

Many mental disorders first manifest in youths or teenagers in Egypt. The incidence of mental difficulties among students aged 8 to 15 was 13 percent, according to the National Health and Nutrition Examination Survey, which is equivalent to the prevalence of juvenile ailments such diabetes and asthma. Any type of mental illness can have a negative impact on cognitive development and learning, and it is extremely costly for the person who is afflicted as well as society at large. A consistently gloomy attitude, low self-esteem, and a loss of interest or enjoyment in formerly rewarding activities are all indicators of depression, a mental disorder.

Depression is more common in younger people than it is in older people. Severe depression can occur in up to 5 percent of students at any given moment. The likelihood of getting depression increases with age, particularly when puberty begins. Anxiety disorders relate to a group of disorders that produce apprehension, fear, concern, and worry. These disorders affect how we feel and behave, and they could result in physical symptoms. Teenagers with anxiety disorders go through a lot of distress and have poorer adaptive skills. Anxiety problems affect one in eight (one in eight) students (Al Bahnasy, Abdel, Mohamed and Ibrahim, 2013).

In South Africa 9 percent of all teen deaths are caused by suicide, a number that is rising. Between the ages of 15 and 24, suicide is the second most prevalent and fastest-growing cause of mortality. Seven-year-old students have committed suicide in South Africa. Every day, 22 people commit suicide. There is a rise in suicides. According to South Africa's largest mental health project, the South African Depression and Anxiety Group (SADAG), 90 percent of teens who commit suicide have an underlying mental disorder. "Our students are depressed and frequently have no one to turn to for support," says Zane Wilson, the founder of SADAG. When combined with a lack of resources, family issues, poverty, and bereavement, suicide all too frequently seems to be the only alternative for these students (Rosenstein, 2010).

In 257 public secondary schools, there were 2,996 violent occurrences involving a total of 6,580 (68%) secondary school pupils between 2011 and 2013, according to data from the Anambra State Ministry of Education, Nigeria (2011–2013). According to the survey, bullying/threats/interference (21.3 percent), rumors/nicknaming (63.7 percent), and sporadic injuries (63.7 percent). fifteen percent. Over the course of a year, there were 13 violent situations at schools that resulted in fatalities. 2013 report by the Commission on Post-Primary School Service. According to a different survey, in the Nigerian state of Anambra, 72.9 percent of boys

and 27.1 percent of girls have engaged in at least one violent conflict (Obikeze and Obi, 2013). (Obikeze and Obi, 2013).

The public is concerned about the social adjustment challenges secondary school students are having, notably in major Nigerian cities like Bayelsa, Maiduguri, Kano, Onitsha, Jos, Enugu, Lagos, Kaduna, Port Harcourt, Warri, and Niger delta locations. These cities are expressions of globalization-related political and social changes, as well as individualization and moral transformation in Nigeria, notably starting with 2012-2014. However, there aren't enough relevant and unambiguous scientific studies in Nigeria to determine the core reasons of such occurrences. Violence is more likely to occur during adolescence, and people, families, and society as a whole all have crucial roles to play in encouraging positive development and successful violence prevention programs. Identification of the prevalence of aggressive behaviors and the major contributing factors to these behaviors is the first step in reducing violence, a problem that is pervasive and of concern in Nigeria, a country with a population of over 170 million. A variety of programs have been established and put into place by the Nigerian government to minimize the violent attitudes of teenagers in our culture. These actions comprise setting up juvenile courts and detention centers, administering juvenile justice, and establishing security and law enforcement agencies (Akinlotan, Ojo, Abisoye, Aina & Edegbai, 2017).

In Tanzania 11.2 percent of students who had suicide thoughts also reported experiencing melancholy, loneliness, or hopelessness on a daily basis, according to the 2018 Global School-Based Student Health Survey (GSHS) (GSHS). There were many persons who had given up on life who had suicide ideas. The rates have been similar in Kenya and Nigeria (Kutcher, Perkins, Gilberds, Udedi, Ubuguyu, Njau and Hashish, 2019). (Kutcher, Perkins, Gilberds, Udedi, Ubuguyu, Njau and Hashish, 2019). The Ugandan Penal Code, the Education Act, the Teachers'

Professional Code of Conduct, and the norms of the Ministry of Education and Sports are only a few of the laws, policies, and regulations that ban using violence in schools in Uganda. The Ministry of Education and Sports made corporal punishment illegal in Uganda in 2006, yet as of the time of this writing, it was still routinely employed in educational facilities. By 1997, corporal punishment had been prohibited from schools and universities. In a poll of 25 schools in five districts across Uganda, 81 percent of the students indicated they had experienced physical abuse at school. More than 90 percent of primary school students have been subjected to physical or psychological abuse there.

Teachers would physically beat students virtually every week. These findings demonstrate that teacher violence in Uganda has not entirely been abolished despite legislation (Muwonge, Ssenyonga and Kwarikunda, 2018).

School violence is a traumatic experience in Uganda that is associated with physical harm, adolescent aggression and antisocial behavior, behavioral problems that are both externalizing and internalizing, hopelessness, and signs of post-traumatic stress disorder (PTSD). Students who had experienced violence at school exhibited a diminished sense of self-worth, negative avoidance behavior, and fewer communication options. Since they accept violence as the normative disciplinary measure, students are unaware that the use of violent disciplinary measures violates their rights. Students who experience violence in the classroom also avoid going to class and live in constant fear of violent professors. Violence by teachers in the classroom has frequently had a detrimental effect on students' academic performance, attendance at school, and dropout rates, among other outcomes (Muwonge, Ssenyonga and Kwarikunda, 2018).

Regarding achieving the socio-economic and political growth of the country, Kenya's education sector is a key pillar in the realization of Vision 2030's objectives (Melly, 2019). However, the industry has recently had to deal with social adjustment issues like extreme student unrest and violence, especially at the secondary school level. This frequently disrupts educational activities, occasionally results in fatalities, and significantly damages school facilities and student property (Melly, 2019).

Despite the achievements in the field of education, incidents of student unrest in Kenya have sadly increased every year, most frequently in the second term. In July 2018, the country experienced yet another record-breaking flurry of fires (63 incidents), walkouts (23 cases), sit-ins (eight cases), and breakdowns (14 cases) in public secondary schools. The student uprising poses a serious threat to both the country as a whole and the educational system. They harm property, disrupt lessons, and have a negative psychological impact on staff and students. All of these result in subpar learning outcomes, which reduce the quality of instruction provided (Melly, 2019).

According to Chome, (2020), violent strikes at Kenya's public colleges were common during the 1980s and 1990s for a number of reasons, such as power shortages, subpar cafeteria food, political manipulation, and general student dissatisfaction. In the last ten years, there have been fewer university strikes, but secondary schools are now the focus of attention. There has been an increase in violence, this time in schools, following a wave of post-election violence in Kenya earlier in 2007. Many secondary schools' dormitories and administrative buildings have recently been set on fire by students whose disobedience is still a problem in many areas of the nation. This turmoil, which resulted in lost study time, deaths, and damage to school property totaling millions of Kenyan shillings, spread on its own like a bush fire during the dry season. One student

was burned to death when he put his life in the flames to save another. Between July and September, over 300 secondary schools were closed due to violent student unrest, akin to some of the violent episodes observed during the post-election riots. While some students are now detained by authorities for prosecution, others have received school suspension orders. Currently, parents must through the agony of visiting schools to request readmission for their students who have been expelled elsewhere.

According to Kenya's Coalition to Protect Education from Attack (2018), child recruiting is widespread there. Violent extremist organizations and others connected to them were alleged to have recruited students from schools throughout the reporting period, while there was scant direct evidence to support these claims. For instance, in 2013 international and local media claimed, without going into detail, that al-Shabaab was radicalizing and recruiting students in secondary schools and Islamic schools in Nairobi and Mombasa. In a similar vein, the UN Monitoring Group on Somalia and Eritrea reported receiving widespread reports that al-Shabaab had been enlisting young students from Kenyan Madrassas for both support roles and direct warfare.

Since 2016, school arson has posed severe problems for Kenya's secondary education sector. Between May and August 2016, almost 130 secondary schools lost property to fire in a space of less than 15 weeks. It was noteworthy that this phenomena primarily impacted public secondary schools (at about 99 percent), and that it did so especially during the second term of the academic year (almost at 90 percent). In a situation similar to this, second-term school unrests led to the closure of more than 300 secondary schools between July and September 2008. (Melly, 2019). The "crisis of school indiscipline" was the subject of significant hand-wringing and national fear as a result of this trend. Following the closure of their schools, 6,000 students were returned home (Warigi, 2016). The spate of school fires, the majority of which are thought to have been

set by the pupils themselves, has been the subject of numerous competing theories. The causes include youth misbehavior, substance addiction, and peer pressure. One such incident involved boys from a secondary school in Kisii setting fire to their dorms, ostensibly because the administration had forbade them from viewing the Euro 2016 final.

Githunguri Sub-County has also encountered instances of social adjustment-related problems, including peer rejection, loneliness, and violent acts in secondary schools (which have resulted in several schools being set on fire and students injuring and even killing others) (MOE Website). There has been a consistent deterioration in academic achievement in the Sub-County, and studies have been done to identify the causes. For instance, Kigotho (2015), in the Githunguri Sub-County, 50.3 percent of the candidates who took the 2015 Kenya Certificate of Secondary Education (KCSE) scored below grade C+. Kigotho (2015), claimed that this was the pattern he had noticed for earlier years, such as 2010, when the mean score was 44.28 percent.

The aforementioned studies have a research gap because it is unclear how much social adjustment traits affect students' academic progress in Kenya. It's crucial to determine how much Social Adjustment Indices affect academic accomplishment in order to comprehend why secondary students' academic achievement in Kenya has been low over the previous few years. By doing a study in Kenya that included schools that had poor performance in recent years, the current study aimed to close the research gap. Understanding how these traits affect students' academic performance is an important first step in finding a solution for Kenya's secondary schools' appalling academic performance. Peer acceptance, social disengagement, aggressive behavior, and altruism were social adjustment parameters used in the current study. There is a correlation between secondary school students' academic success in Kenya and each of these social adjustment variables.

Table 1.3: Table Showing Other Adjustments in Relation to Students

Academic adjustment	Social adjustment	Personal-emotional adjustment	Attachment
1977	1164	1252	438

Source: The Journal of English Literacy Education, Vol. 8, No. 2, Nov 2021, pp.138-149

The highest score was for academic adjustment (1977), followed by scores for personal adjustment (1252), social adjustment (1164), and attachment (438). The findings indicated that academic adjustment had the greatest impact on students. From this table social adjustment is projected as an aspect that is lagging behind.

Table 1.4: KCSE Performance in Various Counties

County Name	KCSE Mean Score
Kiambu	4.449
Nairobi	5.059
Nandi	5.652

Source: MOE KCSE 2017

Table 1.4 shows KCSE mean score of the year 2018 in Kiambu County in comparison to both Nairobi and Nandi County. The mean score of Kiambu County is low in comparison to its neighboring County of Nairobi. Further, the mean score is also low in comparison to Nandi County which is further away from it. It is because of this low performance in Kiambu County

in comparison with other Counties that prompted the researcher to settle his study in Kiambu County.

Table 1.5: Academic Performance Data in Githunguri Sub-County

Year	2014	2015	2016	2017	Average
Githunguri Sub-County KCSE Mean	2.4681	2.8627	1.9267	1.8602	2.2794
Kikuyu Sub-County KCSE Mean	5.4620	5.4201	5.3622	5.1128	5.3393
Kiambaa Sub-County KCSE Mean	4.6842	5.3201	4.4234	4.2130	4.3423

Source: Githunguri Sub-County (2017)

Table 1.5 showed some of Sub-County neighbouring Githunguri Sub- County in Kiambu County and respective performance in KCSE over a period of 4 years. Mean score of Githunguri Sub-County and Kiambaa Sub-County in Kenya Certificate of Secondary education increased in the year 2015 but declined sharply thereafter in the years 2016 and 2017. Decline in performance could be attributed to strict preparation, administration and supervision of national examinations since 2016. However, the same trend is not exhibited in the neighbouring Kikuyu Sub-County where performance has been declining gradually but never declining below 5.0 mean score. Performance in the sub-county seemed not to be affected by examination administration reforms instituted in 2016. Githunguri Sub-County mean score is much lower than that of the neighbouring Kiambaa and Kikuyu Sub-Counties, implying that there was an inherent problem

underlying the dismal performance and the current study intended to find out if it could be attributed to lack of adjustment by students to secondary school environment.

Table 1.6: Report on Aspects of Social Adjustment Indices in Kiambu County

Sub-County	Percentage
Gatundu South	11
Gatundu North	09
Juja	11
Thika Town	13
Ruiru	12
Githunguri	14
Kiambu	08
Kiambaa	06
Limuru	09
Kikuyu	07

Source : Kiambu Education office (2017)

Table 1.6 showed aspects of Social Adjustment Indices of students in Kiambu County where Githunguri was leading with 14% of aspects of Social Adjustment Indices which included Social Withdrawal and aggression of students through strike and other indiscipline cases. Aggression of students was measured using aggression scale while social withdrawal was measured using loneliness scale.

1.2 Statement of the Problem

A sense of belonging, concern for others, willingness to help others, hard work, and respect for authority are just a few of the positive values that parents, teachers, and stakeholders have continually strived to promote and instill in schools. Every single learner has a unique adjustment style, and each student's success in school greatly depends on how well they can manage their emotions and adapt to various circumstances. Githunguli students struggle with a variety of social adjustment challenges due to their surroundings. When faced with adjustment issues, students are less likely to concentrate on their academic work which may have an effect on their academic performance either directly or indirectly.

Githunguri Sub-County has been compromised by adjustment-related concerns, which has changed the way teaching is done from how it was fifty years ago, when the main disciplinary issues were running in the halls, talking out of turn, and chewing gum. Students' lack of social adjustment, which includes physical and verbal abuse, social retreat, and extreme peer rejection, as well as drug usage, robbery, assault, and murder in some schools, is considered a violation in Githunguri-Sub County. Because of this, a lot of teachers spend a lot of time and energy addressing problems in the classroom. This reduces their instructional time, which has an adverse effect on student performance.

When students fail to adjust to secondary school environment and conflicts with each other and with school are poorly managed, maladjustment occurs. Schools in Githunguri Sub-County have witnessed heightened maladjustment in the past ten years with many schools currently weighed down by different options, with some schools resorting to a two interrelated approach; aggression prevention program and a conflict resolution program all these aimed at mitigating the situation in hope of bettering academic performance. Previous local studies have generally concentrated

on student adjustment but have not focused on the association between social adjustment indices, which are measures of social adjustment and academic accomplishment and that was the gap the present study sought to address.

1.3 Purpose of the Study

The purpose of the current study was to determine the association between Social Adjustment Indices and Academic Achievement among secondary school students in Kenya.

1.4 Objectives of the Study

The following were the study's objectives:

- i. To determine relationship between peer acceptance and academic achievement among students in secondary schools in Githunguri Sub-County, Kenya.
- ii. To establish relationship between aggression and academic achievement of students in secondary schools in Githunguri Sub-County, Kenya.
- iii. To find out relationship between social withdrawal and academic achievement of students in secondary schools in Githunguri Sub-County, Kenya.
- iv. To determine relationship between altruism and academic achievement of students in secondary schools in Githunguri Sub-County, Kenya.

1.5 Research Hypotheses

In order to realize the above objectives, these hypotheses were formulated and tested in the present study.

1.5.1 Null Hypothesis

H₀₁-There is no statistically significant relationship between peer acceptance and academic achievement among students in secondary schools in Githunguri Sub-County, Kenya.

H₀₂-There is no statistically significant relationship between aggression and academic achievement of students in secondary schools in Githunguri Sub-County, Kenya.

H₀₃-There is no statistically significant relationship between social withdrawal and academic achievement of students in secondary schools in Githunguri Sub-County, Kenya.

H₀₄-There is no statistically significant relationship between altruistic and academic achievement of students in secondary schools in Githunguri Sub-County, Kenya.

1.5.2 Alternative Hypothesis

H_{a1} –There is statistically significant relationship between peer acceptance and Academic achievement among students in secondary schools in Githunguri Sub-County, Kenya.

H_{a2} –There is statistically relationship between aggression and academic achievement of students in secondary schools in Githunguri Sub-County, Kenya.

H_{a3}-There is statistically relationship between social withdrawal and academic achievement of students in secondary schools in Githunguri Sub-County, Kenya.

H_{a4}-There is statistically relationship between altruistic and academic achievement of students in secondary schools in Githunguri Sub-County, Kenya.

1.6 Assumptions of the Study

The present study was conducted under the following research assumptions: -

- i. Learners come from different social backgrounds.
- ii. Learners are engaged in peer groups while in school.
- iii. There is existence of peer pressure amongst the students.
- iv. Students exhibit different social behaviours in school.
- v. The information from the respondents was truthful.
- vi. All teachers had minimum qualification in terms of training and were registered by the employer.

1.7 Scope of the Study

The study sought to determine the relationship of Social Adjustment Indices and how they determine academic achievement amongst the students in Githunguri Sub-County. These Social Adjustment Indices include and limited to the following; peer relationships, aggressiveness, social withdrawal and altruistic. The study determined the relationship between Social Adjustment Indices and Academic Achievement among secondary school students in Githunguri Sub-County in Kiambu County in Kenya. Using a well-structured questionnaire and an interview guide, primary data was collected. Secondary data on academic performance was also gathered. Descriptive and inferential statistics was then used to analyze the data.

1.8 Limitations of the Study

The present study was limited by the following factors:

Lack of availability of the respondents at the time researcher went to conduct interview, that meant that some respondent particularly deputy principals and guidance and counseling teachers who provided the researcher with information during interview were not available, to mitigate these challenge rescheduling was done and thus extending the stated time frame of the study.

The respondents also declined to tender their responses; to mitigate this; sample size was adjusted to factor in this challenge by increasing the sample size to more than require.

There was also misinterpretation of the questions contained in the questionnaires and interviews. To counter that, questions in the questionnaire were framed as appropriately as possible and there was thorough training of individuals conducting the interviews.

1.9 Significance of the Study

The present study was important to teachers and parents as the study helped them realize how Social Adjustment Indices determine academic achievement amongst students. The present study

also sensitized parents, teachers, students and other stake holders on importance of cultivating the culture of well-adjusted students which in turn brings about academic success. The study can also be used as a basis for researchers willing to further enhance the current study; it may provide guidelines for their researches on similar areas and interests.

1.10 Theoretical Framework

Two theories served as the foundation for this study: Bandura's Social Learning Theory (1934–1947) and Pavlov's Classical Conditioning Theory (1849-1936). The ideas that follow concentrate on explaining how secondary school students interact with social adjustment indicators and how they adjust to them.

1.10.1 Social Learning Theory

According to social learning theory, people pick up knowledge through watching other people. Social learning theory, which was popularized by Albert Bandura in the 1960s, describes how people pick up new habits, principles, and viewpoints. For instance, a child may copy a sibling who receives a treat for being well-behaved in order to obtain the same reward. In his well-known Bobo doll experiment, Bandura, according to Lou (2013), showed that students pick up on and replicate behaviors they see in other people. Students took note of an adult behaving violently against a Bobo doll in Bandura's study. Later, when the students were permitted to play with the Bobo doll in a room, they started acting aggressively just like they had before. Bandura made the case that students pick up on and copy behaviors they see in other individuals. Bandura argued that humans can pick up new knowledge and behaviors by observing other people and that direct reinforcement could not account for all types of learning. According to Bandura, learning should occur through imitation, observation, and modeling.

Bandura showed that students learn and mimic activities they have seen in other individuals. This process is known as observational learning. Three fundamental models of observational learning were outlined by Bandura in 1961 about this process, including the live model, which involves a real person exhibiting or carrying out a behavior.

The capacity to repeat a behavior or activity is relevant here. It is assumed that a child who regularly witnesses a particular activity would eventually be able to copy it. The Social Learning Theory was appropriate to the current study since it discusses how learners might imitate and show behaviors that are prevalent in their surroundings. Students live in a world where there are many powerful role models for them to follow, including their parents, other family members, people they see on television or in social media, friends in their peer group, religious leaders, and people from their community and school. Students observe some of these socialization agents and adopt the behaviors they display. Regardless of whether the behavior is appropriate or not, students might imitate it later on. The Social Learning Theory also places a strong emphasis on how people acquire new behaviors and alter their own through observation and imitation of the actions and behaviors they see around them. Learning in schools is to role-model student's behavior to mirror the socially acceptable norms, attitudes, and values. Aggressive behavior and other features of social disengagement are fiercely denounced in schools, and in many institutions, such behaviors are severely penalized in an effort to put an end to them.

The social learning theory permits teachers to be cautious while modeling positive actions in front of the students in order to avoid giving the erroneous impressions and to make students aware of the need of establishing positive and healthy social interaction patterns Social Learning Theory was applicable in the current study because it emphasized the importance of manipulating instructional materials to be used frequently in classrooms and the use of teaching techniques

like role playing and demonstration, simulation and games, and dramatization to teach appropriate behaviors and extend knowledge retention. Students learn quickly through what they see, hear, and feel in the learning environment.

Modeling was appropriate for the current study because young people may learn social norms and values through a variety of teaching methods, such as role-playing, games, observation, demonstration, imitation, inquiry, self-teaching and learning, and peer teaching. Students' future outcomes are greatly influenced by how they are reared, how their parents and other significant figures in their lives treat them, and how they are treated in general. Bandura believed that characters in the learner's environment can have a significant impact on the proper and effective transmission of educational goals and objectives, attitudes, skills, and aptitude. This is because characters in the learner's environment have an impact on the students' learning outcomes. According to Bandura, development is a continual process of behavioral change that is influenced by the unique environment of the individual and may differ from person to person. It will improve a learner's self-confidence and character, as well as how well-liked they are in the community and classroom, if they can mimic a desired character.

Because learners gain self-regulation when they set their own learning goals, monitor their progress toward those goals, and evaluate the outcomes of their efforts, the Social Learning Theory was also pertinent to the current study. The theory covers issues like why self-regulating students outperform their peers in the classroom. Self-efficacy is impacted by the observation of analogous models because it casts doubt on the observer's capacity to repeat the conduct. According to social learning theories, teaching students how to act appropriately in the classroom not only helps teachers accomplish their goals and objectives but also creates people who have the necessary values and attitude for participating in the society at hand.

1.10.2 Classical Conditioning Theory (Ivan Pavlov's Theory)

The Classical Conditioning Theory, which had a significant impact on behaviorism, served as another foundation for the current investigation. Behaviourism is predicated on the idea that environments influence behavior and that all learning happens via interactions with them. In essence, classical conditioning involved connecting two inputs to produce a learnt response. The phases of conditioning can be broken down into three fundamental stages.

For the first phase of classical conditioning, a naturally occurring stimulus that will automatically elicit a response is necessary. A good example of a stimulus that occurs spontaneously is salivating in response to the aroma of food. In this stage of the process, the unconditioned stimulus (UCS) results in an unconditioned reaction (UCR). For instance, when food is presented, the (UCS) naturally and automatically triggers salivation (the UCR). Additionally, a neutral stimulus is present right now but has no effect. The UCS must be present for this neutral stimulus to begin to have an effect. Peer acceptance, aggression, social withdrawal, and altruism were the unconditioned stimuli (UCS), aggressiveness was the neutral stimulus (NS), and altruism was the unconditioned stimulus. This was relevant to the ongoing research (NS).

Therefore, an unconditioned stimulus is one that incites a reaction in an unrestrained, instinctive, and natural way. For instance, you might get ravenous the moment one of your favorite dishes is mentioned. In this instance, the unconditioned stimulus is the aroma of the dish. Unconditioned response refers to the intrinsic, unlearned response to independent stimuli. For instance, the sensation of hunger brought on by the aroma of food is an unconditioned reaction. The answer is provided by the hypothesis of the current study, which holds that Social Adjustment Indices are Unconditioned Stimulus (UCS) and have some influence on students' academic ability.

The unconditioned stimulus is repeatedly matched with the neutral stimulus that was previously present in the second stage of classical conditioning. This pairing establishes a link between the conditioned stimulus and the previously neutral stimulus (CS). The individual has now learned how to respond to these stimuli. The conditioned stimulus eventually triggers a conditioned response after being neutral because it has developed a relationship with the unconditioned stimulus. In this case, picture hearing the whistle and being able to smell your favorite food. Even though there was no connection between the whistle and the aroma of the meal, if the two were often combined, the sound would eventually elicit the conditioned response. In this instance, the unconditioned stimulus is the whistle's tone. It is relevant to the current study that the Social Adjustment Indices (UCS), which in this study represented the adjustment of the students, are frequently linked and connected with fruitful interactions with students (NS). The Conditioned Stimulus was created as a result of the coupling and association between the students, a previously Neutral Stimulus (CS).

The presentation of the conditioned stimulus alone will eventually elicit a response even when the unconditioned stimulus is absent once the UCS and CS have been connected together in the third phase. "The conditioned response" is the outcome (CR). The pre-trained response to the initially neutral input is referred to as a "conditioned response." For instance, you might get hungry when you hear the whistle as a conditioned response. In that well-adjusted and conditioned students will now elicit a response—in this case, a good academic accomplishment—it links to the current study.

Due to this, Pavlov's theory (1849–1936) offered a flexible method for defining the constant and systematic connection between the students' adjustment (conditioned stimuli) and the chosen indicators (unconditioned stimulus). It is therefore predicted that the association will have some

kind of impact on the learning environment. The young person enters a whole new environment as they move from primary to secondary school. Rules and policies evolve as secondary schools' teaching-learning processes advance. Students are introduced to a more independent lifestyle than what they were exposed to in primary school through time management, accommodations, and meal services. This suggests that in order to manage and overcome the social and intellectual problems they face; students need to build their life skills.

The theory can be applied to this study because students learn and pick up new behaviors through conditioning in the secondary environment, and because students' adjustment is a continuous process that results in a change in behavior that becomes conditioned when rewarded.

1.11 Conceptual Framework

A conceptual framework is an analytical tool for research that may be applied in a number of ways and situations to arrange concepts, make conceptual distinctions, and present real-world data in a comprehensible and acceptable way (Shields & Nandhini, 2013). The conceptual framework for the study is presented in Figure 1

Independent variables

Dependent variables

Social Adjustment Indices

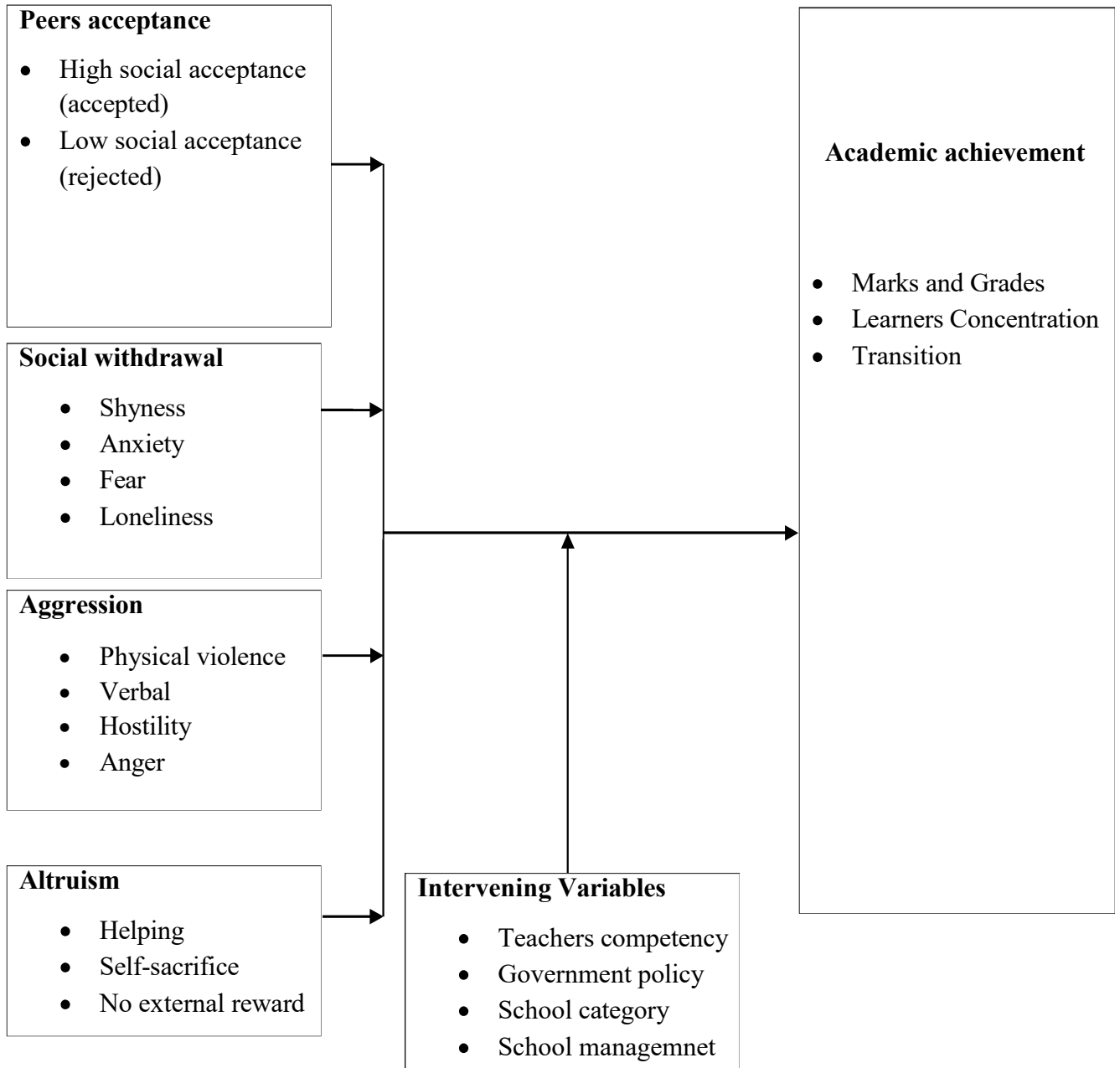


Figure 1.1: Conceptual Model Source: Researcher (2020)

Figure 1, showed that Social Adjustment Indices are the independent variables and the dependent variable is the student academic achievement. It is anticipated that these social adjustment indexes will affect academic performance. Peer acceptance is one of the Social Adjustment Indices and is described by elements of positive and negative models. According to the component used, it was therefore anticipated that peer acceptance would either have a positive or negative impact on the dependent variable. Shyness, anxiety, dread, and loneliness were the components used to indicate social disengagement. The dependent variable was predicted to be negatively impacted by social withdrawal. Violence and bullying were used to symbolize aggression, and it is anticipated that aggression will negatively affect the dependent variable. Helping, self-sacrifice, and receiving no outside reward were the components that made up the final social adjustment index, which was altruistic. Altruism was anticipated to have a favorable impact on the outcome variable.

Therefore, the interactions between each of the Social Adjustment Indices and Academic Achievement were used to establish the goals of the current study. Although they were not included in the study and were not components of the Social Adjustment Indices, intervening variables were acknowledged in the current study to have the potential to influence the relationship between independent and dependent variables and have an impact on academic achievement. The present study's intervening variables were the quality of the teachers, government policies, and school type. Multiple regressions and randomization were used in conjunction with statistical techniques to control the auxiliary variables in Figure 1. Making something random entails assigning individuals based on chance rather than on their own preferences. This is known as randomization. Randomization, according to Cochran and Cox

(1957), is similar to insurance in that it serves as a safeguard against disruptions that may or may not materialize and that, if they do, may or may not be serious.

1.12 Operational Definition of Terms

Academic achievement

Refers to successful completion and attaining good grades of secondary school students. In the present study, the term was used to refer to a situation where those students who have transited from primary to secondary school successfully completed their four-year course and pass with a minimum grade and above.

Adjustment

Describes the psychological process of adjusting to, coping with, and managing issues, demands, and challenges in daily life. The phrase was employed in the current study to describe how learners find balance in order to blend in with the secondary school environment.

Aggression behaviours

Aggression is an overt action taken with the intent to cause physical or psychological injury to another person, as well as damage, destruction, or theft of that person's possessions.

Altruism

A component of a greater vocabulary of human goodness. An altruist is someone who acts in the best interests of the other and not for their own gain or internal well-being.

Student's Peer Academic Reputation	Refers to a student's relative status in a peer group, for instance in a classroom setting, in terms of peer evaluations of academic competence. In the present study, it refers to the degree or extent to which one is liked or disliked by the peers.
Peers Acceptance	In the present study it is used to refer to individuals of the same age-set or who have the same social status and are readily accommodated in the mind of majority of the students.
Prosocial behaviours	These are unselfish behaviours. In the present study for instance, the term is used to refer to the behaviours of students who are willing to share academic information by helping others through peer teaching and helping the disadvantaged students emotionally and financially.
Social Adjustment	Is a psychological process and it refers to an effort made by an individual to cope with standards, demands, values and needs of a society.
Social Withdrawal	Social withdrawal is the persistent display of solitary behavior over time and across circumstances. It was utilized in the current study to define pupils who are lonely as a result of not working with others on academic-related tasks.
Truancy	In the current study, truancy is used to describe students who purposefully skip class without their parents' or teachers' knowledge or permission, as well as students who skip class without a valid or acceptable justification.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The present chapter represented six sub-sections of objective-driven themes of Literature Review. Introduction part of the present study gave an insight of what is contained in chapter two. After introduction, followed reviewed study of related literature based on the present study research objectives. First objective was peer acceptance and its relation to academic achievement, second objective was aggression behavior and its relation to academic achievement, third objective was social withdrawal and its relation to academic achievement and altruistic behaviors and its relation to academic achievement. Finally, an integrated summary of Literature Review was given that showed gaps that the present study endeavored to fill.

2.2 Peer Acceptance and Academic Achievement

Kishkilev, (2018) carried out a study at Louisiana State University, looking into the correlation between children peers' and academic performance. the study targeted 585 families as study respondents and using both quantitative and qualitative methods to collect data from the field. Equally, quantitative and qualitative means of data analysis was used in the analysis of the data collected. The reviewed study concluded that friendship was key in impacting positive academic performance of learners. The reviewed study by Kishkilev, (2018) was done using children in kindergarten who are pre-adolescents and whiles the current study used secondary schools' students, who are mainly adolescents hence, a gap that the current study endeavored to fill.

A study by Smyth, Down and McInerney, (2014) carried out a study in Netherlands and utilizing a study population of 1,144 used quantitative and qualitative techniques in analyzing the data revealed a significant positive relationship between learner centrality and class achievement. The

study revealed a correlation between network processes and academic performance. The reviewed study concluded that all stakeholders should adjust their notion of what is a beneficial or detrimental classroom environment for students. Whereas studies by Smyth et al. (2014) generated information of the variables in Netherlands Europe, the lack suffers from the geographical gap that need to be filled with similar studies done in Kenya and further infuse pragmatic methodology which are lacking in their studies in Netherlands.

Literature from the studies done by Smyth, Down and McInerney (2014) on the effect of adolescent challenges on academic performance revealed significant relationships between adolescent challenges and academic performance in Germany. The study adopted quantitative methods drew its study sample from the school boys and girls in Germany. Further the study used both descriptive and inferential statistics to generate information from the data collected. However, the reviewed study by Smyth et al. (2014) was longitudinal in nature which required a huge amount of time and risk of possible loss of participants could have been experienced during the study. The present study used descriptive survey research design which involved collecting both quantitative and qualitative data limiting on the length of period required to carry out the study.

A study in India by Richards, Campania & Muse-Burke, (2010) was done using quantitative techniques established a liner relationship between the study variables, self-perceived cognitive and academic competences. The study used a population sample of 291 students. Data were analyzed using descriptive statistics, chi-square analysis, and binary logistic regression. The study was founded on theorization utilizing the social theories to operationalize the studies. the study observed that there was a significant positive effect between the peers' perceptions of classmates' skills and number of students who engaged in the perceptions. Whereas the reviewed

study by Richards et al. (2010) was done in India using children who are pre-adolescents the current study was done in Kenya using students in secondary school who are mainly adolescents hence that was the gap the present study intended to fill.

A study in Australia by Gest, Madill and Rodkin (2014) on adolescents' perceptions of their relationships and academic performance established a linear relationship between the study variables. The study used an appropriate sample of 1436 respondents to collect data from the field. The study established a significant positive relationship between adolescents' perceptions and academic performance hence concluding that there is a significant positive effect between adolescent relationships had Collinearity with the academic achievement. The reviewed study by Gest et al. (2014) was done in Australia which is a developed country using ethnic minority and majority students while the current study was done in Kenya which is a developing country and used students who were in secondary schools regardless of whether they were considered ethnic minority or majority within that location of study and that was the gap the present study intended to fill.

A study by Geven, Jan and Tubergen, (2017) in Germany which sought to investigate the Collinearity between self-identified ethnic minority and majority students on academic achievement in secondary schools established a significant positive relationship between the variables. The study utilized stochastic actor-oriented models in a sample of 1175 students. The study revealed that students from minority groups more sought for friend's students who bore higher achievement levels compared to learners drawn from the majority groupings who preferred friends with same level subject performance. The reviewed study by Geven et al. (2017), was longitudinal in nature which required a huge amount of time and risk of possible

loss of participants could have been experienced during the study, the present study used descriptive survey design a gap left out by the study in Germany.

In Philippines, Olden, Mosha & Manda, (2012) carried a study on the relationship between learners' peer pressure and academic performance. The study revealed an association between learner curiosity and lower academic achievement. More the study revealed that cultural parenting had a linear. The reviewed study revealed that there was a significant positive association between social belongingness and performance. The study drew a study sample of 96 respondents to represent the study population in data collection. The study which was quantitative in nature used both descriptive methods and inferential statistics to come up with information from the data collected. The study also established a positive association between cultural-parenting orientation and peer association. The reviewed study by Olden, (2012) used a smaller sample of 96 students unlike the present study which used a sample size of 350 students hence it was possible to generalize the result findings with the present study thus filling the gap in literature.

Liu, Bullock, and Coplan (2014) studied on the association peer victimization and academic performance in among the Chinese young learners. The study had a population of 805 and data were analyzed using descriptive statistics. Among the results of the reviewed study, peer victimization was negatively related to academic achievement at both time points. Also, peer victimization and academic achievement displayed considerable stability. The reviewed study by Liu et al. (2014) was done on children in China who are mainly in primary schools and are mainly pre-adolescents while the current study was done in Kenya using secondary students who are mainly adolescents of higher age compared to those in primary hence the gap. Further, whereas the reviewed study was quantitative in nature it lacked qualitative dimension which

could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

A study by Bursal, (2017) carried out among Turkish students established a linear correlation between peer support and academic performance. The study also established minimal Collinearity between preschool learners' peer support and their academic achievement levels. The study used a sample size of 532 respondents with the data being described descriptively and using inferential statistics. Whereas the study by Bursal, (2017) was quantitatively analyzed, it lacked the support of the qualitative tools of data collection a gap the present study sought to fill.

Fong, Chen, Zhang and Liang, (2015) carried out a study in Macau to establish the collinearity between school belonging and academic performance among adolescents. The study used a sample size of 406 school going adolescents. Data was collected using questionnaires and analyzed both descriptively and using inferential statistics. From the findings of the study, it was established that there is a negative linear association between the two variables. Whereas the study by Fong et al. (2015) was quantitative in nature it lacked qualitative approaches to enrich the quantitative data analyzed. This is the gap that current study sought to fill.

Kingery, Erdley and Marshall, (2011) carried out a study at University of Maine to which revealed a linear relationship between peer acceptance and the level of student adjustment. The study drew 365 respondents for data collection and the subsequent data was analyzed through quantitative techniques. The reviewed study results of repeated measures MANOVAs indicated no differential changes in adjustment across time by gender. The reviewed study concluded that peer acceptance was vital in determining the level of student adjustment to a school set up. The reviewed study by Kingery et al. (2011) was quantitative in nature and lacked qualitative

dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

A study by Fan, (2012) sought to establish relations between peer groups and academic performance in subject of Social Studies of Students in Cross River State of Nigeria. The study established that there is a significant association between peer group and school performance in Nigeria. A total of sample of 1110 learners were used for data collection and stratified random sampling procedure was used to establish the study sample. Data collection for the study was done using the questionnaire on socio-psychological factors and social studies achievement (QSSA). The result of the data which was analyzed using inferential statistics showed that peer group influence was a significant predictor of senior secondary schools' students' achievement in social studies. The reviewed study concluded that social studies teachers, parents, school counselors and administrators should help to encourage positive peer relationship among students. The reviewed study Fan, (2012) focused on students' performance in Social Studies which is one subject but the present study considered performance of students in more than 10 subjects hence that was the gap the present study intended to fill.

Schwarz et al. (2012) in South Africa carried out a study to determine the relations associations between the quality of the parent-child relationship and peer acceptance and early adolescents' life satisfaction differed depending on the importance of family values in the respective culture. Further, the study established that there is a significant negative affect between family values satisfaction. The reviewed study concluded that parental warmth and support in adolescence as well as peer acceptance for adolescent were significant in forming well round adolescent. The reviewed study by Schwarz et al. (2012) was quantitative in nature and lacked qualitative

dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Filade, Bello, Uwaoma, Anwanane & Nwangburka, (2019) carried a study to established relationships between peer group influence and academic performance of undergraduate students in Babcock University, Ogun State in Nigeria. The reviewed study adopted mixed method design with 300 students used as a study sample. Quantitative methods of analysis were used in the eventual data analyzes. The study observed a significant positive correlation between peer group and academic performance of students. The study recommended that the youth should be counseled from time to time so as to cope with academic performance. The reviewed study by Filade et al. (2019) was done using undergraduate University students who were predominantly adults while the current study used students in secondary schools who are likely to be younger in age, a gap targeted by the present study.

In Egypt, a study was done by Ahmed and Al-Mahmoud, (2015) which endeavored to find the relationship between parents' attachment to their children and academic performance in nursing. A total subject of 492 nursing students was enrolled in the study. A comparative study design was used and a self-report questionnaire. The reviewed study concluded that the parent's attachment was significant to academic performance. The reviewed study by Ahmed and Al-Mahmoud, (2015) focused on university students who were pursuing nursing course to become professional while the current study focused on secondary school students who were still struggling with the path to career choice, a gap aimed to be filled. Furthermore, the reviewed study used university students who are predominantly adults unlike the present study which used students in secondary school and who are younger hence the gap to fill in the existing literature.

De Bruyn, Cillessen and Wissink, (2010) in their study in Morocco examined the role of peer acceptance and perceived popularity in bullying and victimization in early adolescent peer groups. The reviewed study revealed a significant positive association between the study variables. The study used a population of 1,207 to collect data and it was analysed using the quantitative methods. The reviewed study found out that bullying was positively associated with popularity. Whereas the reviewed study by De Bruyn et al. (2010) used quantitative approaches in generating information, it lacked the blending of the qualitative data to complement it hence the gap that that the present study was to fill.

Michielsen et al. (2012) carried a study in Rwanda whose aim was to seek to establish the relationships between peer-led HIV prevention interventions in secondary schools. The study which adopted longitudinal approaches established that there were significant positive associations between the study variables, peer-led HIV prevention interventions and school achievement in secondary schools. The study used a study population of 1950 respondents to collect information the subject matter. The study used quantitative techniques in analyzing the data. The reviewed study concluded that there is a significant positive association between peer education and school performance. However, reviewed study by Michielsen et al. (2012) used a small sample size of 14 schools hence limited in generalization of study findings unlike the present study which used a sample size of 350 students and so generalization of results was possible hence filling the gap in the existing literature.

A study by Wabukundi (2016) conducted in Tanzania sought to establish the relationship between peer acceptance groups and academic performance of learners in high school. Population sample was taken from four (4) secondary schools in Kinondoni Division, Dar-es-salaam,

Tanzania. The study established a linear relationship between the two study variables, peer acceptance groups and academic performance. The study recommended that the school counselors and the society in general should take a center stage in counseling the youth groups with an aim of assisting them cope and perform better in school. Whereas the reviewed study by Wabukundi, (2016) was done using quantitative approaches, it lacked the advantage of benefitting from the qualitative mix which would have argued the study findings. This is the gap that the current suggested study sought to establish.

Rukundo, (2012) carried out a study in Uganda sought to establish the relationship between teenage influence and school performance. From the study findings which used a sample of 40 respondents during data collection processes revealed that there is a significant negative effect between youth influence and learners' academic performance. The study adopted a cross-sectional research design and adopted the qualitative method in analyzing the information. The reviewed study found out that peer pressure had a similar influence both positively and negatively affecting school performance and that the teenagers used different methods to manage peer pressures. However, Rukundo, (2012) used a small sample size of 40 students while the present study used student sample of 350 students which was good in drawing generalized conclusions and that was the gap the current study was to fill in literature.

Kipkemboi, (2014) conducted a study in Kenya on the Impact of School Environment and Peer Influences on Students' Academic. The study which used a study population from 21 secondary schools established that there is a significant positive association between school environment factors and peer and learning outcomes. The reviewed study used a correlation research design where school environment and peer influence constituted the independent variables whereas

students' academic performance was the dependent variable. Quantitative tools were used in data collection. The reviewed study concluded that school environment and peer influences were some of the psychosocial factors that affected academic achievement. Whereas the study generated information using quantitative tools, there was a gap in using the mixed method approach in data collection. Since the reviewed study was quantitative in nature, the present study sought to establish new literature based on the mixed design approaches.

Njeri, (2015) carried out a study to establish determinants of high prevalence of homosexuality in public boarding secondary schools. A case study of Githunguri District, Kiambu County, Kenya. The study which used a sample of 2035 and a sample of 120 was selected used questionnaires to collect data from the respondents. Quantitative analysis techniques were used to generate information from the data collected which indicated that there was a significant association in homosexuality in their schools. The reviewed study concluded that despite homosexuality being condemned in the social level, it is increasingly being experienced in schools especially boarding schools in Kenya. Whereas the reviewed study by Njeri, (2015) used a sample of 120 students to obtain information, the current study used a bigger sample of 350 to obtain information which could be conceptualized with the reviewed study.

2.3 Aggression and Academic Achievement

A study carried out in United Kingdom by Risser (2013) to establish the relationship between relational aggression and school performance, found a linear relationship between aggression and school performance. The study drew a sample of 1067 children as respondents of the study. The reviewed study was a correlation study and data generated from the study were analyzed using Pearson Product Moment Correlation Coefficient and Linear Regression Analysis.

Reviewed study established that aggression was negatively related with the dependent variable, school performance. The study also established that overt aggression was negatively associated with school performance. Additional results indicated that for both girls and boys, victimization was negatively associated with school performance. On the same breadth, it was established that aggression influenced well-being. The reviewed study by Risser, (2013) was done using children in primary schools who are mainly pre-adolescents unlike the current study which used data collected from secondary school students and who are mainly adolescents hence the gap the current study intended to fill.

Uludag, (2013) carried out a study in China to establish prevalence of peer physical aggression and its association with aggressive beliefs, empathy, self-control, and cooperation skills among 1,719, 7th-to-9th-grade students in a rural town in the central China province of Henan. Data were analyzed using descriptive statistics, chi-square analysis, and binary logistic regression. The reviewed study findings showed that 17.9% of the students reported that they had one or more times of physical aggressive behaviors toward their peers in the past 12 months. The reported rate of peer physical aggression was significantly higher in boys (24.7%) than in girls (10.7%). After adjusting the factors of gender and grade, result of logistic regression analysis showed that having a higher level of aggressive beliefs was peer physical aggression risk factor; a higher level of self-control was protective factor, but there were no significant association between peer physical aggression and the factors of empathy and cooperation skills. The reviewed study concluded that helping students to decrease their aggressive beliefs and to improve their self-control skill would aid in the prevention of youth violence.

The reviewed study by Uludag, (2013) was quantitative in nature and lacked qualitative dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Wang, Chen, Xiao, Ma, and Zhang, (2012) conducted a study in Jordan to determine how school bullying impact on students' academic achievement from teachers' perspective in Jordanian schools. The study used a descriptive analytical methodology. The research sample consisted of all schools' teachers in Amman West Area (in Jordan). The sample size consisted of 200 teachers selected from different schools from Amman West area in Jordan. Data were analyzed using descriptive statistics, chi-square analysis, and binary logistic regression. The reviewed study results indicated that school bullying existed in all schools regardless if they were governmental or private ones. The study concluded that school bullying affected student's academic achievement either victims or the bullies. The reviewed study by Wang et al. (2012) used teachers who are already professional and predominantly adults while the current study used students in secondary schools who are still struggling with the path to academic career hence the gap to fill the existing literature.

Scott, Lapré, Marsee and Weems (2014) carried a study in China whose primary purpose was to examine contributions of aggression to the development of social competences. The study utilized a population sample of 1140 students. Structural equation modeling revealed that aggression had unique effects on later social competence and academic achievement after their stabilities were controlled, particularly in the junior grades. Aggression also had significant indirect effects on social and academic outcomes through multiple pathways. Social competence and academic achievement contributed to the development of each other, but not aggression. The

reviewed study results indicated cascaded effects of aggression in Chinese students from a developmental perspective. The reviewed study concluded that aggression influenced academic performance negatively. The reviewed study by Scott et al. (2014) was done using Chinese children who are younger while the current study was done using students from secondary schools in Kenya and that was the gap to fill the literature. Further the study was longitudinal in nature which required a huge amount of time and risk of possible loss of participants could have been experienced during the study, the present study used concurrent embedded research design which involved collecting both quantitative and qualitative data concurrently which did not require much time and lowered the risk of loss of participants during the study.

Cheraghi and Piskin, (2011) carried out a comparison study in Iran and Turkey to determine presence of peer bullying among high school students in Iran and Turkey. The reviewed study consisted of 874 high school students from Iran and 859 students from Turkey. The study used quantitative approaches in analyzing data. The reviewed study concluded that bullying was being practiced in Iran and Turkey among high school students and that it had detrimental effects whose detrimental effects to learners should not be underestimated. The reviewed study by Cheraghi and Piskin, (2011) was quantitative in nature and lacked qualitative dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Bekiari and Tsiana, (2016) carried out a research in Greek to establish instructors' verbal aggressiveness and students' personal orientations and reasons of discipline in physical education. The study established a significant positive association among physical education instructors' verbal aggressive-ness as perceived by students and students' task and ego orientations and reasons for discipline. The sample consisted of 283 Greek adolescents was used

to collect data which was analysed using quantitative methods. The reviewed study concluded that instructor's aggressiveness level was important for curriculum delivery and that the concern person who is mainly teachers should moderate their level of aggressiveness for effective learning to take place. The reviewed study by Bekiari and Tsiana, (2016) was quantitative in nature and lacked qualitative dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Khanehkeshi, (2011) carried out research in Iran in order to establish the Relationship of Academic Stress with Aggression, Depression and Academic Performance. Using a random sampling technique, 60 students consisting of boys and girls were selected as students having academic stress, the results showed that boys and girls are different in terms of aggression and depression. The reviewed study concluded that academics stress and depression influenced academic achievement negatively. The reviewed study by Khanehkeshi, (2011) was done using college students who are predominantly adults and already pursuing their career while the present study was done using secondary schools' students who are still struggling to study, pass their exams and pursue course of their dreams hence the gap to fill the literature. Further, the reviewed study used a smaller sample of 60 students which was not comprehensive enough to draw conclusions unlike the present study which used a sample size of 60 students hence filling the gap in the literature.

Fares, Ramirez, Cabrera, Lozano and Salas, (2011) carried out research in Uruguay to examine the justification of aggressive acts in Uruguayan children and adolescents in different social situations as a function of age and sex, as well as the effect of differences in socioeconomic status

on justification. A total of 663 participants was used in collecting data and analysis done using descriptive and quantitative techniques. The reviewed study results showed that adolescents justified both physical and verbal aggression more easily than children in a wide range of situations. The reviewed study concluded that Uruguayan children and adolescents showed a lower acceptance of active forms of aggression than passive forms. The reviewed study by Fares et al. (2011) was quantitative in nature and lacked qualitative dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Khurshid, Parveen, Khurshid and Parvaiz, (2017) carried out research in Pakistan to determine effects of low, mild and high level of aggression on students' academic performance. The reviewed study was meant to discover the impacts of various level of aggression on students' academic performance. The reviewed study was delimited to students studying in grade 12 and their instructors. The reviewed study results demonstrated negative impact of aggression on students' academic performance while there was a centrality contrast between the academic performance of the students having low, medium and high state aggression on students. The reviewed study concluded that low, mild and high level of aggression was detrimental to academic performance of students. In the reviewed study by Khurshid et al. (2017) the sample under study was selected using simple random sampling technique and therefore not likely to be representative of the entire population under study which is heterogeneous in nature and carried larger errors and therefore the present study employed stratified random sampling based on the category of the school followed by gender hence a representative sample and which had minimal errors.

Atay, (2013) carried out research in Turkey to establish impact of sports and social activities participation on aggression level. The aim of the reviewed study was to investigate the effect on the level of aggression participation in sports and social activities. A sample of 911 high schools students was used. Data was analyzed using descriptive statistics, chi-square analysis, and binary logistic regression. Buss-Perry Aggression scale was used to determine the level of aggression in the reviewed study. The reviewed study found out that while male participants' physical aggression scores were found higher than female participants at significant level, female participants' hostility scores were found higher than male participants at significant level. Physical aggression score of participants doing sport was found higher than participants who do not do sport. Physical aggression and anger scores of individuals participating social activities were significantly lower than individuals who did not participate in social activities. Participants having low academic achievement had maximum physical aggression scores. As a result, the reviewed study found that aggression level was variable as genders, academic achievement and participation in sports and social activities. The reviewed study concluded that aggression level was variable as genders, academic achievement and participation in sports and social activities. The reviewed study by Atay, (2013) was quantitative in nature and lacked qualitative dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Powers and Bierman, (2013) carried out a study in Europe to find out the multifaceted impact of peer relations on aggressive-disruptive behavior in early elementary school. The reviewed study followed a longitudinal sample of 4,907 students. The Pearson Product Moment Method was applied to find out the relation between the variables. The reviewed study concluded that aggression was dynamic and begun as early as when children were in Kindergarten. The

reviewed study by Powers and Bierman, (2013) was done in early elementary school children who are pre-adolescents while the current study used students in secondary schools who are adolescents so as to fill the gap in the literature. Further, the reviewed study was longitudinal in nature which required a huge amount of time and risk of possible loss of participants could have been experienced during the study, the present study used concurrent embedded research design which involved collecting both quantitative and qualitative data concurrently which did not require much time and lowered the risk of loss of participants during the study.

Bej, (2014) carried out research in Europe to evaluate the role of peers or school friends during the adaption phase in the school environment of children aggressive behaviour, aged 11-14 with. The study included a sample of 20 pupils who were part of the same classrooms identified with high level of aggressive behaviour. The reviewed study aimed at identifying how the other children perceive the aggressive behaviour and how they reacted towards this behaviour. The reviewed study used a qualitative approach as well analyzing the secondary data and also information gathered by semi-structured interviews with pupils.

The reviewed study found out that in general, situation of conflicts with the expressed disruptive behaviour was seen in a resilient point of view from the peer group. The reviewed study concluded that stakeholders can contribute in various ways to have a positive environment in the classroom with the support of the teachers than we can have better quality of the emotional wellbeing of all children in the classroom. The reviewed study by Bej, (2014) used a small sample of 20 pupils which was not comprehensive in drawing conclusions unlike the present study which used a sample size of 350 students and so generalization of the study findings was possible with the present study and that was the gap to fill in the existing literature.

Evans, Smokowski, Rose, Mercado & Marshall, (2019) carried out a research in North Carolina to find out how cumulative experiences of victimization, perpetration, and bystander behavior impact adolescent behavioral and mental health and academic achievement outcomes at the end of high school. The reviewed study used a sample of over 8000 middle- and high-school students. The study adapted multiple imputation where analysis was done using Structural Equation Model. The reviewed study concluded that bullying dynamics had comprehensive implications for adolescent behavioral and mental health and academic achievement. The reviewed study by Smokowski et al. (2019) was longitudinal in nature which required a huge amount of time and risk of possible loss of participants could have been experienced during the study, the present study used concurrent embedded research design which involved collecting both quantitative and qualitative data concurrently which did not require much time and lowered the risk of loss of participants during the study.

Botha and Twine, (2014) conducted a study in South Africa to find out how first year male students' experiences of senior male students' aggression in campus residences with hierarchical structures of power. A sample size of 14 first year male students was used. A qualitative phenomenological design situated in an interpretive paradigm was used. The reviewed study findings indicated that first year male students associate their experience of senior male students' aggression in residences with negative feelings and emotions, ranging from indifference to negativity, which affected their emotional, physical and psychological well-being. Aggression was established practice in these university residences where the power structure allowed seniors to behave aggressively and to entrench aggression. The reviewed study concluded that Aggression of that kind was detrimental to the well-being of first year male students as it affected

them physically, emotionally and psychologically and that had a negative impact on their personal well-being and on their academic performance.

The reviewed literature by Botha and Twine, (2014) was carried out using University students who are predominantly adults unlike the current study which used students in secondary schools who are mainly adolescents and that was the gap to fill in the literature. The reviewed literature further used male students in the study unlike the present study which used both male and female students and that was also the gap to be filled in the existing literature. The reviewed study also used a small sample size of 14 students which may not have been comprehensive enough in drawing conclusions unlike the present study which used a sample size of 350 students making generalization of findings possible and that was also the gap to fill in the literature.

Pitso, Njeje, Bonase, Mfula, Nobendle and Nogaga, (2014) carried out research in South Africa to determine Impact of Crime among Learners in High School. The reviewed study was qualitative in nature and assessed the impact of crime among high school learners, their parents and teachers as well. The sample size of 38 learners was used. Simple random sampling was used to select respondents. The data was analyzed using content analysis. The results of the reviewed study indicated that this crime may be caused mainly by poor role modelling at home by parents or by guardians, by significant others such as the teachers and the older students through negative peer pressure. The impact of this crime may lead to victims dropping out of school due to fear of victimization by their fellow students and imprisonment by the perpetrators. Teachers were also affected by the crime in a way that they live with fear and insecure inside school premises because other learners carry dangerous weapons inside the school premises.

The reviewed study concluded that crime affected learners in their studies and psychological; in a sense that crime scene always leaves post-traumatic stress disorders to the observers and that it also promoted retaliation behaviour among the learners and they spent less time concentrating on their books. However, the sample under study by Pitso et al. (2014) was selected using simple random sampling technique and therefore not likely to be representative of the entire population under study which is heterogeneous in nature and carried larger errors and therefore the present study employed stratified random sampling based on the type of the school followed by gender hence a representative sample and which had minimal errors.

Omoteso, (2010) carried out research in Nigeria to establish the prevalence and nature of bullying behaviour among secondary school students in Nigeria. The reviewed study also investigated the factors associated with bullying and its psychological consequences. The reviewed study adopted a survey design. A sample of 750 secondary school students was selected through stratified random sampling technique. Results showed that the prevalence of bullying among the students was 67.2%. From this, 88.1% had been bullied and 33.1% were bullies. Many students (64.7%) had been involved in relational bullying. Watching violent films (57.5%) and retaliation for being bullied in the past (51.2%) were some of the factors associated with bullying. The reviewed study concluded that bullying affected psychological wellbeing of students. The reviewed study by Omoteso, (2010) was quantitative in nature and lacked qualitative dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Abasiubong, Abiola and Udofia, (2011) conducted a study in Nigeria to determine level of aggressive traits among students in higher institutions, as well as identifying the possible

predictive factors. The study used a sample size of 515 students. Data was analyzed using descriptive statistics, chi-square analysis, and binary logistic regression. The reviewed study concluded there was need to curb aggression in order to create conducive learning environment and maintain societal norms. The reviewed study by Abasiubong et al. (2011) used University students who were predominantly adults pursuing their careers in either Medicine or Arts while the current study used secondary school students who are adolescents hence the gap to fill in the existing literature.

Owusu, Hart, Oliver and Kang, (2011) in Ghana, West Africa carried out a study to determine the association between bullying and psychological health among senior high school students. The reviewed study utilized data from the 2008 Ghana Global School-based Student Health Survey (GSHS). A total of 7137 students participated in the 2008 GSHS with 40.1% reporting being bullied. Prevalence rates of being bullied (95% confidence intervals (CI) were calculated by each demographic group, as well as each psychological variable. Multiple logistic regression was used to model the relationship of being bullied (physical/nonphysical) on the linear combination of demographic variables. Senior high school-level 1 (lowest grade) students were 3 (95% CI: 2.45-3.68) times more likely to be bullied compared with SHS level 3 (highest grade) students. Victims of bullying were significantly more likely to report negative psychological health compared with those who reported not being bullied. Odds ratios were as follows: signs of depression, 1.97 (95% CI: 1.75-2.21); suicide ideation, 1.72 (95% CI: 1.45-2.05); being so worried that it affects sleep, 2.10 (95% CI: 1.77-2.49); and loneliness, 1.82 (95% CI: 1.49-2.22). There was no significant difference in self-reports of negative psychological health when comparing students who experienced physical forms with those who were bullied in nonphysical ways.

The reviewed study concluded that Bullying victimization is a major problem among SHS students. And recommend strengthening of existing proactive anti-bullying programs by taking into account the association between bullying and the psychological health of students. The reviewed study by Owusu et al. (2011) was quantitative in nature and lacked qualitative dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Fayso, (2018) carried out a study in Ethiopia in secondary schools of Meskan Woreda of the Gurage zone to determine types, magnitude, and predictors of aggression as well as methods that teachers use to control aggressions in secondary schools of Meskan woreda of the Gurage zone. Concurrent nested design was used for the reviewed study. A total of 352 secondary school students, 18 secondary school teachers and 2 principals participated in the reviewed study. Stratified random sampling technique was used to select student participants whereas purposive sampling technique was used to select teachers and principals. Descriptive statistics, one sample t- test, and step wise linear regression analysis were conducted to analyze the data. The reviewed study findings disclosed that the three forms of aggression namely indirect, verbal and physical were prevalent among adolescents in secondary school of Meskan Woreda.

Regarding the magnitude of aggression, the findings indicated that adolescent in secondary school of Meskan woreda scored relatively high on the measure of indirect aggression. The linear regression analysis revealed that school setting, age, grade level and scores on the measure of perceived parental warmth/love found to be significant predictors of aggression. The reviewed study concluded that behavioral problems, aggression in schools needs special attention since it affects student's proper development substantially in their schooling and later in life. The

reviewed study also concluded that students who are aggressive at early ages tend to show delinquent behavior during adulthood than those students who were not aggressive. In addition, students who were aggressive tend to score low in their academic achievement than those students who were not aggressive and tend to be poor in communication with their peer and teachers. However, the reviewed study by Fayso, (2018) used a small sample of school administrators (2 principals) which may not have given a comprehensive finding to draw conclusions unlike the present study which used 15 school administrators (15 Deputy Principals) hence making it possible to generalize findings and that was the gap to fill in the existing literature.

Crombach and Elbert (2014) carried out a study in Rwanda and investigated the extent to which reactive aggression and appetitive aggression account for recent violent behavior in students and youths. The study used a sample of 112 students and youths recruited from the streets, families and a residential center for vulnerable students in Rwanda. The reviewed study used mixed method research design. The reviewed study concluded that an appetitive perception. However, positive feelings experienced through violent or cruel behavior are also an important risk factor for ongoing aggressive behavior and therefore need to be considered in prevention strategies. However, reviewed study by Crombach and Elbert, (2014) was done using a small sample of 112 street children which may not have be comprehensive enough to draw conclusions unlike the present study which used a sample size of 350 students and so generalization of study findings was possible with the present study and so that was the gap to fill in the literature.

Devries, Child, Allen, Walakira, Parkes and Naker, (2014) carried out research in Uganda to determine School violence, mental health, and educational performance in Uganda. The reviewed study sample surveyed 3706 students and 577 school staff members. The reviewed

study used descriptive statistics and logistic regression models. The reviewed study concluded that a ban on corporal punishment in Ugandan schools since 1997, use of violence against students was widespread and associated with poor mental health and educational performance. School violence may be an important but overlooked contributor to disease burden and poor educational performance in low- and middle-income settings. However, reviewed study by Devries et al. (2014) was done on children who were in primary schools and mainly pre-adolescents unlike the present study which used students who were in secondary schools and likely to be adolescents and that was the gap the current study was to fill. Further, the study was quantitative in nature and lacked qualitative dimension which could have presented participants feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Mwerekwe, (2015) conducted a study in Tanzania and aimed at investigating Bullying Behaviours, Helping Behaviours and Academic Performance of Pupils with Disabilities Enrolled in Primary Schools in Tanzania. The reviewed study found that there were helping behaviours in primary schools that enrolled pupils with disabilities in Tanzania. As a result, these pupils' academic performance may be affected in one way or the other. The reviewed study concluded that bullying affected academic performance of pupils with disabilities in primary schools in Tanzania and that everyone needs to play a role in developing a conducive atmosphere for pupils with disabilities in order not to jeopardize their academic performance. However, reviewed study by Mwerekwe, (2015) was done on pupils who were in primary school and who were mainly pre-adolescents unlike the current study which used secondary students whose age was predominantly bigger than those in primary schools hence the gap the current study was filling.

Walumoli, (2016) carried out a research in Mwingi Central District, Kitui County Kenya to determine Influence of Children's Aggressive Behaviours on their Educational Progress. The study used a population sample of 10 schools and was a descriptive survey. The reviewed study established that there was no significant relationship between aggressive behaviours and academic performance. However, children with aggressive behaviours had low class participation and task completion. They showed poor school attendance but rarely drop out of school. The reviewed study concluded that Children with aggressive behaviours face challenges in their academic progress. The reviewed study by Walumoli, (2016) was done using pupils who were pre-adolescents unlike current study which was done using secondary school students who are adolescents hence the gap the current study intended to fill.

Gichuba, (2017) carried out research in Kenya to determine effects of violence on Children's Participation in Pre-Primary School Education in Nairobi City County. A population of 207 schools was used. Descriptive statistics was used to summarize data while quantitative data was analyzed through linear regression. The reviewed study findings showed that cases of violence against children reported and shared were higher for girls as compared to boys. This showed that girls were more vulnerable, although there was a growing trend among boys which indicated that they were also at risk. The reviewed study findings also showed that majority of the respondents tended to hold back while a few of them shared cases of violence against children as compared with reported cases.

The reviewed study Concluded that violence against children was in existence and occurred in different form and influenced by different factors within the society. However, reviewed study by Gichuba, (2017) used pre-primary Children whose age was between 3-6 years while the

present study used students in secondary school who are mainly adolescents and much older than those in pre-primary hence the gap to fill in the existing literature.

Wanjai, (2018) carried out a research in Githunguri Sub-County, Kiambu County, Kenya to establish Influence of Domestic Violence on Secondary School Students Academic Performance. The study used a sample size of 450 students. The study used mixed method design. The reviewed study findings indicated that emotional abuse, physical abuse, verbal abuse and sexual abuse influences academic performance. The reviewed study concluded that aspects of aggression affected academic achievement negatively. However, the reviewed study by Wanjai, (2018) lacked regression analysis which would have otherwise yielded in making comprehensive conclusions unlike the present study which utilized regression analysis to help draw comprehensive conclusions hence filling the gap in the existing literature.

2.4 Social Withdrawal and Academic Achievement

Coplan, Liu, Ooi, Chen, Li, and Ding (2016) carried a study looking into relationship between socio emotional and academic adjustment of different sub-types of socially withdrawn school age children in mainland China. The study which used a study sample of 1344 respondents established a significant positive association between socio-emotional and academic performance through the quantitative analysis done. The reviewed study results from indicated children who exhibited avoidant behaviour had the most significant pervasive internalizing difficulties compared to peers. However, in contrast to findings among Western samples, unsociable children were as likely to have peer and academic difficulties as their shy and socially avoidant peers. The reviewed study concluded that socio emotional of different types of socially withdrawn children affected their academic adjustment and in a negative way. The reviewed

study by Coplan et al. (2016) used children in primary school who are mainly pre-adolescents unlike the current study which used secondary school students who are predominantly adolescents and that is the gap to fill the existing literature.

A study by Lim (2018) conducted in Europe established a significant positive relationship between student isolation on students' university learning experiences. The study being longitudinal drawing a response rate of 15,017 respondents over the time. Quantitative analysis techniques were employed in analyzing the study. The reviewed study by Lim, (2018) used University students who are predominantly adults unlike the current study which used students from secondary schools so as to fill gap in the literature. In addition, the study was longitudinal in nature which required a huge amount of time and risk of possible loss of participants could have been experienced during the study, the present study used concurrent embedded research design which involved collecting both quantitative and qualitative data concurrently which did not require much time and lowered the risk of loss of participants during the study.

Fu, Chen, Wang and Yang, (2016) carried out a research in China to determine the developmental trajectories of academic achievement. The sample size of the study was 1146 and it utilized mixed method design. The study established correlations between the study variables being positively correlated to the study dependent variable. In addition, within the low-stable trajectory, children initially low on shyness and high on social-behavioral problems remained poor in academic achievement over time. The reviewed study concluded that there was significance of social-behavioral functioning in predicting the distinctive trajectories of academic achievement in Chinese children. The reviewed study by Fu et al. (2016) used children

who were mainly pre-adolescents and in primary schools while the current study used students in secondary schools who are predominantly adolescents hence filling the gap in literature.

Fong, Chen, Zhang and Liang (2015) carried a study in a University in Southern Ontario, Canada. The study attracted a sample of 942 respondents with the study concluding that social ties is correlated to better academic performance. The reviewed study results from an autoregressive cross-lag path analysis indicated that social anxiety had a significant and negative direct relationship with academic achievement. Whereas the reviewed study by Fong et al. (2015) did their study using university, there is an age gap that the current study sought to fill by using the secondary school the current study used students in secondary schools who are adolescents and that was the gap to fill in the literature. Further, data was obtained from one university and generalization of the findings was not comprehensive enough to draw conclusions unlike the current study which used data from 13 schools.

Chen, Yang and Wang (2013) carried out a research in China to examine the moderating effects of academic achievement on relations between shyness-sensitivity and later internalizing problems in Chinese students. A sample of 1171 school-age students participated in the study. Descriptive statistics was used to summarize data while quantitative data was analyzed through linear regression. The study established that positive relationship between shyness loneliness, depression, and teacher-rated internalizing problems, with the stability effect controlled, for low-achieving children, but not for high-achieving children. Whereas the reviewed study by Chen et al. (2013) used children in primary schools the current study sealed the gap of respondents by employing the target population of secondary schools. Further whereas the reviewed study was

longitudinal, the current study sealed the methodological gap by using concurrent embedded research design.

A study was conducted by Bahmani, Faraji, Holsboer and Brand (2017) in Europe to establish the relationship between depression, and loneliness and academic achievement among undergraduate students. A sample of 240 was used. The study adopted correlational research design. From the study findings, the study established a strong correlation between age, loneliness and depression. The reviewed study by Bahmani et al. (2017) was done using University students who are predominantly adults while the current study used secondary school students who are adolescents and that was the gap to fill in the literature. In addition, data was obtained from one University and so generalization of the findings was not comprehensive unlike the current study which corrected data from 13 various secondary schools.

Lim (2018) studied the relationship between student Isolation on Students' Perspectives of Academic, Social and Psychological Development in Malaysia. The study used as sample size of 581students. The reviewed study adopted the correlational research design. The reviewed study findings showed that academic isolation and social isolation were strongly associated with poorer university learning experiences as compared to psychological isolation. Student isolation as a whole proffers extensive negative relationship with university learning. The reviewed study concluded prioritizing students' needs from a holistic view as every aspect intertwines to enhance students' success rate during their learning journey in university, as well as employability rate after their graduation and that Stakeholders in the educational context ought to prioritize the impacts of student isolation among tertiary students as higher education institutions are the main producer of future human capital for a nation to continue developing its

economy. The reviewed study by Lim, (2018) was done using university students who are predominantly adults while the current study used secondary school students who are adolescents so as to fill gap in the literature. Further, data was obtained from one university and so generalization of the findings was not comprehensive unlike the current study which corrected data from 13 various secondary schools.

Study by Bek (2017) done in Usak University to find out the relationship between loneliness and academic participation and success. A sample size of 213 students was used. Data were analyzed using descriptive statistics, chi-square analysis, and binary logistic regression. The study established a significant and positive relationship between loneliness and academic participation and performance. The reviewed study concluded that there is a significant and positive relationship between aspirations and school participation. However, students who felt lonely and isolated tend to spend their time idly and therefore do not thrive in academic environments. The reviewed study by Bek, (2017) was done on international students who were studying in a foreign University far from their Country and who were predominantly adults while the present study was done using secondary school students who were adolescents studying in their local country hence the gap to fill in the existing literature.

A study done by Rosenstreich and Margalit, (2015) in Peres Academic Center in USA to determine Loneliness, Mindfulness, and Academic Achievements. The study used a sample size of 73 students. The study used Chi Square analysis. The study found out that difficulties in academic performance can be approached, to some extent, using mindfulness. Hence, mindfulness, as an easy-to-employ self-help intervention, might serve as a front-line treatment for misadjusted students or for students with learning difficulties. The reviewed study by

Rosenstreich and Margalit, (2015) was done on college students who were in First-Year of their studies and were predominantly adults while the current study used students in secondary schools who are adolescents and that was the gap to fill in the literature.

Zarei, Heydari and Adli, (2013) carried out a research in Iran among the high school students on the Relationship between Loneliness and Social Acceptance and the Academic Performance of Students. The study utilized descriptive-correlative design. A sample size of 342 students was used. The findings indicated a correlation between the study variables, boy and girl students and social acceptance. The reviewed study by Zarei et al. (2013) used quantitative techniques hence leaving the study with qualitative data gaps. To fill in gaps in the literature, the current study used a mixed methods approach.

Chishti, Amin and Yousaf (2018) conducted a study in Pakistan on shyness and academic Achievement among Adolescents. The study observed a significant positive association between the two variables. A suitable sample was used in data collection and analysed using both descriptive statistics and inferential analysis. The reviewed study came to the conclusion that encouraging shy students would boost their academic performance. The study by Chishti et al. (2018) that was under review was quantitative in nature and was missing a qualitative component that might have shown participants' emotions and experiences. To fill in gaps in the literature, the current study used a mixed methods approach.

A study by Gökhan, (2010) carried out in Turkey to determine the relationship between Shyness and Loneliness Levels of Elementary Students in a Turkish. The study observed a significant positive association between Shyness and Loneliness Levels of Elementary Students in a Turkish. The study which comprised a sample of 470 students and analysed both descriptively

and through inferential statistics indicated that shyness levels were more significant in male students than in the female students however, female students felt lonelier than the male students. Whereas the study conducted by Gökhan, (2010) was purely quantitative the current study sought to fill in the methodological gap, mixed design, left by the reviewed study.

A study by Bokaie and Enjezab, (2017) established that there was a significant association between spiritual health and loneliness the respondents Loneliness among Students in Shahid Sadoughi University of Medical Sciences, Yazd, Iran. The reviewed study used descriptive-correlational study with a sample size of 525 students from different faculties. The reviewed study concluded that regarding the relationship between spiritual health and loneliness and the prevalence of loneliness among these students, all stake holders to pay attention and suggest approaches to improving spiritual health, as a useful strategy to prevent or reduce depression, in that population. Whereas the study by Bokaie and Enjezab, (2017) used university students who were predominantly adults unlike the present study which used students in secondary schools who are adolescents and that was the gap to fill in the literature. Further, the data was obtained from one University and so generalization of the findings was not comprehensive unlike the current study which used data from 13 secondary school and of various categories.

A study by Kumar, Banik and Islam (2019) in Bangladesh on Social Network, Facebook Use and Loneliness: A Comparative Analysis between Public and Private University Students in Bangladesh. The study adopted a sample size of 380 students. The study used correlational design. The reviewed study found out that although aggregately students are averagely engaged in real life social network in the study area, public university students are relatively more engaged in real life social network than that of private university students. The reviewed study also found

that aggregately students in the study area suffer from loneliness moderately where private university students suffer more than that of public university students. Whereas the study by Kumar et al. (2019) which was based university students, the current study was based on the secondary schools a gap to fill in the literature.

A study by Dagne and Dagne (2019) on effect of loneliness and its association with year of study among University of Gondar students established a significant positive association between the two variables. The study used a population study of 404 students. Cross-sectional study design was used. The study established that loneliness was higher in those rural residents before coming to the university, current *khat* chewers and cigarette smokers and students with the age group of 21 years and beyond. According to the reviewed study, loneliness was a significant distraction for University of Gondar students, and all interested parties should work to develop long-term solutions to the issues it causes. In contrast to the current study, which used data from 13 secondary schools of diverse classifications, the reviewed study only used data from one university, making it unable to generalize the results fully hence the gap to be filled.

A study was conducted by Nazzal, Cruz and Neto (2019) to determine Psychological predictors of loneliness among Palestinian university students in the West Bank. The study used a sample of 254 students employing quantitative approaches in data collection and quantitative techniques in data analysis. The study established positive associations between gender and loneliness with male students being lonelier than female students. Further the study indicated that the more the students were high in loneliness, the more they felt less satisfied with their lives and received less support from friends. Whereas the study by Nazzal et al. (2019) was done using university

students, most of whom are adults, as opposed to the current study, which employed secondary students, most of whom are teenagers hence the gap to fill in the literature.

Paul's (2013) study which was conducted in China and sought to establish that shyness and Academic Performance are correlated. The study which used 596 elementary school children employed a quantitative technique in analyzing the data. The reviewed study's findings showed significant positive associations between self-reported shyness in children, socioemotional functioning, and academic achievement measures. The study further reported positively moderated considerably moderated the relationship between shyness and peer rejection, with the result that the relationship between these two variables grew at lower academic achievement levels and shrank at higher academic achievement levels. Whereas the study by Paul (2013) was based on a study population predominantly adolescents in China secondary schools' students, it left gaps on the age of the students the study therefore sought to achieve. Further, the gap in the methodology which was based on purely quantitative. The present study therefore sought to establish the findings of the study using the qualitative.

Morinaj, Hadjar and Hascher, (2019) carried out a longitudinal study based on school alienation and academic achievement in Switzerland and Luxembourg. The study established that there were significant relationships between the study variables in Switzerland and Luxembourg. Data was collected using a sample study of 403 respondents and data analysed using quantitative methods. The reviewed study findings showed that, school alienation domain and cultural context were significantly correlated to school learner performance. Whereas the reviewed study by Morinaj et al. (2019) was longitudinal in nature leading to investing large amounts of resources and time, the current study was not a longitudinal methodology hence, a concurrent

embedded research design which involved collecting both quantitative and qualitative data concurrently which did not require much time and lowered the risk of loss of participants during the study.

Strydom, Pretorius and Joubert, (2012) carried out a research in South Africa on Depression and anxiety among Grade 11 and 12 learners attending schools in central Bloemfontein.. A total of 515 learners participated in the reviewed study. Data were analyzed using descriptive statistics, chi-square analysis, and binary logistic regression. The reviewed study found Academic workload as the main source of stress. The reviewed study concluded that there were potentially higher prevalence rates for anxiety and depression than in previous South African studies and worldwide prevalence rates for adolescents. Learners were generally hesitant to seek help from formal assistance structures provided by the schools, and preferred discussing problems with parents or friends. The reviewed study by Strydom et al. (2012) was quantitative in nature and lacked qualitative dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Atindanbila and Abasimi, (2011) carried out research on depression and coping strategies among students in the University of Ghana. The reviewed study examined the prevalence of depression of the students at the University of Ghana, the perceived causes and the coping strategies they use. A sample size of 312 was randomly selected. MANOVA, ANOVA, t-test and Regression Analyses were used to analyze the results. The reviewed study concluded that students had mild depression and their major stressors were related to the academic load. The reviewed study further established that the commonly used coping strategy was the cognitive. The reviewed

study by Atindanbila and Abasimi, (2011) was done using University students who were predominantly adults while the current study used students in secondary schools who are adolescents and that was the gap to fill in the literature.

Abdeta, Tolessa, Adorjan and Abera, (2017) study in Ethiopia concluded that large numbers of university students were currently chewing *khat* and that withdrawal symptom as a factor that significantly affected *khat* chewing was identified. Besides it gave new ideas regarding *khat* withdrawal symptoms in Ethiopia which served a critical role of providing information to form rational foundation for public health policy, prevention and planning to bring change in contributing factors for *khat* chewing. The study used a sample size of 651 students. Bivariate and multivariate logistic regressions were used. The reviewed study by Abdeta et al. (2017) used University students who are predominantly adults unlike the current study which used students in secondary schools and who were adolescents and that was the gap to fill in the literature. Further, the reviewed study used data from only one University and so generalizations of the findings was not comprehensive unlike the current study which used data from 13 schools of various categories.

Tol, Komproe, Jordans, Ndayisaba, Ntamutumba, Sipsma and Jong, (2014) carried out a research in Burundi to evaluate effectiveness of a school-based intervention. The study used a sample size of 329 students. Data were analyzed using descriptive statistics, chi-square analysis, and binary logistic regression. The reviewed study concluded that given inconsistent effects across studies, findings do not support school-based intervention as a treatment for posttraumatic stress disorder and depressive symptoms in conflict-affected children. The intervention appears to have more consistent preventive benefits, but these effects are contingent upon individual (for instance, age,

gender) and contextual variables. The reviewed study results suggest the potential benefit of school-based preventive interventions particularly in post-conflict settings. However, the reviewed study by Tol et al. (2014) was quantitative in nature and lacked qualitative dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Kuringe, Materu, Nyato, Majani, Ngeni, Shao & Mongi, (2019) carried out research in Tanzania to determine Prevalence and correlates of depression and anxiety symptoms among out-of-school adolescent girls and young women in Tanzania. The study used a sample size of 3013 students. Logistic regression and ordinal logistic regression were used. The reviewed study concluded that there were higher correlates of depressive and anxiety among the students. The reviewed study by Kuringe et al. (2019) used one gender (girls) and so the study was not comprehensive enough in drawing conclusions unlike the present study which used both gender (boys and girls) in study hence making it possible to generalize the present study findings and that was the gap to fill in the literature.

Daniel, (2013) carried research on Loneliness and depression among university students in Kenya. The purpose of the reviewed study was to examine the predictive role of attachment styles on loneliness and depression. The sample consisted of 652 students. To analyze data, Pearson product-moment correlation analysis and multiple regression analysis was employed. Attachment styles were found to be significantly correlated to loneliness and depression. A significant relationship was also found between loneliness and depression. A significant effect of attachment styles on loneliness and depression was detected.

The reviewed study concluded that Kenyan university students experience loneliness which if not addressed may lead to depression which in turn will negatively affects academic achievement of students who may as well drop out of school (University). The reviewed study by Daniel, (2013) was done on University students who are predominantly adults while the current study was done using secondary school students and who are relatively younger than those in University setup and that was the gap to fill in the literature. Further, the reviewed study used data from one University and so generalization of the study findings was not comprehensive unlike the current study which used data from 13 secondary schools.

Othieno, Okoth, Peltzer, Pengpid and Malla, (2014) carried out a study to determine depression among University students in Kenya. A random sample of 923 University of Nairobi students was used. Data were analyzed using descriptive statistics, chi-square analysis, and binary logistic regression. The reviewed study found out that depressive illness was significantly more common among the first year students, those who were married; those who were economically disadvantaged and those living off campus. Other variables significantly related to higher depression levels included year of study, academic performance, religion and college attended. Logistic regression showed that those students who used tobacco, engaged in binge drinking and those who had an older age were more likely to be depressed. No difference was noted with respect to gender.

The reviewed study concluded that depression occurs in a significant number of students. Appropriate interventions should be set up in higher institutions of learning to detect and treat these disorders paying particular attention to those at risk. The reviewed study by Othieno et al. (2014) was done on University students who are predominantly adults while the current study

used data from secondary schools who are relatively younger than those in secondary schools and that was the gap to fill in the literature. Secondly reviewed study used data from one University and so generalization of the study findings was not comprehensive enough unlike the current study which used data from 13 secondary schools.

Munguti, (2013) carried out a study in Kamukunji district Nairobi County to determine how teachers' response to Learners' Psychosocial needs in enhancing learning after Post election violence in Public Primary Schools. The research design used in the reviewed study was descriptive survey. The sample comprised of 106 teachers. The reviewed study findings revealed that pupils had psychosocial needs after post-election violence and that teachers 'training, experience and attitude influenced their response to pupils 'psychosocial needs in enhancing learning after post-election violence; teachers' response to pupils' trauma, distress and withdrawal as well as their interactions enhanced learning after postelection violence. The reviewed study further found out that children had psychosocial needs after the PEV which hindered them from educational development. For instance, teachers often focused on sensitization on these children and employed sound instructional approaches during teaching; they also used child related teaching methodologies very often. Teachers employed close bonds and relationships between pupils very often and often engaged teacher counselors in assisting the children needs and in focusing on pupils' trauma.

The reviewed study concluded that teachers 'response to pupils 'withdrawal, distress and interactions enhanced learning after post-election violence. The reviewed study by Munguti, (2013) was done using children in primary schools who are mainly pre-adolescents unlike the

present study which used students in secondary schools who are adolescents and that was the gap to fill in the literature.

Kimata, (2018) carried out research to established types and management of alcohol-related physical injuries among 383 persons with alcohol use disorder in Githunguri Sub- County, Kiambu County. Chi-Square aided in measuring the relationship between study variables. The reviewed study findings found out that incisions and abrasions were the leading injuries mainly occurring on the head and upper extremities. Leading contributors of alcohol abuse were socialization, loneliness and anxiety. The injuries were higher among males, those with secondary level of education, separated/divorced and 18-29year-olds.

The reviewed study concluded that alcohol-related physical injuries were a significant but largely neglected contributor of disease burden. County and national governments should thus create a broad-based strategy to reduce the injuries by addressing issues such as male-child neglect, unemployment, poverty and drinking socialization. However, the reviewed study by Kimata, (2018) was quantitative in nature and lacked qualitative dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

2.5 Altruism and Academic Achievement

According to Batson, Ahmad and Stocks (2011) altruism is the art of people having unselfish concern where their desire in doing things for the sake of helping not because one is out to help but because they want to assist as a matter of responsibility to do so. They further argue that altruism motive in an individual is that wish geared towards assisting an individual who is in

distress with little or no regard for the helper's self-interest. They further argue that altruistic assistance is through a willing desire to help as motivated by the person in need's welfare.

A study by Devries, Rathmann and Gebhardt, (2018) carried out in Germany looking at how prosocial behaviour and peer problems and academic development established a significant positive association between the two variables. The study which was based on data from the German National Education Panel Study (NEPS), applied the structural equation modeling (SEM) to model the effects of prosocial behavior and peer problems on performance in both mathematics and English with populations of both 3,310 and 3,308) respectively and for both class 5 and 7 respectively. The study established that performance in the two subjects had a positive correlation with social behaviour. The study further observed that peer problems had a positive and significant association with subject grades though the model fitted poorly with a less fifty percent. Whereas this reviewed study was purely quantitative, the current study used mixed approaches and conducted locally where no literature has been recorded on the same. This is the gap that this study therefore endeavored to fill.

Meyzari and Dasht, (2016) carried out a study in Islamic Azad University to find out the relationship of altruistic behavior, empathetic sense, and social responsibility with happiness among university students. A sample size of 300 university students was used. Data obtained and analyzed using inferential statistics showed that there is a significant positive association between happiness, altruistic behaviour and social responsibility. These indicated that happy individuals demonstrated more corporative and are more satisfied with their residence. The reviewed study further found that there was a significant association between positive feelings and empathy. The study was deemed unique from the other studies in the study area, because it

drew its population from secondary schools unlike other studies which had more concentrated on the university students. The reviewed study further differed from the current study since whereas this reviewed study had established literature between positive feelings and empathy, the current study sought to establish the association between Social Adjustment Indices and Academic Achievement among secondary school students in Kenya.

A study by Yulianto and Yufiarti, (2018) which was based on the cooperative learning to train children's prosocial behavior of students using picture and picture (PAP) and Student Teams-Achievement Divisions (STAD) in Ngasem District, Kediri Regency in East Java Province observed a significant positive association between the learning model and level of independence for student's prosocial behavior. The study was carried out in two kindergartens using a quasi-experimental research method in a bid to explain the relationships between the two variables. A suitable sample of 48 learners was selected to represent the study population in the study which employed experimental design. Whereas the reviewed study which consisted both quantitative and qualitative designs generated information on cooperative learning to train children's prosocial behavior of students, it failed to fill the gaps in the possible effect of Social Adjustment Indices and Academic Achievement among learners. Further, there is a gap that needed to be filled given that the study was carried away in Indonesia, it left a geographical gap that the current study sought to fill.

A study by Siu, Shek and Lai (2012) which inquired into the variability of prosocial behavior among Chinese adolescents in Hong Kong, established a positive and significant correlation between among prosocial behavior prosocial norms, pragmatic values, moral reasoning, and empathy. The study used a study sample of 518 secondary school learners and the quantitative

tool to collect data from the respondents and analysis conducted through descriptive and inferential statistics. Whereas the reviewed study used survey design in its quest to collect data, it left a gap in that descriptive survey design was not used to gain advantage of the qualitative aspect of data collection. Further the study suffers a geographical gap in that the current study is based locally in Kenya where similar studies are limited in literature.

Parchment, Small, Osuji, McKay and Bhana, (2016) in South Africa carried a study to establish how the social-emotional health living affect community's health in and how it impacts on poverty and food scarcity in the children's prosocial skills and behaviour. The study used Structural Equation Modeling in determining the association between neighborhood social cohesion and caregiver report of child's prosocial behavior with caregiver's mental health as a moderating variable. The study used a sample size of 478 children. Observations from the study indicated that the more caregivers experience their communities as socially cohesive, the better their social-emotional well-being, thus positively related to their reports of children's prosocial behavior. The study also observed that the households led by the male gender had better association social-emotional as opposed to the households led by female gender household heads. The study concluded that there were positive and significant associations between male caregivers and children mental health. Whereas there is literature available on the effect of male gender led households on mental health, there is paucity of literature in a study where qualitative aspects factored in the study given that the study herein was purely quantitative. Hence, the current study encompassed mixed methods a gap that was left in the study by parchment et al. (2016).

A study by Quain, Yidana, Ambotumah, and Mensah, (2016) in Ghana which targeted to find out Pro-Social Behavior amongst Students of Tertiary Institutions: An explorative and a quantitative approach; established an association between gender and location factors as independent factors and prosocial behavior as dependent factor was highly positive amongst the students. The study was explorative in nature and based on theorization underpinning the theme of the study. The study adopted a quantitative approach with a study sample of 520 respondents with questionnaires used as the quantitative tool for data collection and quantitative analysis techniques employed in the analysis. Whereas the study by Quain et al. (2016) used university students as the study sample, there is a gap left out which the current study endeavored to establish using the secondary school students who are adolescents. Further there is a gap of the spread of the area of data collection given that whereas the study herein used one university, the current study used 13 secondary schools in collecting data.

Rosaline and Kehinde (2014) conducted a study in Nigeria and carried out an Assessment of Knowledge Sharing Behaviours of Postgraduate Students in Selected Nigerian Universities. The reviewed study assessed the knowledge sharing behaviours of postgraduate students in selected Nigerian Universities. The reviewed study focused on knowledge sharing practices of postgraduate students, media of knowledge sharing, commonly shared knowledge and factors that influences postgraduate students' knowledge sharing behaviours. The reviewed study employed a descriptive survey design. The Study used a sample size of 503 postgraduate students. The analysis of the reviewed study data revealed that (55.6%) of the postgraduate students preferred face-to-face knowledge sharing to other media. The analysis further showed that knowledge in the areas of individual studies was the most commonly shared knowledge among the majority (92.8%). The reviewed study further revealed that of the three identified

factors (individual, institution and technology factors) influencing knowledge sharing among the postgraduate students, only individual factor was shown to significantly influenced students' knowledge sharing behaviours.

The reviewed study came to the conclusion that information sharing is still a major topic of discussion in knowledge management. This is due to the fact that it has been acknowledged as the essential component of productivity and performance in both business, industry, and academia. The findings of the study under consideration demonstrated the necessity of encouraging postgraduate students at Nigerian universities to share their knowledge. The reviewed study concluded that Knowledge sharing remains a central focus in knowledge management debates. This is because it has been recognized as the key element of performance and productivity both in commerce and industry as well as in the academics. The outcomes of the reviewed study revealed the need to encourage knowledge sharing practices among postgraduate students in Nigerian universities. This is because it has the potentials to influence students' academic performance and improved learning outcomes. The reviewed study by Rosaline and Kehinde, (2014) was done using University students who are predominantly adults while the current study used students in secondary schools who are adolescents and that was the gap to fill in the literature.

Tsehay, Mulatie, Sellakumar and Begashaw, (2014) carried a study on Prosocial behaviors and Identity statuses among adolescent students, Addis Ababa Ethiopia. The purpose of the reviewed study was to investigate prosocial behavior and identity status of adolescent students in Secondary and Preparatory School. A sample size of 968 students was used. Quantitative analyses (both descriptive and inferential statistical) were used to analyze the obtained data. The

reviewed study showed that most students did not achieve their identity. As compared to male students, female students participated more in overall prosocial behavior. More specifically, female students reported higher involvement in emotional, altruism, anonymous and public prosocial behaviors. There was significant mean difference in prosocial behaviors involvements among students categorized under foreclosure, moratorium, and diffusion and achievement identity statuses. Identity foreclosed students reported highest involvement in emotional, dire, compliant, and public prosocial behaviors. Besides, students who have achieved their identity reported more involvement in altruism and anonymous types of prosocial behaviors. However, students with identity diffusion reported least involvement in all forms of prosocial behaviors.

The reviewed study further found out that most adolescent students in Debre-Hial Saint Raguel Secondary and Preparatory School did not achieve their identity. As compared to male students, female students reported higher overall prosocial behavior score. A significant mean difference in the emotional prosocial behavior was found between male and female students where females' score surpasses over males. In other words, female students reported that they help others in emotionally provocative situation than males do. Though not significant, female students' mean scores in public, altruism, dire, and anonymous was also greater than female students. Much more than male students, female students reported that they help others in front of others (public prosocial behavior), help others without expecting return (altruism prosocial behavior), help others irrespective of who the needy are (anonymous prosocial behavior), and give help when others are in a crises or emergency circumstances (dire prosocial behavior). But in the case of compliant prosocial behavior, male students reported higher than females. That means, as male students reported, they better help others when they are verbally and none verbally requested by

the needy. Generally, female students were found to be involved more in overall prosocial behaviours as well as in most types of prosocial behaviors.

In addition, there was a significant mean difference in overall prosocial behavior among students with diffusion, foreclosure, and moratorium and achievement identity. Identity foreclosed students reported the highest overall prosocial behaviors as compared to other students with the rest identity status. Identity diffused students were least involved in prosocial behavior. Here sex of students did not influence their involvement overall prosocial behavior among students with the four identity statuses. Regarding differences in each prosocial behavior among students with the four identity statuses, there was significant mean difference. In public, emotional, dire and compliant prosocial behaviors, identity foreclosed students reported the highest mean score followed by identity achieved and moratorium. But students who have achieved their identity obtained highest mean score on anonymous and altruistic prosocial behaviors which is followed by identity foreclosed. The reviewed study concluded that the commitment identity dimension of identity predicts better involvement in prosocial activities and identity diffused students reported the least mean scores on all prosocial behaviors types. Reviewed study by Tsehay et al. (2014) was quantitative in nature and lacked qualitative dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Brubaker, Bocamea, Patterson and Winston, (2016) carried out a study in Rwanda to find out the effects of servant leadership on two types of organizational citizenship behaviors (altruism and courtesy). The sample for the reviewed study was 194 adult Rwandans working in non-government settings. Descriptive statistics was used to summarize data while quantitative data

was analysed through linear regression. Analysis of the reviewed study showed adequate support for the full mediation effects of perceived leader effectiveness on the relationship between servant leadership and both forms of organizational citizenship. However, concerning the moderating effects of exchange ideology in the mediation models, exchange ideology only moderated the mediation model with respect to courtesy and not altruism. However, reviewed study by Brubaker et al. (2016) was done using adults unlike the present study which used students in secondary schools who are adolescents and that was the gap to fill in the literature.

Milinga and Possi, (2015) carried a study in Tanzania and analyzed sighted students' prosocial behaviour towards assisting their peers with visual impairment (VI) in inclusive secondary schools in Iringa Municipality, Tanzania. An embedded single case study design was used. The study utilized a sample of 76 respondents, consisting of teachers and students with and without visual impairment participated in the study. Data was collected through semi-structured and face to face interviews, focus group discussions, and closed-ended questionnaires. Data was analyzed through thematic analysis and presented in tables and quotations of participants' actual words. The findings of the reviewed study indicated differences in prosocial behaviours between sighted day-students and sighted boarding students with the latter being more prosocial as a result of altruistic and egoistic factors; having a positive attitude and due to the influence of religion and school administration. Similarities between sighted students and those with visual impairment were linked to sighted students' prosocial behaviour. The latter students' attributions, and misunderstandings among students, determined their prosocial behaviour towards assisting their peers with visual impairment.

The reviewed study concluded that there was need to raise awareness and sensitization of members of the community, as well as replicating the study in inclusive and coeducation schools for students with visual impairment. The reviewed study by Milinga and Possi, (2015) used a small sample size of 76 which was not comprehensive enough to draw conclusions unlike the present study which used a sample size of 350 students which was comprehensive enough to generalize the present study findings and that was the gap to fill in the literature.

Haroz, Murray, Bolton, Betancourt and Bass, (2013) carried out a study in Uganda to determine relations between prosocial behavior, perceived social support, and improvement in depression and anxiety symptoms. A sample of 102 adolescents was used. Adolescents were assessed using a locally developed screener. Regression analyses measured the association between resilience factors and mental health outcomes. The reviewed study findings indicated that high levels of baseline prosocial behaviors were associated with improvement in anxiety symptoms among adolescents with high symptom improvement. Experiencing caregiver loss modified the present association for depression symptoms. Baseline social support was not associated with improvement in depression or anxiety. The reviewed study concluded that prosocial behavior is associated with increased resilience. However, the reviewed study by Haroz et al. (2013) was quantitative in nature and lacked qualitative dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Muthuri, (2018) carried out a study in Kenya at the United States International University (USIU-A), on Predictors of altruistic behavior among sample of emerging adults. The purpose of the reviewed study was to assess predictors of altruistic behaviour among a sample of

emerging adults at the United States International University (USIU-A). The reviewed study was conducted among a sample size of 141 students. Multivariate regression analysis was carried out to assess predictors of altruism.

The reviewed study findings reported that among emerging adults' altruistic behavioural trends were predicted by majorly age, presences of religion, and group size. However, gender, number of siblings, year of study and participants school were not statistically significant predictors of altruism among emerging adults. Furthermore, 71% of emerging adults suggested that socialization can be used to create awareness of altruism and its significance in society.

The reviewed study concluded that Altruism in emerging adulthood increases positively as individuals' grow from age 18 years to 25 years. Gender related stereotypes on altruism should be diminished as they do not influence self-reported altruism among emerging adults. Creation of awareness through social agents or actors will contribute greatly to nurturing altruism among emerging adults. The reviewed study by Muthuri, (2018) was done using university students who were predominantly emerging adults while the present study used data from secondary school's students who are adolescents and that was the gap to fill in the literature. Further, the reviewed study was done using one University and so generalization of the research findings was not comprehensive while the current study collected data from 13 secondary schools of various categories.

Nyaga, (2011) carried out a study in Westlands Division of Nairobi County in Kenya on relationship between teacher altruism and the level of altruism in pre-school children. The study used descriptive and employed expost facto design. A sample size of 24 (Twenty-four teachers), one from each of the twenty-four schools representing four categories and six children of

preschools from each respective school were randomly selected for the study from a divisional schools list. Findings of the reviewed study showed that there was a significant correlation between children's display of altruistic behaviour and teachers' display and reinforcement of altruism. The main modeling attributes teachers displayed were helping, sharing and volunteering, while protecting, comforting and empathizing were least modeled. The main reinforcement attributes that teachers used were praising and thanking while patting, rewarding and hugging contributed very little. There was no significant difference between teachers' training and their display of altruism, and neither was there any difference between boys and girls in their display of altruism. Children displayed four modes of altruism, general altruism (directed to anybody who is not a relative and it is not reciprocal); kin altruism; induced altruism and reciprocal altruism. The attributes most observed were sharing, helping and volunteering. Children's altruistic behaviour was correlated with teacher modeling at $r = .484$ and with teacher reinforcement at $r = .387$. Direct teaching of altruism seemed to be of little value. Display of altruism was 3.1% in children while that in teachers was 6.5% for modeling and 4.5% for reinforcement, respectively on a score scale of 0 – 18 %.

The reviewed study concluded that pre-school teachers do display altruism although the levels were low; and that children can learn altruistic behaviour from their teachers mostly by modeling and reinforcement, thus confirming Bandura's social learning theory. The reviewed study by Nyaga, (2011) was done using pre-school children who are pre-adolescents while the current study used students from secondary schools who are adolescents and that was the gap to fill in the literature. Further, the reviewed study was quantitative in nature and lacked qualitative dimension which could have presented participants' feelings and experiences. Therefore, the present study adopted a mixed methods approach to fill in gaps in literature.

Ruingu, (2014) carried out a study to establish the effects of social protection programmes on social network among the elderly persons in rural areas in Githunguri Sub-County. The reviewed study sought to realize three objectives which included: To find out effects of the social protection programmes on individual, families and community social relationships to the elderly persons; To find out changes that has occurred in beneficiaries' social networks and social status; and to establish the social impacts of social protection programmes to elderly persons. Social protection programmes are government initiatives to support the vulnerable groups such as elderly persons, orphan and vulnerable children and people living with severe disabilities. The study employed both quantitative and qualitative methods Proportionate stratified random sampling was used to identify 124 respondents for household interviews and purposive sampling to select the eight participants of key informant interviews.

The reviewed study found out that social protection programmes have positive effects on elderly persons' livelihood and well-being thus building stronger social networks in the family and community at large. Their social relationship with the family members and the entire community has improved thus strengthening their social status. The programme strongly contributes to reducing poverty, isolation, exclusion, and social economic inequality among the vulnerable groups thus improving the beneficiary's livelihood. Proper implementation of social protection programmes can enhance social networks among the elderly persons and other community members. It enables the beneficiaries to attach in the circle of their extended family and communities, decreasing the social distance between the poor and the wealthier households. The beneficiaries are now able to participate in community activities and even being given positions to lead different groups in the community. On contrary, the reviewed study found negative effects

of the programme which has brought division in the family level. Other beneficiaries stated that the non-beneficiaries are jealous and that weakens their social networks.

The reviewed study concluded that government to scale up the programme to include all the deserving elderly persons in the country, ensure that assistance is given regularly and is predictable further ensure that the public understand the programme main objective and the criteria used in selection of beneficiaries to deal with the issues of division and jealous within the family and community levels. However, the reviewed study by Ruingu, (2014) was done using elderly persons unlike the present study which was done on secondary school students who are much younger than the elderly persons and that was the gap to fill in the literature.

2.6 Summary of the Literature Review and Gaps

This chapter was dedicated to the review of literature related to the current study which focused on relationship between social adjustment indices and academic achievement among students in public secondary schools. In all the reviewed studies, gaps emerged. Most of the studies reviewed were purely quantitative. For instance, in studies by Paul, (2013); Muthuri, (2018); Wanjai, (2018); Lim, (2018); Morinaj et al. (2019), only questionnaires were used for data collection while the current study used both questionnaire and interview schedule for collecting more in depth data for analysis and understanding of the research problem through triangulation. China was rich on studies related to social adjustment indices. For instance, studies by Siu et al. (2012); Paul, (2013); Chen et al. (2013). However, all the studies in China were done using children in primary schools who were predominantly pre-adolescents while the current study used students in secondary schools who are adolescents and that was the gap to fill in the literature. Some reviewed studies were longitudinal in nature for instance studies by Smyth et al. (2014); Taylor et al. (2016); Geven et al. (2017) which required a huge amount of time and risk of possible loss

of participants could have been experienced during the study, the present study used concurrent embedded research design which involved collecting both quantitative and qualitative data concurrently which did not require much time and lowered the risk of loss of participants during the study.

In addition, the sample characteristics of the research literature reviewed showed that many of the studies were conducted in foreign countries, urban settings, on College or University students and elementary school learners. Indeed, there was scarcity of research literature on relationship between social adjustment indices and academic achievement in the local context thus, it was important to conduct such a study on a rural sample and on secondary school students in Kenya. By so doing, the researcher hoped that it yielded much needed and valuable literature for cross cultural comparisons.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The research design, the study area's description, the study population, the sampling strategy, the sample size, the data collection instruments, the reliability and validity of the instruments, the reliability and authenticity of qualitative data, the data collection process, the method of data analysis, diagnostic tests, and ethical considerations are all covered in this chapter.

3.2 Research Design

The term research design refers to a group of methods and strategies used to collect and examine the variables stated in the study subject (Creswell, 2014). A structure called a research design is created in order to get answers to research questions (Labaree, 2016). In the current work, Concurrent Embedded Design based on a mixed-methods approach was used. The design requires the collection, analysis, and integration of both quantitative and qualitative research methods within a single research study in order to satisfy the research objectives. The architecture allowed for the simultaneous collection of qualitative and quantitative data, with the qualitative data serving as a pillar for the quantitative data. To bolster the first type of data, the second type of data was acquired (Creswell, 2013). The following key components of a well-planned mixed methods study in the social sciences should be present: obtaining and analyzing data that is both quantitative (closed-ended) and qualitative (open-ended), while following to the tight guidelines that are customary to each approach. For instance, ensuring the appropriateness of the sample sizes for both quantitative and qualitative analysis integrating the data during data collection, analysis, or discussion by combining qualitative and quantitative components using

methods that execute them simultaneously or sequentially, with the same sample size or with distinct samples.

The researcher used Concurrent Embedded Design because the researcher wanted to utilize both quantitative and qualitative data collection methodologies which enabled the researcher to use Document analysis, Questionnaire, and Interviews. The method has advantages over and above other designs in that: it provided answers to a wider and more comprehensive range of research questions; it was possible to overcome the shortcomings and utilize the strengths of each approach; it was possible to gain insights and understanding of the data that might have been missed when using a single approach; and it provided strong evidence for conclusions.

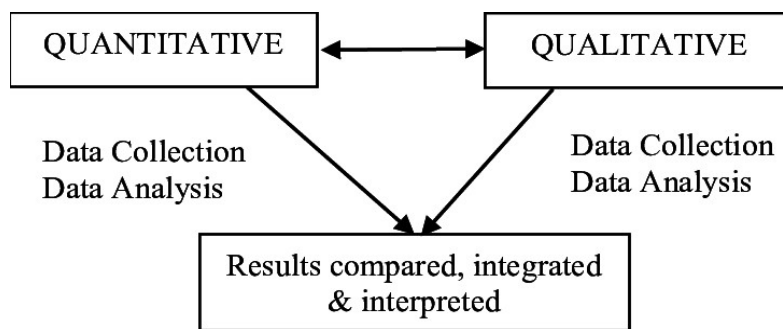


Figure 3.1: Concurrent Embedded Design Within Mixed Method Design

In this study, both quantitative and qualitative analyses were used concurrently, as shown in Figure 3.1. This allowed for comparison, integration, and interpretation of the results. As a result, when a researcher has multiple queries that require diverse types of data to fully study and appreciate a problem, the technique makes it feasible to obtain knowledge regarding the problem's current state (Bryman, 2009). By using both quantitative and qualitative data at the same time, a researcher can gain insights from different data types or at different levels within the study. The design also enables the study to ascertain the correlations between the independent

and dependent variables using a number of inferential statistical methods with quantitative data (Creswell & Zhang, 2013). Creswell (2014) asserts that concurrent embedding allows researchers to collect perspectives from a variety of data sources or study levels, as was done in the current study with samples made up of students and teachers in a classroom.

In order to determine the relationship between social adjustment indicators and academic achievement, Form 2 secondary school students in Githunguri Sub-County, Kenya, were questioned. In order to better understand and gather additional information, the social adjustment variables were further studied using qualitative data gathered from key informants through interview schedules with Deputy Principals and guidance and counseling teachers concurrently with surveys.

3.3 Area of Study

The Githunguri Sub County of Kenya's Kiambu County served as the study's location. Kiambu County was established in 1925 as the Kiambu Native District Council, changed its name to Kiambu African Native Council in 1958, and finally became known as "Kiambu" as the Maasai frequently invaded the villages in quest of livestock. In contrast to Nairobi's growth, Kiambu is predominantly a rural county, but its population is quickly urbanizing. Although the Agikuyu are the dominant tribe in the area, the area's urban migrant population is steadily growing, giving it the appearance of a cosmopolitan town. Kiambu County is located in the country's central region, bordered by Nairobi County and Kajiado County to the south, Machakos County to the east, Murang'a County to the north and north-east, Nyandarua County to the north-west, and Nakuru County to the west. The county is situated between latitude 00 25' and 10 20' south of the equator and longitude 360 31' and 370 15' east. See Appendix VII.

In Githunguri Sub County, it is a farming community. Fresha, one of the largest dairy processing facilities in East Africa, is located in the Sub-County, which also serves as one of Kiambu County's administrative hubs. Fresha is owned by the farmers' cooperative Githunguri Dairy Community (GDC) Sacco. Githunguri Sub-County is situated geographically at 0° 55' 0" South and 37° 5' 0" East. Appendix VIII is referred to. According to the 2009 Census, Githunguri Sub County has a population of 147,763 people and an about 173.50 square kilometer area. There are 140 schools in the Sub County, including 102 elementary schools and 38 senior schools.

3.4 Target population

The current study focused on all 2787 form two students from the 2018 academic year in the 36 public secondary schools, 38 deputy principals, and 38 Guidance and Counseling Instructors in the Githunguri Sub-county. The form two students were the primary focus of the research because the researcher believed that they had recently transferred to secondary schools and that their final exams, which were composed of their term 1, term 2, and term 3 averages while they were in form one, would have provided helpful information about how they had been adjusting to the new environment given that these examinations were completed when they had barely turned a year old since they had transferred from primary schools. Deputy principals were selected because they deal with disciplinary concerns and can give more insight into how the students are responding to the new environment. Since the researcher believed that certain students who had a difficult time adjusting to the secondary environment could seek out or be recommended for guidance and counseling services during their studies, teachers of guidance and counseling were also targeted.

The target population is divided down into extra county, county, and sub-county schools in Table 3.1.

Table 3.1: Target Population

School Category	Number of public schools	Population of form two students	Population of Deputy Principals	Population of guidance and counseling teachers
Extra County	02	910	04	04
County	09	936	09	09
Sub-County	25	937	25	25
Total	36	2787	38	38

Source: Githunguri Sub- County Education Office, 2019

3.5 Sample Size and Sampling Technique

3.5.1 Sample Size

A sample size is a subset drawn from a population in order to generate statistical approximations of the characteristics of the complete population (Tiwari and Chilwal, 2014). It is an accurate reflection of the entire sample (Campbell, Murray, Darbyshire, Emery, Farmer, Griffiths & Kinmonth, 2018). The formula was used by the researcher to determine the sample size. According to Creswell,(2013) Slovin’s formula is a random sampling technique for estimating sample size as computed below;

$$n = \frac{N}{1 + Ne^2}$$

Where

n=number of samples

N=total population-2787

e=error margin/margin of error (0.05)

Sample size for the students was therefore being computed as follows:

$$n = 2787 / (1 + 2787(0.05)^2)$$

= 350 Students.

The present study employed a confidence interval of 95% and a margin of error of 5%.

The results are as tabulated in table 3.2

Table 3.2: Sample Size

Respondents	Target population (N)	Sample Size (n)
Form two students	2787	350
Interviews		
Deputy Principals	38	15
Guidance and counseling Teachers	38	15
Total	2863	380
School Category		
Sub- County	25	8
County	9	3
Extra-County	2	2
Total	36	13

Source: Researcher 2019

Interviews with 15 deputy principals and 15 teachers of guidance and counseling from the 13 sampled schools were undertaken to gather qualitative data. The recommended sample size for qualitative interviews, according to Mason (2010), is 10–30 participants.

3.5.2 Sampling Techniques

According to Nalzaró (2012), sampling technique is the process of selecting units from a community of interested individuals so that, after the sample has been studied, a researcher can fairly extrapolate the results to the group from which the sample was taken. In the current study, the stratified randomization strategy was employed. In 2018, there were 36 public secondary

schools with first-form pupils enrolled who were already enrolled in a four-year secondary program. As a result, the initial step in the selection procedure was to purposefully choose these 36 schools since they had students whose average exam scores for terms 1, 2, and 3 would be utilized to correlate with their levels of chosen social adjustment indicators. A homogenous purposive sample is necessary in order to select a population with a shared trait or collection of characteristics linked to the study issue. Sülükçü (2018).

Second, the population of the current study was divided into smaller groups that were each more homogeneous than the overall population, and objects were picked from each group to establish a sample (Orodho, 2009). According to Kim, Oh, Park, Cho, and Park (2013), stratified sampling produces more accurate and comprehensive data. Because stratified sampling is an appropriate sampling strategy when the sample's features are unbalanced, it was used (Creswell, 2014). Strata were created based on the three different types of schools: extra-county, county, and sub-county.

Githunguri Sub County only has two Extra County schools; hence those two institutions were chosen as a saturated sample for the study. According to Kothari (2006), a census survey may yield better findings than any other sample survey if the population is not very huge. According to Baraza, Obura, and Anyira (2017), between 10 and 30 percent of the entire target population makes a sufficient representative sample; there are 9 County schools, thus 30 percent, or 3 schools, was determined using a simple random procedure. Then, for the Sub County Schools, another consideration of 30% of the 25 Sub-County Schools resulted in 8 schools for participation in the study. Thus, the estimated sample size of 350 pupils was spread among a total of 13 schools. The 13 secondary schools chosen were deemed sufficient because they

account for at least a third of all secondary schools in Githunguri Sub-County (Baraza et al. 2017). Samples were taken from each group depending on population proportion.

The number of students was proportionally divided across the schools. Purposive sampling was chosen in each school to form the two classes after collecting the proportion intended for the school. Simple random sample was then used to identify the precise pupils participated in the current study. To provide each participant in the study an equal chance of being chosen, simple random sampling was used (Suresh, Thomas, and Suresh, 2011). Students from the sampled schools were recruited using the lottery method where each student in the population was given a number by the researcher. The researcher then randomly selected numbers from a box to choose samples.

3.6 Research Instruments

Data collection, measurement, and analysis tools are referred to as research instruments. Tests, surveys, scales, questionnaires, and even checklists can be used as research instruments. The majority of social and psychological environment measurement methodologies rely on verbal data collected through questionnaires and interviews. The researcher created two data collection tools, including a questionnaire (with both closed- and open-ended questions) and an interview schedule for the guidance and counseling teachers and school administration, to evaluate the research objectives, hypotheses, and associated literature. For high-quality data, an interview schedule is used in addition to the questionnaire since it allows for probing. The questionnaire was also chosen because it saves time and enables data collection from a wider sample of people, which was necessary for the study. Each instrument sought out particular data from the respondents.

3.6.1 Students' Questionnaire

The demographic information of the participants and their adaptability to the learning environment was gathered using the student questionnaire. Questionnaires are appropriate for

gathering crucial data about the population, according to Neuman (2011). According to Cooper and Schindler (2014), a lot of subjects who can read and write independently are reached by this strategy.

The questionnaires took the shape of self-report surveys, and the social adjustment characteristics offered response options on 5-point Likert scales. This questionnaire was broken up into five sections in order to do this. Demographic information about the participants was covered in Section I, and social adjustment was assessed in Sections II through V using scales for peer acceptance (PAS), aggression (AGS), social withdrawal (SWS), and altruism (AS).

Appendix 1 provides the questionnaire for students.

3.6.1.1 Peer Acceptance Scale

The School Engagement Scale - Behavioral, Emotional, and Cognitive Engagement was used to develop the items to measure peer acceptance (2005). The measure was appropriate because school connection, or a feeling of belonging to the school community, is a determinant in the health, education, and social well-being of students and adolescents. Students who have a feeling of belonging at school are more likely to engage in academic and extra-curriculum activities, form positive relationships with teachers and other students, and value the outcomes of their education.

Peer Acceptance Scale items were specifically rephrased to align to Kenyan educational context in order to ensure that the students' participants understand the survey item and respond appropriately. They were also rephrased to suit secondary school environment since it was previously used in university. There were 15 questions on peer accepting orientation, and the responses ranged from Strongly Disagree to Strongly Agree on a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree). The scale

ranged from 10 to 50, with 10 representing a low peer acceptance orientation and 50 representing a strong peer acceptance orientation

3.6.1.2 Aggression Scale

Measurement tools A self-report exam designed to determine your level of aggression, the Buss-Perry Aggression Questionnaire (Buss-Perry, 1992), was used to develop the aggression scale. Generally speaking, it was meant to give you a sense of how aggressive, enraged, and violent you are. The items were modified to suit secondary school in Kenyan set up. The questionnaire, which was based on a five-point scale, comprised 25 items for aggression orientation, including physical aggression, verbal aggression, anger aggression, and hostility aggression. Likert scale with scores of 1 for severely disagree, 2 for disagreement, 3 for neutrality, 4 for agreement, and 5 for strongly agree. The scale had a range of 10 to 50, with 10 being a mild aggression inclination and 50 the maximum aggression orientation

3.6.1.3: Social Withdrawal Scale

The third subscale assessed learners' social withdrawal. The scale used the usual loneliness scale as a measurement (Russell, Peplau & Cutrona, 1980). The measure seemed appropriate since loneliness isn't just about being alone; it also includes feelings of isolation, disconnectedness, and belonginglessness. The questionnaires contained 21 items and were meant to be self-administered on a one-on-one basis.

The elements were modified to especially address students' academic performance in secondary schools. The survey questions were based on a five-point likert scale, with scores as follows: 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neutral (N), 4 = Agree (A), and 5 = Strongly

Agree (SA). The scale had a range of 10 to 50, with 10 representing a low social withdrawal orientation and 50 representing a high social disengagement by pupils.

3.6.1.4: Altruistic measurement Scale

The fourth subscale measured Altruistic. Items to measure Altruistic were adopted from the Prosocial behaviour Scale (Harris, Houston, Vazquez, (2015) and it had 11 items scale composed of items such as 'I try to help others.' The scale was considered suitable because prosocial behaviours is the same as being altruistic person.

The responses ranged from strongly disagree to strongly disagree on a five-point Likert scale with the following ratings: 1=Strongly Disagree (SD), 2= Disagree (D), 3=Neutral (N), 4=Agree (A), and 5=Strongly Agree (SA). The scores from each item were added to determine the final score for this subscale. A score of 10 showed low levels of altruistic behavior, while a score of 50 indicated great levels of such behavior. The scale spanned from 10 to 50

3.6.2. Interview schedule for Deputy Principals

The researcher designed interview schedules for Deputy Principals in the current study in order to gather qualitative data. This was a general data triangulation approach used in the current study. To collect data from Deputy Principals, the current study modified semi-structured interviews for them. The research study's four objectives—peer acceptability, aggressiveness, social withdrawal, and altruism—which guided the way the interviews were organized. In a semi-structured interview, according to Dahlen, Clark, and Nicholson (2015), the interviewer uses an interview guide with particular questions that are arranged by subjects but are not asked in a precise order. In the present study, that suggested that the sequence of the questions in the guide did not govern how or when they were asked, but rather the interview's flow. In particular,

teachers had to describe how they felt about how well the students had adapted to their new setting, in this case, secondary school. In relation to the chosen social adjustment indicators, the researcher was interested in learning about instructors' individual experiences working with students. In Githunguri Sub County, a total of 15 deputy principals were chosen to represent the various types of schools, and they were then interviewed. This approximated measurement of 42 percent of the sub-deputy County's principal population acknowledged Mason's (2010) claim that interviews should have a sample size of at least six to ten. The Deputy Principals' interview schedules are listed in Appendix VI. Prior to being properly transcribed for analysis, all interview data was first recorded in writing and on audio recording.

3.6.3 Interview Schedules for Guidance and Counseling Teachers

The one-on-one interview was conducted to gather information from the schools' guidance and counseling teachers. Interview with guidance and counseling teachers helped the researcher get more information about the problems the learners experience in schools that are associated with adjusting to new environment in this case secondary school environment. The guidance and counseling teacher offer vocational guidance and they have better perceptions on the learners' subject-career related information. For the teacher counselors interview, 15 counseling teachers representing the various categories of schools in Githunguri Sub County were interviewed, which was an approximated measure of 42 % of the whole population of guidance and counseling teachers in the sub-County and this acknowledged the assertion by Mason, (2010) that a sample size of at least six to ten is adequate for interviews. (See appendix V) for the interview schedule for guidance and counseling teachers. All the interview information was first recorded both in writing and audio taping and then transcribed for analysis.

3.6.4 Document Analysis

Document analysis, as defined by Andrews, Higgins, Andrews & Lalor (2012), is a method of gathering data in which documents are examined, analyzed, and interpreted by the researcher in order to extract meaning, gain insight, and create empirical knowledge about a specific occurrence. The average grade scores of a student in form one for terms 1, 2, and 3 were used to generate data on a subject's overall academic accomplishment.

Table 3.3: Grading System for KNEC

	Grade	Mark Interval
1	A	Over 79
2	A-	75-79
3	B+	70-74
4	B	65-69
5	B-	60-64
6	C+	55-59
7	C	45-54
8	C-	40-44
9	D+	35-39
10	D	30-34
11	D-	25-29
12	E	Below 25

Source: KNEC

According to Kenya National Examination Council attainment in a subject is indicated by grades of which grade A is the highest and grade E is the lowest. The results of KCSE are reported on a 12-point grading scale and every grade is assigned a range of marks.

Every student who took part in the study had their corresponding form one average results across all the subjects taken for the purpose of correlation with their responses, which represented various levels in various social adjustment parameters. This was made possible by the use of a checklist for entry of the grades and points using Students' academic achievement score sheet (See appendix IV).

3.7 Validity and Reliability of Research Instrument

3.7.1 Validity

The extent to which an evaluation captures the intended outcomes is its validity (Shushil & Verma, 2010). Presenting and discussing the test items with two specialists from the psychology and educational foundation departments at Jaramogi Oginga Odinga University of Science and Technology (JOOUST) allowed us to establish the questionnaires' face, construct, and content validity. Supervisors from the school of education served as the experts, and they shared their opinions on the usefulness, simplicity, and application in particular of the questionnaire scales and interview schedules. In order to guarantee content validity, specific questionnaire and interview schedules were modified using their suggestions as well as the pilot study's findings. This also made sure that the test items were organized, clear, and pertinent. Triangulation, which entails gathering information from many sources, was also used to validate information through cross-verification and seek for patterns in study data (Ndanu and Syombua, 2015).

3.7.1.1: Content Validity

Content validity, according to Bajpai and Bajpai (2014), involves figuring out whether the content of the instrument is enough. With the aid of two supervisors from Jaramogi Oginga

Odinga University of Science and Technology, who examined the items to gauge their suitability, the content validity of the present study was attained.

3.7.1.2: Construct Validity

According to Campos, da Silva Oliveira, Feitoza, and Cattuzzo (2017), construct validity refers to how well a measure captures the theoretical idea or idea that it is supposed to measure. It all comes down to how well operational definitions of variables represent the genuine theoretical meaning. Construct validity was determined in the current study by explicitly identifying the variables being measured, formulating hypotheses based on a theory underpinning the variables, evaluating the hypotheses logically and empirically, and applying the triangulation principle.

3.7.1.3: Face Validity

According to Campos et al. (2017), face validity is the determination of whether a measure appears to measure the variable it is intended to measure when taken at face value. This involves determining whether, given the variable's theoretical definition, the measure actually seems to measure that variable. In the current study, the researcher and two supervisors from Jaramogi Oginga Odinga University of Science and Technology evaluated the face validity.

3.7.1.4 Reliability of Research Instrument

The degree to which a research instrument produces consistent results or the degree to which results are free from mistake is referred to as reliability (Cooper & Schindler, 2014). The internal consistency of the data measurement apparatus was examined using a reliability test. To evaluate the dependability of the study tools, the Cronbach alpha was used. A researcher has to know whether the instruments will produce accurate and consistent results even if comparable questions are used in their place. This is why Cronbach's Alpha is crucial. If a variable

consistently responds to a similar set of questions, it is considered stable. A true score of the "base" or "underlying" construct provided by Cronbach's Alpha shows reliability (Valencia-GO, 2015).

Reliability, according to Orodho (2009), is the capacity of a test instrument to yield consistent results over a number of repeated trials. According to Yoshida Matsushima, Wakabayashi, Mutai, Murayama, Hayashi, Ichikawa, Nakano, Watanabe & Fujinuma (2017), test dependability is the degree to which a measurement is steady or consistent and yields comparable results when delivered frequently. The degree of a measurement's capacity to produce repeatable results is known as its reliability (Baraza et al. 2017). In order to pretest the questionnaire and ascertain its validity and reliability, a pilot research was carried out.

The questionnaire contained seven subscales, including those measuring altruism, social withdrawal, violence (physical, verbal, angry, and hostile), and peer acceptability. The internal consistency of the seven subscales was evaluated using Cronbach's alpha, which allowed the researcher to examine the characteristics of measuring scales and the scale-composition items.

Internal consistency, according to Tavakol and Dennick (2011), is the degree to which all test items measure the same context; as a result, it is the interrelatedness of the test's item set.

Numerous commonly used scale dependability metrics are calculated using Cronchbach alpha, which also offers details on the connections between the scale's constituent elements. When a scale's Cronbach alpha coefficient is more than 0.7, a questionnaire, according to Onen (2016), has strong internal consistency. According to Tavakol and Dennick (2011), a Cronchbach alpha of 0.7 to 0.9 is ideal, whereas a value of $\alpha > 0.9$ denotes test item redundancy.

By applying Cronbach's alpha coefficient, the most common reliability test for inter-item internal consistency, it was possible to determine whether the students' survey's internal consistency was

consistent across items. According to Creswell's (2013) theory, an instrument's inter-item consistency reliability measures how error-free, dependable, and consistent it is throughout time as well as across all of the scale's items. Onen (2016) contends that a coefficient of 0.60 should be considered a sign of average reliability, while a value of 0.70 and higher denotes that the instrument has appropriate reliability criteria. The internal consistency reliability for the seven subscales of the student surveys' multi-item opinion items was displayed in Table 3.4.

Table 3.4: Internal Consistency: Cronbach's Alpha Results for the Questionnaire

Scale	No. Items	Cronbach's alpha	Conclusion (Reliable/Unreliable)
Peer Acceptance	15	.705	Reliable
Physical Aggression	8	.798	Reliable
Verbal Aggression	4	.691	Averagely Reliable
Anger Aggression	6	.829	Reliable
Hostility Aggression	7	.803	Reliable
Social Withdrawal	22	.793	Reliable
Altruistic Behaviors	10	.614	Averagely Reliable

Source: Survey data (2019), SPSS Analysis

Table 3.4's display of Cronbach's alpha for each subscale showed that the instruments were all sufficiently reliable for the study. For instance, the internal consistency of the six-item subscale for anger and aggression was highest ($= 0.829$). The internal consistency would not be improved

by removing any of the items from the current subscale, which all deserve to be retained. The current study also found that all items had strong correlations with the overall scale. However, until item number 11, "I have faith in other people," had to be eliminated, the subscale measuring altruistic behavior did not reach the 0.6 threshold. After the item was removed from the subscale, the subscale obtained a Cronbach's alpha value of 0.614, which indicated a dependability level of average. Therefore, item number 11 was not included for constructing the variable altruistic behavior for inferential analysis. The internal consistencies for the remaining subscales in the questionnaire, on the other hand, were sufficient for the study. All of the subscales have appropriate Cronbach's alpha values, which are greater than 0.6. (Cooper & Schindler, 2014). Due to the fact that they accurately tested the components they were designed to measure, these results demonstrate that the questionnaires were typically suitable for data collection.

3.7.1.5 Trustworthiness of Qualitative Data

According to Zohrabi (2013), qualitative data needs to be trustworthy, transferable, verifiable, and credible. In order to maintain trust, the researcher gave the responder a guarantee of the findings' confidentiality. This encouraged people to be honest and open up, resulting in comments that were dependable, transferable, believable, and verifiable. Triangulation was used to analyze the results from the questionnaires and interview schedule.

A research study's credibility (confidence in the "truth" of the findings), transferability (using research findings in other contexts), dependability (consistency of the research findings and possibility of repetition), and confirmability are all important factors in determining a study's value, according to Chakrabarty (2013). (extent of neutrality of the findings such that findings of the study is shaped by the respondents and not researcher bias or interest).

By spending a lot of time with individuals, keeping a close eye on the environment, using peer researchers, participant checks, and triangulation, credibility can be developed, claims Cohen (2018). The main problem is that the way in which research is conducted needs to be consistent throughout. This is accomplished by carefully monitoring the developing research design and by conducting a careful audit of the research process. Consistency is characterized in terms of dependability. Through the use of an audit trail, triangulation, and reflexivity, confirmability can be established. The present study's mixed methods approach, which incorporates the data triangulation design, served as the foundation for the reliability and validity of the research instruments.

The study's methods, as well as the trustworthiness standards and methods for establishing them, were described in depth as shown in Table 3.5.

Table 3.5: Trustworthiness Criteria & Techniques for Establishing Them

Criteria	Techniques
Credibility (internal validity)	1) Prolonged engagement 2) Persistent observation 3) Triangulation (sources, methods, investigators) 4) Peer debriefing 5) Negative case analysis 6) Referential adequacy (archiving of data) 7) Member checks
Transferability (external validity)	8) Thick description
Dependability (reliability)	9) Overlap methods (Triangulation of methods) 10) Dependability audit - examining the process of the inquiry (how data was collected; how data was kept; accuracy of data)
Confirmability (objectivity)	11) Confirmability audit - examines the product to attest that the findings, interpretations & recommendations are supported by data
All 4 criteria	12) Reflexive journal (about self & method)

Source: Chakrabartty, (2013) page 69

3.7.2 Pilot Study

In order to pretest the questionnaire and ascertain its validity and reliability, a pilot study was carried out. One advantage of conducting a pilot study is that it may offer early warning about potential failure areas for the main research project, potential protocol violations, and whether suggested techniques or instruments are suitable or unduly complicated. A total of 35 students participated in the pilot study, which was conducted in 4 schools in the study's excluded Sub-County. According to Padgett (2016), the sample for a pilot study should have similar features and should be 10% of the sample anticipated for the bigger parent study. The clarity of the research tools was evaluated throughout the pilot test. Cronbach's alpha was utilized to examine the data from the pilot test and check its reliability. The results of the pilot study were then used to reinforce and improve the data gathering tool.

3.8 Data Collection Procedures

Following approval from the National Commission for Science, Technology, and Innovation, the researcher visited the institutions to gather data from the chosen respondents using a letter from Jaramogi Oginga Odinga University of Science and Technology (JOOUST) Postgraduate School as authorization (NACOSTI). The researcher scheduled meetings with the deputy principals of several schools to find out whether they were available, as well as whether teachers and students, at certain times. The researcher visited the relevant respondents on the predetermined dates to gather data through questionnaires and interviews. With the assistance of research assistants, the researcher personally administered the questionnaire to the respondents, who were then asked to fill it out and return it. The researcher provided explanations for the issues that the respondents had trouble understanding. The researcher conducted Interviews to both deputy principals and guidance and counseling teachers by prompting them through

questions, the researcher would then write down the responds as well as record audio which there after the researcher interpreted themes from the information gathered.

3.9 Data Analysis

Given that a mixed method approach was used in the current study, the data that was created included both quantitative and qualitative data. A mixed methods approach to inquiry, according to Creswell (2014), includes both qualitative and quantitative kinds of data in the data gathering and analysis processes. The process of data analysis includes categorizing, rearranging, and sorting vast amounts of raw data. The obtained data was first edited in the present such that irrelevant information was removed. While interview schedules produced qualitative data, questionnaires and document analyses produced quantitative data.

3.9.1 Quantitative Data Analysis

Using the Statistical Package for Social Sciences (SPSS) Version 22.0, the quantitative data received from questionnaires and document analysis was first coded for statistical analysis. In order to analyze the data and present the research's conclusions, both descriptive and inferential statistics techniques were employed. Descriptive data were derived from information on the participating schools, the general backgrounds of the students, and the initial analysis of the data. To make description, analysis, and conclusion easier, the descriptive data information was provided in tables like frequencies, percentages, and standard deviations. Each hypothesis was tested using the appropriate inferential statistical techniques (Pearson's Product Moment, regression analysis, and ANOVA). Every hypothesis was tested at a significance level of $\alpha=.05$. At a significance level of $\alpha=.05$, a p-value of $\leq\alpha$ would result in the null hypothesis being rejected, but a p-value of $>\alpha$ would result in the null hypothesis not being rejected. When determining the strength of a linear correlation between two variables, the Pearson Product

Moment correlation is utilized, and one of the presumptions is that the variables must either be in interval or ratio measurement scales.

The total score for each of the independent factors was calculated, and it was correlated with each student's grade, which was the average of terms 1, 2, and 3. This was done in order to determine the link between the variables (dependent variable). One of the null hypotheses, for instance, claimed that there was no statistically significant connection between academic achievement and peer acceptance. The sum of the responses on the 5-point Likert scale for the ten questions measuring peer acceptability was computed in order to obtain the mean score, for each of the students, in order to conduct this analysis based on the given null hypothesis. Data produced from SPSS Version 22.0 was presented and reviewed. The average mean grade received by each student overall was determined, and the mean score for each item on the scale and the average mean grade were associated for each student.

Table 3.6 showed the summary of the quantitative data analysis matrix used in the study.

Table 3.6: Quantitative Data Analysis

Null Hypotheses	Independent Variable	Dependent Variable	Method of Analysis
There is no statistically significant relationship between peer acceptance and Academic achievement among secondary school students in Kenya.	Peer Acceptance	Academic achievement	Descriptive Statistics, Pearson's correlations
There is no statistically significant relationship between aggression and Academic achievement among secondary school students in Kenya.	Aggression	Academic achievement	Descriptive Statistics, Pearson's correlations
There is no statistically significant relationship between social withdrawal and Academic achievement among secondary school students in Kenya.	Social Withdrawal	Academic achievement	Descriptive Statistics, Pearson's correlations
There is no statistically significant relationship between altruistic and Academic achievement among secondary school students in Kenya.	Altruistic	Academic achievement	Descriptive Statistics, Pearson's correlations.

Source: Researcher, 2020

Table 3.6 displayed the data analysis matrix that involved assessing the relationship between independent factors and academic achievement among secondary school students in Kenya. Four hypotheses were examined in the current study's quantitative data analysis based on Table 3.6.

The first null hypothesis read: In Githunguri sub-County, Kenya, there is no statistically significant association between pupils' academic achievement and their acceptance by their peers. Peer acceptability served as the independent variable, and the average form one exam performance (as well as the average performance for terms 1, 2, and 3) served as the dependent variable. Regression analysis, frequency counts, means, Pearson's product moment correlation, and other quantitative data analysis techniques were used in the study.

The second null hypothesis read: In Githunguri sub-County, Kenya, there is no statistically significant association between students' academic achievement and aggression. The students' average form one test performance (average performance for terms 1, 2, and 3) served as the dependent variable, whereas aggression served as the independent variable. Regression analysis, frequency counts, means, Pearson's product moment correlation, and other quantitative data analysis techniques were used in the study.

The third null hypothesis read: In Githunguri sub-County, Kenya, there is no statistically significant association between students' academic achievement and social withdrawal. The dependent variable was the students' average form one test performance (average performance for terms 1, 2, and 3), while the independent variable was social withdrawal. Regression analysis, frequency counts, means, Pearson's product moment correlation, and other quantitative data analysis techniques were used in the study.

The final null hypothesis was: In Githunguri sub-County, Kenya, there is no statistically significant association between altruistic behavior and pupils' academic ability in chemistry.

Altruism served as the independent variable, and the average form one exam performance (average performance for terms 1, 2, and 3) served as the dependent variable. Regression analysis, frequency counts, means, Pearson's product moment correlation, and other quantitative data analysis techniques were used in the study.

3.9.1.1 Diagnostic Tests

The purpose of the current study was to examine the data's suitability for basic linear and multiple regression analysis, as well as the assumptions that were made. To verify that the required assumptions were not violated, preliminary studies had to be carried out; in the current investigation, this was accomplished using a diagnostic test. The required assumptions had to be met by the data for multiple regressions to produce reliable findings. First, the measurements were transformed into continuous scales for both the independent and dependent variables to ensure that the scales of measurement for the data were appropriate for multiple regression analysis. In addition to these, diagnostic tests were performed on the data's normality, multicollinearity, independence, and homoscedasticity.

3.9.1.1.1: Normality of the data

Kolmogorov-Smirnov and Shapiro-Wilk tests were used to formally test the data's normality; the results are displayed in Table 3.7.

Table 3.7: Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Peer Acceptance	.062	308	.066	.989	308	.024
Anger	.085	308	.055	.963	308	.051
Physical Aggression	.073	308	.071	.977	308	.065
Verbal Aggression	.152	308	.057	.936	308	.052
Hostility	.120	308	.046	.967	308	.055
Social Withdrawal	.056	308	.061	.988	308	.058
Altruistic Behaviors	.089	308	.120	.876	308	.127
Student Academic Achievements	.163	308	.072	.679	308	.074

a. Lilliefors Significance Correction

Table 3.7's formal normality tests after the transformations showed that all the variables now complied with the normality assumptions. Many of the variables did not match the normality assumptions, thus they had to be transformed first to eliminate the skewness that was seen in the original data, according to an initial inspection of the normality test using a detrended normal Q-Q Plot. Data transformation primarily involved normalizing and scaling to addressing skewness, and attribute aggregation. For small and medium samples up to $n = 2000$, Heale and Twycross (2015) advise using Shapiro-test. Wilk's Shapiro-Wilk can be compared to the correlation between a set of data and the associated normal scores, with $S-W = 1$ indicating that the correlation is entirely normal. This means that the data is considered normal in the current study when Shapiro-Wilk ($S-W$) $>.05$. A substantially ($p.05$) smaller $S-W$ than 1 implies that the normality is not satisfied. Given that all of the p-values for each variable under the Shapiro-Wilk

Test were larger than .05., Table 3.7 of the current study demonstrated that all the variables were normally distributed.

3.9.1.1.2: Test of Assumptions of Multi-collinearity

A condition known as multi-collinearity occurs when there is an abnormally high amount of inter-correlation between the independent variables, making it difficult to readily separate the effects of the independent factors on the dependent variable. The pattern of inter-correlation among all the variables can be investigated using a correlation matrix. Inter-correlation among the independent variables above 0.8, according to Staiou (2018), is a symptom of multi-collinearity and should be investigated further. However, according to Gliner, Morgan, and Leech (2011), using the correlation matrix as a measure of the variables' lack of multi-collinearity is insufficient. According to Creswell's advice, the current study examined tolerance and the Variance Inflation Factor (VIF), two criteria that might diagnose collinearity. This allowed it to assess the multi-collinearity difficulties (2014). Table 3.8 displayed the output from SPSS Version 22.0, which included tolerance and variance inflation factors.

Table 3.8: Tolerance and Variance Inflation Factor (VIF) Statistics

Model	Collinearity Statistics	
	Tolerance	VIF
Peer Acceptance	.511	1.957
Anger	.137	7.289
Physical Aggression	.258	3.883
1 Verbal Aggression	.475	2.104
Hostility	.123	8.102
Social Withdrawal	.405	2.467
Altruistic Behaviors	.789	1.267

a. Dependent Variable: Student Academic Achievements

According to Creswell (2014), tolerance is the fraction of the predictor's variance that cannot be explained by the other predictors. The tolerance of the variable is $1-R^2$, and VIF is its inverse. The variable under consideration is almost a perfect linear combination of other independent variables already in the equation and should not be added to the regression equation. A little value (tolerance 0.10) implies a predictor is useless. Similarly, it might be necessary to look at a variable whose VIF value is higher than 10. Given that each of the variables in the current study had a sufficient tolerance (tolerance value $>.10$) and a low variance inflation factor (VIF), Table 3.8 demonstrated that the collinearity criterion were satisfied. The results of the present investigation demonstrated that the multiple regression analysis, which was applied in the present study, did not violate the multi-collinearity assumptions.

3.9.1.1.3: Test of Assumptions of Independence of Observations

Regression also makes the assumption that the observations are independent. As shown in Table 3.9, the Durbin Watson test was performed to determine if this assumption of regression was true.

Table 3.9: Test of Independence: Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Durbin-Watson
1	.660 ^a	.435	.422	.61717	2.028

a. Predictors: (Constant), Altruistic Behaviour, Anger, Social Withdrawal , Peer Acceptance, Verbal Aggression, Physical Aggression, Hostility

b. Dependent Variable: Student Academic Achievements

According to Creswell (2014), when the Durbin-Watson statistic is between 1.5 and 2.5, the assumption of independence and the absence of autocorrelation are both satisfied. According to Table 3.9, the Durbin-Watson statistic is 2.028, which is in the range of 1.5 and 2.5, showing that the data were not auto-correlated and that the independence assumption had not been broken.

3.9.1.1.4: Test of Assumptions of Heteroscedasticity and Homoscedasticity

The assumption of homoscedasticity, which denotes a condition in which the error term is the same across all values of the independent variables, was also studied in this study. According to Cooper & Schindler (2014), if a model is well-fitting, the residuals displayed against the fitted values shouldn't show any trend. The residual variance is referred to as heteroscedastic if the residual variance is not constant. Figure 3.2 illustrates this using a graphical manner by plotting residuals against fitted (predicted) values

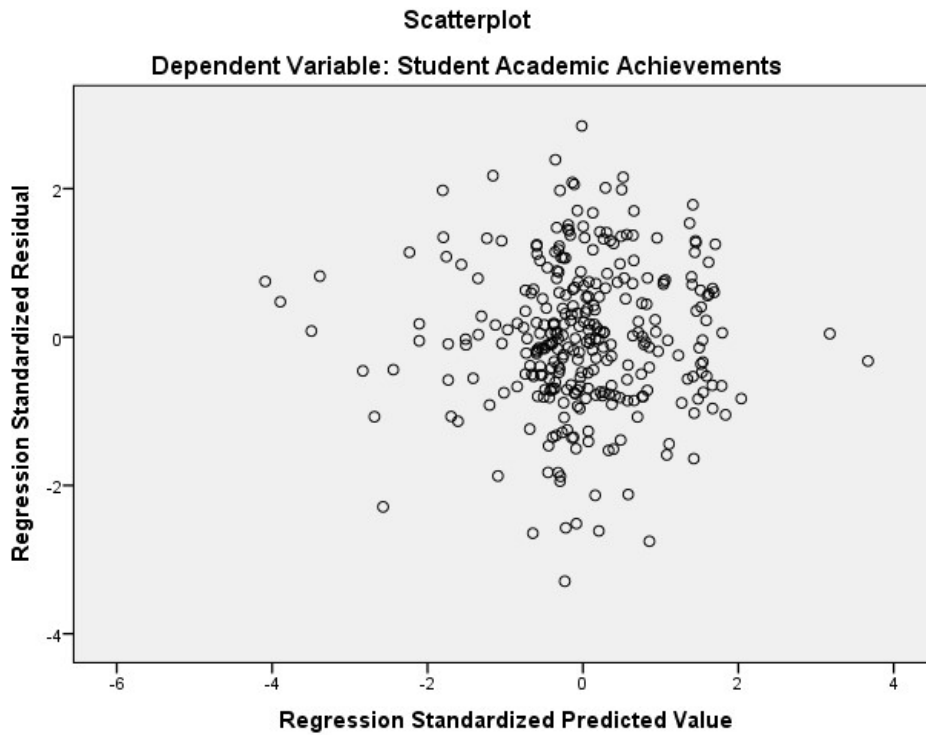


Figure 3.2: Scatterplot of Standardized Residuals Against Standardized Predicted Values

Figure 3.2: Scatterplot of standardized residuals against standardized predicted values

The pattern of the residuals (data points) in Figure 3.2 revealed that homoscedasticity was mostly revealed by a pattern-less cloud of dots. As a result, there was a minimal violation of the homoscedasticity assumption, which states that all levels of the independent variables have an identical variance of errors. The variance around the regression line was considered to be the same for all values of the predictor variables in the current study, indicating that mistakes were assumed to be distributed consistently among the variables. When the scatter is uneven, heteroscedasticity is inferred, according to Leech, Barrett, and Morgan's (2015) observation.

3.9.2 Qualitative Data Analysis

Transcribed, categorized, and thematically analyzed qualitative data from interviews with Deputy Principals, guidance, and counseling teachers. Data patterns (themes) were found, examined, and reported through thematic analysis (Braun & Clarke, 2018). It minimally arranges

and thoroughly describes the data set. It extends beyond this to interpret many facets of the research issue (Braun & Clarke, 2018).

Additionally, thematic analysis, according to Braun and Clarke (2018), can be an essentialist or realist method that documents participant experiences, meanings, and reality, or it can be a constructionist method that looks at how events, realities, meanings, experiences, and the like are influenced by various societal discourses. Processes including data reduction, display, conclusion, and verification were part of qualitative data analysis. In order to check for any missing, contradictory, or irrelevant information, the raw data collected from the respondents during the interviews was transcribed and read repeatedly.

Thematic analysis was deemed suitable for the current study because it could be used to answer a variety of research questions, including those about the experiences or perceptions of the respondents as well as those about the representation and construction of specific phenomena in specific contexts. The technique may evaluate many forms of data, including focus group transcripts, document records, or one-on-one interviews, and it can handle both big and small data sets. According to Braun and Clarke (2018), transcription analysis took place at the stages depicted in Table 3.10.

Table 3.10: Phases of Qualitative Data Analysis

Phase/Description of phase	Description of the phase process
Familiarizing with your data	Transcription of the data (where necessary), reading and re-reading the data, noting down initial codes.
Generating initial codes	Coding interesting features of the data in a particularly systematic fashion across the entire data set, collating data relevant to each code
Searching for themes	Collating codes in to potential themes that accurately depict the data.
Reviewing themes	The researcher checks how the themes work in relation to the coded extracts and the entire data set.
Defining and naming the Themes	Analysis to refine the specifics of each of the themes, while generating clear definitions and names for each theme.
Producing the report	Final opportunity involving analysis where researcher selects vivid extract for instances, does a final analysis, while relating back to the research question and literature, and hence producing a scholarly report of the analysis.

Source: Extracted from Braun and Clarke (2018) page 178

The main goal of the qualitative data was to investigate the relationship between Social Adjustment Indices and Academic Achievement of secondary school students in Kenya, as well

as the positive and negative effects that each Social Adjustment Indices had on academic achievement in the Githunguri Sub County of Kenya. Semi-structured interviews with 15 Deputy Principals and 15 guidance and counseling instructors were done in order to shed light on Social Adjustment Indices because they are primarily responsible for handling disciplinary issues in schools.

According to Braun and Clerk, the qualitative data collected was arranged and summarized in themes that captured significant data points in relation to the research questions and demonstrated some degree of patterned response. 2018 Verbatim quotes were recorded and categorized as themes and sub-themes. The initials [DPT1] for Deputy Principal Teacher 1 of School 1 and [G&CTr] for Guidance and Counseling Teacher School 1 of School 1 were used to conceal the participants' identities.

The information provided by the respondents was strengthened in this way for confidentiality. The respondents provided their thoughts, experiences, and perceptions regarding Social Adjustment Indices and how they felt it affected students' academic success. The qualitative data from the interviews were documented verbatim, transcribed, and organized in accordance with the four study objectives. Following Braun and Clerk's (2018) style, Table 3.11 provides an example of the verbatim quotations, themes, and codes that arose from the study.

Table 3.11: Verbatim quotations, themes and codes

Interview Transcripts	Codes	Themes
<i>'Some students feel that they do not have a sense of belonging and as a result they develop behaviors that are not worth copying by others. They however try so much to influence others negatively but as a guidance and counseling teacher, I try so much to identify such students and counsel them to feel otherwise.'</i> [G\$CTr 4]	NPAAAA	Negative peer acceptance and academic achievement.
<i>'Some of our students feel they have a sense of belonging and while in schools they feel that they are warmly accepted by others and they are active in school and they have joined various academic clubs such as science club, Wildlife Club etcetera</i> [DPT 7]	PPAAAA	Positive peer acceptance and academic achievement.
<i>'One student said that when he first reported in school he was bullied and slapped on the face by the prefect in the senior class until he fell down and was even denied both breakfast and meals for the whole day and was threatened of even more</i>	AAAA	Aggression and academic achievement.

*worse consequences if he ever dared to report that
to the administration.[DPT 2]*

*'There are a few students who feel like they do not
want to interact with other students and you will
often find they do not discuss their homework with
their classmates even if they find it difficult to
answer.'*[G\$CTr 11]

SWAAA

Social withdrawal and
academic achievement.

*'Some students volunteer or offer to teach others
especially when they have mastered a certain
concept in a given subject and this is so voluntary
on the sense that such students do not expect any
reward or any form of payment.'*[(DPT3)]

ABAAA

Altruistic behavior and
academic achievement.

Source: Interview Research Data, 2019

Verbatim quotes from the interviews in Table 3.11 were transcribed, and themes formed, as in Odanga, Raburu & Aloka (2015). Coding, a method of categorizing and organizing data, includes giving each coding category a word, phrase, number, or symbol. By labeling, gathering, and arranging the data with codes, the researcher was able to summarize and synthesize what was happening in the data. Coding served as the foundation for creating analysis by connecting the

collection of data and its interpretation (Green, Charman, Pickles, Wan, Elsabbagh, Slonims & the Basis team, 2007).

Coding was utilized to make it easy to systematically review every interview transcript. Then the thoughts, themes, and ideas were coded to match the categories. The objectives of the current study were reflected in the preset codes, while emergent codes contained ideas, thoughts, behaviors, relationships, or meanings that surfaced during data collection (Corbin, 2015). In order to maintain participant confidentiality and identity without compromising the content for analysis, interviews were coded as DPT1-DPT15 (for Deputy Principals) and G&CTr1-G&CTr15 (Denzin & Lincoln, 2011)

3.10 Ethical considerations

The Board of Postgraduate Studies of Jaramogi Oginga Odinga University of Science and Technology provided the researcher with an introduction letter. The researcher then applied for a research authorization permit with NACOSTI, the National Commission for Science, Technology, and Innovation. The researcher next scheduled meetings with the sampled schools' Deputy Principals, Guidance and Counseling instructors, and students. Prior to doing the actual research, principals, deputy principals, guidance and counseling teachers, affected classes, and the topic instructors were all notified. The participants were given an explanation of the research's purpose.

In addition to receiving permission from the appropriate authorities, informed consent was first obtained from the participants, who were explicitly assured that their rights would be protected, that their background information and any information they voluntarily provided would be handled professionally, anonymously, accurately, and with respect for their opinions. As part of an ethical procedure, the statement was made in informed consent forms for students, Deputy

Principals, class instructors, and guidance and counseling teachers. Before attempting to participate in filling out questionnaires and responding to interviews, the participants were then given consent forms to read and sign.

The respondents were not obliged to submit identifying information on the questionnaires or during the interviews in order to maintain anonymity during the data collection. In order to further engage the interviewees, the interviews were done in private settings as well as in their offices for the Deputy Principals and teachers of guidance and counseling. The researcher utilized codes on the questionnaires to protect respondents' privacy and anonymity.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

The results and analysis of the study are presented in this chapter. Sections and subsections have been added to the chapter. Based on the goals and hypothesis of the current investigation, the research findings were provided. Both descriptive and inferential statistics were used to analyze the quantitative data. The data was presented as tables, frequencies, percentages, averages, and standard deviation and the descriptive statistics were utilized to characterize and summarize the data. To aid in drawing conclusions and drawing inferences, inferential statistics were used. To examine the relationship between the variables, statistical tests, the Pearson product-moment of correlation, and regression analysis were performed.

The significance threshold for each test was set $\alpha = 0.05$. The analysis of qualitative data was done using a theme method. Data analysis was done using SPSS version 21 (Statistical Package for Social Sciences).

4.2 Questionnaire Return Rate

The summary of the questionnaire return rate from the students' responses is shown in Table 4.1, and it demonstrates that the questionnaires were more than appropriate for the current study.

Table 4.1: Questionnaire Return Rate

Respondents	Administered	Returned	Return Rate
Students	350	308	88.0%

Source: Survey data (2019)

Table 4.1 in the current study revealed that 308 of the 350 questionnaires sent to the students who participated in it were returned fully completed, representing an overall response rate of

88.0 percent. According to Cooper and Schindler (2014), a return rate of 50% is sufficient, a return rate of 60% is adequate, and a return rate of more than 70% is extremely good. Based on this claim, the current study's 88.0 percent questionnaire return rate is regarded as excellent. The researcher's expertise as a teacher helped persuade every student in the sample to complete and submit the questionnaires, which was credited with the high response rate. Additionally, the researcher aggressively engaged with study participants to track responses, prenotified them of the study's purpose, and provided follow-up reminders to encourage participation. Follow-up phone calls were made to the schools where some students' questionnaires remained in order to help them clarify any questions they had about certain topics.

4.3 Respondents' Demographic Information

The goal of the current study was to look into the respondents' demographic makeup. Gender, age, school type, parental status, and primary school category attended are only a few of the bio-data that were looked into. To determine whether the respondents were a sufficient representative sample of the target population for the present study's findings to be generalized, these qualities were deemed required.

4.3.1 Gender, Age and Family setup of the students.

Information on the gender, age, and family structure of the survey respondents who were students was provided in Table 4.2.

Table 4.2: Gender, Age and Family Setup of the Students

Bio-data	Count	Percentage	Cumulative %
Gender			
Male	185	60.1	60.1
Female	123	39.9	100.0
Total	308	100.0	
Age (Years)			
15-18	201	65.3	65.3
19-20	73	23.7	89.0
21-22	24	7.8	96.8
≥ 23	10	3.2	100.0
Total	308	100.0	
Whom the students was staying with			
Father	40	13.0	12.8
Mother	72	23.4	96.8
Both parents	178	57.8	98.4
Other relatives	18	5.8	100.0
Total	308	100.0	

Source: Survey Data (2019)

Table 4.2 in the present study observed a significant majority of the respondents were males, with females being only 123 (39.9%) of the students who took part in the survey. In the present study that may not be surprising because there are more boys' schools than girls' schools in Githunguri Sub-County. Besides, in Kenya males generally dominate all fields including education sector. However, the present study noted that both gender was represented.

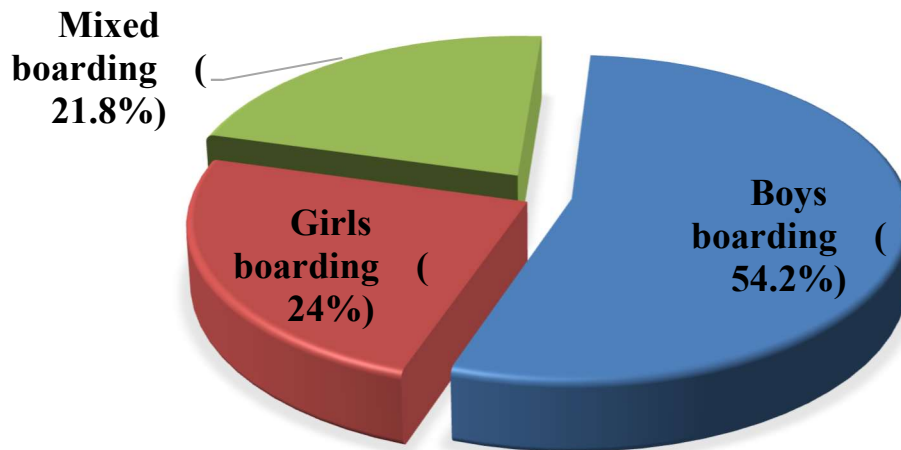
On their ages, the present study established from the results of the survey that close to two out of every three 201 (65.3%) of the students were aged between 15 -18 years. Those who were aged 20 years and above only made 11 percent of the students in Githunguri Sub-County. In the present study that was expected because it only sampled form two students whose ages are

expected to be below eighteen years. Nonetheless, other ages within the student population were equally represented in the study; with those aged between 19-20 years forming 73 (23.7%) of those who took part in the survey. These group of students aged 20 years and above could have come to school after dropping out, given the reduced secondary costs of secondary school and spirited effort by the government to achieve 100% transition from primary to secondary school. Similarly, on whom the students' were staying with, the findings of the present study show that whereas a majority 178 (57.8%) of the students were staying with both parents, a sizeable proportion of them were staying in a single parent family. Most of the single parent headed families were headed by mothers, as revealed by the number of students who were staying with their mothers alone. In the present study that fact could be attributed to the general declining marriage prevalence in Kenya today, where many marriages suffer high rates of separation/divorce, or many women intentionally deciding to have students but opt to stay alone. However, the number of the students who were staying with relatives formed more than five percent of the students who were sampled for the survey.

4.3.2 Category of Schools

Figure 4.1 displayed the information about the types of schools where students who were sampled for the survey came from.

Figure 4.1: Category of Schools of the Respondents



Source: Survey Data (2019)

In the present study, figure 4.1 showed that majority (54.2%) of the students came from boys boarding secondary school an indication that there are relatively more boys' schools than girls' schools. However, more than one out of every five (21.8%) of the students surveyed were from mixed boarding secondary schools. Nonetheless, students from purely girls boarding schools also took part in the study representing close to a quarter (24.0%) of the sampled students, implying that the sampled students adequately represented the general student population under study.

4.3.3 Student Academic Achievements

On academic achievement, the researcher obtained overall scores of the students in the end term examinations for term 1, 2 and 3, these records were obtained from the examination office of every sample school. Overall mean scores were computed from the three terminal examinations results. In the present study overall mean scores was used to gauge student academic achievement, which is the dependent variable of the study. Figure 4.2 showed the distribution of the students' scores.

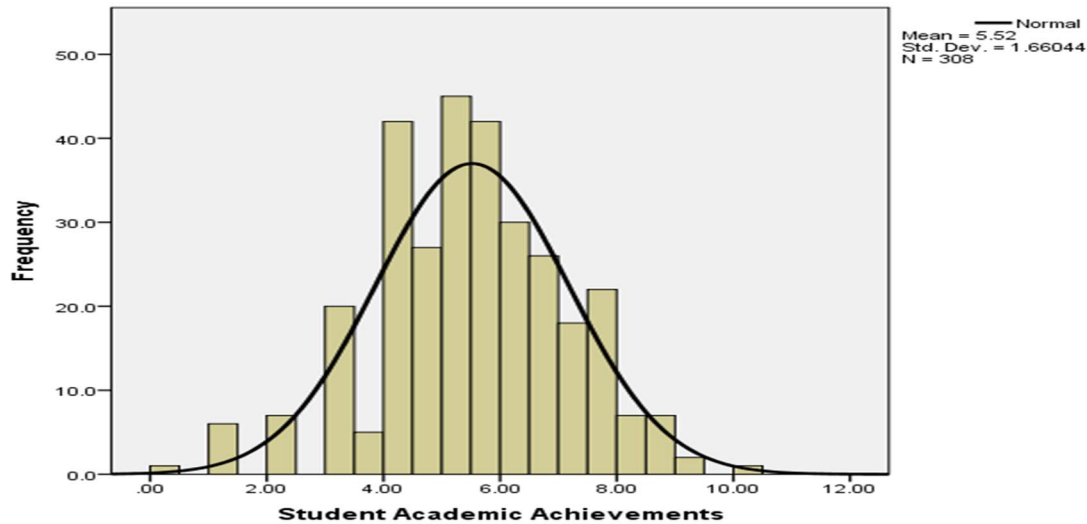


Figure 4.2: Distribution of Students' Mean Scores

Figure 4.2 indicated that the overall mean score was fairly low (mean=5.52, standard deviation = 0.095), however the scores were nearly normally distributed, indicating that although there was a negative skew (-0.161) it was negligible. The negative skew noted point out that there is relatively longer tail on the right of the curve than the left tail. The negative skew implied that although the distribution was almost normal, there is relatively more students who had lower mean scores than the mean compared to those who had a higher score.

4.4 Relationship between Peer Acceptance and Academic Achievement among Students in Secondary Schools

The first objective of the study sought to determine the relationship between peer acceptance and academic achievement among students in secondary schools in Githunguri Sub-County, Kenya. The objective was addressed by use of; descriptive statistics, to explore the level of peer acceptance among the students and inferential statistics, to test the hypothesis.

4.4.1 Peer Acceptance among Public Secondary School Students

To investigate the level of peer acceptance among high school students, sampled students filled a 15 itemed Likert scale questionnaire recommended for examining peer acceptance in school environment. Students were asked to rate the indicators of peer acceptance using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Students responses were presented in means and standard deviation, as summarized in Table 4.3

Table 4.3: Peer Acceptance (n=308)

Indicators of peer acceptance	1	2	3	4	5	Mean	SD
People at my school genuinely care about one another.	6.5	39.6	20.5	0.0	33.4	3.14	1.41
I truly feel as though my classroom and school are where I belong.	5.8	39.3	21.8	5.5	27.6	3.10	1.33
My teachers genuinely care about me and are worried if I'm not in class.	6.5	45.1	21.4	4.5	22.4	2.91	1.28
My teachers aid me in comprehending the material I must learn.	4.2	51.9	19.8	5.5	18.5	2.82	1.21
I have a family-like feeling towards my school.	5.2	52.9	12.7	4.5	24.7	2.91	1.33
My classes are like contented families.	5.2	57.8	11.4	4.2	21.4	2.79	1.28
I believe I play a significant role in my classroom.	5.5	50.0	14.0	2.9	27.6	2.97	1.36
I consider myself to be an integral part of my school.	11.0	58.4	13.0	4.5	13.0	2.50	1.16
My teachers urge me to participate in extra-curriculum at school and in the community.	2.9	61.0	13.6	4.2	18.2	2.74	1.20
I'm encouraged by my teacher to pursue my hobbies and talents.	3.2	56.5	13.3	4.2	22.7	2.87	1.28

Our school has a large number of clubs and activities that I can participate in	29.5	49.4	8.4	4.2	8.4	2.13	1.14
My school motivates me to look at several career options for when I graduate.	28.6	41.9	11.4	4.5	13.6	2.33	1.31
I believe I have many options for what and how I learn.	24.4	47.1	14.3	2.9	11.4	2.30	1.20
Everyone at my school seems to be motivating me to finish high school, enroll in a program for further study, or get a profession.	19.8	50.3	13.6	4.2	12.0	2.38	1.20
In my school and classrooms, I experience support and respect.	15.9	21.8	5.2	36.4	20.8	3.24	1.41
Average mean peer acceptance among the sampled students						3.06	0.53

Key – 1 –Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

Source: Survey data (2019)

The findings of Table 4.3 in the present study revealed that many of the high school students in Githunguri Sub-County enjoy moderate level of peer acceptance. Moderate level of peer acceptance was reflected by an average mean rating of 3.06 in the scale of 1 to 5, with a standard deviation of 0.53, implying that many students exhibit just above average level of social adjustment. For instance, 33.4% of the students asserted that their school is a place where people care about one another, reflecting a mean peer acceptance of 3.14 (SD=1.41). Similarly, a mean of 3.10 many (33.1%) of the students believe that they are accommodated in the mind of majority of their peers and they feel that they really belong in their school and classroom. The results of Table 4.3 agreed with those of a study by Kimbrough et al. (2017) conducted in California, which found that sense of belonging substantially predicted reported usage of adaptive help-seeking behaviors, even after taking students' motivation into consideration. Utility value negatively predicted expeditious help-seeking techniques, but self-efficacy for self-regulated learning

positively predicted adaptive help-seeking strategies. The findings in Table 4.3 were supported by Kishkilev's (2018) research at Louisiana State University, which found a correlation between academic performance and increased peer acceptability, more friends, and decreased peer rejection in each grade. According to Kishkilev's (2018) research, girls—but not boys—performed better academically in the years when they had more friends and were less bullied by their peers. Romens et al (2015) .'s study in England found significant variation among students, which strongly suggests that other aspects of a school's makeup—rather than the level of inclusivity—have an impact on students' average academic performance.

The results of Table 4.3 in the current study were in line with those of Olden et al. (2012), who conducted research in the Philippines to ascertain how students' levels of school performance were influenced by their sense of belonging. They discovered that students' sense of social belonging had an impact on their academic excellence. Associated with peers who have good peer acceptance suggests that students will be more satisfied with school, whereas associating with friends who have negative peer acceptance suggests that students will be less interested in attending.

Additionally, qualitative data obtained from excerpt in support of the findings indicated that many students who feel they have a sense of belonging are motivated to remain and engage in school activities as for instance one deputy teacher observed that;

‘Our school has arrangement for form one. When they join school in that every new student is given a ‘guardian’ who takes care of him and is seen as just a parent or really guardian and help the new student in adjusting to the new environment by taking the new student all-round the school compound until the student gets full orientation before the student is left on his own.’ [DPT 6]

Another excerpt also noted;

‘Many students like our school because they feel there’s a lot of oneness and unity where new students are warmly welcomed and so they find it easy to copy with our school program because of this orientation.’ [DPT 5]

From the excerpts of [DPT 6] and [DPT5] the present study noted that there were schools which have very good programs where conducive learning environment is created for new learners and as a result they feel warm, appreciated and liked by people in the new environment and this help new students to cope up and adjust to the new environment with ease which impacts positively to their academic achievement. The present study implied that such students they feel accepted as the bigger part of school family and so they are likely to benefit from the fruits that go along with a sense of belonging in a school as one family. In this kind of interaction, students have a place to routinely interact socially with their peers and can support one another in all peer activities.

The results of Table 4.3 in this study were in line with those of a study conducted in Macau by Fong et al. (2015), who found that feelings had an impact on the relationship between academic success and school belonging. According to a study by Fong et al., students who felt more a part of their school community had more good emotions (both activating and deactivating) and fewer negative deactivating emotions, which helped them succeed academically (2015). The results of the current study were in line with those of a study conducted in the Netherlands by Smyth et al. (2014), which discovered that subtle network processes were important for academic success and that classroom network characteristics were related to level variation in academic achievement. Peer rejection can lead to increased anxiety, such as worry about being teased or left out, which disrupts classroom focus and prevents students from learning and remembering new material.

Similarly, 26.9% of the students also held a moderate (mean = 2.91) belief that their teachers really care about them and concerned when they are absent and 16.2% of the students alluded that they always feel (mean=2.38) like everyone at their school encourages them to stay in school, graduate and go on to college or training. On the flip flop, 70.1% that some students believe they are not liked by everyone at their school and are never encouraged by anyone to stay in school. The present study findings concurred with study by Schwarz, (2012) in South Africa who reported that there was a positive relation between parental admiration and adolescents' life satisfaction independent of culturally membership and that the higher the importance of family values in a culture, the weaker was the positive effect of peer acceptance on adolescents' life satisfaction.

However, as interpreted from a mean rating of 3.24 (SD = 1.41), quite a respectable proportion (57.2%) of the students who were surveyed feel supported and respected in their school and classrooms, an indication of a feeling of high peer acceptance. Further, 30.5% of the student cited that they always feel like they are important part of their classroom, reflecting a mean peer acceptance rating of 2.97 (SD = 1.36). However, to a relatively lesser degree (mean=2.50) 17.5% of the students also feel like they are important part of their school. In fact, a good proportion of the students equated their classroom and school as a family reflecting a feeling of social acceptance. For instance, 25.6 percent of the students reported that their classes make them feel like happy families (mean=2.91), and 29.2 percent of them assessed their school as making them feel like a big family with a rating of 2.79 and a standard deviation of 1.28. The results of the current study were in agreement with a study conducted by Kingery et al. (2011) at the University of Maine, which found that peer variables present before the shift predicted post-transition academic achievement, self-esteem, school involvement, and loneliness.

Additionally, qualitative data obtained from one of the excerpt in support of the present study findings indicated that students do appreciate the role of good friendship amongst themselves as this makes them to feel secure and in the event they are confronted by challenging situations then they will have someone to lean onto. Students therefore embrace sharing of ideas and challenges as one of the excerpt expressed;

'...at one point I counseled a student who felt like he was not having any good friend that he would trust and so even when confronted by challenging situations he would not share it with any one and he would rather keep it to himself. The thoughts of committing suicide were inevitable. His academic performance was on the decline. I however counseled him on the need to have positive interactions with the rest of the students and finally he was able to feel accepted' [G&CTr 4]

Another excerpt also noted;

'I have counseled students who on many occasions have experienced rejections by their peers and as a result they felt like dropping out of school because they felt humiliated and such experiences were really weighing them down so much so much, some students even disclosed the fact that they had contemplated committing suicide' [G&CTr 3]

From the excerpts of [G&CTr 4] and [G&CTr 3], the present study noted that no man is an island and that human beings are social creatures who need to be loved, accommodated and appreciated by others and contrary to this will result into catastrophic situations which in a school setup may make a student to drop out of school or risks registering dismal performance. On the worst is even the feelings of committing suicide as a result of rejection and schools have in the past experienced cases of students committing suicide though the reasons could be varied from one individual to another one. Findings in Table 4.3 in the current study agreed with study by Romens et al. (2015) in America who reported that peer rejection had negative effects on an individual. Students caught up in such scenarios struggle with heightened anxiety including Suicidal

thoughts. The unstable state of the mind interferes with the learner's concentration while undertaking studies.

On the support by teachers, the results of the survey indicate that although 56.1% of the students held a contrary opinion, 24.0% of them felt that their teachers always help them understand what they need to learn, signifying a social acceptance of 2.82 (SD=1.21). Others (22.4%) observed that their teachers always encourage (mean=2.74) them to join clubs and activities in school and community and 26.9% of the students believed that they are encouraged enough (mean=2.87) by their teachers to develop their interests and talents. However, it emerged that many of the schools do not offer variety of opportunities for the students to effectively develop their social interactions.

In the present study, an interpretation from a bigger proportion (78.9%) of students confirmed this and a low rating of 2.13 (SD = 1.14) on the number of clubs and activities in the schools in Githunguri Sub-County that the students can participate in. Further, the present study established that only a few (13.6%) of the sampled students strongly agreed that their schools effectively encourage them to explore all sorts of career opportunities after they finish school. In addition, although a few (14.3%) of the students alluded that they always (mean=2.30) have a lot of choices in what and how they learn, majority (71.5%) of them insisted they have limited choices in what and how they learn. The findings in Table 4.3 in the present study concurred with study by Schwarz et al. (2012) in South Africa who reported universal importance of parental warmth and support in adolescence and underlined the effect of culturally shared family values on the role of peer acceptance for adolescent.

4.4.2 Statistical Relationship between Peer Acceptances and Academic Achievement among Public Secondary School Students

The null hypothesis was examined to see if there was any statistically significant association between academic achievement and peer acceptance among secondary school pupils. The following was the hypothesis;

H₀₁: Among pupils at secondary schools in Githunguri Sub-County, Kenya, there is no statistically significant correlation between peer acceptance and academic achievement.

The bivariate Pearson Correlation was used to test the hypothesis, with peer acceptance scores serving as the independent variable and academic achievement serving as the dependent variable. The bivariate Pearson Correlation generates a sample correlation coefficient, r , which measures the strength and direction of linear relationships between pairs of continuous variables. Using the frequency of replies, the independent variable was calculated and transformed into a continuous scale, where high scale ratings indicated high perceived levels of peer acceptance and vice versa. The students' academic performance served as the dependent variable, and it was determined as the average mean of the scores from the three exams. The null hypothesis would be rejected if the p -value was less than 0.05, and it would be concluded that a significant difference does exist. This level of significance (p -value) was fixed at 0.05. The current investigation would draw the conclusion that a significant difference is not there if the p -value was higher than 0.05. Table 4.4 displayed the results of a correlation analysis between secondary school students' academic success and peer acceptance.

Table 4.4: Correlation between Peer Acceptance and Academic Achievement among Students in Secondary Schools

		Peer Acceptance	Student Academic Achievements
Peer Acceptance	Pearson Correlation	1	.187**
	Sig. (2-tailed)		.001
	N	308	308
Student Academic Achievements	Pearson Correlation	.187**	1
	Sig. (2-tailed)	.001	
	N	308	308

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

According to Table 4.4, a link between academic success and peer acceptance was shown to exist among secondary school students ($n = 308$, $r = .187$; $p = .001$). The results of the current study disproved the null hypothesis that there is no statistically significant correlation between academic achievement and peer acceptance among secondary school students in Githunguri Sub-County, Kenya. These results led the current study to draw the conclusion that there is a statistically significant positive correlation between the two variables. The results of the current study were in agreement with a study conducted in Egypt by Ahmed et al. (2015), which came to the conclusion that while peer attachment had a significant impact on Saudi students' academic performance, parent attachment had a significant impact on Egyptian students' academic performance. The results of the current study also agreed with those of a study conducted in Kenya in 2014 by Kipkemboi, who came to the conclusion that peer influences and the school environment were two psychosocial factors that affected academic achievement.

Additionally, qualitative findings obtained from interview schedules further confirmed the findings in that one of the Guidance and Counseling teachers interviewed advocated for oneness and unity as pillars that promotes wellbeing which in turns translates to better grades as students are able to share knowledge without discrimination. The respondent told the present study;

‘Our school values oneness and unity as this are pillars that build strong bonds amongst students and give student freedom to express himself even as he learns to interact and network with others hence strengthening the cohesion bonds amongst students. The schools therefore have small families which comprises of a patron which is mainly a teacher and students are put in this groups cutting across learners from form one to four. This promotes unity and encourages students to share knowledge without fears.’ [G&CTr 7]

Another excerpt also noted;

‘... it is no longer what it used to be a 3 decades ago where form ones or new students would find it very rough because they would be harass by senior and older students in the name of ushering them to the new environment. Any one practicing such should know that it is an offence which is highly punishable and can in some cases lead to expulsion of students practicing or wishing to practice such.’ [DPT 8]

From the excerpt of [DPT8], the present study noted that school values togetherness and anything that goes against that was highly punishable. Togetherness rule in particular protects form one students who has just transited from primary to secondary school and so they will find them adjusting to new environment with ease. The rule to embrace togetherness would translate to better academic results.

From the remarks, the present study found that that new students need to feel that they have a sense of belonging as this will help them in adjusting to the new environment which in turn helps them to improve in their academic achievement. The excerpt from this Deputy Principal also agreed with the findings of Smyth et al. (2014) study in Germany who found that peer acceptance

slightly predicted lower levels of academic achievement in students on the non-academically oriented track and further reported that there were general positive associations between academic achievement, perceived peer acceptance and self-esteem.

Overall, the results of the current study indicated that among secondary school pupils there was a small, positive link between academic achievement and peer acceptance. Students in secondary schools perform better academically when their peers accept them more. A scatter plot was used to further highlight this, as seen in Figure 4.3

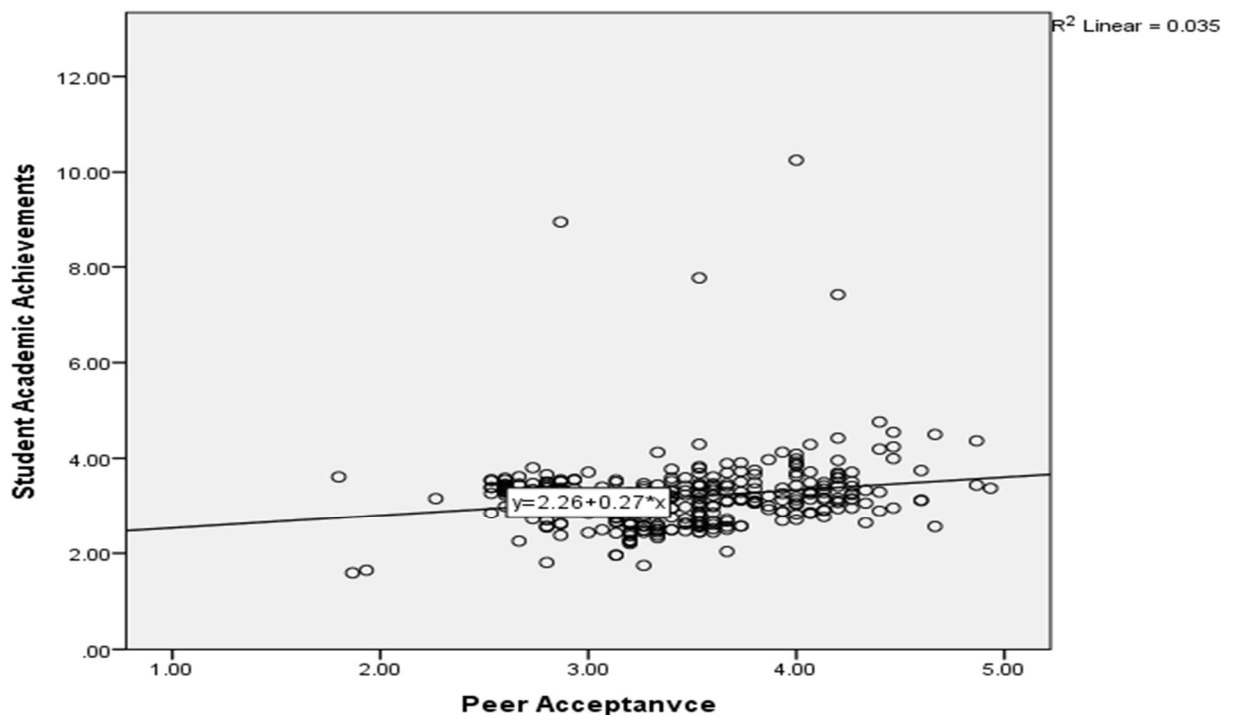


Figure 4.3: Scatter plot graph: Peer Acceptance and Academic Achievement.

The present study noted from Figure 4.3 that the scatter points showed a weak but positive relationship between the two variables. The pattern of the dots does not give clear impression of the slope moving from lower left to upper right, as expected. However, the line of best fit

seemingly slopes from lower left to upper right an indication of at least some positive relationships between the two variables.

Further, to estimate the level of influence of peer acceptance on academic achievement among students in secondary schools, a coefficient of determination was computed using of regression analysis and the result was as shown in Table 4.5.

Table 4.5: Regression Results- Influence of Peer Acceptance and Academic Achievement among Students in Secondary Schools

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.187 ^a	.035	.032	.79871

a. Predictors: (Constant), Peer Acceptance

b. Dependent Variable: Student Academic Achievements

Table 4.5 in the present study showed that the level of peer acceptance accounted for 3.5%, as signified by coefficient of $R^2=.035$, of the variation in Student Academic Achievements among public secondary school students. That was a small influence on a dependent variable by a predictor. However, it reveals the importance of improving students peer acceptance in order to improve academic achievement.

Further, to determine whether peer acceptance was a significant predictor of Academic Achievements among public secondary school students, Analysis of Variance (ANOVA) was computed in line with the recommendation by Tabachnick and Fidell (2012). Use of Analysis of Variance (ANOVA) was necessary because it consists of calculations that provide information about levels of variability within a regression model and form a basis for tests of significance. It

applies the basic regression line concept, $DATA = FIT + RESIDUAL$, which may also be written as $SST = SSM + SSE$, where SS is notation for sum of squares and T, M, and E are notation for total, model, and error, respectively. The square of the sample correlation is equal to the ratio of the model sum of squares to the total sum of squares: $R^2 = SSM/SST$, which formalizes the interpretation of R^2 as explaining the proportion of variability in the data explained by the regression model. The "F" column provides a statistic for testing the hypothesis that $\beta_1 = 0$ against the null hypothesis that $\beta_1 \neq 0$. The test statistic is the ratio MSM/MSE , the mean square model term divided by the mean square error term. When the MSM term is large relative to the MSE term, then the ratio is large and there is evidence against the null hypothesis. For simple linear regression, used in this case, the statistic MSM/MSE has an F distribution with degrees of freedom $(DFM, DFE) = (1, 306)$.

Table 4.6: ANOVA –Influence of Peer Acceptance and Student Academic Achievements among Public Secondary School Students

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	7.094	1	7.094	11.121	.001 ^b
Residual	195.210	306	.638		
Total	202.305	307			

a. Dependent Variable: Student Academic Achievements

b. Predictors: (Constant), Peer Acceptance

In the ANOVA table, the F statistic is equal to $7.094/.638 = 11.121$. The distribution is $F(1, 306)$ and the probability of observing a value greater than or equal to 11.121 is less than 0.001, suggesting that there is strong evidence that β_1 is not equal to zero. Hence, ANOVA results

output reveals that peer acceptance significantly predicts academic achievement among students in secondary schools, $F(1, 306) = 11.121, p = .001$. The R^2 term is equal to 0.035, indicating that 3.5% of the variability in the Student Academic Achievements in public secondary schools is explained by the peer acceptance.

The present study therefore concluded that peer acceptance significantly predicts academic achievement among students in secondary schools. The present study implied that knowledge of students' peer acceptance can be used to significantly predict academic achievement among students in secondary schools.

4.5 Relationship between Aggression and Academic Achievement of Students in Secondary Schools

The second objective of the study sought to determine the relationship between aggression and academic achievement among secondary schools' students. In the present study, second objective was addressed by use of descriptive statistics to explore the level of aggression among the students and inferential statistics to test the hypothesis.

4.5.1: Aggression among Public Secondary School Students

To investigate the level of aggression among high school students, the sampled students were provided with a questionnaire whose items were indicators of aggression. The items were in a 5 point Likert format scale rating from 1 (strongly disagree) to 5 (strongly agree). Aggression presents itself in four forms namely physical aggression, verbal aggression, anger and hostility. Hence, the study presented the findings on responses of students as per this type of aggression

Table 4.7: Students' Aggression - Anger

Indicators of anger aggression	1	2	3	4	5	Mean	SD
1. Some of my friends believe I have a hot temper.	17.9	21.4	9.1	39.0	12.7	3.07	1.35
2. I have a balanced temperament.	23.1	24.7	11.4	29.5	11.4	2.81	1.38
3. I get angry easily but quickly forgive.	33.4	34.7	6.2	17.2	8.4	2.32	1.32
4. I find it difficult to manage my temper.	28.2	27.3	9.1	22.7	12.7	2.65	1.43
5. I display my annoyance when frustrated.	31.2	27.6	8.1	23.4	9.7	2.53	1.39
6. I feel like a time bomb about to blow.	32.1	27.6	8.1	24.7	7.5	2.48	1.36
Mean average level of anger among the students						2.64	1.01

Key – 1 –Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

Source: Survey data (2019)

Table 4.7 in the present study showed that, on average, the high school students in Githunguri Sub-County exhibit average level of anger aggression. Using the aggression scale of 1 to 5, the mean average level of anger among the students was computed at 2.64 with a standard deviation of 1.01. However, the relatively high standard deviation indicated that there was a wide variation in the level of anger aggression among the students who were sampled for the study, with some of them exhibiting extreme levels of anger aggression and others showing only faint signs of anger aggression.

Table 4.7 further revealed that some of the students displayed overt behavior that affects other students psychologically. For instance, although 68.1% of the students alluded that they are usually reserved and controlled, about one out of every four (25.4%) others accepted that they always get angry easily even on a small provocation which translates to a mean anger aggression of 2.32 (SD = 1.32). Many (40.9%) of the students agreed that they have a balanced temperament, but some 47.8% of the alluded that they are not even-tempered persons, reflecting anger aggression rating of 2.81 among the sampled students. In addition, the results of the study established that more than a third (35.4%) of the sampled students finds it difficult to manage their temper, translating to a mean rating of 2.65 (SD=1.43) and almost similar proportion (33.1%) of the sampled students, translating to a rating of 2.53, accepted that when they are frustrated, they always display their annoyance.

The results of Table 4.7 in this study are consistent with a study conducted in Turkey in 2013 by Atay, who discovered that students' physical aggression and rage scores were much lower in those who participated in social activities than in those who did not. Students who have experienced violence are more likely than students who have not to describe stressful life situations. Furthermore, a study by Atay (2013) discovered that younger students who live in

challenging circumstances may show less prosocial feelings and more personal issues when presented with adversity. Students who have been mistreated, for instance, are more prone to throw temper tantrums, quarrel frequently, and threaten other students. The current study's findings are consistent with those of Powers et al. (2017), who discovered that hierarchical regressions revealed cumulative effects for temporal exposure, with students exposed for more than one year exhibiting higher levels of aggressive behaviors after three years than students exposed for less than one year, even after controlling for initial levels of aggression.

Additionally, qualitative analysis further confirmed the findings in Table 4.7 as one of the guidance and counseling teachers told the present study;

'A group of students is often characterized by cracking of jokes, teasing, making fun of each other. I happened to counsel a student in form two and this was one student who would always be sulking. A joke or teasing from the others would make him lose his temper. He would be so furious that he would tremble; sweat and his speech would be incoherent. I then took up the issue and had to counsel him. Prodding and consoling for a whole term eventually bore fruits as he began to open up revealing some underlying family problems and socialize gradually'[G&CTr11].

Another deputy principal reflected having encountered situations where students were on their emotions and he noted;

'Two form three boys were almost getting into a fight because of one referring to the other as uncircumcised. The one on the receiving end could not take it lying down. He was so annoyed that it would have ended in physical fight had it not been for the prefects' intervention. The prefect referred the case to the deputy Principal. I then punished the offender and the one with the hot temperament; had to counsel him on the dangers of not controlling one's anger. In addition, he had to learn ways of controlling anger. I also reminded him that ANGER is only lacking one letter 'D' to become Danger and the student was very remorseful for his mistakes.' [DTP 9]

From the excerpts of [G&CTr11] and that of [DTP 9], the present study noted that emotions are there in our schools as both the excerpts reported having come across such behaviors amongst learners. Utterances of abusive words make other students to get annoyed so much and when annoyed some may not be able to control their temper and occasionally this prompts to instances of fighting. Fighting is prohibited in many schools' rules and regulations and in some instances the consequences includes one being expelled from school hence denying one chance of completing the four year circles. Excerpts also noted that not everyone takes jokes positively and that some jokes can be very expensive because some students may take offense and so does not take some jokes kindly. In such cases the affected students may respond by fighting back or some may eventually sulk. Both fighting back or sulking has negative effects on academic performance of a students because in all this cases either time is wasted when solving disputes and psychological one gets disconnected from the education system which is the core duty of that a student has to fulfill and emerges successfully. The person concerns being punished waste a lot of time. The findings in Table 4.7 were also consistent with the findings of a study conducted in China by Yang et al. (2014), who indicated that the major effects of aggressiveness on adjustment were more obvious than those of adjustment on aggression, and that aggression was further negatively related with later leadership position and favorably associated with later peer victimization, primarily for high achieving students.

Table 4.7 in the present study showed that a respectable proportion of the students accept that some of their friends consider them as having a hothead, which indicates that they accept being accused of high tempered, as sign of being aggressive. Equally, some of them accept, though to a moderate level (mean = 2.48), that they always felt like a time bomb about to blow . These are signs of antisocial and disruptive behavior. The results of the negative study also agreed with

those of a study conducted in Ghana in 2011 by Owusu et al., who found no significant difference in self-reports of poor psychological health between pupils who were bullied physically and those who were not.

Additionally, qualitative analysis further indicated how anger can be destructive and that students who experience such violence are at a greater risk of being punished which will lead to time wasted.

'... anger can be destructive. During the recently concluded interclass competition, the football pitch was almost turned into a battle field. It was a case of one team accusing the football referee of favoritisms. There was a near brawl by the two teams but the coaches intervened. I was called upon as the deputy principal to handle the case and I had to give teams a break to air out their grievances and an amicable solution was eventually reached. Those involved had to be punished by suspension.' [DPT 1]

From the excerpt of [DPT1], the present study noted that anger can be destructive and it is also highly punishable and the that the whole thing is characterized by time wastage which would have otherwise be used to do something constructive elsewhere and in the case of student such time would better be used in bettering one academic grades. The present study findings also agreed with study carried by Wanjai, (2018) in Kenya on emotional aggression and its effect on academic achievement and found out that participants admitted to having situations of underperformance when faced with situations of emotional aggression.

Table 4.8: Student Aggression - Physical Aggression

Indicators of physical aggression	1	2	3	4	5	Mean	SD
1. I will, if necessary, use force to defend my rights.	28.6	14.6	6.5	31.8	18.5	2.97	1.53
2. I have been so irrationally angry that I have broken stuff.	24.4	14.3	10.1	35.7	15.6	3.04	1.45
3. Occasionally, I find it impossible to resist the temptation to hit someone.	19.5	24.0	9.4	30.8	16.2	3.00	1.41
4. I've threatened students know.	15.9	21.8	5.2	36.4	20.8	3.24	1.41
5. If provoked sufficiently, I might hit someone else.	23.1	25.0	10.7	29.9	11.4	2.81	1.38
6. I am unable to think of any justification for ever hitting someone.	33.1	34.7	6.5	17.2	8.4	2.33	1.32
7. I hit back if someone hits me.	28.2	27.3	9.4	22.1	13.0	2.65	1.43

8. There are some students
 who pushed me too far to 31.2 27.6 8.1 23.4 9.7 2.53 1.39
 the point where we fought.

Mean average level of physical
 aggression among the students 2.82 0.91

Key – 1 –Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

Source: Survey data (2019)

On physical aggression, the results in Table 4.7 established that in general the students in Githunguri Sub-County on average has physical mean aggression level of 2.82 (SD = 0.91), with the item ‘I have been so irrationally angry that I have broken stuff.’ being rated the highest (mean=3.04) and the item, ‘I am unable to think of any justification for ever hitting someone’ being the least rated (mean = 2.33). More than a half (51.3%) of the sampled students indicated that they have sometimes become so irrationally angry that they have broken stuff, while only 25.6% of them accepted that they were unable to think of any justification for ever hitting someone being the least rated. Table 4.7 findings implied that although there is sizeable tendency of some of the students likely to engage in physical fights, many of them on the other hand always restrain from physical fights, they would rather be destructive when they are annoyed than indulge in actual physical fight. For instance, more than a half (50.3%) of the students confirmed that they would resort to use force to defend their rights, which reflects a mean likelihood of physical aggression among the high school students of 2.97 (SD = 1.53). Findings in Table 4.7 concurred with study carried by Wang et al. (2012) in Jordan which reported that bullying existed in all schools regardless if the school was private or Government and that

bullying influenced academic achievement negatively. Similarly, 47.0% of the sampled students observed that they Occasionally find it impossible to resist the temptation to hit someone, 57.2% of the respondents accepted that they have threatened students they know and 31.1% of them alluded that there are students who pushed them so far that they come to fight.

Additionally, qualitative analysis further revealed there being acts of physical aggression in schools and that this instill fears and anxiety amongst learners as physical violence can be very detrimental to the health of learners and in some cases cause grievous harm on the body of another person and as a result one may become incapacitated in a way rendering one to depend

on others even for the basic. When such incidences happen it would affect learner's performance in academics negatively. For instance, one of the deputy principal observed;

'One student said that when he first reported in school he was bullied and slapped on the face by the prefect in the senior class until he fell down and was even denied both breakfast and meals for the whole day and was threatened of even more worse consequences if he ever dared to report that to the administration.' [DPT 5]

Another excerpt also noted;

'I have counseled a student who was badly terrified for what she claimed she was harassed by other girls and so the student felt like she would not continue learning in this school anymore. The harassment was in form of physical aggression where the girl had some injuries and had been treated by the school nurse as a first aid as the school administration was making arrangements for further treatment in an hospital with better facilities because one of the eyes appeared to have been badly injured because the student was screaming and the eye was bleeding profusely and indeed the writings were clearly on the wall that the girl was in a lot of pain.' [G&CTr]

From the excerpts of [DPT 5] and [G&CTr6], the present study findings noted that physical aggression was being practiced in our schools and that the situation is very threatening to our

learners and may even make some wishing to drop out of school due to fears and threat created to them by their peers. Such can often bring about psychological misbalance on the mind of the learners and this would affect learners' performance. The present study also noted from the experts that physical aggression may in some cases brings about very severe injuries whose effects may be hard to reverse and the consequences to the victim may results to permanent scar. Such incidences are very terrifying and may even lead to the parents or guardians to the victims wishing to withdraw their child the school where such incidences have taken place.

In the same vein, some of the students observed that they only involve in physical fights when they are highly provoked and cannot avoid it, but has to fight back. For instance, 41.3% the sampled students agreed that when given enough provocation, they would hit another person, translating to a mean physical aggression of 2.81 (SD=1.38). Equally, 35.1% others asserted that if somebody hits them, they would certainly hit back, translating to a mean of 2.65 (SD = 1.43) on the rating of physical aggression. The present study revealed that an increased desire to fight physically is many times as a result of reciprocated aggressive interactions.

The results of Table 4.8 agreed with a study conducted in Pakistan by Feroz et al. (2015), which found a significant positive correlation between witnessing domestic violence and aggression. Of all the intervening factors, community violence exposure was found to be the most significant predictor of aggression, followed by home exposure to violence. The results of the current study also concurred with those of a study conducted in Kenya by Wanjai (2018), which found that verbal, physical, emotional, and sexual abuse were all prevalent in secondary schools there and had a substantial impact on students' academic performance.

Additionally, qualitative findings further concurred with these findings as one of the Deputy Principal reflected;

'... since I reported to this school, I have handled cases of students bullying one another and in one incident a form one student was beaten, molested and his bed watered by senior students and those students were suspended for one month.' [DPT 7]

From the excerpt of [DPT7], the present study noted that bullying is live in our schools and it is even accompanied by other forms of punishment which are very inhuman. For instance, watering someone else bed is severe punishment that go beyond the limit because watering another student bed would mean that students to remain awake throughout the night and that would mean the following day the student will not be able to concentrate in class as he will be dosing in class. More to this is the fact that this form of punishment is psychological and so the student would remain disturbed which will affect his performance his academic performance negatively. On the other hand, the person committing this offence were suspended from school for one month and that meant they also lost time for studies and this will also affect their performance negatively as student teacher contact hours are wasted and such student may find it difficult to make up for the time that was lost.

Students who experience physical conflict with others may be more inclined to view physical aggression as negative and to engage in physical violence and hostility. The data in Table 4.8 are consistent with a research conducted in China by Uludag (2013), which found that 17.9% of students admitted to engaging in physical aggression toward peers once or more during the previous 12-month period. Boys reported physically aggressive peer behavior at a rate that was much greater (24.7%) than that of girls (10.7 percent). The results of this study, shown in Table 4.8, also agreed with those of Omoteso (2010), who conducted research in Nigeria and found

that 67.2 percent of pupils reported being bullied. 88.1 percent of those who responded to this had been bullied, and 33.1% had bullied others. 64.7 percent of pupils reported engaging in relationship bullying. Observing violent media (57.5%) and taking revenge for prior bullying (51.2%) were two of the factors linked to bullying.

Table 4.9: Verbal Aggression

Indicators of verbal aggression	1	2	3	4	5	Mean	SD
1. I am honest with my friends when I disagree with them.	13.3	11.0	8.1	44.5	23.1	3.53	1.32
2. When people disagree with me, I can't help but argue with them.	8.1	11.4	8.8	44.5	27.3	3.71	1.21
3. I might express my opinions to folks that irritate me.	10.4	14.9	10.4	45.1	19.2	3.48	1.25
4. I frequently find myself in disagreement with others.	23.7	24.7	10.7	29.5	11.4	2.80	1.38
Mean average level of verbal aggression among the students						3.38	0.93

Key – 1 –Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

Source: Survey data (2019)

Table 4.9 in the present study noted that verbal aggression was most highly exhibited type of aggression among the high school students. Using the rating scale of 1 to 5, the results of the

survey established verbal aggression among high school students in Githunguri Sub-County is at an average mean of 3.38 (SD = 0.93).

Quite a significant proportion (71.8%) of the sampled students asserted that they always cannot help getting into arguments when people disagree with them and 67.8% of them affirmed that they often tell their friends openly when they disagree with them, reflecting a verbal aggression of 3.53 (SD=1.32) and 64.3% of them said when people annoy them, they habitually tell them whatever comes in their mind, which was equated to a mean verbal aggression of .48. Equally, 40.9% of the sampled students were in agreement that they often find themselves disagreeing with other people/students, as reflected by a mean rating of 2.80 of verbal aggression. The results of the current study, which are presented in Table 4.9, are consistent with those of Abasiubong et al. (2011), who found that verbal aggressiveness was positively connected with female students and that aggressive behaviors were prevalent among students in educational institutions. The results in Table 4.9 also supported a study by Pitso et al. (2014) conducted in South Africa, which found that victims of aggressive crimes may stop attending school for fear of being victimized by other pupils and imprisoned by their perpetrators.

Additionally, qualitative result from the interview with the deputy principal showed that indeed there was verbal aggression in the schools. One of the deputy principal told the present study;

‘As the deputy principal, I recently handled a case of two students who were accused by the rest of the class for disturbing the peace and order in the classroom. Apparently, the two would always trade bitter words, insults and engage in the name calling. After much interrogation found out that the two came from rival families that lived in the same village. I had to punish them by suspension and they stayed of school for a week.’ [DPT2]

Another Deputy Principal observed;

*‘My school is a boy school and I am the deputy principal a young lady teacher on teaching practice came to me complaining of some wayward behavior from a class. She claimed that whenever she passed by that class, she would hear some catcalling and upon checking, she would see some heads peeing and the heads would immediately disappear when they saw her. I had to punish the class by making them apologize to the lady both verbally and in writing. The ones spearheading this I had to suspend them for a week as well.’
[DPT 11]*

From the excerpts of [DPT 4] and that of [DPT11], the present study noted that name calling resulted into disturbing peace and order in classroom. Such disturbances brought about unlawful lessons in class and would disturb other students because disturbances by students were punishable. Disturbances was also a sign of highly indiscipline among learners and students who are lacking in discipline ends up performing poorly in exams as most of the time is wasted in doing punishment and in some cases even students are suspended from school. All this brings about reduced student-teacher contacts hours which was very important for one to successfully complete cycle of Education and even performs well.

Table 4.10: Aggression - Hostility

Indicators of hostility	1	2	3	4	5	Mean	SD
1. I always try to figure out why people are so kind to me.	13.3	11.0	8.4	44.2	23.1	3.53	1.32
2. I question why I sometimes take things so personally.	33.4	34.7	6.2	17.2	8.4	2.32	1.32
3. I'm wary of strangers who are extremely pleasant.	28.2	27.6	9.4	22.1	12.7	2.64	1.43
4. My jealousy sometimes consumes me.	30.8	27.6	8.4	23.4	9.7	2.54	1.39
5. Sometimes I think I've been treated unfairly by time.	32.5	27.6	7.8	24.7	7.5	2.47	1.36
6. On occasion, I think others are making fun of me behind my back.	18.8	28.6	8.4	29.5	14.6	2.93	1.39
7. It seems like other people always get the brake.	33.4	34.7	6.2	17.2	8.4	2.32	1.32
Mean average level of hostility among the students						2.68	0.92

Key – 1 –Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

Source: Survey data (2019)

Present study findings noted on table 4.10 that there was fairly low rating of hostility aggression among the high school students in Githunguri Sub-County. Hostility aggression was reflected by a mean rating of 2.68, in the scale of 1 to 5, with most of the indicators of hostility rated barely above a midpoint of 2.50. Hostile aggression manifests itself in varied ways of bitterness and jealousy. For instance, at a mean rating of 2.54 (SD=1.39) interpreted to 33.1% of the students who alluded that they are sometimes eaten up with jealousy, however, 25.6% of them often wondered why sometimes they take things so personal without an evident cause. The present study findings in Table 4.10 concurred with study carried by Fares et.al (2011) in Uruguay who reported that adolescents justified both physical and verbal aggression more easily than students in a wide range of situations. The findings of the current study, which are presented in Table 4.10, differed with those of a Chinese study by Chen et al. (2010) that asserted violence was unrelated to the growth of social skills or academic achievement.

Additionally, qualitative analysis further confirmed the present study findings as one of the Deputy Principal reflected;

‘A mathematics teacher walked into a form two class for a remedial lesson outside the normal class hours. This was met with resistance from the class albeit a good initiative from the teacher. Perhaps it was a reaction due to the class fatigue from the days’ lessons or just sheer malice. The students became rowdy and adamantly refused to settle down for the lesson. As the deputy principal, I was called in to arrest the situation. I took up the matter by punishing the whole class. They had to stay out of the class the next day the whole day doing a thorough cleaning of the school.’ [DPT 12]

Another deputy principal also noted;

‘... there was a theft incidence in my school that necessitated an impromptu search of the students. Being in charge of discipline, I was tasked with the mandate to assemble the students for the exercise. It was lunch time and so I stepped into the dining hall and ordered that the serving of lunch should not commence. This was met by booing,

jeering, shouting and banging of tables by the students. This situation led to the punishment of those who were at the forefront. They had to clean the dining hall for the whole afternoon without attending class.'
[DPT 6]

From the excerpts of [DPT 12] and [DPT 6], the present study noted that there seemed to be some forms of rudeness and unlawfulness in our school set up amongst students. Students seem to be offering a lot of resistance even from programmes that may be of benefit to them in the long run because to them they feel that their time is being wasted. Such resistance by the students was highly punishable and as a result student would waste time doing punishment yet such time wasted would have been used constructively in doing studies which would otherwise improve on student performance.

However, the present study in Table 4.10 showed that 34.8% of the students who were surveyed are always suspicious of extremely pleasant strangers and 67.3% others insinuated that when people are especially nice to them, they often wonder what they want. These assertions reflect hostile aggression among the students of 2.64 (SD = 1.43) and 3.53 (SD = 1.32), respectively. Equally, it came out from the results of the survey that some of the students suffer some degree of mistrust which emancipates itself in aggression hostility. For instance, 32.2% of the sampled students agreed that at times they felt they had gotten a raw deal out of certain things, which is equivalent to a mean aggression hostility of 2.47. Similarly, 44.1% others agreed that sometimes they feel that other people are laughing at them behind their back. The present study findings in Table 4.10 concurred with study carried by Mwereke, (2015) in Tanzania who investigated bullying behaviours and academic performance and found that bullying affected academic performance of pupils with disabilities and that everyone needed to play a role in developing a

conducive atmosphere for pupils with disabilities to avoid jeopardizing their academic performances.

Additionally, qualitative findings further confirmed that aggression affected academic achievement negatively as one of the Deputy Principal observed that occasionally students failed to use dialogue to resolve their issues and instead opted for going on rampage disturbing school programmes. He observed that;

*‘There was an incidence at my school where the students went on a rampage. It was evening and the students were supposed to go in for their evening preps. As the deputy principal, I was with the teachers on duty doing the usual rounds to ensure that the students settled down for their studies .All of a sudden, a number of students emerged from the form four block and continued surging forwarding our direction .They were holding placards and chanting slogans against the school administration .At first they would hear no reason but after much coaxing they agreed to air out their issues in a round table rather than shouting themselves hoarse . But the damage had already been done because the whole time meant for preps had been wasted.’
[DPT 10]*

From the excerpt of [DPT10], the present study noted that much time is wasted when students go on rampage and becomes unruly disturbing the normal school programmes as much time will be wasted trying to heed into learners’ grievances which would otherwise be solved amicably through dialogue and this would still yield to a solution other than becoming unruly.

4.5.2: Statistical Relationship between Aggression and Academic Achievement among Public Secondary School Students

The null hypothesis was examined to see if there was any statistically significant association between aggression and academic achievement among secondary school pupils. The following was done to test the theory:

H₀2: There is no statistically significant link between pupils' academic performance and violence in secondary schools in Kenya's Githunguri Sub-County.

In order to evaluate the hypothesis, the bivariate Pearson Correlation was used, with the dependent variable being academic accomplishment and the independent variable being aggressiveness scores. High scale ratings indicated high perceived levels of overall aggression, and vice versa. The independent variable was calculated as the average of the four components of aggression. The students' academic performance served as the dependent variable, and it was determined by averaging the outcomes of their three exams. The p-value was set at .05, and the null hypothesis would be rejected if it was less than 0.05, leading to the conclusion that a significant difference does indeed exist. An investigation of the link between secondary school pupils' aggressive behavior and academic performance is displayed in Table 4.11.

Table 4. 11: Correlation between Aggression and Academic Achievement among Students in Secondary Schools

		Students' Level of Aggression	Student Academic Achievements
Students' Level of Aggression	Pearson Correlation	1	-.568**
	Sig. (2-tailed)		.000
	N	308	308
Student Academic Achievements	Pearson Correlation	-.568**	1
	Sig. (2-tailed)	.000	
	N	308	308

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

According to Table 4.11 correlation analysis, there is a somewhat negative link between aggression and academic achievement among secondary school students (n=308, r = -.568; p.05). This denotes the rejection of the null hypothesis, which stated: "There is no statistically significant link between violence and academic achievement among students in secondary schools in Githunguri Sub-County, Kenya." These results led the current study to draw the conclusion that the two factors had a statistically significant negative association. Overall, among secondary school students, there was a moderately unfavorable connection between aggression and academic performance. The results of the current study agreed with those of a study conducted in South Africa by Botha et al. (2014), which found that aggression had a negative effect on first-year male university students' personal wellbeing as well as their academic

performance. Aggression also had a negative impact on the students' emotional, psychological, and physical health. The present study findings were further supported by Khanekheishi, (2011) study in Iran who reported that academic stress, aggression and depression explained 68% of variance of academic performance.

The present study further concurred with study carried by Wanjai, (2018) in Githunguri Sub-County, Kenya and reported that aspects of aggression affected academic achievement negatively. The results of the current study, however, ran counter to a study by Walumoli (2016), who carried out research in Kenya and found that there was no connection between aggressive behavior and academic achievement. Students that are aggressive, however, are less likely to participate in class and finish their assignments. Despite having poor attendance, they rarely dropped out of school.

Additionally, qualitative findings further supported the present study as one of the respondents noted;

'...there is no form of aggression that is good for the general welfare of Students. Whether Physical, Violence, Hostility or even Emotions /Anger. All forms aggression does more harm to students which one may least expect. Students with aggression behaviours may easily hurt one another and as a result they are easily suspended from school which waste their study time and end result is that such students post dismal performance in examinations. On the other hand, the student who is on the receiving end of aggression may suffer actually bodily harm in some instances of bad bullying and violence or even psychological stress' [DPT 11]

Another expert also noted;

'...I have witnessed situations where students exchange in class causing disrespect among themselves and in some instances such exchange has resulted in physical fight in as the way of fighting back. Such students are suspended between 1-2 weeks eating into their study time because even after they allowed to resume school, that is followed by another punishment in form of manual work which again

lasts for about 3 days further eating into the learner s study time. Further the student being punished is mocked by others who see such student as social misfit and such scenarios makes the learner to feel out of place and may end up developing withdrawal symptoms which may be detrimental to both life of a learner academically and psychologically' [G&CTr 8].

From the excerpts of [DPT11] and [G&CTr 8], the present study observed that all forms of aggression when practiced in schools may have very detrimental effects on the side of the learner some of which may cause actually bodily harm leading to death or the child becoming permanently disabled as a result of excessive aggressive aggression. Such scenarios come with time wastages for both the offender and the victim because the former will be punished while the later will be nursing injuries and so in both cases study time is lost which finally translate to poor performance. Further from these experts it can be deduced that aggression brings about unnecessary worries and anxiety which may affect the learner psychological well-being which in turn influence academic performance negatively.

In another instance one of the respondents observed that aggression may result into embarrassment and can taint the image of a place, object or even a person. Such embarrassment may result into withdrawal symptoms which may negatively impact on academic performance.

'... i was one time in school and a parent of one of the student came and requested audience with the child.... what followed thereafter was that the parent started beating up the girl child mercilessly while uttering very bitter and big words over allegedly domestic chaos back in their home...the child dad had just separated with mother and the two were living apart. The incidence left the girl embarrassed because the father stripped her almost half naked...was it not for the teacher on duty who rushed to safe the situation, it would otherwise have been very tragic and the school would have perhaps found itself making headlines for all the long reasons perhaps in both local and international dailies. [DPT 13]

The results of the current study were consistent with those reached by Smokowski, et al. (2019) in North Carolina, who came to the conclusion that cumulative aggressiveness was adversely related to academic achievement. The current study's findings, however, were in direct opposition to those of a Chinese study conducted by Chen et al. (2010), which found that aggression was not a factor in the development of social skills or academic accomplishment.

The scatter plot in Figure 4.4 of the current study adds more illustration.

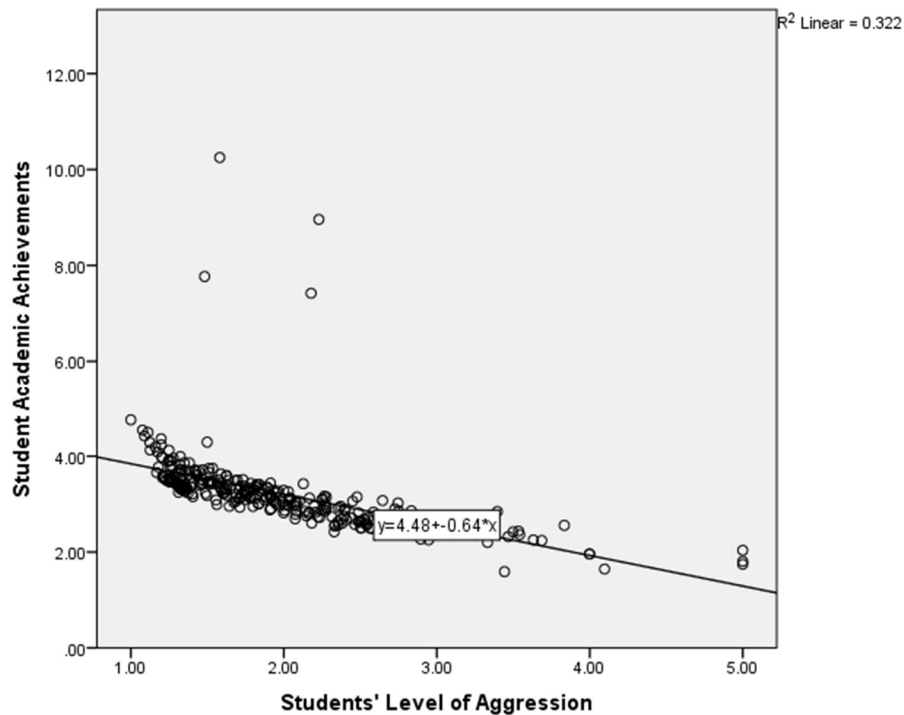


Figure 4.4: Scatter plot graph: Aggression and Academic Achievement.

The scatter points in Figure 4.4 demonstrated an inverse association between the two variables. The arrangement of the dots gives the impression that the slope is moving as expected from lower right to upper left. Additionally, the line of best fit slopes from lower right to higher left, suggesting that the two variables do not have positive associations.

Additionally, a coefficient of determination was calculated using regression analysis to determine the degree to which aggression influences academic achievement among secondary school students, and the results are displayed in Table 4.12.

Table 4.12: Regression Results- Influence of Aggression and Academic Achievement among Students in Secondary Schools

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.568 ^a	.322	.320	.66943

a. Predictors: (Constant), Students' Level of Aggression

b. Dependent Variable: Student Academic Achievements

Table 4.12 showed that level of aggression accounted for 32.2% ($R^2=.322$) of the variation in Student Academic Achievements among public secondary school students. This is a plausible influence on a dependent variable by one predictor. The present study therefore revealed the importance of reducing students' aggression levels in order to improve academic achievement.

In addition, to investigate whether aggression was a significant predictor of Academic Achievements among public secondary school students, Analysis of Variance (ANOVA) was calculated in line with the recommendation by Tabachnick and Fidell (2012). Application of Analysis of Variance (ANOVA) was essential because it provided information about levels of variability within a regression model and form a basis for tests of significance. It applies the basic regression line concept, $SST = SSM + SSE$, where SS is notation for sum of squares and T, M, and E are notation for total, model, and error, respectively. The square of the sample correlation is equal to the ratio of the model sum of squares to the total sum of squares: $R^2 = SSM/SST$, which ratifies the interpretation of R^2 as explaining the proportion of variability in

the data explained by the regression model. The "F" column provides a statistic for testing the hypothesis that $\beta_2 = 0$ against the null hypothesis that $\beta_2 \neq 0$. The test statistic is the ratio MSM/MSE , the mean square model term divided by the mean square error term. When the MSM term is large relative to the MSE term, then the ratio is large and there is evidence against the null hypothesis. Table 4.13 shows the ANOVA output on influence of Aggression and Student Academic Achievements in Public Secondary School Students.

Table 4.13: ANOVA –Influence of Aggression and Student Academic Achievements among Public Secondary School Students

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	65.176	1	65.176	145.437	.000 ^b
Residual	137.129	306	.448		
Total	202.305	307			

a. Dependent Variable: Student Academic Achievements

b. Predictors: (Constant), Students' Level of Aggression

In Table 4.13, the F statistic is equal to $65.176/.448 = 145.437$. The distribution is $F(1, 306)$ and the probability of observing a value greater than or equal to 145.437 is less than 0.001, signifying that there is a strong evidence that β_2 is not equal to zero. Therefore, the ANOVA output results reveals that students' level of aggression significantly predicts academic achievement among students in secondary schools, $F(1, 306) = 145.437, p = .001$. The R^2 term is equal to .320, demonstrating that 32% of the variability in the Student Academic Achievements in public secondary schools is explained by the students' level of aggression. The study therefore concluded that aggression significantly predicts academic achievement among students in

secondary schools. This implies that knowledge of students' aggression could be used to significantly predict academic achievement among students in secondary schools.

4.6 Relationship between Social Withdrawal and Academic Achievement of Students in Secondary Schools

The third objective of this study was to ascertain the connection between secondary school students' academic success and social retreat. Descriptive statistics were used in the current study to examine the students' level of social disengagement, and inferential statistics were used to evaluate the hypothesis.

4.6.1: Social Withdrawal among Public Secondary School Students

A questionnaire comprising items that were indicative of social withdrawal was given to the sampled high school students in order to assess the degree of social withdrawal. The survey items were rated on a Likert scale of 1 (strongly disagree) to 5 using a 5-point system (strongly agree). The ratings of the students were offered in the current study and are listed in Table 4.14.

Table 4.14: Social Withdrawal

Indicators of social withdrawal	1	2	3	4	5	Mean	SD
I like to do things by myself	13.6	11.0	8.1	44.2	23.1	3.52	1.32
I'd rather do things with myself than others	8.1	11.4	8.8	44.5	27.3	3.71	1.21
I like to be alone in the classroom	10.7	14.9	10.4	45.1	18.8	3.46	1.25
I like to eat alone during lunch	9.7	12.7	10.4	43.5	23.7	3.59	1.25
I'd rather eat by myself in the classroom than with others	19.2	28.6	8.4	29.2	14.6	2.92	1.39
I'm concerned that other students don't like me.	19.8	22.1	12.3	31.2	14.6	2.99	1.38
I feel that others are making fun of me	34.4	26.9	3.6	25.0	10.1	2.49	1.43
I believe that other students are gossiping behind my back about me.	20.5	23.1	8.1	37.0	11.4	2.96	1.37
I am concerned that other students won't like me if I argue with them.	7.8	25.0	8.4	42.2	16.6	3.35	1.24
I worry about other students calling me names	8.4	15.9	7.8	36.0	31.8	3.67	1.30
I'm concerned about students shoving me around.	4.9	13.6	6.5	41.9	33.1	3.85	1.17
I find it difficult to ask people to do things with me.	8.8	18.2	5.5	41.9	25.6	3.57	1.29
I experience shyness even around students I know very well.	12.7	26.3	11.0	34.4	15.6	3.14	1.31
I'm hesitant to ask other students to do things with me out of concern that they might decline.	4.5	18.8	4.5	40.9	31.2	3.75	1.21
I prefer to do things by myself	6.2	14.9	6.8	44.5	27.6	3.73	1.20
I'd rather do things with myself than others	7.8	10.4	4.5	44.2	33.1	3.84	1.21
I like being with students in the classroom	7.5	15.6	7.1	40.9	28.9	3.68	1.25
I'd rather eat by myself in the lunchroom than with others	6.2	10.7	6.2	46.4	30.5	3.84	1.15

Am quiet when am with a group of students	6.8	12.3	6.5	43.5	30.8	3.79	1.20
I frequently make an effort to avoid the other students. students	5.2	17.2	14.0	39.6	24.0	3.60	1.18
I frequently hope that the other students won't acknowledge me.	4.9	13.6	6.5	41.9	33.1	3.85	1.17
Mean average rating of social withdrawal among the students						3.51	0.54

Key – 1 –Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

Source: Survey data (2019)

The findings in Table 4.14 revealed that a sizeable proportion of high school students in Githunguri Sub-County have more than average level of social withdrawal tendencies. In the present study average level of social withdrawal was mirrored by an average mean rating of 3.51 (SD=0.54) in the scale of 1 to 5, with many of the items rated above 3.50. Some of the students showed consistent display of solitary behavior across situations and over time and do not cooperate with others; it was denoted by; shyness, anxiety, fear and loneliness.

The present study findings in Table 4.14 showed 63.9% of the students who agreed that they like to be alone in the classroom, reflecting social withdrawal mean rating of 3.46. The results of this study, shown in Table 4.14, were in agreement with research done by Yang et al. (2016) in China, who found that lower initial academic achievement decline rates within the high or moderate-declining trajectory were associated with initial higher levels of social competence, and that initial lower levels of shyness and fewer externalizing behaviors predicted higher growth rates within the high-increasing trajectory. Additionally, students with low initial levels of shyness and high initial levels of social-behavioral issues in the low-stable trajectory continued to perform poorly academically over time. The results of this study, which are shown in Table 4.14, are consistent with a study conducted in Turkey in 2010 by Gokan, which found that female students experienced more loneliness than male students. Gokan, (2016) also discovered a

relationship between students' degrees of shyness and loneliness, finding that shyness predicted loneliness by 2%.

Additionally, qualitative findings confirmed the present study findings as one of the respondents noted;

'...some students keep to themselves and they hardly share or interact with anyone. At Some incident I counseled a student who had continually posted dismal performance and so this student felt she was not worthy continuing with her studies anymore and the thoughts of sharing what she was going through with her peers was not forthcoming as she felt such would bring her more shame and humiliations. It was through my own initiative as guidance and counseling teacher that I noted that all was not well with her and I booked her for counseling and luckily enough she opened up, we talked at length and through subsequent follow up the girl was able to sober up, bettered her results and finally felt fit to continue with her studies.' [G&CTr 4])

From the excerpt of [G&CTr 4]), the present study noted that socially withdrawn students suffered from both rejection and humiliation. As a result, they lack focus and experience disconnects and so they would rather drop out of school than continue bearing the shame of rejection and feeling of inadequacies which impacts negatively in their studies.

Another excerpt told the present study;

'...there are students who complain of home sick and as a result they are ever seeking permission to go home in the name of feeling unwell and so they hardly want to remain in school and in the event you do not grant them the permission to go home, they keep to themselves and they do not want to mix with anyone or talk to anyone.' [DPT13]

From the excerpt of [DPT 13], the present study noted that socially withdrawn student lacks self-confidence and motivation. Self-confidence gives a new perspective, a new image and better positioning in academic work. There is almost a guarantee that self-confidence will positively change academic performance for the better as the denominator of excellence as it reinforces one's beliefs in the possibility of achieving goals. The current study's findings are consistent with

those of a study conducted at a Palestinian university by Nazzal et al. (2019), which discovered a significant gender bias in terms of loneliness, with male students reporting feeling more alone than female students, who also reported feeling less satisfied with their lives and less support from friends, family, and significant others. Additionally, Nazzal et al. (2019) found that students who reported feeling lonely a lot were also thought to have more mental health problems, have a lower quality of life, and receive less social support from friends and significant others.

Additionally, a substantial majority of the students in the chosen group (71.8%) acknowledged that they prefer to be by themselves, indicating a somewhat high rating of social disengagement of 3.52 (SD = 1.32) among them. The same number of students, 67.2 percent, admitted that they prefer to have lunch alone and that it is challenging for them to invite people to join them for activities like dining. The current study's social withdrawal score was 3.59, which is a somewhat high level. Similar to the previous study's findings, the present study's findings showed that some students' social disengagement was mostly a result of their basic fear of social situations because they feared being taunted or rejected. Table 4.14 of the current study's results shows that 31.6% of the students who concurred that they consistently believe that other people dislike them do so because of fear of being ridiculed. The majority of students (58.8%) claimed that they would rather avoid conflict out of fear that it would make other people dislike them, as indicated by their mean rating of 3.35, which indicates that they are socially disconnected.

Additionally, 67.8% of students agreed (mean=3.67) that they fear being called names, and 33.1% of students indicated they severely worried about being bullied by other students. A further 72.1% of the students in the sample agreed (mean=3.75) that they are reluctant to offer other classmates to join them in activities out of anxiety that they might decline. A little over two thirds of students (67.5%) agreed that they find it challenging to ask others to do things with

them, and 35.1% of them said they are concerned about being teased if they ask for help. Table 4.14's findings corroborated those of Paul's (2013) study, which discovered a number of statistically significant relationships between self-reported shyness, socioemotional functioning, and academic achievement indices. The newly developed self-report measure of shyness had good psychometric properties, with self-reported shyness being substantially linked with all academic criteria. Additionally, the results of the current study showed that academic achievement significantly influenced the association between shyness and peer rejection, increasing at lower levels and decreasing at higher levels.

The results of the current study concurred with those of an Iranian study by Zarei et al. (2013) that discovered a high relationship between social acceptance and academic success. The recent study indicates that many students in most schools experience a sense of isolation. The isolation can be linked to both rejection and neglect depending on the situation at hand. The ability of a child to form friendship has endless benefits on his or her achievement at school. Isolates find it difficult benefiting from studies that require group work. The isolate learners are never comfortable whenever asked to work with others.

Additionally, qualitative analysis done further revealed that socially withdrawn students lack in cooperation and as a result they will not even participate in co-curriculum activities because to them such activities will provides platform for them to be noticed by others. For instance, one of the excerpts told the present study;

'...socially withdrawn student fails to get involved in co-curriculum activities. Co-curricular activities such as handball, volleyball athletics, choir and drama help to keep a balance between class work and outdoor activities. They make a student have a healthy co-existence with the society and also act as catalysts to students. As the

saying go work with no play makes Jack a dull l boy Thus lack of them leads to poor performance in academic. '[G&CTr3]

Another excerpt also noted;

'A socially withdrawn student fails to discover and develop talents. Talents are only discovered when a student freely interacts with others. It actually demands effort and action in order to develop talents. Every student has a responsibility to be in charge of their talents, which can only be realized through fruitful interaction.' [DPT 5]

From the excerpt of [G&CTr3] and [DPT 5], the present study noted that socially withdrawn child would not wish to be interactive with others and as such they do not benefit from what comes out as a result of interactions with others. Talents are realized through interactions with others and in this case including interactions with teachers who are charged with responsibilities of helping students to realize their potentials fully. The end result is that such student's end up not realizing their potentials which if otherwise discovered and utilize would lift their lives high by a very big margin. The results of the current study also agreed with those of a study conducted by Sahinkiralp et al. (2018), which revealed that students who regard their socioeconomic situation as low and those who do not seek psychiatric assistance have higher degrees of loneliness. According to the study, there was a low negative correlation between students' levels of loneliness and dismissing attachment style, a low positive correlation between levels of loneliness and preoccupied attachment style, and a low negative correlation between levels of loneliness and secure attachment. Male students who received psychological assistance also scored higher on secure attachment.

Equally, the results in Table 4.14 revealed that some of the withdrawn students feel shy even when they are with students they know very well, as reflected by a mean of 3.14 with 45.4% of the students agreeing to that point of view. In fact, 30.8% of the students strongly agreed that

they would rather remain quiet (mean = 3.79) when they are in a group of students and 24.0% strongly accepted that they often (mean =3.60) try to get away from all the other students.

Indeed, the present study showed that 33.1% of the students who took part in the survey often hope that the other students do not notice them totally. The results of the current study, shown in Table 4.14, were in agreement with those of an Ethiopian study conducted by Abdeta et al. (2017), which found that students in the study had a variety of social withdrawal symptoms, with the most common ones being weariness, cravings, and depressive symptoms. The results of the current study were in agreement with those of Lim's (2018) study, which found that social and academic isolation had a stronger negative impact on students' university learning experiences than psychological isolation and that students' extensive negative relationships with learning at universities.

Additionally, qualitative findings further supported this as one of the excerpts had this to say;

'...socially withdrawn students are very shy and never takes leadership position and in the event you force them to do so, they will never care to do what their jobs pertain and soon or later you will be forced to replace them with another person. To them leadership is a hard task and they would rather take a back seat in everything. For instance, they can never bring you the list of offenders even when it is apparently that things are going messy. This is mainly due to the fact that they are shy and cannot be authoritative in discharging their duties. [DPT 4]

From the excerpt of [DPT 4], the present study noted that socially withdrawn students fail to develop leadership skills at different levels of their study. Being a leader contributes a lot to the development of students' life. Leadership positions help in improving performance because it provides unique platforms to share ideas hold debates and create a mind- challenging environment as well as providing an alternative to prolonged studies.

The results of this study agreed with those of Bek's (2017) research at Usak University, which found that students' academic performance was significantly impacted by their loneliness and lack of future aspirations in complex ways. Students who have aspirations for the future are more likely to participate and succeed in school, whereas those who feel lonely and isolated are more likely to pass their time idly and thus do not flourish in academic environments. The results of the current study were consistent with a study conducted in China by Coplan et al. (2016), which found that socially avoidant (shy, unsociable) students reported the most pervasive internalizing difficulties in comparison to other groups and that unsociable students were likely to experience the same peer and academic difficulties as their shy and socially avoidant peers.

4.6.2 Statistical Relationship between Social Withdrawal and Academic Achievement among Public Secondary School Students

The null hypothesis was examined to see if there was any statistically significant association between social disengagement and academic achievement among secondary school pupils. The following was the hypothesis;

H₀₃: There is no statistically significant relationship between social withdrawal and academic achievement of students in secondary schools in Githunguri Sub-County, Kenya.

With academic accomplishment as the dependent variable and scores of social withdrawal as the independent variable, the bivariate Pearson Correlation was used to test the hypothesis. High scale ratings indicated high perceived levels of social disengagement, and vice versa, and this information was computed from the student responses to create the independent variable. The three exam results that were given to the students each term were averaged to determine the dependent variable, which was the students' academic achievement. The p-value was set at 0.05, and the null hypothesis would be rejected if it was less than 0.05, leading to the conclusion that

a significant difference does indeed exist. Table 4.15 displayed the results of a correlation analysis between secondary school students' social retreat and academic success.

Table 4.15: Correlation between Social Withdrawal and Academic Achievement among Students in Secondary Schools

		Social Withdrawal	Student Academic Achievements
Social Withdrawal	Pearson Correlation	1	-.345**
	Sig. (2-tailed)		.000
	N	308	308
Student Academic Achievements	Pearson Correlation	-.345**	1
	Sig. (2-tailed)	.000	
	N	308	308

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

The study in Table 4.15 showed a negative link between social disengagement and academic success among secondary school students (n=308, $r = -.345$; $p.05$). The results of the current study refuted the null hypothesis that there is no statistically significant link between social disengagement and academic achievement among secondary school students in Githunguri Sub-County, Kenya. In light of this, the current study came to the conclusion that the two factors did indeed have a statistically significant negative connection. Overall, among secondary school students, there was a moderately negative connection between social withdrawal and academic accomplishment. The present findings in Table 4.15 concurred with study carried by Paul, (2013) in China who reported that shyness which is an aspect of socially withdrawn child influenced students' academic achievement negatively. The present study also concurred with studies carried by Kipkemboi, (2013) in Kenya who reported that students experience loneliness which

if not addressed may lead to depression which in turn will affect academic performance negatively.

Additionally, qualitative analysis further supported the present findings in that some of the person interviewed admitted that socially withdrawn students keep to themselves and their mind is preoccupied with negative thoughts as well as having very negative attitude towards school which ruin their academic performance in the long run. For instance, one of the respondents told the present study;

'...socially withdrawn students have very negative opinion about school and in most cases they even contemplate dropping out of school and in severe cases even suicidal thoughts overwhelm them and as a result they post very dismal performance because to them academic does not count but they are rather just passing time as being in school is their parents or guardian initiative and not from them.'
[G&CTr 11]

Another excerpt also noted;

'...what is the point of having a child who is completely withdrawn from the system? Indeed, the die was long cast and keeping the child in school was just a situation that compared with the last straw that broke camel's back.' [DPT4]

From the excerpt of [DPT 4], a socially withdrawn student has already determined his case in school and that was only waiting to go through secondary education system and post very dismal results because in any case the results is not part of such student focus. The present study also resonated with studies carried by Chishti et al. (2018) in Pakistan and Kipkemboi, (2013) in Kenya who reported that loneliness, shyness and depression which are aspects of socially withdrawn person affected academic performance negatively. Negative correlations were found between social isolation and all the other variables. Decrease in social withdrawal increased academic achievement among students in secondary schools.

This was further illustrated with a scatter plot, as shown in Figure 4.5

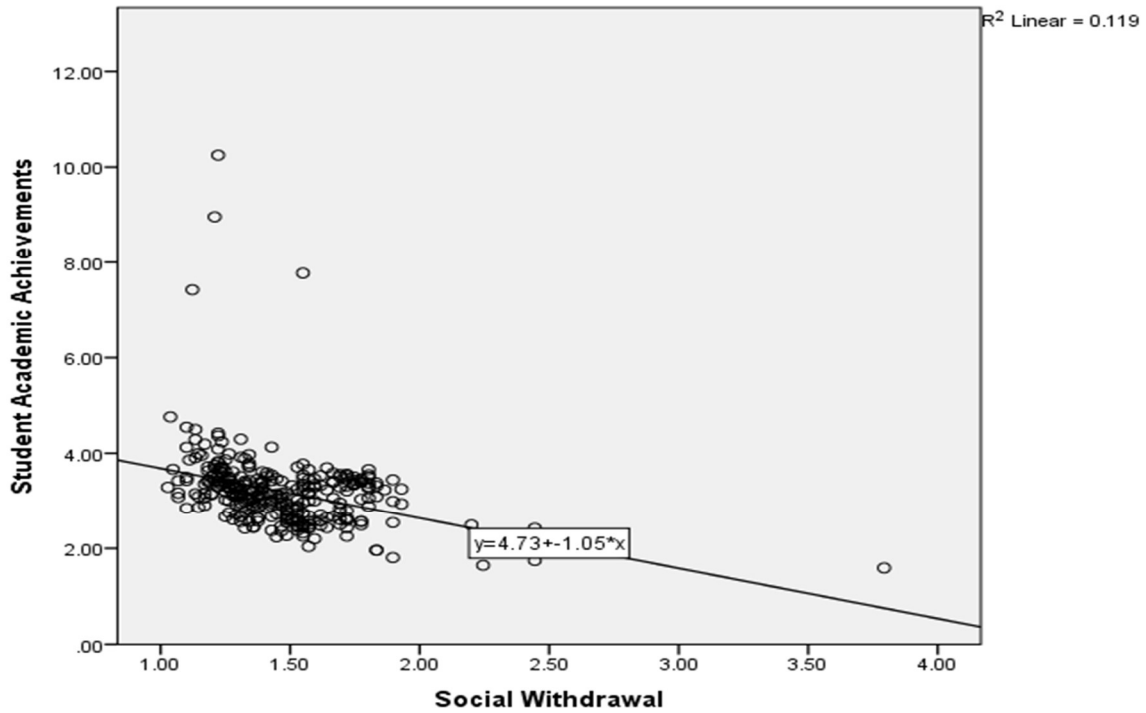


Figure 4.5: Scatter plot graph: Social Withdrawal and Academic Achievement.

The present study findings on figure 4.5, the scatter points indicated an inverse relationship between the two variables. The pattern of the dots evidently gives an impression of the slope moving from lower right to upper left, as expected. Additionally, the line of best fit slopes from lower right to upper left an indication of negative relationships between the two variables.

Further, to estimate the level of influence of social withdrawal on academic achievement among students in secondary schools, a coefficient of determination was computed using of regression analysis and the result was as shown in Table 4.16

Table 4.16: Regression Results- Influence of Social Withdrawal and Academic Achievement among Students in Secondary Schools

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.345 ^a	.119	.116	.76325

a. Predictors: (Constant), Social Withdrawal

b. Dependent Variable: Student Academic Achievements

Table 4.16 in the present study showed that the level of social withdrawal explained about 12% (R²=.119) of the variation in Student Academic Achievements among public secondary school students. These are a plausible influence on a dependent variable by one predictor. The present study therefore revealed the importance of reducing social withdrawal levels in order to improve academic achievement among the high school students.

Further, to scrutinize whether social withdrawal was a significant predictor of Academic Achievements among public secondary school students, Analysis of Variance (ANOVA) was considered in line with the commendation by Tabachnick and Fidell (2012). Application of Analysis of Variance (ANOVA) was important because it provided information about levels of variability within a regression model and formed a basis for tests of significance. It uses the basic regression line concept, $SST = SSM + SSE$, where SS is notation for sum of squares and T, M, and E are notation for total, model, and error, in that order. $R\text{ Square} = SSM/SST$, which confirms the interpretation of R^2 as explaining the proportion of variability in the data explained by the regression model. The "F" column provides a statistic for testing the hypothesis that $\beta_3 = 0$ against the null hypothesis that $\beta_3 \neq 0$. The test statistic is the ratio MSM/MSE , the mean square model term divided by the mean square error term. When the MSM term is large relative to the MSE term, then the ratio is large and there is evidence against the null hypothesis. Table 4.17

shows the ANOVA output on influence of Aggression and Student Academic Achievements in Public Secondary School Students.

Table 4.17: ANOVA –Influence of Social Withdrawal and Student Academic Achievements among Public Secondary School Students

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	24.045	1	24.045	41.276	.000 ^b
Residual	178.259	306	.583		
Total	202.305	307			

a. Dependent Variable: Student Academic Achievements

b. Predictors: (Constant), Social Withdrawal

In Table 4.17, the F statistic is equal to $24.045/.583 = 41.276$. The distribution is F (1, 306) and the probability of seeing a value greater than or equal to 41.276 is less than 0.001, demonstrating that there is strong evidence that β_3 is not equal to zero. Therefore, the ANOVA output results reveals that students' level of social withdrawal significantly predicts academic achievement among students in secondary schools, $F(1, 306) = 41.276, p < .001$. The R^2 term is equal to .119, signifying that 11.9% of the variability in the Student Academic Achievements in public secondary schools is explained by the students' level of social withdrawal. The study therefore concluded that students' level of social withdrawal significantly predicts academic achievement among students in secondary schools. This suggests that knowledge of students' level of social withdrawal could be used to significantly predict academic achievement among students in secondary schools.

4.7 Relationship between Altruism and Academic Achievement of Students in Secondary Schools

The fourth objective of the study sought to determine the relationship between altruistic behavior and academic achievement among secondary schools' students. In the present study, this objective was addressed by use of descriptive statistics to explore the level of altruism among the students and inferential statistics to test the hypothesis.

4.7.1: Altruistic Behavior among Public Secondary School Students

To examine the level of altruistic among high school students, the sampled students were provided with a questionnaire whose items were indicators of altruism? The questionnaire items were in a 5 point Likert format scale rating from 1 (strongly disagree) to 5 (strongly agree). The present study presented the ratings of students as summarized in Table 4.18.

Table 4.18: Altruistic behavior

Indicators of altruistic behaviour	1	2	3	4	5	Mean	SD
1. When someone is depressed, I strive to cheer them up.	16.6	21.8	12.7	36.4	12.7	3.51	0.54
2. My friends and I hang out a lot.	17.5	26.0	12.7	32.8	11.0	3.07	1.32
3. I try to empower other people.	15.6	24.4	11.7	32.1	16.2	2.94	1.32
4. I am kind in that I enjoy volunteering my time to teach other pupils what I know, with no expectation of compensation.	4.9	17.5	14.6	36.0	26.9	3.09	1.35
5. I cry over insignificant things.	5.5	11.4	10.1	39.0	34.1	3.64	1.18
6. I show my friends items I find interesting.	6.8	16.9	8.1	36.7	31.5	3.86	1.18
7. I share the stuff I like with my friends.	4.9	16.2	10.7	41.9	26.3	3.70	1.27
8. I offer homework assistance to others.	6.2	13.0	10.1	44.8	26.0	3.69	1.17
9. I allow others to use my possessions.	14.3	22.4	14.0	32.8	16.6	3.71	1.17
10. I enjoy playing with other people.	29.9	23.4	8.1	20.5	18.2	3.15	1.33
11. I have faith in other people.	16.6	21.8	12.7	36.4	12.7	2.91	3.34
Mean average rating of altruistic						3.44	0.49

Key – 1 –Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

Source: Survey data (2019)

From the results of the survey in Table 4.18, the present study found out those high school students in Githunguri Sub-County exhibit above average level of altruistic behaviour. Using the scale of 1 to 5, the level of altruistic behaviour among the respondents was rated at 3.44 (SD = 0.49), with most of the indicators of rated above 3.00. In the present the implication was that a number of students generally do certain things for the others and for the others sake, but not for self-satisfaction or internal well-being. For instance, the findings of the study in Table 4.18 show that many of the students often display behaviour which is directed towards helping others. Behaviours which is directed towards helping others was reflected by a mean rating of 3.69 on the statement that ‘I help others with their homework’, with 70.8% of them accepting they had helped someone in homework. Further, close to one out of every two (48.2%) of the surveyed students confirmed that they always try to help others, reflecting altruistic behaviour mean rating of 2.94.

The present findings concurred with study carried by Yulianto et al. (2018) in China who reported that at early childhood learning methods have a direct influence on students prosocial attitudes and that learning method in forming students’ prosocial attitude was cooperative learning because it embodied student-centered teaching and learning activities, especially by helping the ones that have problems working with other, aggressive and the ones that do not care about others.

Additionally, qualitative findings further supported these findings in that one of the deputy principal interviewed told the present study;

‘There are a few students who feel free to share their belongings with others (for instance: they share their monies with those who are less privileged) and you will often find them volunteering to go to the board and teach their peers regardless of whether they have mastered a certain subject or not. To them they are just intrinsically motivated to share the

knowledge they have with the entire class because they believe success is for 'ALL' [DPT 4]

Another excerpt from a respondent also noted;

'There are students who are very generous with their items and they are seen sharing their shopping with students who feel like they are lacking in some items. We have always encouraged such good gestures as teachers because we feel it promotes oneness and unity.' [G\$CTr 12]

From the excerpts of [DPT 4] and that of [G\$CTr 12], the present study found that acts of altruism are being embraced in our schools and the indication by this excerpts suggested that students do empathize with others and they advocate sharing their belongings voluntarily even with those who may be lacking because to them they believe in so doing they will be able to uplift the lives of others so that they can forge forward together. Such are very important attitudes and values outcomes of schooling. They provide the framework for guiding our actions outside and inside the classroom. Such altruistic behaviours are important in helping learners acquire from the curriculum the basic attitudes and values they need to think independently inside and outside of the classroom.

The present study findings further concurred with study carried by Siu et al. (2012) in China who reported that Putting in place selfless acts for others leads to a healthy relationship and that healthy and positive relationship among students is the main influence on student's academic performance. In many cases, students who have been involved in doing well for their fellows have been subjected to better school performances. When doing well for others, one feels free and has a peace of mind which makes him or her have fresh minds for studies. Also, when one is subjected to good treatment by his or her fellow students, he or she refreshes up well and is always at peace reading and seeking for good performance.

Similarly, Table 4.18 established that behaviour of some of the students who were sampled for the survey is sometimes not accompanied by the need for external reward but are purely

voluntary. For instance, a respectable proportion (62.9%) of the surveyed students alluded that they are gentle because they like (mean=3.09) to volunteer teaching other students what they know without expecting any reward. In addition, 49.1% of them indicated that they always (mean=3.51) strive to cheer people up when they are depressed. Table 4.18 showed from the results of the survey that 49.8% of the students usually exhibit behaviour that involves a high risk or sacrifice without care, equivalent to altruistic behaviour rating of 3.71. As an indication of sacrifice, these students let others use their things without any restraint or control. Moreover, 49.1% of them alluded that they have full trust on others and 68.2% of them confirmed that they always share things they like with their friends. The findings of the present study concurred with study carried by Quain et al. (2016) in Ghana who reported that the relationships between gender and location factors as independent factors and prosocial behavior as dependent factor was highly positive amongst the students.

Additionally, qualitative analysis from interview schedules further confirmed the findings as one of the respondents told the present study;

'Some students volunteer or offer to teach others especially when they have mastered a certain concept in a given subject and this is so voluntary on the sense that such students do not expect any reward or any form of payment.' [DPT 7]

Another excerpt also noted;

'Some students volunteer to revise a given paper when it is given back by the subject teacher. In such a case a teacher may give the marking scheme and some students can volunteer to go to the board and take other students through the marking scheme without the teacher being there to supervise.' [DPT14]

From the excerpts of [DPT 7] and that of [DPT 14], the present study noted that there were learners who volunteer to teach others without expecting any reward either from the teachers or fellow students. To them they feel that by sharing knowledge that they have gain will impact

positively to others because they believe in success for all. During such forums when they are teaching others it is expected there to be a very positive interaction in terms of asking questions than would otherwise not have been if the situation was with a teacher. Learners can comfortably ask questions for clarity purposes without fear and the students spearheading this will equally feel that they have accomplished the task of helping others to attain their best without wishing or expecting any kick back in forms of rewards. The present study findings also concurred with study carried by Milinga et al. (2015) in Tanzania who reported that that peer interaction was central to the success of learning as it related to cognitive understanding. They further noted that comprehension is facilitated. The present findings also concurred with study carried by Nyaga, (2011) in Kenya who again emphasized learners, some of who might normally 'turn out' or refuse to speak out in a traditional setting, become actively involved in the learning process through group interaction implying that every altruism behaviours, when used appropriately, can enable students to move beyond the text, memorization of basic facts, and learning lower level skills which leads in cognitive restructuring hence an increase in understanding of all students in a cooperative group.

4.7.2: Statistical Relationship between Altruistic behaviour and Academic Achievement among Public Secondary School Students

To investigate whether there was any statistical significant relationship between altruistic behaviour and academic achievement among students in secondary schools, the null hypothesis was tested. The hypothesis was tested as follows;

H₀4: There is no statistically significant relationship between Altruistic behaviour and academic achievement of students in secondary schools in Githunguri Sub-County, Kenya.

The bivariate Pearson Correlation was conducted to test the hypothesis, with scores of social withdrawal as the independent variable and academic achievement among as the dependent variable. The independent variable was computed from the student responses, where high scale ratings implied high perceived level of altruistic behaviour and vice-versa. The dependent variable was the students' academic achievement, which was calculated as average mean from the three examination results administered to the students termly. A significant level (p-value) was set at .05 such that if the p-value was less than 0.05, the null hypothesis would be rejected and conclusion reached that a significant difference does exist. Table 4.19 showed a correlation analysis output between altruistic behaviour and academic achievement among students in secondary schools.

Table 4.19: Correlation between Altruistic behaviour and Academic Achievement among Students in Secondary Schools

		Altruistic Behaviours	Student Academic Achievements
Altruistic Behaviours	Pearson Correlation	1	.144*
	Sig. (2-tailed)		.012
	N	308	308
Student Academic Achievements	Pearson Correlation	.144*	1
	Sig. (2-tailed)	.012	
	N	308	308

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

In Table 4.19, correlation analysis established a positive (n=308, r = .144; p =.012) correlation between altruistic behaviour and academic achievement among students in secondary schools. This means that the null hypothesis that: 'There is no statistically significant relationship between altruistic behaviour and academic achievement among students in secondary schools in

Githunguri Sub-County, Kenya,' was rejected. The present study therefore concluded that there was statistically significant positive relationship between the two variables. As whole there was a positive correlation between altruistic behaviour and academic achievement among students in secondary schools. Increase in altruistic Behaviour increased academic achievement among students in secondary schools. The present study findings concurred with study carried by Devries et al. (2018) in Germany and reported that grades correlated more strongly to social behaviour than test scores do at younger ages, and that specifically peer problems had stronger relationship to academic performance. The present study findings also resonated with study carried by Tsehay et al. (2014) in Ethiopia which reported that emotional, dire and compliant of prosocial behaviours reported highest mean score.

Additionally, qualitative analysis from interview schedules further confirmed the present study findings as one of the respondent told the present study;

'I have witnessed a situation in form four going ahead to help his counterparts accomplish milestones by reminding them at intervals about expectations of a given teacher. He made his duty to check the work of fellow students and correct where he thoughts necessary. When the teacher in question arrives, the work is very well done. He does not go ahead to blow his own trumpet by saying he facilitated it. It is the other students who show their appreciation by informing the teacher of the role played. The teacher organizes appreciation in terms of claps and when given the chance to say something, the student says it was a joint effort' [G&CTr 6].

From the excerpt of [G&CTr 6], the present study noted that one lone ranger can help remove obstacles from counterparts who later come in and together they make a difference and develop unity which leads to academic improvement. Another respondent told the present study;

'...i have at one point come across students who notice that their counterparts in class are less to do. They lack basic needs and keep quiet about it. These students take initiative to garner support from likeminded endowed students and start up a contribution of the most basic needs available. They meanwhile keep it to themselves and give these

provisions secretly, by saying for instance that it was just one of them who volunteered to do it. The recipient does not get to feel down trodden or a burden' [DPT1].

From the excerpt of [DPT1], the present study observed that human nature in such a situation comes out as very pleasant; one is appreciative more when their problem is not shared out to spectators who know nothing about it. They are encouraged by secretiveness that helps them and such impacted positively on the academic performance of the student in question.

The findings of the present study further concurred with the study carried by Rosaline et al. (2014) in Nigeria who concluded that knowledge sharing remained a central focus in knowledge management debates. The present study findings further agreed with the study carried by Muthuri, (2018) in Kenya who reported that altruism in emerging adulthood increased positively as individuals and that gender stereotypes on altruism should be diminished as they do not influence self-report altruism among emerging adults and that aspects of prosocial behaviours resulted in improved academic performance

This was further illustrated with a scatter plot, as shown in Figure 4.6

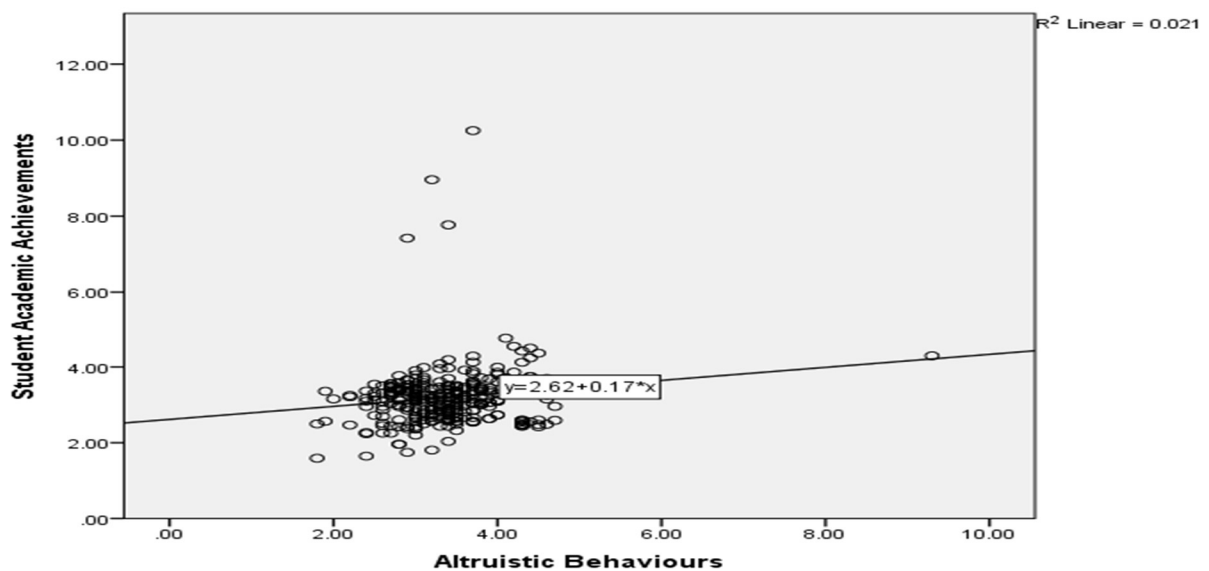


Figure 4.6: Scatter plot graph: Altruistic behaviour and Academic Achievement.

Figure 4.6 of the present study showed scatter points that indicated positive relationship between the two variables. The pattern of the dots evidently gives an impression of the slope moving from lower left to upper right. Further, the line of best fit slopes from lower left to upper right an indication of positive relationships between the two variables.

Further, to estimate the level of influence of altruistic behaviour on academic achievement among students in secondary schools, a coefficient of determination was computed using of regression analysis and the result was as shown in Table 4.20.

Table 4.20: Regression Results- Influence of Altruistic Behaviour and Academic Achievement among Students in Secondary Schools

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.144 ^a	.021	.017	.80467

a. Predictors: (Constant), Altruistic Behaviours

b. Dependent Variable: Student Academic Achievements

Table 4.20 showed that the level of Altruistic Behaviour explained only about 2% (R²=.021) of the variation in Student Academic Achievements among public secondary school students. Although, this is a small influence it reveals the importance of improving altruistic Behaviour levels in order to improve academic achievement among the high school students.

Further, to examine whether influence of altruistic behaviour was a significant predictor of Academic Achievements among public secondary school students, Analysis of Variance (ANOVA) was considered in line with the commendation by Tabachnick and Fidell (2012). Application of Analysis of Variance (ANOVA) was important because it provided information about levels of variability within a regression model and formed a basis for tests of significance.

It uses the basic regression line concept, $SST = SSM + SSE$, where SS is notation for sum of

squares and T, M, and E are notation for total, model, and error, in that order. R Square = SSM/SST, which confirms the interpretation of R^2 as explaining the proportion of variability in the data explained by the regression model. The "F" column provides a statistic for testing the hypothesis that $\beta_4 = 0$ against the null hypothesis that $\beta_4 \neq 0$. The test statistic is the ratio MSM/MSE, the mean square model term divided by the mean square error term. When the MSM term is large relative to the MSE term, then the ratio is large and there is evidence against the null hypothesis. Table 4.21 shows the ANOVA output on influence of altruistic behaviour and Student Academic Achievements in Public Secondary School Students

Table 4.21: ANOVA–Influence on Altruistic Behaviour and Student Academic Achievements among Public Secondary School Students

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	4.172	1	4.172	6.444	.012 ^b
Residual	198.132	306	.647		
Total	202.305	307			

a. Dependent Variable: Student Academic Achievements

b. Predictors: (Constant), Altruistic Behaviours

In Table 4.21, the F statistic is equal to $4.172/.647 = 6.444$. The distribution is F (1, 306) and the probability of seeing a value greater than or equal to 6.444 is less than 0.001, validating that there is a strong evidence that β_4 is not equal to zero. Thus, the ANOVA output results reveals that students' level of influence of altruistic behaviour significantly predicts academic achievement among students in secondary schools, $F(1, 306) = 6.444, p = .012$. The R^2 term is equal to .021, signifying that 2.1% of the variability in the Student Academic Achievements in public secondary schools is explained by the students' level of influence of altruistic behaviour. The study therefore concluded that students' level of influence of altruistic behaviour significantly predicts academic achievement among students in secondary schools. This suggests that

knowledge of level of influence of altruistic behaviour could be used to significantly predict academic achievement among students in secondary schools.

4.8 Multiple Regression Analysis

The current study sought to establish a linear model that could be used to describe the optimal level of academic achievement among students in secondary schools given social adjustment indices. In the present study that was done by use of standard multiple regression analysis, where all the four independent variables were factored in the model at once. A multiple-regression was suitable because it could help to investigate how well the set of the independent variables was able to predict the academic achievement among students in secondary schools, Creswell (2014). The present study also provided information about the relative contribution of each of the aspects of work related variables. Each variable was evaluated in terms of its predictive power, over and above that offered by all the other independent variables. Additionally, the multiple-regression enabled the researcher to know how much unique variance, in the dependent variable, each of the independent variables explained. Table 4.22 is a regression analysis model summary SPSS output.

Table 4.22: Regression Analysis Model summary output: Social Adjustment Indices on Academic Achievement among Students in Secondary Schools

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.621 ^a	.385	.377	.64056

a. Predictors: (Constant), Students' Level of Aggression , Peer Acceptance, Altruistic Behaviours, Social Withdrawal

b. Dependent Variable: Student Academic Achievements

In the model summary in Table 4.22, the value of $R = .621$ indicated a fairly good level of prediction of Student Academic Achievements by the social adjustment indices. However, the value of $R^2 = .385$ indicated how much of the variance in the academic achievement among students in secondary schools was explained by the social adjustment indices, implying that the model accounted for 38.5% of the variance in students' academic achievement. In the present study that was the proportion of variance in the students' academic achievement that was explained by social adjustment indices; it is the proportion of variance accounted for by the regression model and beyond the mean model.

However, to assess the statistical significance of the result it was necessary to look at the multiple regression ANOVA. In the multiple regression, the test statistic MSM/MSE has an $F(4, 303)$ distribution. The null hypothesis states that $\beta_1 = \beta_2 = \beta_3 = \beta_4 = 0$ and the alternative hypothesis simply states that at least one of the parameters, $\beta_i \neq 0, i = 1, 4$. Hence, large values of the test statistic provide evidence against the null hypothesis. The ratio $SSM/SST = R^2$ is known as the squared multiple correlation coefficient. This value is the proportion of the variation in Academic Achievement among Public Secondary School Students that is explained by the Social Adjustment Indices. The ANOVA results output is shown in Table 4.23.

Table 4.23: ANOVA-Social Adjustment Indices on Academic Achievement among Public Secondary School Students

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	77.978	4	19.495	47.511	.000 ^b
Residual	124.326	303	.410		
Total	202.305	307			

a. Dependent Variable: Student Academic Achievements

b. Predictors: (Constant), Students' Level of Aggression, Peer Acceptance, Altruistic Behaviours, Social Withdrawal

From the ANOVA test in Table 4.23, the F statistic is equal to $19.495/410 = 47.511$, with a distribution being $F(4, 303)$. The probability of seeing a value greater than or equal to 47.511 is less than 0.001, confirming that there is a strong evidence that β_i is not equal to zero. Further, the squared multiple correlation $R^2 = SSM/SST = 77.978/202.305 = .3854$, indicating that 34.5% of the variability in the Student Academic Achievements is explained by the Social Adjustment Indices. Thus, the ANOVA output results reveals that students' Social Adjustment Indices significantly predict academic achievement among students in secondary schools, $F(4, 303) = 47.511$, $p < 0.001$, $R^2 = .385$. The p-value for the F test statistic is less than 0.001, providing strong evidence against the null hypothesis. It was concluded that the model was significant and adequate enough to explain the variance in academic achievement among students in secondary schools. In other words, the results show that Social Adjustment Indices significantly predict academic achievement among students in secondary schools, meaning the regression model is a good fit of the data.

4.8.1 Evaluating Contribution of each of the Independent Variables

The present study sought to investigate the level of contribution of the Social Adjustment Indices factored in the model in the prediction of the academic achievement among students in secondary schools. The present study showed by coefficients values indicating that each independent variable contributes differently to the model, as in Table 4.24.

Table 4.24: Coefficient Output: Social Adjustment Indices on Academic Achievement among Students in Secondary Schools

Model	Unstandardized		Standardized t		Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	4.467	.495		9.030	.000
Peer Acceptance	.096	.081	.067	1.190	.235
Altruistic Behaviours	.102	.057	.086	1.783	.046
Social Withdrawal	-.507	.175	-.167	-2.897	.004
Students' Level of Aggression	-.600	.053	-.534	-11.418	.000

a. Dependent Variable: Student Academic Achievements

From the model in Table 4.24, the present study found that the independent variables contributed differently in influencing Student Academic Achievements. For instance, Students' Level of Aggression had the highest influence on Student Academic Achievements, while Peer Acceptance made the least contribution in explaining the variability of the model. The variable Students' Level of Aggression had the largest beta coefficient of $-.534$, meaning that a one standard deviation rise in the Students' Level of Aggression leads to $.534$ standard deviation drop in Student Academic Achievements, with the other variables held constant.

The beta value for the Peer Acceptance was the lowest at $.067$, indicating that it made the least contribution to the model. One standard deviation improvement in the level of Peer Acceptance would only leads to a $.067$ standard deviation increase in Student Academic Achievements, with the other variables in the model held constant, however this effect was not significant.

4.8.2: The Regression Model

A regression model for the relationship between Social Adjustment Indices and Student Academic Achievements was shown below. The present study model was appropriate because each of the explanatory variables was independent and non-mutually exclusive.

In this model: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$.

Where: Y is Student Academic Achievements

X₁ Peer Acceptance

X₂ Altruistic Behaviours

X₃ Social Withdrawals

X₄ Students' Level of Aggression

Optimum level of academic achievement among students in secondary schools given the social adjustment indices were presented by:

$$4.467units + .096X_1units + .102 X_2units - .507 X_3units - .600X_4units + error$$

From the equation, the coefficients indicate how much the academic achievement among students in secondary schools varies with an independent variable when all other independent variables are held constant. For instance, the unstandardized coefficient, X₂, for altruistic Behaviour was equal to .102 means that for each one unit increased in altruistic Behaviour among the students, there is resulted improvement Student Academic Achievements of .102 units. On the contrary, for each one-unit decrease in the Students' Level of Aggression, there is subsequent increase in Student Academic Achievements of .102 units. All the variables' contributions were statistically significant, except peer acceptance [B=.096, t=1.190, p=.235]. However, the present study concluded that the model was adequate to predict Student Academic Achievements. A

respectable variability [$F(4, 303) = 47.511, R^2 = .385, p = .000 (p < .05)$] in academic achievement among students in secondary schools is explained by social adjustment indices.

However, the present study noted that the R-squared does not necessarily indicate if a regression model provides an adequate fit to a data set, implying that a good model can have a low R^2 value. On the other hand, a biased model can also have a high R^2 value. Hence, regression models with low R-squared values can equally be perfectly good models. For instance, this field of study had an inherently greater amount of unexplainable variation given that the respondents were given self-administering questionnaires whose items sought their views which were bound to differ. Student respondents or people as a whole are just harder to predict than things like physical processes. Hence, R^2 values are bound to be lower for this nature of study.

Nonetheless, despite the low R-squared value the independent variables are statistically significant, except peer acceptance; therefore, important conclusions about the relationships between the variables could still be drawn from the study. Statistically significant coefficients continue to represent the mean change in the dependent variable given a one-unit shift in the independent variable. Clearly, being able to draw conclusions like that was vital.

However, other factors (not covered in this regression model) also accounted for a part of $\approx 52\%$ of the model which was not explained by Social Adjustment Indices factored in the model. The other possible factors that may influence academic achievement among students in secondary schools but not included in the study could include other explanatory variables, moderating effects and extraneous variables whose effects were not completely excluded. Student factors such as age, gender, entry behaviour, and school and home factors, among others could account for the other unaccounted variance in the dependent variable.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter presents summary of findings, conclusion and recommendations of the present study as per the objectives. The chapter further gives suggestions for further research. The current study sought to find out the relationship between Social Adjustment Indices (peer acceptance, aggression, social withdrawal and altruistic) variables have on academic achievement among secondary school students in Githunguri Sub-County, Kenya. The present study anticipated that Social Adjustment Indices would manifests themselves in various ways as indicated from both quantitative and qualitative data as generated from the results of the present study.

5.2 The Summary

5.2.1 Relationship between Peer Acceptance and Academic Achievement among Students in Secondary Schools

The first objective of the present study was to determine the relationship between peer acceptance and academic achievement among students in secondary schools in Githunguri Sub-County, Kenya. The present study employed both quantitative and qualitative data collection techniques to determine the extent to which peer acceptances was related to academic achievement. Quantitative data was used to test the hypothesis while the qualitative data from interviews of Deputy Principal and guidance and counseling teachers was to enable researcher get the true feelings and views of the participants as regards peer acceptance. Quantitative analysis of the present study established a fairly weak but positive correlation between peer

acceptance and academic achievement among students in secondary schools, with a high level of peer acceptance associated with high academic achievement. Qualitative findings of the present study also confirmed the same results as respondents showed that students who were accepted by their Peers fared well in both academics and extra-curriculum activities. Additionally, the present study established that peer acceptance influenced academic achievement positively by 3.5%.

5.2.2 Relationship between Aggression and Academic Achievement of Students in Secondary Schools.

The second objective of the present study was to establish the relationship between aggression and academic achievement of students in secondary schools in Githunguri Sub-County, Kenya. The present study employed both quantitative and qualitative data collection techniques to determine the extent to which aggression was related to academic achievement. Quantitative data was used to test the hypothesis while the qualitative data from interviews of Deputy Principal and guidance and counseling teachers was to enable researcher get the true feelings and views of the participants as regards aggression practices in schools. Quantitative analysis of the present study established that there was a moderate, negative correlation between aggression and academic achievement among students in secondary schools, with decrease in aggression resulting to increase in academic achievement among students in secondary schools. Qualitative findings of the present study from respondents also showed the same findings with quantitative analysis of the present study. Furthermore, the present study established that aggression contributes to academic failure by 32.2%.

5.2.3 Relationship between Social Withdrawal and Academic Achievement of Students in Secondary Schools.

The third objective of the present study was to find out the relationship between social withdrawal and academic achievement of students in secondary schools in Githunguri Sub-County, Kenya. The present study employed both quantitative and qualitative data collection techniques to determine the extent to which social Withdrawal by students was related to academic achievement. Quantitative data was used to test the hypothesis while the qualitative data from interviews of Deputy Principal and guidance and counseling teachers was to enable researcher get the true feelings and views of the participants as regards social withdrawal aspects in schools. The present study established a moderate, negative correlation between social withdrawal and academic achievement among students in secondary schools, with decrease in social withdrawal aspects resulting into increase in academic achievement. Qualitative findings of the present study concurred with quantitative findings of the present study as all respondents alluded to the fact that social withdrawn students fare poorly in both academic and extra-curriculum activities. Moreover, the present study established that social withdrawal contributes to academic failure by 12%.

5.2.4 Relationship between Altruistic and Academic Achievement of Students in Secondary Schools.

The fourth objective of the present study was to determine the relationship between altruistic and academic achievement among secondary school students in Githunguri Sub-County, Kenya. The finding of both quantitative and qualitative results showed that many of the high school students in Githunguri Sub-County exhibit above average level of altruistic behavior, with

many of the students doing certain things for the others and not for self-satisfaction. A correlation analysis established a positive correlation between altruistic and academic achievement among students in secondary schools, with increase in altruistic Behaviour causing increases in academic achievement among students in secondary schools. In addition, the present study established altruism influenced academic achievement positively by 2%.

5.3 Conclusions

The present study concluded that both Altruism and peer acceptance affects academic performance positively while aggression and social withdraw affects academic performance positively.

5.4 Recommendations

Based on the conclusions and discussions, the following recommendations were made:

- i. Kenya Institute of Curriculum Development (KICD) should infuse into the school's curriculum adjustment programs that will help in new students particularly as they transit from primary to secondary schools.
- ii. There is need for Curriculum developers and Guidance and Counseling in schools to include strategies of coping with new environment anxiety and in particular things to do with aggression.
- iii. School counselors to develop assessment tools for regular monitoring and identification of students with adjustment issues and ways of treating them in order to increase their academic achievement.

- iv. Deputy principals and Guidance and Counseling teachers in a school set-up in collaboration with the subject teachers to consider and implement psycho-educational intervention programs to students studying in their schools and have difficulties in certain subjects so as to help such students in improving their performance and improve their motivation towards secondary school environment.
- v. Teachers to inculcate methods of promoting oneness and unity which is a major ingredient of altruistic among learners, teaching them best strategies for exam preparation, training them on seeking social support from one another and training of relaxation therapy techniques in their classrooms to help the learners deal with feelings of failure to adjust to schools.

5.5: Suggestions for further Research

From the findings, conclusions and study recommendations, the following topics are suggested for further research:

- i. Maladjustment and school factors as correlates of academic achievement among secondary school students in Kenya.
- ii. Relationship between pro-social and academic achievement among primary school learners in Kenya.

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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION TO SCHOOLS

Dear Sir/madam,

My name is Henry Miring'u Kibe, a PhD student at Jaramogi Oginga Odinga University of Science and Technology at the school of Education (Educational psychology department).

Undertaking research is one of the requirements in fulfilling the graduation requirements for any student undertaking this scope of study. It is from this backdrop that I am requesting you to participate in the study in terms of giving responses to the data collection tools which will aid generate information. The study will be based on the relationship between Social Adjustment Indices and academic achievement of students in Secondary Schools in Githunguri Sub-County, Kenya. I kindly request you to give information required as I promise that all ethical considerations will observed to the letter.

Yours sincerely,

Henry Kibe.

Participant Agreement

I hereby acknowledge participating in this study having read and convinced myself to the content of the information here above.

Signature..... Date.....

I hereby decline to participate in the above for reasons known to myself.

Signature..... Date.....

APPENDIX II: STUDENT’S CONSENT FORM

The purpose of this study is to investigate the relationship between Social Adjustment Indices and Academic Performance of students in secondary schools in Kenya. The study is geared towards collecting data from some selected deputy principal and Guidance and Counselling teachers who are also members of senior management team in Githunguri Sub-County with a view of finding out how they cope with challenges of social adjustment in schools that students face and how they manage these challenges and how these challenges affect their performance. I hereby seek your consent to participate in an interview and I pray that you allow me to take the records through tape recording which will enable me analyze the data later on. You will have freedom to indicate on any question you are not comfortable to respond to or seek clarification whenever necessary. You are kindly requested to address the data on voluntary basis and where you feel uncomfortable to certain questions, you have the choice to skip responding to them. I guaranteed to uphold all ethics of keeping your identity anonymous hence you are urged not to indicate any form of identify on the tool for data collection.

Kindly, counter sign on the blank spaces below to acknowledge your willingness to participate in the study. I have read and internalized the above and hear I agree/do not agree to give my consent as undersigned below.

Signature.....

Yours sincerely,

Henry Miring’u Kibe

PhD Student,

Jaramogi Oginga Odinga University of Science and Technology

APPENDIX III: QUESTIONNAIRE FOR STUDENTS

Dear Participant,

This study is about the relationship between Social Adjustment Indices and Academic Achievement amongst students in public secondary schools in Kenya. You have been selected to participate in the study by giving responses on the tool of data collection before you. You are promised anonymity and confidentiality to all the responses you provide. Please do not write your name on the tool of data collection. Answer all question to the best of your knowledge.

Instructions

1. Tick appropriately in the box or fill in the space provided.
2. Feel free to give further relevant information to the research.

PART A: BACKGROUND INFORMATION

1. Sex Male Female
2. Age Bracket
 - a) 15-18 years
 - b) 19-20 years
 - c) 21-22 years
 - d) 23 years and above
3. Type of school (a) Boys boarding (b) Girls boarding (c) Mixed boarding (d) Mixed day school (e) Any other _____
4. Whom do you stay with?
 - a) Father
 - b) Mother
 - c) Guardian
 - d) Any other specify, _____
5. In your primary education, were you in boarding school? YES, OR NO

PART B

PEER ACCEPTANCE

INTRODUCTION: THERE ARE NO RIGHT OR WRONG

ANSWERS. PLEASE ANSWER EACH ITEM AS HONESTLY AS YOU CAN.

Respond with: 1=strongly disagree (SD) 2= disagree (D) 3= neutral (N) 4=agree (A)

5=strongly agree (SA)

	Strongly Disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly Agree (SA)
People at my school genuinely care about one another.					
I truly feel as though my classroom and school are where I belong.					
My teachers genuinely care about me and are worried if I'm not in class.					
My teachers aid me in comprehending the material I must learn.					
I have a family-like feeling towards my school.					
My classes are like contented families					
I believe I play a significant role in my classroom.					
I consider myself to be an integral part of my school.					
My teachers urge me to participate in extra-curriculum at school and in the community.					
I'm encouraged by my teacher to pursue my hobbies and talents					

Our school has a large number of clubs and activities that I can participate in					
My school motivates me to look at several career options for when I graduate.					
I believe I have many options for what and how I learn.					
Everyone at my school seems to be motivating me to finish high school, enroll in a program for further study, or get a profession.					
In my school and classrooms, I experience support and respect.					

Adapted from School Engagement Scale - Behavioral, Emotional and Cognitive Engagement (2005).

AGGRESSION

INTRODUCTIONS: THERE ARE NO RIGHT OR WRONG

ANSWERS.PLEASE ANSWERS EACH ITEM AS HONESTLY AS YOU CAN.

Aggression takes the following forms; Physical Aggression (PA), Verbal Aggression (VA), Anger (A) and Hostility (H).

Respond with: 1=strongly disagree (SD) 2= disagree (D) 3= neutral (N) 4=agree (A)

5=strongly agree (SA)

			Strongly Disagree (SA)	Disagree (D)	Neutral (N)	Agree (A)	Strongly Agree (SA)
It seems like other people always get the brake.	1.	VA					
Some of my friends believe I have a hot temper.	2.	A					
Sometimes I think I've been treated unfairly by time.	3.	VA					
On occasion, I think others are making fun of me behind my back.	4.	VA					
I will, if necessary, use force to defend my rights.	5.	PA					
I always try to figure out why people are so kind to me	6.	H					
I am honest with my friends when I disagree with them.	7.	VA					
I have been so irrationally angry that I have broken stuff.	8.	PA					
When people disagree with me, I can't help but argue with them.	9.	VA					
I question why I sometimes take things so personally.	10.	H					
Occasionally, I find it impossible to resist the temptation to hit someone.	11.	PA					
I have a balanced temperament.	12.	A					
am suspicious of overly friendly stranger	13.	H					
I've threatened students know.	14.	PA					

I get angry easily but quickly forgive.	15.	A					
If provoked sufficiently, I might hit someone else.	16.	PA					
I'm wary of strangers who are extremely pleasant.	17.	VA					
Am sometimes eaten up with jealousy	18.	H					
I am unable to think of any justification for ever hitting someone.	19.	PA					
At a times I feel I have gotten a raw deal out of time	20.	H					
I find it difficult to manage my temper.	21.	A					
I display my annoyance when frustrated.	22.	A					
I sometimes feel that people are laughing at me behind my back	23.	H					
My jealousy sometimes consumes me.	24.	VA					
I hit back if someone hits me.	25.	PA					
I feel like a time bomb about to blow.	26.	A					
Other people always seem to get the brake	27.	H					
There are some students who pushed me too far to the point where we fought.	28.	PA					

Adapted from the buss – Perry Aggression Questionnaire (Buss-Perry, 1992)

SOCIAL WITHDRAWAL QUESTIONNAIRE.

INTRODUCTION: THERE ARE NO RIGHT OR WRONG ANSWERS.PLEASE

ANSWER EACH ITEM AS HONESTLY AS YOU CAN.

Respond with: 1=strongly disagree (SD) 2= disagree (D) 3= neutral (N) 4=agree (A)

5=strongly agree (SA)

		1 Strongly disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree (A)	5 Strongly Agree (SA)
1.	I like to do things by myself					
2.	I'd rather do things with myself than others					
3.	I like to be alone in the classroom					
4.	I'd rather eat by myself in the classroom than with others					
5.	I'm concerned that other students don't like me					
6.	I feel that others are making fun of me					
7.	I believe that other students are gossiping behind my back about me					
8.	I am concerned that other students won't like me if I argue with them					
9.	I worry about other students calling me names					
10.	I'm concerned about students shoving me around					
11.	It's hard for me to ask others to do things with me					
12.	I experience shyness even around students I know very well					

13.	I'm hesitant to ask other students to do things with me out of concern that they might decline.					
14.	I prefer to do things by myself					
15.	I'd rather do things with myself than others					
16.	I like being with students in the classroom					
17.	I like to eat alone during lunch					
18.	I'd rather eat by myself in the lunchroom than with others					
19.	Am quiet when am with a group of students					
20.	I frequently make an effort to avoid the other students.					
21.	I frequently hope that the other students won't acknowledge me.					

Adopted from the standard measure of loneliness Scale (Russell, Peplau & Cutrona, 1980)

ALTRUISTIC BEHAVIOURS

INTRODUCTION: THERE ARE NO RIGHT OR WRONG ANSWERS.PLEASE ANSWER EACH ITEM AS HONESTLY AS YOU CAN.

Respond with: 1=strongly disagree (SD) 2= disagree (D) 3= neutral (N) 4=agree (A) 5=strongly agree (SA)

		Strongly Disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly Agree (SA)
1.	When someone is depressed, I strive to cheer them up					
2.	My friends and I hang out a lot.					
3.	I try to empower other people.					
4.	I am kind in that I enjoy volunteering my time to teach other pupils what I know, with no expectation of compensation					
5.	I cry over insignificant things.					
6.	I show my friends items I find interesting.					
7.	I can give out my revision books to others for them to use					
8.	I offer homework assistance to others.					
9.	I allow others to use my possessions					
10.	I enjoy playing with other people.					

Adopted from the Prosocial behaviour Scale (Harris, Houston, Vazquez, (2015)

APPENDIX IV: DOCUMENT ANALYSIS ON ACADEMIC ACHIEVEMENT FOR FORM ONE 2019

Class		Marks	Grade
Form 1	Term 1		
	Term 2		
	Term 3		
	Average		

**APPENDIX V: INTERVIEW GUIDE FOR GUIDANCE AND COUNSELING
TEACHERS**

SOCIAL ADJUSTMENT INDICES AND ACADEMIC ACHIEVEMENT

I would like to request you to give me information on the relationship between Social Adjustment Indices and Academic Achievement among secondary school students in Kenya.

1. Briefly explain how a feeling of belonging (peer acceptance) affects students

(a) Positively

(b) Negatively

2. What are some of the common behaviours among students who feel they have a sense of belonging?

3. What are some of the difficulties students get in trying to establish themselves in peer group? Explain how those difficulties impact negatively in academic achievement of students.

4. Explain how exposure to violent home and community environments affects students' academic performance negatively or positively.

5. What is your take on students coming from dysfunctional families in regards to academic achievement?

6. Explain how students affected by family and community violence suffer from lowered social and emotional competence which leads to diminished academic performance?

7. What can you say about students who are socially withdrawn in your school? What are some of the characteristics they display?

8. Shed some light on socially withdrawn students missing some opportunities for social and academic development in your school.

9. What are some of the characteristics exhibited by early maturing adolescents which make them to feel socially withdrawn? Why are such students more likely to be disliked by peers and drop out of school compared to well-adjusted adolescents?

10. Explain how Altruistic personality can promote self-esteem, interpersonal relationship and improved attitudes toward school and peers.

11. What is the suitability of altruistic practices in your school and would you encourage its usage in all the classes because of its potential benefits to the students?

Thank you for your co-operation

APPENDIX VI: INTERVIEW SCHEDULE FOR SCHOOL DEPUTY

PRINCIPALS

1. Aggression is a form of projection in most schools at present. Here in your school, what forms of it have you experience so far?
2. What is your view on the relationship between aggression and academic performance of secondary school students in Githunguri Sub- County?
3. From your experience, what could be the factors leading to aggression?
4. Kindly explain the circumstances under which the peer accepted students operate?
5. Incase such students (aggressive) projects on others, how do you handle them?
6. What is your view on the relationship between peer acceptances (positively and negatively) and academic performance of secondary school students in Githunguri Sub- County?
7. How do you as a school handle socially withdrawn students?
8. How would you rate the plight of socially withdrawn students within the school environment?
9. Currently, most students in Kenya exhibit altruistic personality in our school, how do you deal with such learners here in your school?
10. How do you instill altruistic personality in your school? Have you succeeded in upholding Altruistic behaviours? Explain
11. What is your view on the relationship between altruistic behaviours and academic performance of secondary school students in Githunguri Sub- County?
12. How would you explain the performance of your school in terms of deviation from your targets projection in all the classes?

13. What is your transition rate in all Classes? In the event of below 100% transition, what could you possibly attribute to be the cause?

Thank you for your co-operation

APPENDIX VIII: MAP OF GITHUNGURI SUB-COUNTY



**APPENDIX IX: LETTER FROM JARAMOGI OGINGA ODINGA
UNIVERSITY OF SCIENCE & TECHNOLOGY**



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY
BOARD OF POSTGRADUATE STUDIES
Office of the Director

Tel. 057-2501804
Email: bps@jooust.ac.ke

P.O. BOX 210 - 40601
BONDO

Our Ref: E361/4132/2015

Date: 5th February 2019

TO WHOM IT MAY CONCERN

RE: HENRY MIRINGU KIBE – E361/4132/2015

The above person is a bona fide postgraduate student of Jaramogi Oginga Odinga University of Science and Technology in the School of Education pursuing PhD in Educational Psychology. He has been authorized by the University to undertake research on the topic: **“Relationship Between Social Adjustment Indices and Academic Achievement of Students in Secondary Schools in Kenya.”**

Any assistance accorded to him shall be appreciated.

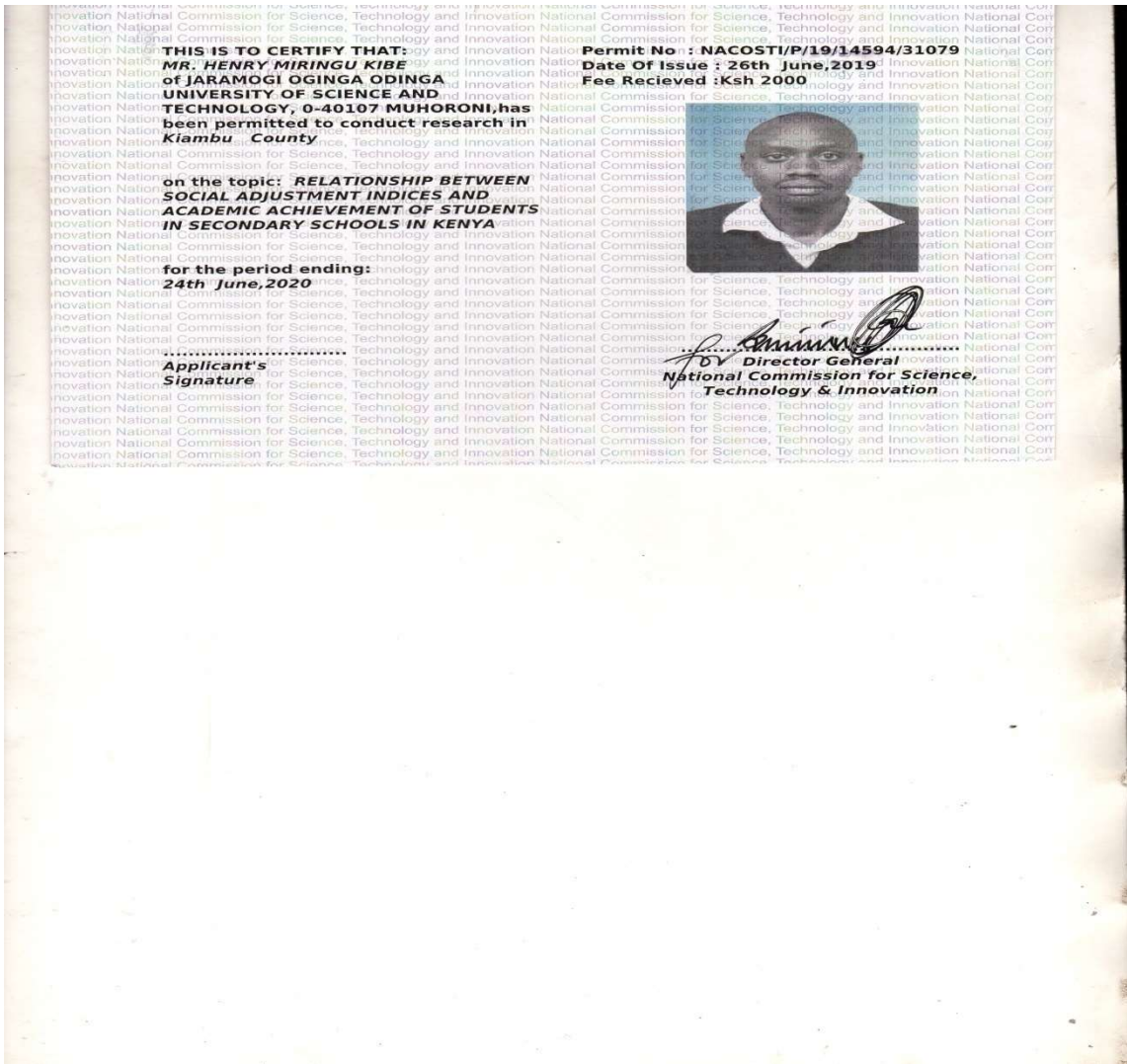
Thank you.

Prof. Dennis Ochuodho

DIRECTOR, BOARD OF POSTGRADUATE STUDIES



APPENDIX X: RESEARCH PERMITS FROM NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION



**APPENDIX XI: LETTER FROM NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**



**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

Telephone: +254-20-2213471,
2241349, 3310571, 2219420
Fax: +254-20-318245, 318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No: **NACOSTI/P/19/14594/31079**

Date: **26th June, 2019.**

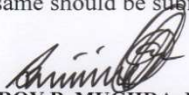
Henry Miringu Kibe
Jaramogi Oginga Odinga University
of Science and Technology
P.O. Box 210-40601
BONDO.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Relationship between social adjustment indices and academic achievement of students in secondary schools in Kenya.*" I am pleased to inform you that you have been authorized to undertake research in **Kiambu County** for the period ending **24th June, 2020.**

You are advised to report to **the County Commissioner, and the County Director of Education, Kiambu County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a **copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.


DR. ROY B. MUGIIRA, PhD.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Kiambu County.

The County Director of Education
Kiambu County.

National Commission for Science, Technology and Innovation is ISO9001:2008 Certified

