SELECTED RISK FACTORS INFLUENCING ACADEMIC ACHIEVEMENT OF STUDENTS WITH LEARNING DIFFICULTIES IN SECONDARY SCHOOLS IN KAKAMEGA COUNTY, KENYA

Naomi Khakasa Wafula

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DECLARATION

This research thesis is my original work prepared with no other than the indicated sources and support and has not been presented elsewhere for a degree, diploma or certificate in any other university.

Signature: _____ Date: _____

Naomi Khakasa Wafula

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CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance of Masinde Muliro University of Science and Technology a thesis entitled: **Selected Risk Factors Influencing Academic Achievement of Students with Learning Difficulties in Secondary Schools in Kakamega County, Kenya**

Signature: _____ Date: _____

Prof. Kennedy. N. Bota

Department of Educational Psychology

Masinde Muliro University of Science and Technology

Signature: _____ Date: _____

Dr. Eric K. Kabuka

Department of Educational Psychology

Maseno University

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DEDICATION

I dedicate this work to my dear husband Dr. Evans A. Mutende, my parents Joseph. W. B Wafula and Priscilla Nasimiyu Wafula, my children Marion Meta and Collins Agala for their inspiration, encouragement and priceless assistance.

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ABSTRACT

Advocacy for inclusive education and 100 percent transition policy has increased enrolment of learners with learning difficulties in secondary schools where they encounter many challenges. The World Health Organization has, estimated that Africa's school dropout rates of learners with learning difficulties ranges between 45-55%. Slow learners have learning difficulties and typically attain low scores on achievement tests. Teachers regard slow learners as a bother, parents consider them a waste of funds, peers mock their efforts as they go unnoticed in large classes. Most slow learners are subject to low self-esteem and gender prejudices. This raises concern about the completion and academic achievement of slow learners whose prevalence is 10-25% of the regular class learners. Moreover, KCSE statistics from Kakamega County indicate that a total of 55841 candidates scored grade D and below between the year 2016-2019, portentous of the presence of slow learners. The purpose of the study was to examine selected risk factors influencing academic achievement of students with learning difficulties in secondary schools in Kakamega County. Objectives were to; find out the relationship between perceived teacher, peer, parental perception and support, class size, gender and learners' self-esteem and academic achievement of slow learners and the moderating influence of learner's temperament. Theoretical basis of the study was attribution perception theory, Bronfenbrenner's bio-ecological model and Vygotsky's social cultural theory. Descriptive survey and correlational research designs were used. Target population was 36,453 form three and 37,532 four students, 1288 form three and four class teachers, and 12 sub-county Directors of Education. Multi-stage sampling techniques comprised stratified random, purposive, and saturated sampling. Sample size for slow learners was computed using Fisher's formula. Questionnaires, interview schedules, and focus group discussion guides were used to collect data. Experts in Educational Psychology ascertained the face and content validity of the data collection instruments. Cronbach's alpha reliability coefficient index for data collection instruments was ≥.60 which was acceptable at a .60 threshold. Data analysis comprised use of descriptive statistics; percentages, means and standard deviations and inferential statistics; Pearson's(r), t-test, linear regression and ANOVA. Qualitative data was transcribed, analyzed and reported according to emerging themes. Findings indicated significant correlation between the factors and academic achievement of slow learners. Perceived perception and support: teacher; r =.296, peer; r =.135, parental; r =.264, gender; r =.173, self-esteem; r =.146, class size; r = -.199. However, learner's temperament had no moderating influence. Recommendations are; teachers, parents and peers should cultivate and depict positive perception of slow learners and accord them extra support. Female slow learners be accorded more assistance. Teachers to use teaching techniques that counter negative effects of large classes. The findings are beneficial to education stakeholders in efforts to improve overall and slow learners' academic achievement.

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LIST OF ABBREVIATIONS AND ACRONYMS

DoS	Director of Studies
G & C	Guidance and Counseling
HoDs	Heads of Department
KCSE	Kenya Certificate for Secondary Education
MoEST	Ministry of Education Science and Technology
SLD	Specific Learning Difficulties/Disabilities
SEN	Special Education Needs
SNE	Special Needs Education
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter outlines the background to the study, statement of the problem, purpose of the study, research objectives and hypotheses, significance of the study, assumptions of the study, scope of the study and limitations of the study, the conceptual framework and operational definition of terms.

1.2 Background to the Study

Learning difficulties encompasses a wide range of learning problems which include poor concept formation, difficulties in acquisition of reading, writing, spelling and arithmetic skills alongside slow learning (Ndani &Murugami, 2009). Slow learners have been described as students who learn and acquire skills at a slower rate compared to the average or normal student (Abosi, 2007; Ndani & Murugami, 2009; Sebastian, 2016). Sebastian has further expounded that slow learners are students who do not keep stride with the teaching-learning process. Williamson and Ryan (2012) describe slow learners as students who have learning difficulties and are characterized by poor concept formation, and difficulties in reading, writing and arithmetic skills. In essence, slow learners struggle to grasp the curriculum, have mild intellectual disability and generally below average cognitive abilities and scholastic performance (Borah, 2013; Reynold & Fletcher-Jansen, 2006; Vasudevan, 2017; Qian, 2008).

Abosi (2007) noted that the phenomenon of learning difficulties or “slow learners” is not new in Africa. The term refers to children who experience learning difficulties independent of recognizable physical defects such as sensory disorders. The author posits that children

with learning difficulties have the capacity to learn but take an extended time to comprehend things compared to the average child. This definition aptly describes the slow learner in a regular classroom setting. Such learners need special support to enhance academic achievement. However, issues related to perception, support and inherent characteristics of the learner pose a risk to academic achievement of slow learners (Contreras, 2011; Mirani & Chunawala, 2015).

In the recent past, society has become aware and more supportive of learners with physical challenges as evident in the concerted advocacy efforts. However, the relatively invisible mental disabilities are yet to be accorded similar support. Value and focus has been attached to advocacy of rights of those with visible physical disabilities and acute mental disabilities, however, mild intellectual disabilities such as slow learning has been neglected (Williamson & Ryan, 2012). Consequently, there is need to provide more empirical information on issues concerned with mental disabilities particularly mild mental disabilities that have been neglected, overtime in order to enhance advocacy. Silver and Bolduc (2013) note that without advocacy slow learners will continue to be discounted yet these learners face acknowledged challenges in academic performance (Borah, 2013; Vasudevan, 2017). Based on this there is need to spearhead more research on slow learners for the purpose of advocacy and policy formulation.

In the spirit of inclusive education, research on the plight of slow learners in regular classes ought to be highlighted. Inclusion entails the provision of quality education and educational opportunity for all. It is a policy and practice of placing students with disabilities and special education needs in a regular class for the purpose of instruction (Zigler, Lusweti, Macmbinji, Jumba, Kaggi, & Namirembe, 2017; Lerner, 2003). The basis of Inclusion is

that homes, schools and society at large should be reorganized to ensure that all individuals irrespective of their variances have the chance to interact, play, learn, work and experience the feeling of belonging and develop in accordance with their potential and limitations (MoE, 2018). Implementation of Inclusive education therefore calls for the accommodation of learners with learning difficulties within regular schools and regular classrooms. However, the teaching praxis raises questions about social perception and support, learner's inherent characteristics and other factors which may be risk factors not only to the academic achievement of slow learners but also to the successful implementation of inclusive education.

The Ministry of Education's new Special Needs Education Policy (MoE, 2018) seeks to create an atmosphere that allows learners with disabilities and special needs equal access to high-quality, appropriate education. The Education Act (2013) sets out the principles of the guidance listed above, describing the need for improved access, improved retention, improved quality and educational significance, improved early recognition and evaluation and ensure equitable opportunity to deliver children with disabilities and particular needs for education. The legislative framework point to the fact that all learners, slow learners included are entitled to meaningful learning experiences that enhance feelings of belonging.

It is manifest that Kenya has all the pertinent frameworks to ensure that inclusive education succeeds; however, there are inherent obstacles in the school, home and individual's system. Teaching experience indicates that apart from their inherent cognitive disability there are several risk factors that influence the academic achievement of slow learners in secondary schools. Inadequate parental support (Borah, 2013), negative teacher perception

(Metto and Makewa, 2014) parents' social economic status (Bota, 2007), mass enrolment and absence of clear remedial policies (Sebastian, 2016; Vasudevan, 2017) are cited as some of the challenges. In the light of these, there is need to examine factors that pose a greater risk to academic achievement of slow learners for purposes of mitigation.

Research shows that even though slow learners have been proven to struggle in school, based on intellectual testing they are in most cases ineligible for additional support and are generally excluded from assistance given to other learning deficit categories (Claypool, Murusiak & Janzen, 2008; Alberta Education, 2010). The plight of the slow learner is considered a challenge to teachers. It is noted that most teachers tend to be frustrated by the child's inability to work at the pace of the peers (Borah, 2013; Vasudevan, 2017). Khan, (2008) observed that slow learning children need more explanation, demonstration and experience to grasp concepts. Kirk, Anastasiow, Gallagher & Coleman (2006), similarly observed that teachers' perception and support are critical in influencing learning of a child with learning difficulties

Paul (2016) further postulates that no substantial learning can ensue minus a personal cordial relationship between the teacher and the learner a view supported by Contreras (2011) and Sebastian (2016) who note that teacher support and clear consistent expectations is significantly related to levels of academic competence. In Alberta (Canada) slow learners are generally viewed as the '*dangerous others'* because they are likely to impede the class progress and interfere with the progress of other students (Williamson & Ryan, 2012). Qian (2008), noted that in China "teachers do not want 'hou jing sheng' (slow learners) in their classes because they may affect the average score of exam results of the whole class" pp24

Incidentally, Ndani & Murugami, (2009) and Rasugu, (2010), noted that slow learners are commonly labeled as unteachable, hard to teach, lazy, difficult, and stupid. Metto and Makewa (2014) similarly, observed that teachers tend to rush over lessons interacting only with the brilliant students ignoring the weak and slow learners. In essence the slow learners are in regular schools and classrooms as suggested by Mwangi (2013), who observed that in Kenya, slow learners are rarely identified for proper placement and provision. Furthermore, the education system in Kenya is result oriented; exam results are viewed as a parameter of efficiency and effectiveness in the teaching and learning accomplishments in school. Value is therefore attached to the mean score and position in the school ranking at national, regional and local level (Wanyonyi, 2010). This perspective has jeopardized slow learners' retention and completion rates in schools, because of the low grades and general poor academic performance; some maybe coerced to repeat the class with some opting to drop out of school (Bota, 2007). Ogadho (2012), noted that in comparison to teachers training level and professional qualification, teacher's attitude was a greater predictor of dropout rates of pupils with learning difficulties in primary schools in Kisumu East sub-county. Teachers perception and support emerges as a key factor which may be a risk factor to the academic achievement of slow learners

On the other hand, Murat (2017) postulates that peer perception and support has greater influence on a learner's academic achievement. He argues that learners need to feel accepted and be supported by the people they interact with in the classroom especially the peers. He further points to the fact that lack of peer support and negative perception may precipitate a decrease in academic achievement. This view is supported by Shute et al. (2011), and Rueger et al. (2010) who however noted greater influence of peer support on

the academic achievement of boys than girls. The findings of Bowen et al. (2012) however gives more weight to the influence of peer support at higher grade. Daly et al. (2009) support the argument that peer support protects students from disengagement from school activities but note that generally social support has insignificant influence on performance of older children a view negated by Qian (2008) who argues that older children are influenced greatly by peers while younger ones are influenced more by adults. Negative peer perception and inadequate support is perceived as a risk factor. An examination of the relationship between peer perception and support and academic achievement of slow learners could therefore form a basis for mitigation measures.

However, other researchers give more eminence to parental perception and support. Campbell & Verna (2007, observed that parent's positive attitude towards children and parental support increased learner's self-assurance in their aptitudes and stimulated the child's interest in satisfying parent's expectations. Moss (2012) reinforces the argument by indicating that the influence of parental support in reducing drop-out rates in children with learning difficulties is greater than that of the teacher, counselor or therapist. Similarly, Kirk, Anastasiow, Gallagher, & Coleman (2006) advance that parental love, encouragement and support can make a difference in helping a child with learning difficulties develop a strong sense of self-confidence and the determination to persevere the frustrating school life.

Nevertheless, it is observed that parents of slow learners tend to hate the idea of school, because their children have difficulties with the tests, they create anxiety in both the parent and learner, and the learners consistently fail. In most cases the parent tends to worry about whether the child will make it through school and is concerned about the implication for

the child's future. Parents make unrealistic expectations concerning their child and fail to acknowledge the existence of a learning problem. Others are concerned that pointing out the child's learning problems might lead to "labeling" and precipitate negative attitude from teachers and peers hence they opt to be silent about the child's learning problems (Borah, 2013; Moss, 2012). Some parents end up losing hope and developing negative attitudes towards their children and withholding material and emotional support. Yet it is vital that, parents appreciate any slight progress and have realistic expectations about the child's academic achievement. Parental attributes therefore emerge as vital contributors to learner's academic achievement.

Nonetheless, other studies (Rueger et al. 2010, Bowen et al, 2012) have argued that parental involvement has insignificant influence on academic achievement of learners especially as they advance higher in the education stair and more so in the adolescence stage.

Sebastian (2016) introduces the aspect of mass enrolment and the teacher –student ratio as a risk factor in the academic achievement of slow learners who generally require more personal attention in order to benefit from classroom instruction. It is evident that in the attempt to implement the Education for All and Sustainable Development Goals many governments in developing countries are faced with the challenge of aligning the education physical and personnel infrastructure with the student population. This has further compounded the slow learner's plight (Owoeye & Yara, 2011; Whitehurst & Chingos, 2011; Chingos, 2010). Class size emerges as an essential factor in the academic achievement of learners in general. However, there are conflicting findings on the effect of class size on academic achievement. Some studies infer a positive influence of small class

size on academic achievement while others argue that class size has no influence on academic achievement (Jepsen & Rivkin, 2009; Woessman &West, 2006).

According to Wapula (2011), opportunities for slow and other learners with difficulties are almost non- existent in both public and private schools in Botswana. The author noted that the girl child, and to a lesser extent, the boy child is disadvantaged by inadequate access to basic education. The study in Botswana established that there were no schools identified for learners who were simply having difficulties in learning but not acute mental and physical disorders. There were no support systems for children with sheer learning difficulties and not necessarily chronic physical and mental health problems. Wapula further observed that children with learning difficulties either perform poorly, or drop out of school because they are demotivated and discouraged by large class sizes where they cannot have quality contact with teachers. They eventually leave school or just hang on with no hope of good performance. There is likelihood that the scenario is replicated in most African countries.

Kenya's government launched a free secondary schooling education policy in February 2008, with the aim of increasing student enrollment to 1.4 million by the end of the year. The number of students enrolled increased from 1.18 million in 2007 (639,393 boys and 540,874 girls) to 1,701,501 in 2010 (914,971 boys and 786,530 girls) (Kathini, 2016; Kapeliyan & Lumumba, 2017). Furthermore, the 100% transition policy (TSC, 2019; Njenga, 2019) has led to population explosion in secondary schools putting strain not only on the physical facilities but also on the personnel. The teacher-student ratio has enlarged reducing the close interaction between the teacher and the learner. The argument advanced

is that slow learners' need a lot of individual attention from the teacher, hence large class size may be a risk factor in their academic achievement (Khan 2008; Sebastian, 2016; Vasudevan, 2017). The issue of class size therefore emerges as a possible risk factor that needs to be examined further. This study aimed at establishing the prevailing situation in Kakamega County, Kenya.

Research has revealed gender difference in academic achievement of general student population; some studies portrayed that males had lower academic achievement compared to females based on standardized tests, teachers' ratings of school performance and in school learning outcomes (Duckworth & Seligman, 2006; Hdii & Fagroud, 2018; Smith, 2015). Other studies have indicated that on average girls perform better in school than boys; girls get higher scores and complete high school in greater proportions compared to boys (Zembar & Blume, 2009). Further studies have corroborated the concept of gender difference in academic achievement (Fortin, Oveopoulos & Shelley, 2012; Hartley & Sutton, 2013).

Some studies found that while boys show spelling deficits and general low performance in language and arts subjects the girls have a greater deficit in arithmetic and science subjects (Moll, Kunze, Neuhoff, Bruder & Schulte-Korne 2014). On the contrary Mukonyi and M'mbasu (2014) observed that most teachers in Kakamega County rated boys as better in class performance, Kenya Certificate of Secondary Education (KCSE) performance and interest in academic work a view that is supported by Mwalya (2017). Incidentally, Taylor, Smiley, and Richards (2009), have indicated that 60% of the students identified with learning difficulties are male an argument that is supported by Piechura-couture et. al (2011). However, focus of these studies was the general student population. Research on

relationship between gender and academic achievement of slow learners in Kakamega County is vital in order to focus on the gender that is at-risk.

Educational research has indicated that pupils with learning difficulties are characterized by lower levels of self- esteem (Alesi, Rappo & Pepi, 2014; Ndani & Murugami, 2009). Slow learners are subject to a variety of psychological issues, these students are characteristically aware they are struggling and confidence may be an issue. They are susceptible to anxiety and low self-perception. They habitually feel "stupid" and start abhorring school. They find the school subject matter challenging and difficult and their efforts are drained in attempts that seem to yield no positive results and eventually may be quick to give up (Smith & Tyler, 2010). Children with learning difficulties already have low self-esteem, feelings of rejection, and inadequacy, which according to Ogadho, (2012) propagate negative attitudes from teachers. Low self-esteem is deemed to be an impediment to academic progression.

Moss (2012), observed that learners with learning difficulties; tend to have low esteem and impoverished support yet having good social support, and esteem within society is deemed to be beneficial to a learner's mental health and academic advancement. It is argued that it is imperative for adolescents to cultivate high self-esteem (Sternke, 2010). Sternke further argues that teachers and parents need to boost the self-esteem of students particularly those with learning difficulties by remaining optimistic. Even though Trautwein, Ludtke, Koller and Baumert (2006) found that self-esteem by itself is not a robust predictor of academic achievement, Waseka and Simatwa (2016) inferred that learners with low entry marks lacked self-confidence and had low self-esteem and ended up performing poorly in class

and in KCSE examination. It is therefore vital that the influence of self-esteem on academic achievement of slow learners be undertaken noting that most of the research has been directed towards the general population of students and in developed countries. This study focused on students with learning difficulties in Kakamega county, Kenya.

Temperament entails differences in the way individuals respond and engage with their surroundings. Links have been established between temperament and academic achievement and it has been attested that restiveness and irritability predispose individuals to academic difficulties similarly high activity and low persistence is linked with lower academic achievement (Keogh, 2003; Al-Hendawi, 2010). Al-Hendawi established that children's temperament has a significant relationship with academic achievement. Persistence and activity level had significant correlation with academic achievement. Keogh further noted that in both special and regular classrooms teachers perceive temperament dimension of teachability in a student as the most important element in predicting their academic achievement. Individuals with difficult temperament may be characterized by high activity, inflexibility and lack of persistence, distractibility and low attention. Difficult temperament increases the prospect that a child fails to observe classroom guidelines and academic instruction thereby heightening the chances of school failure.

McClowry, Snow, Tamis-LeMonda, & Rodriguez, (2010) observed that children with a problematic temperamental disposition face more difficulties in attaining complex academic competencies. It is noted that the teacher- student affiliation is reciprocal; hence positive student behavior prompts positive teacher behavior and negative student behavior

produces negative teacher behavior. There is a tendency of teachers giving less attention, less praise avowals and more negative statements to children who display incongruous temperament or social behavior (Edward, Mumford & Serra-Roldan, 2007). According to Al-Hendawi (2010), temperament in vulnerable children may be a risk or protective factor. Evidently students with learning difficulties are likely to differ in temperament it is therefore necessary to establish the moderating influence on perceived risk factors and academic achievement in order to formulate viable mitigation measures. This is based on the argument that knowledge of the role of temperament may assist teachers to craft an environment that allows the child's temperament to be in tandem with the classroom demand instead of being at conflict (McClelland, Cameron, Connor, Farris, Jewkes, & Morrison, 2007). Some studies have considered the direct effect of temperament on school success (Al-Hendawi 2010), others considered the mediating influence (Checa & Abundis-Gutierre, 2017). The current study was however concerned with the moderating influence of temperament.

In the recent past the government of Kenya has made efforts to increase access to school, train personnel and fund special education (SNE, 2018). However, focus has been on disabilities that are visible such as mental retardation, visual and auditory impairment and other physical disabilities as opposed to hidden disabilities such as learning difficulties (Rasugu, 2010). Despite slow learners struggling with the academic curriculum and consistently performing poorly in achievement tests there are no concerted efforts to address their plight neither are they recognized in the education policies. More elaborate studies have been undertaken in developed countries. Most of the studies in Africa and Kenya have tended to focus on the general student population, physical disabilities and

acute intellectual disabilities (Adogo, 2006; Bakari, Ubochi, Ebigbo & Orovwigho, 2010; Ogadho. 2012; Waseka & Simatwa, 2016). There is need to undertake a study that focuses on slow learners in Kakamega County, Kenya to give the perspective from a developing country.

Learning difficulties, and their accompanying cognitive limitations are already a risk to the academic achievement of the learner. However, this may be compounded by negative social perception and insufficient support. Furthermore, large class sizes, low self-esteem and gender issues are challenges that place the student at higher risk of dropping out of school (Strydom, Pretorius & Joubert, 2012; Ogadho, 2012; Kemp, Smith, & Segal, 2014; Waber, 2010). It is evident that apart from the inherent cognitive limitations the academic achievement of slow learners may be influenced by several factors (Alesi et al., 2014; Brier, 1995; Hallahan et al., 2012; Jensen, 2009; Metto & Makewa, 2014). Furthermore, KCSE statistics from Kakamega County indicate that between the 2016-2019 a total of 55841 candidates scored grade D and below (State Department of Education Kakamega, 2019). Comparatively, apart from Bungoma County the neighboring counties of Busia and Vihiga have a relatively small population of KCSE candidature and a small proportion of grade D and below (Appendix 10). In the expressed effort to improve academic performance in Western Region and the country in general, the populous Kakamega County and the headquarter of the Western Region ought to be given preference. Examination of the influence of selected risk factors on the academic achievement of slow learners in secondary schools in Kakamega County may give insight on the areas to focus on for mitigation purposes that may also be implemented in Bungoma county and other counties which depicts a similar scenario.

1.3 Statement of the Problem

Slow learning is an acknowledged aspect of learning difficulties (Abosi, 2007). Qian, (2008) further elucidated that slow learners are characterized by low scores on academic tests. The presence of slow learners in current regular classes is basically acknowledged. However, empirical data, advocacy and pedagogical support are minimal in Africa (Wapula, 2011; Sliver & Bolduc, 2013; Mwangi, 2013). The KCSE statistics from Kakamega County indicate that a total of 55841 candidates scored grade D and below between the year 2016-2019, portentous of the presence of slow learners. Efforts to improve academic achievement in the County therefore ought to inevitably focus on slow learners.

Cognitive difficulties are acknowledged risks to academic achievement of the slow learner. However, other unpremeditated factors may adversely affect academic achievement of slow learners in regular classrooms. Teachers, mandated with facilitating the learning process label slow learners as unteachable, dumb and stupid. There is a marked tendency of teachers rushing over lessons interacting with the bright student while ignoring the slow learners. Notably, Contreras (2011) points to decline in teachers' support system and monitoring at secondary school level. Consequently, teachers' negative perception and apathy pose a risk to the retention, completion and overall academic achievement of the slow learners. Furthermore, implementation of Sustainable Development Goals and 100 percent transition policy has led to large class sizes (TSC, 2019). Large classes limit personalized interaction and support from the teachers which further compounds the slow learners' plight.

Acceptance and support by peers is considered an essential aspect in the psychological and academic wellbeing of adolescent students. Disparagement and indifference from peers is likely to precipitate school disengagement. Ridicule of slow learners by peers is an acknowledged bullying phenomenon in secondary schools. It is however observed that youths value positive valuation and acceptance by peers. A contrary postulation is the preeminence of parental involvement in any given education outcome as espoused by Chen, (2009) and Bempechat & Shernoff, (2012). However, consistent low academic achievement by the learner makes some parents to lose hope. Some parents withhold physical and emotional support from their child which may be detrimental to the academic achievement of the child. Nonetheless, to facilitate advocacy, empirical evidence about the degree of the relationship between perceived peer, parental perception and support and academic achievement of slow learners ought to be clarified.

The custom of favored boys is deeply rooted in African culture. The social situation in general is negative against people with special needs, but for children with special needs and handicaps, the situation is worse (Reiser, 2006; Wapula, 2011). Moreover, gender differences are evident in general academic achievement (Hartley & Sutton, 2013). Coincidentally, sixty percent of the students identified with learning difficulties are male (Taylor, Smiley & Richards, 2009). The attainment of gender equity requires focused gender intervention. This necessitates examination of the relationship between gender and academic achievement of slow learners. Incidentally, low self-esteem in adolescence is touted as a predictor of poor long-term education outcomes. Furthermore, it has been shown that students with learning difficulties in inclusive schools have lower self-esteem

than of their peers in special educational schools. However, the relationship between learners' self-esteem and academic achievement is inarticulate.

Derision, apathy and decline of support from teachers, peers and parents, alongside large class size, low-self-esteem and gender orientation are postulated as risk factors to academic achievement of slow learners. The inferences are however anecdotal and not empirical. The degree of the relationship between the presupposed risk factors are circumstantial and require clarification. Research on the strength of the speculated risk factors will provide empirical evidence and form basis for advocacy and development of appropriate mitigation measures by education stakeholders. The case for Kakamega County is validated by positively skewed KCSE results over the years (Appendix 9).

1.4 Purpose of the Study

The purpose of the study was to examine the influence of selected risk factors on the academic achievement of students with learning difficulties in secondary schools in Kakamega County, Kenya.

1.4.1 Research Objectives

The specific objectives of the study were to;

1. Examine the relationship between perceived teacher perception and support and academic achievement of slow learners in secondary schools.
2. Establish the relationship between perceived peer perception and support and academic achievement of slow learners in secondary schools.
3. Find out the relationship between perceived parental perception and support and academic achievement of slow learners in secondary schools

4. Establish the relationship between learner personal factors (gender and self-esteem) and academic achievement of slow learners in secondary schools.
5. Examine the influence of class size on the academic achievement of slow learners.
6. Establish the comparative influence of perceived social perception and support (teacher, peer and parent), and learner personal characteristics (gender and self-esteem) on the academic achievement of slow learners.
7. Assess the moderating influence of learner's temperament on the relationship between perceived social support and perception (teacher, peer, parental) and academic achievement of slow learners in secondary schools.

1.4.2 Research Hypotheses

Based on the objectives the researcher tested the following hypotheses.

H_{01}: There is no significant relationship between perceived teacher perception and support and slow learner's academic achievement.

H_{02}: There is no significant relationship between perceived peer perception and support and slow learner's academic achievement.

H_{03}: There is no significant relationship between perceived parental perception and support and slow learner's academic achievement.

H_{04a}: There is no significant relationship between gender and slow learner's academic achievement.

H_{04b}: There is no significant relationship between slow learners' self-esteem and academic achievement.

H_{05}: There is no significant relationship between class size and slow learner's academic achievement.

H_{06}: There is no difference in the influence of social perception and support, and learner's personal characteristics on academic achievement of slow learners.

H_{07}: Learner's temperament has no significant moderating effect on the influence of teacher, parent and peer perception and support on slow learner's academic achievement.

1.5 Assumptions of the Study

The study was based on the following assumptions.

1. All Schools in Kakamega County have a population of slow learners.
2. Teachers regard any student in 3rd and 4th form scoring grade D and below as a slow learner.
3. Some slow learners may have underlying learning disabilities that have not been identified.
4. Multiple factors influence academic achievement of slow learners, but the extent may vary.

1.6 Scope of the Study

The study was carried out in Kakamega County. The study focused on selected risk factors namely, perceived teacher, peer, parental perception and support, gender, learner's self-esteem and class size, influence on academic achievement of students with learning difficulties in secondary schools in Kakamega County, Kenya. The selection of the factors was based on the fact that, they have been highlighted in relation to the general student

population and not slow learners. Furthermore, they have been alluded to in literature and witnessed in the teaching field but on anecdotal basis hence the need for empirical evidence. Moreover, focus was only slow learners in the category of learners with learning difficulties. The study targeted form three and four students because of their long duration in school therefore, class teachers could be able to identify them.

1.7 Limitations of the Study

i. Access to information about student performance and personal characteristics was initially a challenge because of confidentiality. This challenge was overcome by assuring principal and class teachers of the sampled schools that the information was for research purposes only and therefore would be treated with confidentiality.

ii. The study was concerned with the influence of perceived social perception and support and not the actual social perception and support.

iii. The study was cross-sectional which does not appropriately determine cause and effect. Future longitudinal study will be complimentary.

1.8 Significance of the Study

The study findings may help teachers, parents and the Ministry of Education know the extent to which perceived teacher, peer, parental perception and support, class size, gender and learner's self-esteem influence slow learner's academic achievement. This may serve as an eye opener about the changes needed in order to provide the necessary material and emotional support to the slow learner with the aim of improving their academic achievement. Teachers as the key participants in the teaching and learning process are likely to benefit from the findings by knowing how their perception and support affect slow learners and the possible intervention measures they may put in place to support these

learners. Findings may also help the Ministry of Education in formulating education policies that are responsive to the needs of the diverse student population and particularly learners with learning difficulties (slow learners).

1.9 Theoretical Foundation of the Study

The theoretical basis of the research was varied. The key theories in education are learning theories variously identified as behavioral, social cognitive, and cognitive-constructivist. However, the current study focused on perception and development approach. Focus on the theories from a developmental perspective was based on the fact that they explore social, emotional and cognitive development. Learning theories tend to focus more on the cognitive aspect of an individual while development theories embrace a wider perspective (Kabiru and Njenga, 2011; Keenan & Evans, 2009). The basis of this research was perception and developmental theories. Developmental theories tend to be inclusive covering biological, social, emotional and cognitive domains. Attribution perception theory, Urie Bronfenbrenner's bio-ecological model and Lev Vygotsky sociocultural theory were discussed. However, Urie Bronfenbrenner's bio-ecological model and Lev Vygotsky sociocultural theory are the key theoretical frameworks of reference.

1.9.1 Perception Theory

Perception refers to the way sensory information is organized, interpreted and consciously experienced (Keenan & Evans, 2009). It is basically a way in which we make sense of the world experiences based on our visual, auditory and tactile senses. Perception has many facets however; the focus of the study was social perception. Social perception theories deal with the nature, causes and consequences of perceptions of social entities. The social entities include individual inferences of self and significant individuals within a person's

environment (Demuth, 2018). The attribution theory was preferred in this study because its concerned with the relationship between individual's perception of events and the ensuing thought and behavioral process (Weiner, 1986).

The foremost argument is, there is a close relationship between perceptions formed and the subsequent actions taken by individuals. Decisions on whether to engage or avoid interaction with people in an individual's environs are basically governed by perceptions. Furthermore, social perception correlates with the 'self-fulfilling prophecy', a phenomenon whereby people's expectations may alter realities to conform to the expectations (Jussim, 2012; Zigman, 2018). Essentially, the way an individual perceives the expectations of others informs the actions of the individual and subsequent outcomes. The applicability of the theory to the current study relates to the presupposition of the learners perceived social perception as exemplified by comments, material and moral support by teachers, peers, and parents and the eventual relationship to the learner's academic achievement. The premise of the study was; observation of predominantly negative perception from the significant social constituents was likely to be detrimental to the cognitive development and academic achievement. Negative perception was posited to precipitate social disengagement thus limiting individual consultations and participation in class discussions which may negatively impact slow learner's academic achievement.

1.9.2 Bio-ecological Model of Development

Urie Bronfenbrenner's model deplores the overemphasis on lab research. Bronfenbrenner argues that appropriate study of development ought to entail observation of children and adults in their real environment (Keenan & Evans, 2009). According to the model,

environment is not static and narrow but rather dynamic and broad. The model depicts an environment consisting of a series of nested structures extending outside the individual's immediate setting. In the model the individual is centrally located in a system of layers within the environment; microsystem, mesosystem, exosystem and macrosystem. These systems have a vital influence on the development of the individual. The microsystem is the immediate environment and encompasses the family, peers and school. Bronfenbrenner's perspective is that the individual is not a passive participant in the environment but actively plays a role in formulating relationship with the people surrounding him (Bempechat & Shernoff, 2012).

Long term bidirectional relations between the child and the parent are considered as having a stable, enduring impact on the individual's development. Particularly utterances and actions of the parent are considered as important determinants of a learner's academic achievement. This view lends support to the current study's hypothesis of parental influence on academic achievement of slow learners. Similarly, the comments and level of interactions between teachers and peers inevitably influence the individual The bio ecological model of development therefore provides an ideal perspective of how various factors such as, inherent characteristics, nature of the school, individual's background, teachers, peers, parents and school community influence the development of the individual.

1.9.3 Lev Vygotsky's Sociocultural Theory

Lev Vygotsky's sociocultural theory has received acclaim in learning and human development studies because of its emphasis on the influence of culture and social environment on human development. Like Piaget, Vygotsky supported the view that a

child is an active explorer of the environment (Keenan & Evans, 2009). However, while Piaget gave eminence to the solitary efforts of the child in acquisition of knowledge, Vygotsky emphasized the significance of the contributions of other individuals interacting with child. According to Vygotsky cognitive development occurred as a result of a child's interaction with individuals who are more skilled (Qian, 2008). From Vygotsky's point of view, instructions and assistance provided by the skilled individuals facilitated the development of innate abilities of the child (elementary mental functions) to higher mental functions. Vygotsky argued that cognitive development resulted from the internalization process which progressed from interpersonal to intrapersonal functionality. In essence an individual acquires from others the skills and knowledge internalizes them and owns them leading to a desired change. In essence the interaction between teacher, peer apparent and slow learner has influence on how skills and knowledge will be internalized as conceptualized in the current study.

The concept of zone of proximal development (ZPD) is significant to Vygotsky's theory. The concept illustrates the influence of social interaction with experienced members of the society on a child's development. Vygotsky described the zone of proximal development as the variance between the child's actual development level based on their individual effort and their potential development under adult guidance or collaboration with more capable peers. According to the concept it is more logical to measure the child's prospects for learning under adult guidance than the assessment of what the child is capable of doing unaided (Keenan & Evans, 2009, Qian; 2008)

More research about the concept of zone of proximal development led to the advancement of the scaffolding process in learning. Scaffolding is described as interactive process in which the adults regulate the amount and type of support offered to a child to facilitate the mastery of the skill being taught. Sensitivity to the learner's level of development is a key aspect in effective scaffolding (Rogoff, 2003). The emphasis is still on the value of social interactions that bring about the desired outcome in the individual.

Peer collaboration, is yet another key concept in Vygotskian method that has led to the evolution of the reciprocal teaching method. The method embraces the idea of peer involvement in learning and development of students with learning difficulties. The method entails the use of peers to nurture discussions about a subject matter to a level that is past the child's ability but within their zone of proximal development. It involves creation of groups under the supervision of the teacher. The purpose of the group is to engage in collaborative learning with learners taking turns to lead the discussion in the group (Keenan & Evans, 2009, Qian, 2008). Essentially Lev Vygotsky's sociocultural theory outlines the importance of parents, teachers and peers in academic achievement of students with learning difficulties.

The strength of the theories lies in their recognition of the influence of social relationships on the development of an individual. Bronfenbrenner's theory particularly recognizes individual differences and gives perspective on how to assist a child experiencing difficulties in learning. However, it is difficult to ascertain the hierarchical importance of interactions within the systems in order to reinforce interactions that are of greatest positive influence (Keenan & Evans, 2009; Macleod, 2018). Vygotsky's theory emphasizes the

importance of social interaction which forms the basis for student-centered and collaborative learning. Nevertheless, despite scaffolding having a cooperative appearance, the approach tends to be teacher-centered negating the essence of student-centered learning. Furthermore, there is an emphasis on verbal instructions as opposed to learning through observation which is deemed to be more effective in retention of information (Macleod, 2018). The theories however assist in highlighting the focus of the current study in terms of the importance of social interactions and relationships, inherent characteristics and environmental influence on academic achievement of slow learners.

1.10 Conceptual Framework

The conceptualized relationship between the variables is illustrated in figure 1.1. The independent variables were perceived teacher, peer, parental perception and support, class size, gender, and self-esteem whereas slow learners' academic achievement was the dependent variable being moderated by learner's temperament. It is presumed that perceived teacher perception and support would determine whether the learner would seek out of class consultations or avoid regular contact with the teacher which would influence the academic achievement. Similarly, perceived peer perception would engage or disengage the learner from active participation in classroom activities, limit or enhance peer tutoring and consultation hence increasing or decreasing academic achievement of the slow learner.

It was further hypothesized that perceived parental perception and support would encourage or discourage the learner and thus lower or raise the academic achievement. Discernment of negative parental perception and inadequate emotional and material

support from the parent are therefore considered a risk factor in the academic achievement of slow learners. Large class size was visualized as a risk because they limit individualized attention and quick academic feedback between teacher and learner hence influencing academic achievement. Furthermore, cultural dictates and government policies would jeopardize or favor a particular gender. Subsequently, academic achievement would be influenced by a specific gender orientation whereby a particular gender would be at risk of lower academic achievement compared to the other. Additionally, learners differ in self-esteem. Those with high self-esteem are outgoing, interact closely with peers and feel free to share with parents and teachers increasing opportunities to improve their academic performance, conversely, those with low self-esteem tend to withdraw from social interactions which would pose a risk to their academic achievement.

Learners with difficult temperament characterized by shyness, irritability, moodiness and inattentiveness would compound negative perception from teachers, peers and parents and attract less emotional and material support thereby negatively influencing academic achievement. Conversely, an easy temperament would predispose positive perception and more support thereby increasing academic achievement. It is envisaged that learner's temperament would moderate the relationship between the social perception and support (teacher, peer and parent) and slow learner's academic achievement.

The conceptual framework is supported by Urie Bronfenbrenner's bio ecological model of development and Lev Vygotsky social cultural theory (Keenan & Evans, 2009). According to the model and theory the individual's development is influenced by the immediate environment and socio-cultural aspects particularly the knowledgeable others. It is

therefore hypothesized that the way the learner perceives teacher, peer, and parent interaction with the self, alongside gender, learner's self-esteem and class size would significantly influence the slow learner's development particularly the academic achievement. Figure 1.1: Conceptual framework gives a graphic illustration of the variable interactions. It depicts that perceived teacher perception and support, peer perception and support, parental perception and support, gender, self-esteem and class size (independent variables) influence slow learner's academic achievement (dependent variable) and learner's temperament is a moderating variable.

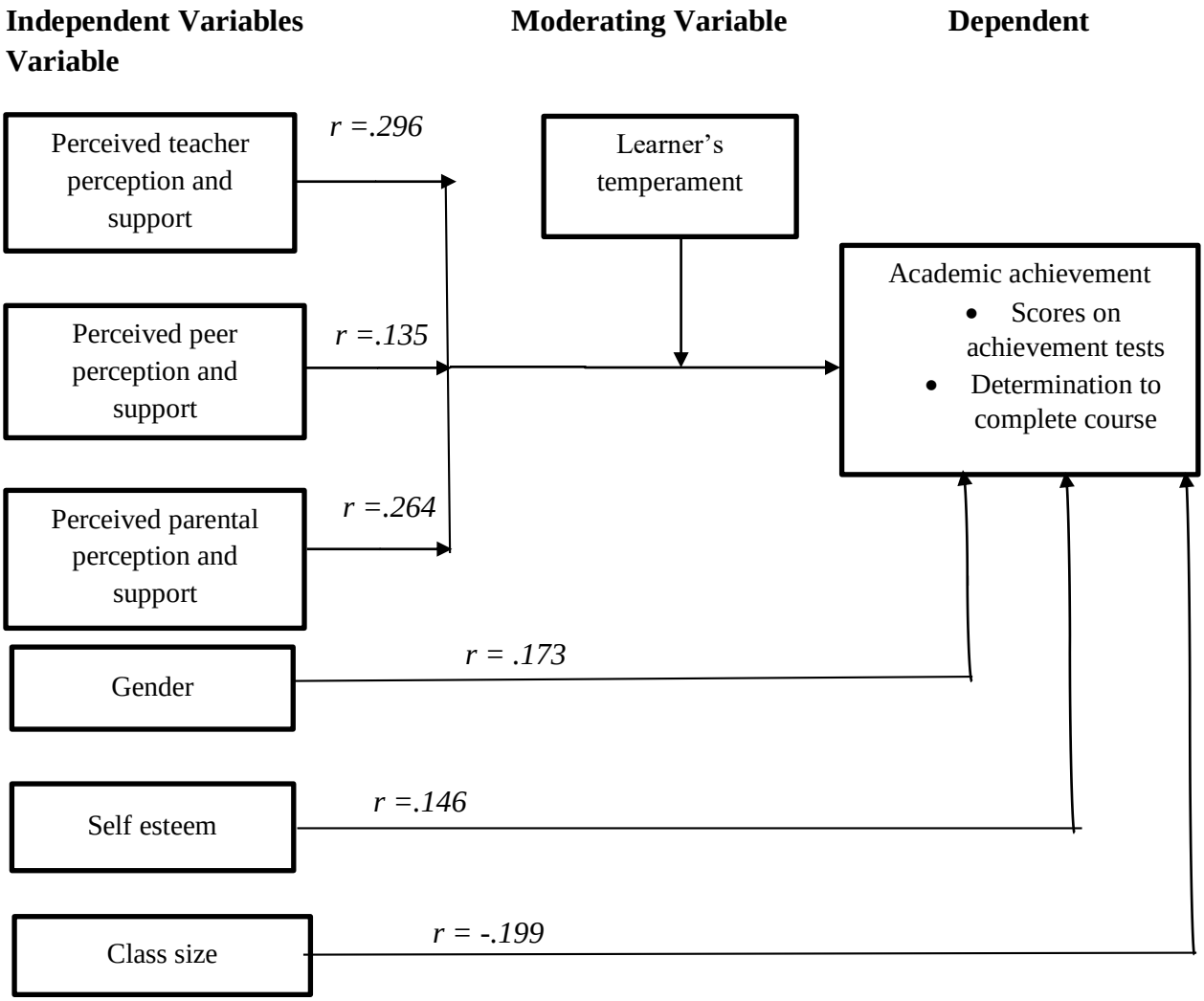

Figure 1.1: Conceptual Framework

Source: Reseacher,2018

1.11 Operational Definition of Terms

Academic achievement: refers to scores on academic tests and determination to complete high school course.

Class size: refers to number of students per class.

Disability: **P**hysical, visual, mental or other shortcomings that adversely affect involvement in society, economics or the environment

Inclusion: The philosophy of transforming home, education, and community to provide opportunities for individuals to connect, play, learn, work, and experience a sense of belonging and success based on their abilities and challenges.

Inclusive education: An approach that provides appropriate education in regular schools to students with disabilities and special needs, regardless of age or impairment.

Learning difficulties: refers to slow learning; a learning problem characterized by difficulty in acquiring knowledge and mastering skills leading to consistent low scores on achievement tests.

Low grades: refers to grade D, D- and E based on the Kenya education grading system.

Perceived teacher perception and support, refers to learner's observation of caring, friendly relationship with the teachers, guidance and counseling sessions and comments made by the teachers.

Perceived peer perception and support; refers to learner's observation of a caring, sociable interaction with classmates, assistance, acceptance and the comments made by the classmates.

Perceived parental perception and support; refers to learner's observation of parental attitude, and interactions, nature of discussions and comments of academic progress, provision of revision materials for the student and regular visits to school for academic consultations.

Regular classroom: Classroom in a regular school that consists of learners regarded as normal; who have no disability.

Regular Schools: Mainstream schools are educational institutions that accept students that are not disabled.

Risk factors, in this study, risk factors refer to negative perception and low support from teachers, peers and parents, learner's low self-esteem and large class sizes.

Slow learner: learner identified with low cognitive abilities and predominantly scores mean grade D, D- and E in the 3rd and 4th form.

Social perception and support: refers to the observed acceptance, assistance and care offered by teachers, peers and parents.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter explores the views outlined in literature concerning the research variables. Empirical literature has been discussed under the following sections: First, Teacher perception and support and slow learners' academic achievement; second, peer perception and support and slow learners' academic achievement; third, parental perception and support and slow learners' academic achievement, fourth, gender and slow learners' academic achievement; fifth, self-esteem and slow learners' academic achievement and lastly, class size and slow learners' academic achievement and learners temperament. The chapter also gives a summary of knowledge gaps.

2.2 Risk Factors influencing Academic Achievement

There are many risk factors that may influence academic achievement of slow learners. This study however focused on perceived teacher, peer, parental perception and support, gender, learner's self-esteem and class size because of the highlight in literature in relation to the general student population.

2.2.1 Perceived Teacher Perception and Support and Academic Achievement

The teacher is an important factor in the learning process. Biggs (2011) specifically assigns the teacher the key responsibility of creating a learning environment that facilitates learning activities. Diverse studies have been undertaken on the influence of teachers on academic achievement of learners focusing on different aspects of the teacher. However, Contreras

(2011) notes that most researchers tend to focus on the practice of the teachers, teacher qualification and experience neglecting their philosophy and belief. Contreras however contends that teachers' beliefs, practices and attitudes are more significant in comprehending and improving educational processes. Furthermore, Sanders and Jordan (2000), Calabrese, Goodvin and Niles (2005) argued that there is relationship between attitudes and personality traits of teachers dealing with vulnerable students and the learners academic outcome.

Teachers with good interpersonal skill, who not only address the cognitive ability of the learner but also their feelings subsequently influence the academic achievement of the learner. A positive and courteous relationship between teacher and student is deemed an important classroom factor in promoting academic achievement. Worley (2007) similarly noted that student-teacher relationship is an important aspect in the learning process. These assertions imply that when teachers portray a caring, friendly and supportive attitude, when there is a rapport between the teacher and the student chances of academic development are higher. However, the learner has to perceive that indeed the teacher is empathetic, approachable, values and supports the student even if they are struggling academically.

The influence of teacher perception on a learner's performance is significant. Palmer (2006), Woolfson, Grant and Campbell (2007) and Angelides (2008) postulated that negative attitudes and low expectations by teachers impair students' self-beliefs and result in reduced chances for students to learn. In essence the learner ceases to put in extra effort because the teacher has already conveyed the message that the learner cannot make it, the

learner is likely to avoid personal consultation when such a teacher attitude is perceived. Furthermore, the teacher is unlikely to offer extra support to the leaner because subconsciously the teacher feels it is wasted effort. Positive perception and high expectations increase learning opportunities that can boost students' success, self-expectations, and self-esteem (Angelides, 2008).

The argument advanced is that when learners perceive that the teachers expect them to fail they may inevitably fail however, if the learner perceives that the teacher expects them to pass they are likely to work hard in order to fulfill the teacher's expectation. The implication is teacher's perception and support is likely to influence the learner's personal study efforts including individual consultation with subject teachers. When teachers communicate great expectations they are likely to spur the learner to greater efforts in improving their academic performance on the contrary low expectations demotivate the learner and lays ground for low academic achievement. It is on this premise that Winter (2006), Angelides (2008) and Contreras (2011) posit that teachers' positive perception and support is critical in facilitating students' academic development.

Hattie (2009) examined how student-teacher ties impacted investment and academic performance in education. The results show that a partnership between student and teacher has a substantial positive effect on the willingness of students to engage in prudently, which affects academic achievement directly. It was observed that person-centered teachers facilitate self- respect and higher academic achievement. Empathy, love, cooperation, competence, patience and calmness are considered ideal characteristics to be exhibited by the teacher (Lerner, 2004). Teacher-student relationship is therefore considered an

important mechanism in school adjustment. Essentially, effective schools characterized by teachers who are caring, fair and empathetic reduce drop-out rates.

Contreras, (2011), and Friend and Gately (2003) observe that teachers are the main source of motivation for a child noting that the dismissive attitude of some teachers may discourage active participation of students in class discussions which is an impediment to academic achievement. Furthermore, Silver and Bolduc, (2013) observe that punitive systems are rarely beneficial to the slow learner and in most cases only strain teacher-student relationships and thereby impede learners' academic achievement. Clearly, empathy, care, concern and support may improve learners' academic achievement especially for the slow learner.

Lee (2007) explored the impact on academic performance of 7th grade students in South Korea of the relationship between teacher and student trust and found a strong and positive link between the student trust meaning and academic achievement. It turned out that students who feel that they are approved by their teachers are highly motivated to develop and encourage the student to succeed at school to develop a sustained relationship with the teacher. Lee also argued that the view of students as positive teachers made it possible for students to have a good sense of belonging and encouraged school success. Similarly, some researchers note "teachers' ability in developing positive caring bonding with students is very crucial in cultivating a positive learning environment and promoting student achievement" (Erkman, Canor, Hande Sart, Borkan and Sahan, 2010 p.297). The importance of positive perception and teacher support in academic achievement is clearly emphasized.

Incidentally, Gutman and Eccles (2007) argue that secondary school settings do not support children's development because they are characterized by less supportive teachers. They observe that teachers in high school have more negative attitudes towards students and most harbor a belief that academic abilities cannot be changed by class instructions. Rice, Barth, Guadagno, Smith, & McCallum (2013) also point to a general decrease in teacher support to the learner at high school level; they further note a tendency of high school teachers having more negative attitudes towards students with learning difficulties. In support of this perspective, Woodcock (2013) found that secondary school trainee teachers had the least positive attitude towards students with Specific Learning Disabilities (SLD) compared to their primary school counterparts. Teachers as the key facilitators of the learning process inevitably interact with slow learners at secondary school level, their perception and support of the slow learner is therefore a key determinant of the learner's academic achievement. Positive teacher perception and support may herald greater academic success while negative perception and low support may be a risk to the slow learners' academic achievement.

Erkman et al., (2010), examined the influence of perceived teacher acceptance on academic achievement of school age children in Turkey. The findings indicated a significant correlation between perceived teacher acceptance and academic achievement of boys *($r = 0.27, p < 0.05$*), however the correlation was insignificant among girls *($r = 0.19, p > 0.05$).* Regression analysis similarly portrayed that perceived teacher acceptance was a significant predictor of boys' academic achievement. The inference drawn is that students are likely to achieve when they feel warmth, empathy and positive reinforcement from teachers

conversely lack of warmth and empathy from teachers is likely to result in lower academic achievement.

Paul (2016) argues that teachers ought to make the learner feel wanted and needed despite the presumed failure to meet school and family expectations. This implies that the teachers should be on the forefront of moderating the parents' and peers' expectation based on their skills and knowledge of the learning process. Williamson and Ryan (2012) basically, point to need of teachers reassuring parents about the progress of the learner and dissuading parents from putting undue pressure on the learner. Essentially teachers ought to have favorable perception of the slow learner in order to advocate for empathy and support from parents and peers.

However, Williamson & Ryan (2012) observe that in Alberta (Canada) slow learners are described as the '*dangerous others'* because they impede the class progress and obstruct proper development of other students. One researcher in China observed "teachers do not want 'hou jing sheng' (slow learners) in their classes because they may affect the average score of exam results of the whole class" (Qian, 2008, p.24). This connotes negative perception of slow learners by teachers. The importance of teacher support is illustrated by Chen (2008), who found that perceived teacher support significantly and positively related to academic achievement *($E_d = 0.34$, $p < 0.05$)*. Similarly, Ahmed, Minnaert, Van der Werf and Kuyper (2010) researched on perceived social support and early adolescent achievement. The findings indicated significant correlation between teacher support and math achievement *($r = 0.43$, $p < 0.01$)*.

Rice, Barth, Guadagno, smith & McCallum (2013) also established a relationship between teacher support and self-efficacy in math and science. Their study yielded a correlation index of .29 and .26 between teacher support and math and science self-efficacy respectively. This implies that when the learner perceives greater teacher support there is likely to be a greater academic achievement. The findings support the assertions that teachers help and advice on academic tasks enhances students' academic achievement. Furthermore, the findings reinforce the importance of close contacts between teachers and students. It is therefore evident that perceived teachers' acceptance and requisite teacher support influence learner's academic achievement hence the need to examine the relationship between perceived teacher perception and support and slow learner's academic achievement.

Studies on the relation between teacher characteristics and students' academic achievement have focused on diverse aspects. Olaleye (2011) found a significant relationship between teacher characteristics and students' academic achievement. Similarly, a study undertaken by Fakolade, Adeniyi and Tella (2009) indicated that the patience of a teacher and willingness to go an extra mile for the learner may be of assistance to the slow learner. This underlines the importance of teacher perception and a support. Kosgei, Mise, Odera, and Ayugi (2013) focused on teacher qualification and experience. The findings indicated a statistically significant relationship between teacher experience and learner's academic achievement and no significant relationship between teacher qualification and student academic achievement.

Chokera (2014) posited that effective teachers ought not to only pay attention to students' progress but should also offer guidance and praise for effort and accomplishments particularly those teaching children with special needs. However, Ndani & Murugami (2009) noted that teachers commonly label slow learners as unteachable, hard to teach, difficult, thoughtless and stupid or irrational an observation supported by Rasugu (2010). Metto and Makewa (2014) similarly, observed that teachers tend to rush over lessons interacting only with the brilliant students while ignoring the struggling and slow learners. It can therefore be deduced that teachers' perception is tending towards the negative spectrum raising concern about the influence on slow learners' academic achievement.

Moreover, the education system in Kenya is result oriented; exam results are viewed as a parameter of efficiency and effectiveness in the teaching and learning activities in school. Value is attached to the mean score and position in the school ranking at national, regional and local level (Wanyonyi, 2010). This perspective tends to jeopardize slow learners' retention and completion rates in schools, because of the low grades and general poor academic performance; some are coerced to repeat the class with some opting to drop out of school (Bota, 2007). Makeo (2013) notes that the way teachers behave and interact with students impact the way the child learns. He further argues that the teacher ought to be sympathetic and understanding for the learner to learn. Essentially the learner should perceive a friendly teacher regardless of whether the learner fails or succeeds. In Kisumu East District, Ogadho (2012) noted that the attitude of the teacher was critical in influencing learning of learners with learning disabilities. Ogadho, indicated that, 72% of the

respondents considered teacher attitude as an important predictor of the dropout rate of pupils with learning disabilities.

Essentially, slow learners are in regular schools and classrooms as submitted by Mwangi (2013). However, Ndani & Murugami (2009) suggest negative teacher perception while Metto and Makewa (2014) infer inadequate support from teachers. The relationship between perceived teacher perception and support and slow learner's academic achievement ought to be clearly highlighted to facilitate focused advocacy and appropriate mitigation measures. Moreover, most studies (Mwangi, 2013; Ogadho, 2012; Rasugu, 2010; Bota, 2007) have tended to focus on primary schools yet negative attitudes and reduced teacher support is inferred at secondary school level (Gutman and Eccles, 2007; Rice, Barth, Guadagno, Smith, & McCallum, 2013; Woodcock, 2013). Most of the studies have involved the general student population with minimal reference to learning difficulties. Generally, there is limited studies on hidden learning difficulties particularly slow learners. Consequently, the current study focused on slow learners in secondary schools.

2.2.2 Perceived Peer Perception and Support and Academic Achievement

Studies on factors fostering academic development have tended to focus on teachers and parents (Kindermann, 2015; Rice, Barth, Guadagno, Smith, & McCallum, 2013). However, Murat (2017) observes that while both perceived teacher and peer support has significant impact on students, the role of peer support has been downplayed. Incidentally, Ahmed, Minnaert, Van der Wert & Kuyper (2010) note that the influence of peer support on student performance increases during adolescent years. Cillessen and Van den Berg (2012) and

Misanya (2013) concur that peers and peer groups have great influence on behavior of an individual especially in the adolescent stage. The need to belong and be accepted by peers is therefore paramount, especially among the adolescent population in secondary school.

Evaluating peer influence on academic achievement is essential for parents, teachers, and learning institutions (Boucher, Bramoulle, Djebbari & Fortin, 2012). Seemingly, adolescent learners place more value on peer support and perception compared to teacher and parent support and perception (Bowen, Hopson, Rose, & Glennie, 2012; Hayashi, 2016; Kindermann, 2015). It is observed that peers readily accept individual differences and are likely to empathize with the academic struggle of a fellow learner (Williamson & Ryan, 2012). It is also noted that peers are more patient in assisting and tutoring a fellow student (Hamm & Zhang, 2010; Kindermann, 2015). Furthermore, it is argued that "Peers make children's time at school tolerable and enjoyable. They provide companionship, entertainment, feeling of belonging, help, personal validation and emotional support" (Kindermann, 2015, p. *2)*. The value of peer acceptance and support is underpinned.

Murat (2017), further postulated that positive peer perception and willingness to support heralds better academic achievement while negative perception and limited peer support is likely to impede academic progress of the learner. Murat additionally claims that learners need to sense support and perceive acceptance from the people they associate with in the classroom especially peers. Oelsner, Lippold & Greenberg (2011) supports the view noting that lack of peer support is likely to precipitate a decrease in academic achievement an opinion supported by Chen (2008). Hamm & Zhang (2010), also note that acceptance by

peers' fosters motivation and learning, conversely peer rejection restricts participation in classroom activities which may be detrimental to academic achievement. Daly, Shin, Tharkal, Selders & Vera (2009) and Ryan, Jamison, Shin and Thompson (2012) concur arguing that peer support enhances participation in academic and other related school activities observing that help and assistance from peers has a direct influence on subsequent academic performance.

However, Chen (2009), and Gherasim, Butnaru and Mairean (2013) contradict the assertions pointing out that peer support levels are independent of academic achievement. Basically, their argument is that other sources of social support have more significance compared to peer support. The aforementioned studies however, focused on the general student population hence there is no clarity on effect of peer support on students with learning difficulties. More research on influence of peer support on academic achievement is therefore necessary.

Suran jana, U jjani and Manas (2015) focused on the importance of peer tutoring noting that not only did peer tutoring improve learner self-confidence but also academic performance. The study was undertaken in Mauritius. However, other studies (Martin, Mullis, Fay & Stanco, 2012; Gherasim et. al 2013; OECD, 2013) indicate that girls are more influenced by peer relations compared to boys. This is contradicted by Rueger et al (2009) and Shute et al. (2011), who noted that peer support is a greater predictor of school attitude in boys compared to girls. Furthermore, Murat (2017) and Yildrim, Yildrim, Yetisir and Ceylan (2013) posit that influence of peer support on academic achievement is

significant in developed western countries and not in non-western countries a view supported by Chen (2009) and Gherasim et. al (2013). Notably, the findings of Bowen et al. (2011) gives more weight to the influence of peer support at higher grade. Daly et al. (2009) concurs with the argument that peer support protects students from disengagement from school activities but notes that social support has insignificant influence on performance of older children a view negated by Qian (2008) who argues that it is the older children who are influenced greatly by peers while younger ones are influenced more by adults. Clearly, despite innumerable studies on the relationship between peer factors and academic achievement, gaps still exist in the area of influence of peers factors on academic achievement of students with learning difficulties.

Incidentally, focus on peer influence has commonly been from a negative perspective (Dishion, McCord & Poulin, 2011) however there is need to consider the positive influence of peers. Peers are not only essential for behavioral and affective development but also for cognitive development. Kindermann (2015) asserts that peers have substantial negative and positive influence on learners which ought to be examined. Furthermore, Chen (2008) observed that while peer influence has always been viewed from a negative perspective the extent to which perceived peer support is related to academic engagement and achievement is not clear hence need for more research.

Ajibade (2016) postulates that, the most important influence on student behavior to learning is not necessarily a teacher but more of fellow students. The author concedes that there are other factors influencing learning but avers that the role played by peers is more

important. He further argues that a student who is not brilliant (by inference slow learner) may do better when accepted by peers who are inclined to study thereby offering relevant academic support. The study undertaken by Ajibade in Nigeria established that 58% of the students felt that friends' support in class discussion aided them to improve their grades. It may therefore be concluded that, in order to change students' performance, consideration ought to be given to their relationship with their classmates. More so the perceived perception and support from classmates.

In comparison, Mosha's (2017) study in Tanzania considered the influence of peer groups on academic performance of adolescent students in secondary schools. The study established that peer relationships had a substantial influence in determining students' academic performance. This supports the popular argument that during adolescence peers exceed parents as primary source of social support. Acceptance by peer is viewed as a vital part of adolescent self-identity and peer affiliation. Mosha observes "The influence of the peer educational climate is defined by the amount and style of help that children receive from the peer group" (p19). This implies that peer support and peer perception play an important role in school academic outcomes. Peer relationships essentially foster acquisition of problem solving skills and empathy which eventually may have an impact on academic achievement of individual students.

Korir and Kipkemboi (2014) found that peer influence contributed significantly to the academic success of students. They revealed 44% and 36% of respondents strongly agreed with and agreed that friends inspired them to work hard in school. Surprisingly, 53% of the

respondents said that their friends made fun of students who worked hard in school. This portrays the positive and negative aspects of peer influence. On one hand the peer encouragement to work hard may lead to improved academic performance, on the other hand ridicule from the peers dissuade extra efforts which may lower academic achievement. However, a regression analysis between peer level factor and students' academic performance depicted a positive but weak relationship (beta coefficient of .012). The implication was that peer factors have a low prediction power on the academic achievement of students. Similarly, Chen (2008) found that perceived peer support had no significant relationship to student academic achievement. Essentially learner's perception of low or high level of support from peers had no influence on the academic achievement of the learner.

However, Ezzarrouki (2016) established a significant correlation between peer influence and academic performance ($r=.556$, $p\leq.005$). Ahmed et al. (2010) similarly found a correlation between peer support and math achievement ($r=.25$, $p\leq.01$). This denoted that the more support a learner gets from the peer the higher the academic achievement while less peer support is related to low academic achievement. Equally, Boucher et al. (2012) using the conditional maximum likelihood and instrumental variables method found a large and significant peer effect in mathematics achievement (.827 $p\leq.05$). Makeo (2013) also found that 60% of the teachers felt that peers greatly influenced mathematics performance in Tana River County, Kenya. The importance of peer influence in academic achievement is clearly emphasized.

Misanya (2013) contends "in order to improve student outcomes it is important to know which inputs influence their performance most and the relative importance of peer effects compared to other inputs" (pp2). In essence there is need to consider all possible aspects of peer influence on academic achievement. Generally, peer influence is regarded as a vital component in academic achievement of a leaner however its influence on the slow learners' academic achievement has not been clearly established. Furthermore, most studies (Murat, 2017; Kindermann, 2015; Korir and Kipkemboi, 2014; Boucher, Bramoulle, Djebbari & Fortin, 2012) have focused on other aspects of peer influence other than peer perception and support. Moreover, the focus has been the general student population and not those with learning difficulties. This study aimed at examining the influence of perceived peer perception and support on academic achievement of slow learners. The research findings may form a basis for mitigation measures with the purpose of reinforcing the positive peer influence and alleviating the negative peer influence.

2.2.3 Perceived Parental Perception and Support and Academic Achievement

Parental involvement is a major determiner of positive or negative school outcome (Rice et al., 2013; Brooks, 2004). Martinez and Alvarez (cited in Ramon and Nicasio, 2012) point out that parental involvement stimulates appropriate children's academic development in general and is vital in case of learning difficulties. It is implicit that lack of parental involvement maybe a risk factor influencing academic achievement of students with learning difficulties. It is evident that positive comments and reward from parents, paying school fees, visiting students at school, attending academic days in the school form a repertoire of parent support that may influence the academic achievement of the student (Hanson, 2001; Heward, 2006; Navarro et al, 2007).

It is indicated that positive parent-student discussions positively affect student achievement and reduce behavioral problems (Shute, Hansen, Underwood & Razzouk, 2011; Hardcastle, 2006). In support of the highlighted views Lerner and Kline (2006) point out that the extent to which parents provide assorted activities prominently influence the child's progress at school and the decision to, leave or continue with learning. It is therefore essential that parents of children with learning difficulty actively participate in helping their children to learn.

The popular perspective is that parental influence on academic achievement of a learner outweighs that of any teacher, therapist or counselor a view that is supported by Demaray, Malecki, Rueger, Brown & Summers, 2009; Barile, Donobue, Anthony, Baker, Weaver & Hendrich, 2012 but negated by Bowen, Hopson, Rose & Glennie (2012) who argue that friend support outweighs the contribution of parent and teacher. Parents' positive viewpoint on education and their dynamic involvement in child's academic activities are important factors prompting academic development of many children (Phillipson, 2010; Powell, Son, File, & San Juan, 2010). It is observed that parents influence is even more pertinent for pupils with complex complications that can affect their capacity to learn such as learning difficulties. Campbell and Verna (2007) and Dyson (2010) argue that a parent's positive attitude towards the child and parental support increase pupils' self-confidence in their aptitudes and stirs the child's interest in satisfying parent's expectations.

Reese, Bird, and Tripp (2007) established that, when parents interacted with their children regularly, positive outcomes usually occurred. They inferred that positive talk in parent-child conversations regarding a conflict situation had a profound effect on the self-concept

of a child. The connection between conversations concerning past positive events and children's self-esteem was significant (Reese et al., 2007). It is evident that the presence of warm and encouraging parents who raise their children authoritatively, take interest in their academic progress and hold high aspirations for the child's educational achievement facilitates high academic achievement (Steinberg, 2011). Bempechat and Shernoff (2012) contend "Parents are their children's first and primary guides through their schooling experiences and therefore can serve to greatly buffer or compound risk factors for disengagement and low academic achievement" (pp 316). They further argue that parents' behavior and beliefs have profound influence on a how the child perceives his or her intellectual abilities and the value of learning. According to Rice, Barth, Guadagno, smith & McCallum (2013) parents' perception of learners' academic ability, achievement expectations and support influence children's academic self-perception, they concluded that higher parental support led to positive math attitude. Similarly, Wilkins and Ma (2003) pointed out that parental support was predictive of college students' grade.

Many educators consider parental involvement an important component of education out comes (Shute, Hansen, Underwood & Razzouk (2011). Shute et. al established that discussing academic issues yielded the strongest positive association with academic achievement. Parent- child discussion had a significant relationship to student achievement (β=.15, $p < .01$). Chen (2009) found a correlation of overall parental involvement to academic achievement as r=.25 which is a medium size effect. Howard (2006) observed that, it is the responsibilities of parents to make their children with learning difficulties succeed in class by cultivating self-awareness and self-confidence. However, Lerner (2006) observes that a majority of parents have lost hope in their children with learning

difficulties and would rather not invest their time and resources in them. Furthermore, Pomerantz and Eaton (2001) observed a tendency of learner underachievement attracting more parental supervision. However, Chen (2008) argues that sometimes adolescent learners may view parental support as interfering with their independence which may negatively impact academic achievement. In fact, Chen advances the argument that parents ought to know when to step back and when to offer assistance. By inference parents ought to discuss with the students the specific kind of support that is beneficial because from the learner's perspective not all parental support is beneficial. However, it is opined that good communication and parental involvement in attending school activities are essential to overcome academic difficulties.

Vidhya (2014) states that parents of slow learners should accept, respect and guide their children. Furthermore, the parents should build the child's confidence and boost their morale in spite of recurrent failures. Chandramuki, Indiramma, and Mysore, (2012) observed that insufficient family support system and negative attitudes of parents are risk factors in the development of children with learning difficulties; it is further observed that disappointed parents tend to develop negative attitudes toward the child with learning difficulties The emerging perspective is that constructive parental involvement in the life of a student with learning difficulties may expedite improvement not only in the social relationship but also in the academic domain. Whereas, neglect and apathy towards the learner may negatively impact their social and academic development.

Ahmed et al. (2010) observed a positive and significant correlation between parental support and math achievement ($r=.34$, $p< .01$). They concluded that parents ought to be

informed about the benefit of their praise and encouragement to a learners academic achievement. In contrast, Chen (2008) in the study undertaken in Honk Kong found that perceived parental support directly and negatively related to academic achievement of form three, four and five students but was significant for only form four Students (E_d=-0.34, p< .001). In essence the more the learners perceived the parents as supportive the less they performed academically. Which contradicts popular assumption that the more students perceive parents as supportive the greater their academic achievement.

In a study undertaken in Botswana it was portrayed that parents of children who have some disability start worrying about their performance in school and future prospects (Wapula, 2011). According to Wapula if a child has a learning difficulty, parental love, reassurance, and support can make a difference in assisting him or her develop a strong sense of self-confidence and the resolve to succeed. Wapula, further posits that influence of parental support in reducing dropout rates in children with learning difficulties is greater than that of the teacher, counselor or therapist. There is a consensus that parents of slow learners tend to detest school assessments, because their children have difficulties with the tests, the tests cause anxiety, and the learners constantly fail. On many occasions parents are concerned that calling attention to the child's learning problems might lead to labelling as "slow" or assignment to a less challenging class or worse denial of admission to some schools. Some parents end up losing hope and developing negative attitudes towards their children with learning difficulties (Lerner, 2006). Indeed, when there is a clear learning difficulty the disappointed parents tend to develop negative attitudes towards the child. Some of them become over-protective and others make impractical demands on the child (Borah, 2013).

Moreover, Wapula (2011) observed that Parents' attitude (of support, reassurance and optimism) will have the most long-term impact on children with learning difficulties. Clearly parents are affected by their children's perceived learning difficulties and there is a great likelihood of parents developing negative perception and withholding support of. The importance of parental involvement is however illustrated by Mahuro and Hungi (2016), their study in Uganda established that a unit increase in parental participation led to a unit increase in academic achievement. Specifically, a unit increase in parenting skills significantly increased student numeracy and literacy score by 6% while parental communication skills increased numeracy and literacy scores by 15% and 12% respectively. This finding further emphasizes the importance of parental involvement in efforts to improve learner's academic achievement regardless of whether they have learning difficulties or not.

Moss (2012) postulated that early parental rejection may influence personality development of an individual, he further imputes that mild-moderate learning difficulties may demonstrate the impact of parental rejection, poor social network and low self-esteem. In essence if the child perceives that parents have not unconditionally accepted them academic difficulties are heightened. Thus it may be argued that the learner's observation of parental perception and support may influence their academic achievement. However, because of concerted advocacy Adogo (2006) infers a change of parents' attitude towards children with disabilities noting a shift from a negative to a positive attitude over time. This implies that most parents are generally accepting the conditions of children with disabilities and giving them due support. However, the study was limited to visible disabilities and not the invisible learning difficulty, besides the study was confined to Nakuru District. There

is need to examine parental perception and support of students with learning difficulties and assess the influence on academic achievement.

Incidentally, Bota (2007) undertook a study in Nyanza province (Kenya) the study considered the causes of grade repetition in primary schools in relation to learning disabilities, family related factors such as low income and low parental education emerged as hindrances to the necessary parental support. It was observed that parents with low income may not pay the school fees on time or buy revision materials for the student thereby jeopardizing their academic achievement. This observation is in line with Huffman et al. (2000) who pointed out the importance of parent education level and social economic status on academic achievement of at-risk children. However, the assumption of the current study was that regardless of parental social-economic status and education level it is the way the child regards the parent's perception and support that greatly influences their academic achievement. Perception is an important psychological aspect hence the need to examine the slow learner's perception of parental perception and support and its relationship to academic achievement.

Ogadho (2012) examined the influence of parental support on dropout rate of children with learning disabilities at primary school level and observed a relation between lack of parental support and high dropout rates. Both studies (Bota, 2007 & Ogadho, 2012) focused on the lower grade level, coincidentally Worley (2007) noted that the level of parental involvement decreases as students enter secondary school this makes a case for undertaking the study in secondary school. It is implied that having positive parental participation in the life of a student with learning difficulties facilitates positive improvement. The current

study therefore focused on secondary school level with the aim of establishing the extent to which parental perception and support influence academic achievement of slow learners in secondary schools.

Research has demonstrated a positive relationship between parental involvement and academic outcomes such as achievement test scores. However not all forms of involvement augment learning outcomes Jeynes, (2010) postulates. There are contradictions in research regarding parental involvement and academic achievement. Some researchers conclude a positive effect whereas others surmise a negative or neutral role (Shute et al., 2011; McNeal, 2001). The current study sought to establish the current perspective of the extent to which perceived parental perception and support influence academic achievement with a focus on slow learners an aspect that has not been clearly highlighted.

2.3 Learner Personal Factors

There are many personal factors that may influence the learner's academic achievement however the study focused on student's gender, and self-esteem.

2.3.1 Gender and Academic Achievement

Gender is postulated to considerably influence student academic performance (Hdii & Fagroud, 2018). Research has inferred gender difference in academic achievement (Duckworth & Seligman, 2006; Fortin, Oveopoulos & Shelley, 2012; Hartley & Suttton, 2013). Zembar and Blume, (2009) and Smith (2015) indicated that on average girls perform better in school than boys; girls get better grades and complete high school in greater proportions compared to boys However, Moll, kunze, Neuhoff, Bruder & Schulte-Korne,

(2014) observed that while boys showed spelling deficits and general low performance in language and arts subjects the girls had a greater deficit in arithmetic and science subjects. The view is supported by Else-Quest et al. (2010) whose study showed a significant gender achievement gap with boys outperforming girls in math and science while girls surpassed boys in literacy subjects.

Saito (2010) found that boys performed significantly better than girls in mathematics. In contrast Karimi (2013) found no significant difference between gender in relation to mathematics learning disabilities. Taylor, Smiley and Richards (2009) study revealed that boys outnumber girls in learning difficulties with the indication that 60% of the students identified with learning difficulties are male. Smith, (2015) also pointed to a disproportionate representation of males in special education service. Equally, the Connecticut State Department of Education (2011) observed that male students were more highly represented in receiving special services and are more likely to drop out of high school. According to the United States National Center for Education Statistics (2005) females were outperforming males in elementary, secondary and high school furthermore, males received majority of the D's and F's grades awarded.

However, there are contradicting findings on level of academic achievement based on gender. Some studies found a higher academic achievement level for girls (Zembar & Blume, 2009; Hdii & Fagroud, 2018) however others (Linn, 2010) found boys outperformed girls in math and sciences while girls outperformed boys in literacy subjects. Ajai & Imoko (2015) on the other hand noted inconsistencies in gender differences. But

Voyer and Voyer (2014) found a small significant female advantage in relation to academic achievement. It may therefore be concluded that despite various gender studies, none has yielded a conclusive report on the influence of gender on academic achievement. More research on gender and academic achievement of slow learners is ideal for comparative purposes.

Besides, Wapula (2011) had inferred a higher risk for the girl- child in terms of access and retention within the education system. Wapula observed that the girl-child in Botswana, and to a lesser extent, the boy child is disadvantaged by inadequate access to basic education. In essence it's the girl student who is at greater risk of academic underachievement. Notably, in India findings clearly show differences in parental perceptions related to student's gender. It emerges that parents expect more intellectually from male children than female children. Boys are expected to attain higher levels in education, hold better positions and be fiscally secure in the cultural context (Chandramuki, Indiramma & Mysore 2012). This suggests more academic pressure on boys than girls.

Comparatively, Mukonyi and M'mbasu (2014), indicated that boys outperformed girls in KCSE and generally teachers rated boys as more competent academically. In support of the assertion Mwalya (2017) found that boys achieved significantly better than girls in mathematics. However, girls from county boarding schools out performed male students in sub-county day schools. Implying that the nature of the school is an important factor. Aurah (2017), however found that gender had a statistically significant effect on academic achievement ($F(1, 2137)=31.987$, $p< 0.001$) with female students performing better than

male students. Essentially studies yield mixed findings about the influence of gender on academic achievement. The studies therefore, are inept in clarifying the relationship between gender and academic achievement. This suggests that further research is likely to provide more insight on gender influence especially in slow learner's academic achievement.

Coincidentally, studies in Kenya indicate that women with disabilities are more likely to be discriminated and chances of a girl with disability getting education are limited (Adogo, 2006). One key objective of the Special Needs Education Policy in Kenya is to increase gender mainstreaming in SNE programs at all stages and to guarantee increased enrollment, involvement and completion rates for both girls and boys, men and women with special needs and disabilities in education (MoE, 2009). However, it is noted that the custom of favoring boys is entrenched in the African culture; Society in general has a negative perception of persons with special needs but the circumstances are worse for the girl-child with special needs and disabilities (Reiser, 2006). This may imply that girls with learning difficulties are in greater jeopardy of dropping out of school. Gender gap in academic achievement is an essential issue that needs to be explored to facilitate education equality argues Hdii and Fagroud, (2018). The study therefore aimed at establishing the influence of gender on academic achievement of slow learners in Kakamega County. This will facilitate focused remedial and advocacy measures.

2.3.2 Student Self-esteem and Academic achievement

Self-esteem is an overall reflection of a person's self-worth; self-esteem connotes the worth people place on themselves. High self-esteem entails a favorable definition of self while

low self-esteem is the unfavorable definition of self. In the 1980s and 90s, self-esteem was a household term in United States of America (Baumeister, Campbell, Krueger & Vohs, 2003). Essentially, teachers, parents and therapists focused on self-esteem with a believe that high self-esteem would lead to positive social and academic outcomes. Initially it was argued that the perceived influence of self-esteem on academic achievement was based on anecdotal evidence instead of empirical facts. However most of the studies undertaken then revealed modest correlation. Factually efforts to boost self-esteem had not shown commensurate improvement on academic performance (Baumeister et.al, 2003). Proponents of self-esteem however posit that self-esteem ought to be enhanced despite the failure to establish its causal role. The current study therefore sought to examine the slow learners' self-esteem and the hypothesized relationship to academic achievement.

Evidently, regardless of research findings depicting low association between self-esteem and presumed academic outcomes, argument about the value of self-esteem persists. Assumption that raising self-esteem will lead to improvement in children's academic performance is still rife. It is posited that one's level of esteem is not just the consequence but a basis of life major achievements and failures. In principle the level of self-esteem has the potential to influence academic outcomes of a learner. McClure, Tanski, and Sargent (2011) argued that low self-esteem in adolescence is a predictor of longstanding poor outcomes such as less years of post-secondary education. This implies that low self-esteem is associated with poor academic advancement.

Sternke (2010) underscored the importance of adolescents developing high self-esteem. He argued that teachers and parents need to boost the self-esteem of students particularly those

with learning difficulties by remaining positive and encouraging despite repeated failures. Even though, Trautwein, Ludtke, Koller and Baumert (2006) and earlier researchers had surmised that self-esteem in itself is not a strong predictor of academic achievement the influence of self-esteem on academic achievement is still an ongoing discussion. Besides, emphasis on the value of self-esteem was deemed to be a peculiar feature of the western individualistic culture as opposed to the collective culture distinctive of the orient and Africa. Nonetheless, it may be argued that many orient and African cultures have integrated western individualistic culture and hence self-esteem may actually be an issue in the current societies thereby playing an important role in academic achievement.

Sheykhjan, Jabari, & Rajeswari (2014), established that high self-esteem has been positively correlated with academic achievement. Their finding in a study undertaken in Iran indicated a very high correlation between self-esteem and academic achievement (.96 for males and .93 for females). The authors further suggested that having a high self-esteem had many positive effects and benefits particularly among high school students. It can therefore be argued that having low self-esteem has many negative effects and is a risk factor in relation to academic achievement. However, Sheykhjan et al. study had a low sample of 40. Comparatively an earlier study with a sample of 3001 had yielded lower correlation of .10 to .13 (Baumeister, et al. 2003).

Ochoa, Lopez, and Emler (2007) argued that students with learning difficulties tend to struggle with self-esteem issues, which in turn can lead to adjustment problems, substance abuse, depression, and suicide ideation. However, it is observed that self-esteem fluctuates in the course of a child's growth and can be influenced by positive parental involvement.

Moller, Streblow, and Pohlmann, (2009) supports Ochoa et al. argument noting that students with learning difficulties tend to exhibit lower self-esteem than those of their peers without learning difficulties. Furthermore, it has been revealed that students with learning difficulties in inclusive schools have lower self-esteem than their peers in schools for students with special educational needs (Moller et al., 2009). Notably, the current study focused on slow learners in regular classes.

Learners with learning difficulties may be inclined to talk to people but are not able to be the first ones to start or sustain a conversation, as they are shy, typically due to low self-esteem. The implication is that the child may not seek help from teachers or peers thereby compounding the poor academic achievement. The learner gets to be demoralized after repeated efforts that yield no positive change in performance. Learned helplessness is one phenomenon associated with students with learning difficulties. This is a situation characterized by a tendency to give up and expect the worst because they fail no matter how hard they try. Sheykhjan et al. (2014) argue that low self-esteem lessens a student's desire to learn and the ability to focus thus leading to lower academic achievement. Alesi et al. (2014) pointed out that pupils with learning difficulties may not only develop depressive and anxiety indications but are also characterized by lower levels of self-esteem. It is therefore imperative that the self-esteem of slow learners be assessed and its probable relationship to academic achievement be ascertained to facilitate mitigation measures.

Similarly, Hallahan et al. (2012) had observed that children with learning difficulties are at a greater risk of developing depression, loneliness and suicidal thoughts aspects linked to low self-esteem. Manrique et al. (2013) further outlined the emotional problems faced

by low achievers as feelings of frustrations, self-derision, internalizing issues, depression, anxiety and low self-worth. Moreover, Moss (2012), noted that having good social support, and esteem within society is beneficial to a learner's mental health. He further observed that people with learning difficulties; tend to have low esteem and impoverished support. The aspect of low self-esteem among students with learning difficulties is a clearly highlighted. The fact that it may inevitably impact negatively on their academic progression is however not clear.

Ogadho (2012), observed that children with learning difficulties already have low self-esteem, feelings of rejection, and inadequacy. The current study therefore sought to establish the validity of the assumptions that slow learners have low self-esteem which may negatively impact their academic achievement. It is notable that most of the research has been directed towards the general population of students in western countries consequently limited studies have been done in Africa in relation to learning difficulties. This study focused on students with learning difficulties and strove to give the developing countries perspective since most of the reviewed work gives the developed countries perspective.

2.3.3 Class Size and Academic Achievement

Class size has been viewed as a risk factor in academic achievement (Mirani & Chunawala, 2015). Generally, over bloated classes are linked to falling standards of education according to Owoeye and Yara (2011) and Sebastian (2016). It is postulated that student achievement decreases as class size increases. Monks and Schmidt (2010) established that class size had a negative and statistically significant effect on student course evaluation, Bandiera et, al (2009) similarly, found a substantial negative but non-linear effect of class

size on students' test results in a North Eastern University in United States of America. The famous STAR program in Tennessee involved classes that ranged between 15-17 and 22-25 students. It was observed that students from small classes performed better on standardized tests in reading and mathematics in kindergarten to 3rd grade. In a follow up program in North Carolina with classes ranging between 15-25 it emerged that students in smaller classes attained test scores of .45 and .56 standard deviations higher than peers in larger classes on mathematics and reading tests correspondingly.

These findings were supported by Whitehurst and Chingos (2011) who noted that elementary students allocated to small classes outperformed their classmates in larger regular classes by .22 standard deviations. Notably, Bye (2011) observed that that large class sizes hinder the effective working of a teacher as a facilitator who needs to cultivate self-monitoring and self-regulation skills in the learner in order to achieve learning outcomes. Monks and Schmidt (2010) similarly supported the view noting that large classes allow students to be more disruptive, give room for disengagement while small classes lend themselves more to pedagogical activities that improve academic achievement

However, there are conflicting findings on the effect of class size on academic achievement. Studies carried out in the Tennessee State (USA) inferred that reduction of class size increased student achievement; however subsequent studies especially in the orient contradict the findings (Woessman &West, 2006). Some studies have limited clarity on the effect of class size while some have revealed mixed findings (Jepsen & Rivkin, 2009). Other studies indicate that class size reduction works in some cases but not in other similar circumstances (Whitehurst & Chingos, 2011; Chingos, 2010). Whitehurst and

Chingos noted that elementary students assigned to smaller classes performed better than those in regular large classes. However, it emerged that the effect was more in boys and economically disadvantaged children. The study further revealed that class size reduction may have meaningful long-term effect on student achievement only if introduced in lower grades and for the less advantaged.

According to Vandenberg (2012), teachers prefer small classes because they allow opportunities to increase pro-active activities, one-on one instructions and small group instructions which are likely to increase academic achievement. Furthermore, teachers identified ideal class sizes as having less than twenty students. Cakmak (2009) had made the observation that in larger class sizes teachers spent most of the time meant for academic instruction on class management. Smith, Molnar and Zahorik (2003) note that while previous research has revealed a negative relationship between class size and academic achievement. Their study revealed that reading and mathematics achievement had positive correlation with class size (*($r = 0.328, p < 0.01, r = 0.308, p < 0.01$)* respectively. Strangely therefore as class size increased mathematics and reading scores increased. This was contrary to the popular assumption that as class size increase academic achievement will decrease. Bandiera et. al (2009) argued that class size had significant effect on student achievement but only at the uppermost and bottommost level of class size distribution.

In a study carried out in Nigeria, Yara (2010) observed that academic achievement in mathematics was influenced by class size, with those in smaller classes performing better than those in larger classes. Owoeye and Yara further argued that small class sizes led to less retention, referrals to special education and fewer dropouts. Realistically, smaller

classes for teachers dealing with struggling students make a lot of sense (Korir & Kipkemboi, 2014; Vasudevan, 2017; Whitehurst &Chingos, 2011) however as outlined, this assumption is supported by some studies and disputed by others. Furthermore, most of the studies have been undertaken in developed countries and involve the general student population. Interestingly, Vandenberg (2012) while observing that class size reduction is a key intervention measure that targets to increase student academic achievement for at-risk students, made recommendations that further studies on the relationship between class size and academic achievement of students with learning difficulties be undertaken. In the light of the outlined arguments this study examined the influence of class size on academic achievement of slow learners from a developing country perspective.

2.3.4 Temperament and Academic Achievement

Temperament refers to differences in the way individuals respond and engage with their surroundings. Reactivity and self-regulation are key aspects of temperament; some individuals have high levels of tolerance to frustration while others have low levels. Others are able to pay attention for a specific span of time while others are easily distracted. Temperament may be simply described as easy or difficulty based on the reactivity and regulation levels of the individual (Checa & Abundis-Gutierre, 2017). Links have been established between temperament and academic achievement it has been attested that restlessness and irritability predispose individuals to academic difficulties similarly high activity and low persistence is associated with lower academic achievement (Keogh, 2003).

Al-Hendawi (2010) found that the temperament of children has a significant connection to academic performance noting the significant association of patience and activity with

scientific achievement. Keogh further noted that in both special and regular classrooms teachers perceive temperament dimension of teachability in a student as the most important element in predicting their academic achievement. Individuals with difficult temperament may be characterized by high activity, inflexibility and lack of persistence, distractibility and low attention. Hardship raises the risk of a child failing to comply with class rules and academic instruction, thus increasing the likelihood of failing school. Li et al (2009) found a strong correlation between temperament and academic achievements, which included particularly high persistence, poor activity and low distractibility.

Children with adversative temperamental disposition and deficits in processing facts face more challenges in obtaining the progressively complex academic competencies (McClowry, Snow, Tamis-LeMonda, & Rodriguez, 2010). The relationship between the teacher and student is found to be mutual; positive conduct causes positive behavior in the teacher and negative student behavior leads to negative behavior in the teacher. Edward et al (2007), noted a tendency of teachers giving less attention, fewer compliments and more negative avowals to children who exhibit incongruous social behavior and academic attainment this implies the potential of different temperamental dispositions eliciting different levels of perception and support from teachers. Similarly, Checa et al. (2017), infer that an easy temperament facilitates socialization with peers and adaptation to classroom setting. This implies that in contrast students with difficulty temperament may have difficulties socializing with classmates thereby resulting to negative peer perception and limiting peer support.

Research findings Li et al., 2009; Rudasil, Gallagher & White, 2010) have noted that the correlation between temperament and academic achievement range between weak to

moderate. Some aspects of temperament such as high persistence, low activity level and low distractibility had a significant but weak correlation (r=. 31 for persistence and r=-.27 for activity level). Studies on temperament have tended to focus on direct effect on school success without considering the moderating influence. McClelland, Cameron, Connor, Farris, Jewkes, and Morrison (2007) observed that increased understanding of the role of temperament may help teachers to craft a more accommodating classroom environment. The current study hypothesized that temperament may moderate the relationship between social perception and support and the learner's academic achievement. Learners with an easy temperament may elicit positive perception and greater support while those with a difficult temperament are likely to generate negative perception and lesser support thereby eventually influencing the level of academic achievement. Furthermore, Al-Hendawi (2010), observed that temperament in vulnerable children may be a risk or protective factor. In essence it may strengthen or weaken the influence of social perception and support on academic achievement. The current study considers the possible moderating effect of temperament on the relationship between teacher, peer, parental perception and support (social perception) support and academic achievement of slow learners.

2.4 Summary of Knowledge Gaps

Empirical literature shows focus on the influence of varied aspects of teachers, parents and peers on academic performance however perceived teacher, peer, parental perception and support on learner's academic achievement has received limited coverage. Furthermore, conflicting and mixed findings on gender and class size aspects in relation to academic achievement necessitates continued research. Moreover, most of the elaborate studies have been done in developed countries which requires studies that give perspective from

developing countries. Majority of the studies considered the general student population with a few covering acute intellectual disabilities intellectual disabilities however there is a clear dearth of recent research on learning difficulties especially slow learners because of their betweenness; neither identified as having intellectual disability nor learning disability. Research in the area will therefore provide room for agency and advocacy.

This study sought to fill the gaps between the perceived understanding and the support of teachers as well as the academic achievement of slow learners. Secondly, the connection between perceived peer perception and encouragement for slow learners and their academic achievements. Thirdly, the link between perceived and promotional parental perception and academic performance of slow learners. Fourthly it sought to establish the influence of gender and learner's self-esteem on academic achievement of slow learners. The association between class size and academic achievement for slow learners was also considered. Finally, it explored the moderating impact of the temperament of the student on the relationship between social perception and help and slow academic performance. In previous research, these aspects in connection with slow students did not sufficiently appear.

Table 2.1: Summary of Knowledge Gaps

Researcher(s)	Focus of study	Methodology	Findings	Knowledge gaps	How the study addressed the gaps
Rice, Barth, Guadagno & Smith (2012)	Role of social support in students perceived abilities and attitudes towards math's and science	Cross-sectional design	Varied report of perceived support at different levels. High perceived support associated with positive attitudes and higher perception of abilities	Focus on math and science only, focus on general student population	Focus on slow learners , includes class size and learners individual characteristics
Levpuscek & Zupancic (2009)	Math achievement in early adolescence: the role of parental involvement, teachers behavior and student motivational beliefs about math	Cross-sectional, correlational.8th grade students in Slovenia	Teacher's behavior predicted achievement in math more than parent involvement. Parental pressure and support negatively related to achievement in math.	It focused on math achievement only. It focused on the general student population	It focused on the general academic achievement. Focus was on slow learners.
Shute, Hansen, Underwood, & Razzouk (2011)	A review of the relationship between parental involvement and secondary school academic achievement.	Meta-analyses of research documents	Modest correlation between parent involvement and student achievement. Notable decline in the influence of parental involvement as students' progress in school	Reliance on secondary data hence current changes not clearly depicted. Focused on parental variables only. Based on research undertaken in Europe.	Provide current first-hand information. Include teacher and peer variables. Give the African perspective
Karimi (2013)	Is there a gender difference between learning disabled student	Correlational design	No significant difference between gender in mathematics performance	Focus on mathematics only. It gave learning disability	Focus on general academic achievement. Considered learning difficulties

	performance in mathematical activities?			perspective only	from a general perspective

Researcher(s)	**Focus of the study**	**Methodology**	**Findings**	**Knowledge gaps**	**How the study addressed the gaps**
Mwangi(2013)	Special need education in Kenyan public primary schools. Exploring government policy and teacher understanding	Phenomenological qualitative approach, self - administered questionnaires and 9 in depth interviews	Teachers' positive about teaching students with special education needs. Inadequate training as a hindrance. Need to review the special needs education policy	The study was more concerned about special needs education in general with a peripheral mention of learning difficulties. Focus on primary schools only.	This study aimed at amplifying issues related to learning difficulties. It focused on the secondary school perspective. It combined a quantitative and qualitative approach.
Al- Hendawi (2010)	The predictive relationship between temperament, school adjustment and academic achievement: A 2 year longitudinal study of children at-risk.	Non-experimental correlational design. Longitudinal approach	No significant relationship between temperament and education outcomes	Temperament is the only variable studied in relation to academic achievement	The study introduces other variable (teacher support and perception, parent support and perception, peer support and perception alongside temperament.
Wapula (2011)	Education for children with learning difficulties using Botswana as a case study	Qualitative phenomenological case study	Learners more likely to drop out or hopelessly hang on. Large classes limit quality contact with teachers. No school tailored for learning difficulties.	Reports based on parents' experience only. Qualitative data only	Give the perspective of learners and teachers. Include a quantitative dimension

			Advocacy is vital		
Qian (2008)	English Classroom Interaction between Slow Learners and Teachers	Qualitative, Case study, purposeful sampling. 1 school, 4 primary level children, 1 class teacher	Verbal and non-verbal warning effective for the specific moment but not long lasting. Individual guidance a better approach	Focus at primary level. Only English performance considered. Both qualitative and quantitative approach.	Focus on secondary level, apart from English general performance considered

Researcher(s)	**Focus of the study**	**Methodology**	**Findings**	**Knowledge gaps**	**How the current study addressed the gaps**
Monks & Schmidt (2010**)**	Impact of class size and number of students on outcomes in Higher education	Descriptive survey. Use of administrative records	Class size negatively impact student assessment of course and instructor	Focused on university students. Focused on students' assessment of the course and not actual student performance	Focus on secondary school students. Uses students actual academic performance.
Bandiera et. al(2009)	Heterogeneous Class Size Effects. New Evidence for a Panel of University Students	Descriptive survey Use of administrative records	Significant negative but non-linear effect. Effect at the top and bottom of class size distribution.	Focused on university students only	Focus on secondary school students. Included other factors such as peers and parents
Owoeye & Yara (2011)	Class size and academic achievement of secondary school in Ekiti State, Nigeria	Descriptive survey ex-post facto	No significant difference in academic achievement of students in small and large classes	Comparison between urban and rural schools. Used final year results only	Apart from class size considered other factors such as peers, teachers, and parents
Ezzarouki (2016)	Peer Influence on Academic performance in a Collectivistic Culture	Correlational	Peer influence significantly correlated with academic performance	University students. Small sample	Focus on secondary school students with

					learning difficulties.
Waseka & Simatwa (2016)	Student Factors influencing Academic performance of students in secondary Education in Kenya: A Case of Kakamega County.	Descriptive survey and Correlational	Student factors influenced student academic performance by 75.6%	Focus was on general student population. Focus was on student factors only.	Included other factors alongside peer factors. Gives perspective based on students with learning difficulties. Examines other factors alongside student factors.

Researcher(s)	**Focus of the study**	**Methodology**	**Findings**	**Knowledge gaps**	**How the current study addressed the gaps**
Rasugu (2010)	Nature and prevalence of learning disabilities among standard three primary schools in Starehe Division (Kenya)	Descriptive design. Sample includes head teachers , teachers and 150 standard three pupils	Majority of the pupils indicated a likely hood of having learning disabilities. The mitigation measures appeared not to be successful.	The study focused on primary pupils. Its concern was limited to prevalence of learning disabilities only.	This study involved secondary school students. Focus on learning difficulties in general.
Sternke (2010)	Self-concept and Self-esteem in Adolescents with learning Disabilities	Descriptive survey	Self-esteem in itself not a strong predictor of academic achievement. Academic self-concept a strong predictor of self-esteem and future academic achievement.	Focused on learning disabilities. Only considered self-concept and self-esteem	Examined students with learning difficulties. Included other factors alongside self-esteem
Smith (2015)	Male gender disparity Gap: Does Gender Impact Education	Case study	Male academic underachievement	Focused on male students only.	Apart from gender considered other factors. Focused on students with learning difficulties

Hdii & Fagroud (2018)	Effect of Gender on University Students School performance: The Case of the National School of Agriculture In Meknes, Morocco	Descriptive survey, correlational	Female students outperformed males	Focused on one institution only. Examined university students. Focused on gender aspect only.	Concerned with secondary school students with learning difficulties. Included other factors apart from gender
Murat (2017)	Academic achievement and perceived peer support among Turkish students: Gender and Preschool Education Impact	Descriptive survey and correlational	Girls had higher academic achievement compared to boys	Considered peer and gender aspects only. Focused on general student population	Gave perspective based on students with learning difficulties. Considered other factors alongside peer and gender

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research philosophy and design, area of study, target population, sample size and sampling techniques. Data collection instruments, reliability and validity of instruments, data collection procedures, data analysis and ethical considerations will be outlined.

3.2 Research Philosophy

Research philosophy refers to the philosophical approach adopted by the researcher. The philosophical approach basically directs the what, how and why the research has to be undertaken. Interpretivism and positivism are two broad philosophical paradigms employed in research. Positivism as an ontology focuses on observable social reality and entails formulating hypotheses based on existing theories giving rise to law like generalization. It is more concerned with facts and figures that can be statistically represented. In essence positivism regards human related phenomenon as stable and constant and can be objectively reported. In this study, generation of figures based on scores on academic achievement tests, and social perception and support scales facilitated objective interpretation of the relationship between phenomena. Interpretivism or phenomenological approach on the other hand focuses more on the humane aspect. Key to the Interpretivism epistemology is empathy. The researcher is part of the world of the research subjects and strives to understand the world from the subjects' perspective (Finlay, 2009; Mkansi & Acheampong, 2012). Interpretivism is guided by the premise that human

behavior is complex and unique. In essence feelings and attitudes change and may not be accurately predictable. In this study, focus group discussions and interviews facilitated a personal interaction with the slow learners and other respondents. The facial expressions, body language and tonal variations provided insight into the actual attitudinal and emotional state of the individual. The interaction gave a humane perspective of the slow learner in a regular class in contrast to the impersonal questionnaires. The research adopted both positivism and Interpretivism philosophical approach because it used a mixed approach which entailed collecting qualitative and quantitative data. The argument is that there are aspects of human being that are predictable and stable but some are unpredictable and can only be described as per the specific time and moment. Moreover, even though facts and figures are important they may not accurately represent the human aspects in totality.

3.3 Research Design

The study used descriptive survey and correlational design because the intent was to identify and describe the extent to which perceived risk factors influence the academic achievement of students with learning difficulties. There was no manipulation of variables. The choice of the descriptive survey was based on the fact that it is appropriate for collecting data in social research that involves description of the state of the variables and a comprehensive depiction of phenomena that has already occurred (Punch and Oncaea, 2014; Mertler, 2019). Descriptive survey method allows the collection of both qualitative and quantitative data. The design is fairly cost-effective and permits the collection of data from a vast population at a insignificant cost. The survey method however has inherent limitations that include lack of cooperation from respondents and a higher rate of non-

response in the event of relying on questionnaires. Fraenkel and Wallen (2000) suggest the inclusion of an incentive to encourage response to questionnaires there is also need to incorporate interview to supplement and corroborate the information gotten from questionnaires.

Correlational research design assists to investigate possible relationships among variables. It describes an existing relationship between variables and the degree to which variables are related by the use of a correlation coefficient. It is ideal because there is no manipulation of variables. However, the design has some inherent threats to its internal validity. This include interference by other subject characteristics, this may be controlled by elimination.

3.4 Study Area

The study was undertaken in Kakamega County. The county borders Vihiga County to the south, Siaya to the west, Bungoma and Trans Nzoia counties to the north and Nandi and Uasin Gishu counties to the East. The county has 12 sub-counties: Mumias, Butere, Lugari, Kakamega Central, Kakamega South, Kakamega North Kakamega East, Khwisero, Likuyani, Matete, Matungu and Navakholo. Kakamega County is one of the populous counties in Kenya with a total population of 1,867,579 according to the 2019 census. The latitudinal and longitudinal coordinates are: (Latitude: 0.293990 N; Longitude: 34.759689 E). The absolute poverty level is 35.8% while the literacy level is 72.7 (Kakamega County Gender Data Sheet, 2017). Furthermore, KCSE statistics from Kakamega County indicate that between the year 2016-2019 a total of 55841 candidates scored grade D and below (State Department of Education Kakamega). Comparatively the neighboring counties of Vihiga and Busia have a low candidate population and fewer low grades. Bungoma County

on the other hand has almost a similar proportion of candidates and low grade distribution (Appendix 10). However, Kakamega County as the headquarter of Western region is given priority to act as the pace setter. Consequently, examining the factors influencing academic achievement of slow learners in Kakamega County may not only assist in formulating measures to reduce the bulk of low grades registered in the national examinations in Kakamega County but also neighboring Counties.

3.5 Target Population

Target population was 73, 985 students: 36,453 form three and 37,532 form four students, 1288 form three and four class teachers, and 12 sub-county Directors of Education from Kakamega County,

3.6 Sample Size and Sampling Techniques

Fishers formula was used to determine the sample for slow learners because the exact number of slow learners is not known. However, researchers give a range of 10-25% (Abosi, 2007; Borah, 2013). The study therefore computed the student sample size using the average figure of 20 percent.

Fisher's formula; Sample size = $\frac{z1\text{-}a/2^2 p(1-p)}{d^2}$

$z_{1-a/2}$ = standard normal variate (at 5% type 1 error ($p < 0.05$) which is 1.96.

p= expected proportion in population based on survey/ pilot studies.

d= absolute error or precision decided by the researcher.

Therefore, the student sample size was worked out as follows;

Sample size= $\frac{1.96^2 \times 0.20(1-0.20)}{} = 245.8624$

0.05^2

Multistage sampling technique entailed the use of stratified random sampling to select the schools because they are heterogeneous (Kothari, 2004). The strata consisted of schools based on the school status; national, extra county, county and sub-county schools. Saturated sampling was used in selecting the national schools. From the sampled schools, purposive sampling was used to select low achievers in form three and four. The next stage of sampling entailed the class teachers rating the identified low achievers' cognitive abilities using a cognitive rating scale (Appendix 5) those rated as having a deficit in the cognitive abilities were purposively included in the sample of slow learners. Kerlinger (2004) points out that a representative sample of ten percent is ideal depending on the data to be collected and analyzed. This study adopted a ten percent sample size for the schools, class teachers and sub-county directors of education. On this basis the sample comprised 35 schools, 129 class teachers and 2 sub-county Directors of Education.

Table 3.1: Population and Sample Size

Respondents	Population	Sample size	Percentage
Students	73985	246	-
Class teachers	1288	129	10
Sub-county Directors	13	2	10

Source: Ministry of Education Kakamega County, 2016

3.7 Data Collection Instruments

The researcher used questionnaires, interview schedules, and focus group discussions guides to collect data

3.7.1 Questionnaires for Students with Learning Difficulties

The questionnaires for students aimed at collecting relevant information from the students with learning difficulties. The first part collected demographic information. The second part consist of statements that reflect perceived parental perception and support, teacher, peer perception and support adapted from Malecki & Demaray (2002) child and adolescent social support scale. It also included a self-esteem scale adopted from Rosenberg's self-esteem scale and information about class size and parental, peer and teacher support. (Appendix 1).

3.7.2 Focus Group Discussion Guide

The discussion was held with groups of students identified as slow learners. The discussion aimed at obtaining in-depth information about the students' perception of teachers, peers and parents perception and support, self-esteem and class size and how they influence their

academic achievement. The information from focus group discussions verified the data collected through questionnaires (Appendix 2).

3.7.3 Academic Achievement Tests

To test the academic achievement, the study administered a standard test for English (Appendix 3) and Mathematics (Appendix 4). These standard tests were meant to assess the current performance of the students. Questions were derived Kenya Certificate Secondary Education (KCSE) past papers with the assistance of KCSE examiners guided by form one and two syllabus. The items were reworded and reworked to address possibilities of previous encounter of the questions by students.

3.7.4 Slow Learner Information Sheet and Rating Scale

To facilitate sampling of slow learners from the identified low achievers, class teachers rated the learner on specified cognitive abilities and provided other relevant information about the learner (Appendix 5).

3.7.5 Questionnaires for Class Teachers

The questionnaire for class teachers aimed at establishing the extent to which perceived teacher, peer, parental perception and support, and learners' personal factors (gender and self-esteem) and class size influence academic achievement of slow learners from the teachers' perspective. The first part collected the demographic information. The second part consisted of scales that aim at gathering information about the level of influence of perceived risk factors (Appendix 6).

3.7.6 Interview Schedule for class teachers

Interview schedules were to gather in-depth information and corroborate the data collected using questionnaires. Interviews provided room for clarification and established the verity of the information given by the respondent because the interviewer considers the facial expressions and other gestures as part of the communication. The interview basically sought clarification on the extent to which perceived teacher, peer, parental perception and support, and learners' personal factors (gender and self-esteem) and class size influence the academic achievement of slow learners (Appendix 7).

3.7.7 Interview Schedule for Sub-County Director of Education

An interview schedule was prepared to collect information from the sub-county Director of Education. The questions were aimed at gathering information about the government and Ministry of Education policy about students with learning difficulties in relation to the perceived risk factors (Appendix 8).

3.8 Pilot Study

Experts in the department of Educational Psychology Masinde Muliro university of Science and Technology were consulted to ascertain the face and content validity of data collection instruments. Pilot study was carried out in four schools which were not included in the actual study to establish the validity and reliability of the research instruments. Pilot testing enabled the researcher to assess the suitability of the wording of the questions, the clarity of the questions and arrangement of the questions. Corrections, addition and eliminations were done on the questionnaires based on the pilot study.

3.8.1 Validity

Face, content and construct validity of the instruments was established by consulting the experts in the relevant area. This was aimed at establishing whether the items in the questionnaire and interview schedule are well balanced in sampling the content purview and linked up well with theoretical conventions based on the objectives of the study. To ensure validity of the research instrument in this study, the researcher tested for both content and construct validity during pilot testing to reduce unnecessary variables.

3.8.2 Content Validity

Content validity is usually established through expert or researcher judgement (Malhorta and Birks, 2007; Hair et al., 2010). In this study, content validity was assessed by the use of four expert judges (academic members of the department of Educational Psychology) who examined the questionnaire to determine whether the scale items covered the full scope of the constructs being measured. Each of the four academic staff independently rated the items and confirmed that the content was relevant and measuring the intended purpose. The instruments were adjusted based on the comments of the experts.

3.8.3 Construct Validity

Construct validity which sought to measure whether an instrument accurately measures the study phenomena, was tested using factor analysis; Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was used to affirm that the number of items used to measure a particular construct (variable) was adequate enough. Bartlett's Test of Sphericity was used to measure if the items were coming from a population with equal variance. The construct validity results were as shown in Table 3.2.

Table 3.2: Sampling Adequacy and Sphericity Test Results

Variable	Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy	Bartlett's Test of Sphericity		
		Approx. Chi-Square	Degrees of freedom	p-value
Academic Achievement	0.567	23.514	1	0.000
Teacher support and perception	0.646	155.423	45	0.000
Peer support and perception	0.825	333.481	78	0.000
Parent support and perception	0.690	154.992	66	0.000
Behavioral Characteristics	0.841	155.247	21	0.000
Temperament factors	0.655	390.622	120	0.000
Self-esteem	0.653	199.389	91	0.000
Class size	0.750	91.140	15	0.000

Source: Pilot Study, 2019

It is evident from the results of Table 3.2 that the study met the validity test minimum threshold. All the variables' KMO results for sampling adequacy were above 0.5 minimum threshold value as established by Williams *et al,* (2012), that is, the measure for sampling adequacy for Academic Achievement was 0.567, for Teacher support and perception was 0.646, for Peer support and perception was 0.825, for Parent support and perception was 0.690, for Temperament factors was 0.655, for Self-esteem was 0.653, class size was 0.750 and social support and perception was 0.572. These results indicated acceptable degree of sampling adequacy for all the factors. The significant results of Bartlett's Test of Sphericity indicated that the sampled items for each variable were from population with equal variance as shown in table 4.2; (χ^2 (1) = 22.666, $p=0.000 < 0.05$) for academic achievement, (χ^2 (45) = 155.423, $p=0.000 < 0.05$) for teacher support and perception, (χ^2 (78) = 333.481, $p=0.000 < 0.05$) for peer support and perception, (χ^2 (66) = 154.992, $p=0.000 < 0.05$) for parent support and perception, (χ^2 (120) = 390.622, $p=0.000 < 0.05$) for temperament factors, (χ^2 (91) = 199.389, $p=0.000 < 0.05$) for self-esteem,(χ^2 (15) = 91.140, $p=0.000 <$

0.05) for class size and (χ^2 (190) = 410.741, *p=0.000* < 0.05) for Social Support and Perception.

Finally, the researcher performed Principal component analysis to identify and compute composite scores for the factors underlying the version of the three-point Likert scale that we used in our questionnaire. Varimax rotation was conducted to provide the best-defined factor structure. The findings for academic achievement test are indicated in table 3.3.

Table 3.3: Factor Analysis with Varimax Loadings for Academic Achievement based on a principal components' analysis with Varimax rotation for items

Statement		Factor loading	Decision
i.	Mathematics test	0.867	Retained
ii.	English test	0.867	Retained

Source: Pilot Study Results, 2019

Table 3.3 indicates that the factor analysis results for 2 items regarding Academic Achievement attracted a coefficient of more than 0.4 minimum threshold (Saunders *et al,* 2006), that is, mathematics test had a loading of 0.867 and English test had a loading of 0.867 hence the two items were retained in the questionnaire for the main study.

Table 3.4: Factor Analysis for Perceived Teacher Perception and Support based on a principal components' analysis with Varimax rotation for 10 items

Statement		Factor Loading	Decision
i.	My teachers appreciate my academic efforts.	0.488	Retained
ii.	My teachers make hurting comments about my academic performance.	0.594	Retained
iii.	My teachers' shows hope that I will perform well in their subjects.	0.396	Excluded
iv.	The teachers' comments on my report card discourage me.	0.452	Retained
v.	My teachers show a personal concern about my academic performance.	0.612	Retained
vi.	My teachers give me extra tuition.	0.217	Excluded
vii.	My teachers are friendly and encourage me about my classwork.	0.524	Retained
viii.	I feel that my teachers care about my class performance	0.743	Retained
ix.	I feel that my teachers have given up on me.	0.700	Retained
x.	I feel neglected by my teachers.	0.600	Retained

Source: Pilot study results

Table 3.4 indicates that the factor analysis results for 8 statements regarding Teacher Perception and Support attracted an absolute coefficient value of more than 0.4 minimum threshold (Sounders *et al,* 2006) hence they were retained in the questionnaire for the main study. However, two statements (roman number iii and vi) attracted an absolute coefficient value of less than 0.4. Therefore, the statements that attracted a coefficient of less 0.4 (for this case, statements iii and vi) were excluded from the questionnaire.

Table 3.5: Factor Analysis for Perceive Peer Perception and Support based on a principal components' analysis with Varimax rotation for 13 items

Statement		Factor Loading	Decision
i.	I feel that my classmates show concern about my class performance.	0.536	Retained
ii.	My classmates make hurting comments about my class performance.	0.633	Retained
iii.	I feel that my classmates expect me to perform well in class	0.364	Excluded
iv.	I feel that my classmates give me enough support in my class work.	0.734	Retained
v.	My classmates are friendly and encourage me in class.	0.801	Retained
vi.	My classmates assist me during revision time.	0.772	Retained
vii.	I feel that my classmates care about me.	0.739	Retained
viii.	I feel that my classmates consider me stupid.	0.348	Excluded
ix.	I am actively involved in my class discussions.	0.319	Excluded
x.	My classmates mock me because of my class performance	0.821	Retained
xi.	I feel that my classmates do not like me.	0.537	Retained
xii.	I feel that my classmates expect me to fail examinations anyway.	0.666	Retained
xiii.	I feel neglected by my classmates.	0.827	Retained

Source: Pilot study results

Table 3.5 indicates that the factor analysis results for 10 statements regarding Perceived Peer Perception and Support attracted an absolute coefficient value of more than 0.4 minimum threshold (Sounders *et al,* 2006) hence they were retained in the questionnaire for the main study. However, three statements (roman number iii, viii and ix) attracted an absolute coefficient value of less than 0.4. Therefore, the statements iii, viii and ix that attracted a coefficient of less 0.4 were excluded from the questionnaire for the main study.

Table 3.6: Factor Analysis for Perceived Parental Perception and Support based on a principal components' analysis with Varimax rotation for 12 items

	Statement	Factor Loading	Decision
i.	My parent/guardian attends academic days/ parents meeting in school.	0.448	Retained
ii.	My parent/guardian pays school fees on time.	0.008	Excluded
iii.	My parents/guardians come to school to find out about my academic progress.	0.471	Retained
iv.	My parents/guardians buy for me extra revision materials.	0.429	Retained
v.	My parents/guardians have a friendly discussion with me about my academic progress.	0.611	Retained
vi.	My parents/guardians reward any improvement in my academic performance.	0.515	Retained
vii.	I feel loved by my parents/guardians.	0.699	Retained
viii.	My parents/guardians make hurting comments about my academic performance.	0.711	Retained
ix.	My parents encourage me to work hard to improve my academic performance.	0.295	Excluded
x.	My parents/guardians insult me because of my academic performance.	0.402	Retained
xi.	I feel that my parents/guardians are too harsh to me.	0.622	Retained
xii.	I feel neglected by my parents/guardians.	0.667	Retained

Source: Pilot study results

Table 3.6 indicates that the factor analysis results for 10 statements regarding Perceived Parental Perception and Support attracted an absolute coefficient value of more than 0.4 minimum threshold (Sounders *et al,* 2006) hence they were retained in the questionnaire for the main study. However, two statements (statements ii and ix) attracted an absolute coefficient value of less than 0.4. Therefore, these statements were excluded from the questionnaire.

Table 3.7: Factor Analysis for Cognitive Characteristics based on a principal components analysis with Varimax rotation for 7 items

Statement		Factor Loading	Decision
i.	Comprehending meaning of words	0.670	Retained
ii.	Following instructions	0.724	Retained
iii.	Comprehending class discussions	0.741	Retained
iv.	Retaining information	0.750	Retained
v.	Attention	0.633	Retained
vi.	Organization	0.845	Retained
vii.	Completion of assignments	0.747	Retained

Source: Pilot study results

Table 3.7 indicates that the factor analysis results for 6 items regarding cognitive characteristics attracted an absolute loading of more than 0.4 minimum threshold (Sounders *et al,* 2006) and above threshold of 0.5 as established by Williams *et al*, (2012) hence they were all retained in the questionnaire for the main study.

Table 3.8: Factor Analysis for Temperament factor based on a principal components' analysis with Varimax rotation for 16 items

Statement		Factor Loading	Decision
i.	Seems to have difficulty sitting still	0.685	Retained
ii.	Shy	0.428	Retained
iii.	Easily distracted from his/her work	0.716	Retained
iv.	Gets easily upset by things that do not bother others	0.520	Retained
v.	Yells and fights to show his/her displeasure	0.278	Excluded
vi.	Able to sit quietly for a reasonable amount of time	0.424	Retained
vii.	It is difficult to tell what he/she is feeling	0.404	Retained
viii.	Speaks before class without hesitation	0.432	Retained
ix.	He/she takes failure lightly	0.455	Retained
x.	Gets angry and upset when corrected by the teacher	0.870	Retained
xi.	Overreacts in stressful situation	0.429	Retained
xii.	Movements are slow	0.473	Retained
xiii.	Gets easily upset with other students	0.462	Retained
xiv.	Sits still when the teacher is teaching	0.278	Excluded
xv.	Seems angry and moody most of the time	0.504	Retained
xvi.	Actively attentive in class	0.527	Retained

Source: Pilot study results

Results from table 3.8 indicates that the factor analysis results for 14 statements regarding Temperament attracted a loading of more than 0.4 minimum threshold (Sounders *et al,* 2006) hence they were retained in the questionnaire for the main study. However, 2 statements (statements v and xiv) attracted an absolute loading value of less than 0.4 and

thus the two statements that attracted a coefficient of less than 0.4 were excluded from the questionnaire for the main study.

Table 3.9: Factor Analysis for Self Esteem based on a principal components' analysis with Varimax rotation for 14 items

	Statement	Factor Loading	Decision
i.	I often wish I were someone else.	0.439	Retained
ii.	I feel there is much I should change about myself.	0.108	Excluded
iii.	I am confident.	0.579	Retained
iv.	I feel my life is just full of problems.	0.453	Retained
v.	I like myself.	0.388	Excluded
vi.	I feel that if I work hard I can achieve my goals	0.402	Retained
vii.	I am very much concerned about what others say about me.	0.241	Excluded
viii.	I feel hopeless about my life.	0.738	Retained
ix.	If I have something to say I normally say	0.630	Retained
x.	I feel am just a failure in life	0.768	Retained
xi.	I get discouraged at what I am doing easily	0.551	Retained
xii.	I feel am at least talented in some way	0.161	Excluded
xiii.	I find it very hard to talk in front of a group of people	0.503	Retained
xiv.	There are times when I feel like dropping out of school.	0.502	Retained

Source: Pilot study results

Results from table 3.9 indicates that the factor analysis results for 10 statements regarding Self-Esteem attracted an absolute loading value of more than 0.4 minimum threshold (Sounders *et al*, 2006) hence they were retained in the questionnaire for the main study. However, four (4) statements (statement ii, v, vii and xii) attracted an absolute loading of less than 0.4 minimum threshold thus the statements that attracted a coefficient of less than 0.4 were excluded from the questionnaire for the main study.

Table 3.10: Factor Analysis for Class Size based on a principal components analysis with Varimax rotation for 6 items

Sustainability	Factor Loading	Decision
Class size for the common subjects	0.628	Retained
Class size for your optional subject 1	0.716	Retained
Class size for your optional subject 2	0.812	Retained
Class size for your optional subject 3	0.721	Retained
Class size for your optional subject 4	0.734	Retained
Class size for your optional subject 5	0.783	Retained

Source: Pilot study results

Table 3.10 indicates that the factor analysis results for 6 items regarding Class Size attracted an absolute loading of more than 0.4 minimum threshold (Sounders *et al,* 2006) hence they were all retained in the questionnaire for the main study.

3.8.4 Reliability Analysis

Reliability of the 3-point Likert scale and the interval scale used in this study, was assessed using coefficient alpha and the findings were as detailed below. To test for the reliability of the scale used to measure the study constructs, this study used the Cronbach's Alpha Coefficient and adopted a 0.6 Cronbach's Alpha Coefficient value as the minimum threshold for deciding whether our scale was reliable; in the early stages of research on hypothesised measures of a construct, reliabilities exceeding the lower levels of acceptability 0.60 or higher would be sufficient (Hair, Black, Babin, & Anderson, 2010). Results for reliability test were as shown in Table 3.11

Table 3.11: Reliability Test Results

Variables (Constructs)	Number of items	Cronbach Alpha
Academic Achievement	2	0.667
Perceived Teacher perception and support	8	0.728
Perceived Peer perception and support	10	0.889
Perceived Parent perception and support	10	0.748
Cognitive characteristics	7	0.853
Temperament factor	14	0.798
Self-esteem	10	0.752
Class size	6	0.831

Source: Pilot study results

Findings of Table 3.11 show that Cronbach's alpha coefficient for all the eight constructs exceeded the 0.6 lower levels of acceptability (Hair, Black, Babin, & Anderson, 2010); The Cronbach alpha for Academic Achievement was 0.667, for Perceived Teacher Perception and Support was 0.728, for Perceived Peer Perception and Support was 0.889, for Perceived Parental Perception and Support was 0.748, for Temperament Factors was 0.798, for Self-Esteem was 0.752 and for class size was 0.831. Therefore, this study concluded that the scale of the items used to measure the constructs was reliable and acceptable for further analysis.

3.9 Data Collection Procedures

The researcher got approval to collect data from the school of Graduate studies of Masinde Muliro University of Science and Technology (Appendix 15) and got permission from the National Council for Science Technology and Innovations (NACOSTI) (Appendix 18 & 19) to conduct a study in Kakamega County. The researcher communicated with County

administrative and education officers for further permission to collect the data from schools (Appendix 16 and 17). A pre-visit and courtesy phone call to the schools was organized to familiarize with the environment and set up appointment dates. Briefing and debriefing activities were organized at appropriate times. Questionnaires were issued by the drop and pick technique and administered directly as time availed. Interviews and focus group discussions were carried out through face to face approach however some interviews with class teachers were undertaken on phone because they could not be accessed directly.

3.10 Data Analysis

The questionnaires were checked for accuracy and omissions. Data preparation and cleaning using SPSS involved, identifying and managing impossible values, handling missing data, identifying and managing outliers, and testing for normality of the data. Coding of responses was undertaken alongside categorization of data from interviews and focus group discussions. Data was analyzed using descriptive statistics this included computation of percentages, means, standard deviations, and inferential statistics; Pearson's product moment correlation, t- test, simple linear regression, ANOVA and multiple regression. The analysis was done using the Statistical Package for Social Sciences (SPSS) version 22. Qualitative data was transcribed, analyzed and reported according to emerging themes and sub themes. Table 12 shows the summarized data analysis.

Table 3.12: Data Analysis

Objective	Instrument	Data analysis technique
Objective 1	Questionnaire, interview schedule, focus group discussion guide, tests.	Percentages, means and standard deviations. Pearson's coefficient correlation, simple regression. Categorization of themes.
Objective 2	Questionnaire, interview schedule, focus group discussion guide, tests.	Percentages, means and standard deviations. Pearson's coefficient correlation, simple regression, Categorization of themes.
Objective 3	Questionnaire, interview schedules, focus group discussion guide, tests.	Percentages, means and standard deviations. Pearson's coefficient correlation, simple regression, Categorization of themes.
Objective 4	Questionnaire, interview schedules, focus group discussion guides, tests.	Percentages, means and standard deviations, Pearson's coefficient, t-test, simple regression, categorization of themes
Objective 5	Questionnaire, interview schedules, focus group discussions	Percentages, means and standard deviations. Pearson's coefficient correlation, ANOVA, Categorization of themes.
Objective 6	Questionnaires, interview schedules	Multiple regression, categorization of themes.
Objective 7	Questionnaires, interview schedules	Percentages, means, standard deviations, Multiple regression, categorization of themes

Source, researcher (2018)

3.11 Ethical Considerations

Data collection is a subtle issue as it borders on invading individual's private lives, ethical considerations are therefore of paramount significance in research (Punch and Oncaea, 2014). It was therefore necessary to obtain consent from the necessary authorities and respondents before collecting data. The researcher informed the respondents that the data would be used for research purpose only and confidentiality would be maintained. The respondents were given the option of voluntary participation and withdrawal. The researcher involved the guidance and counseling teacher and Parents-Teachers representatives to get consent on behalf of parents and provide follow-up debriefing and counseling sessions. Focus group discussions wound up with pep-talks and prayer sessions with permission from the participants to lighten the occasionally emotional discussions. During the administration of the tests candies were provided to the learners which visibly made the learners relax and focus. Sharing of personal experiences by the researcher created a rapport and made it easier for the participants to open up and discuss freely. Efforts were made to ensure that the participants were sheltered from any psychological harm during the data collection. Punctuality was observed during interviews and other visits to avoid any inconveniences to the respondents.

CHAPTER FOUR

DATA PRESENTATION, INTERPERETATION AND DISCUSSION

4.1 Introduction

This study examined selected risk factors influencing academic achievement of students with learning difficulties in secondary schools in Kakamega County, Kenya. Specifically, the study examined the relationship between perceived teacher, peer, parental, perception and support and academic achievement of slow learners in secondary schools; the relationship between gender and self-esteem and academic achievement of slow learners in secondary schools. Besides examining the influence of class size on the academic achievement of slow learners and established the comparative influence of social support, gender, self-esteem and class size on the academic achievement of slow learners. It also assessed the moderating influence of temperament on the relationship between perceived social perception and support and academic achievement of slow learners in secondary schools. Both descriptive and inferential statistics were used to analyze the data. The findings were as detailed in the subsequent sections of this chapter.

4.2 Response Rate

Questionnaires were administered to 377 respondents for which 295 respondents effectively filled and returned the questionnaires thus giving an overall response rate of 78%; this agrees with the assertions by Zikmund *et al.;* (2010), that a response rate above 50.0% is sufficient for generalization of outcome of the findings. We therefore concluded that our sample was within acceptable range and therefore representative of the study population. Table 4.1 shows the response rate in details.

Table 2.1: Response Rate

Respondents	Sample size	Participants	Return rate (%)
Students	246	231	94%
Class teachers	129	62	48%
Sub-county Directors	2	2	100%
Total	**377**	**295**	**78%**

4.3 Data Preparation and Cleaning

Data preparation and cleaning using SPSS involved; identifying and managing impossible values, handling missing data, identifying and managing outliers, and testing for normality of the data.

4.3.1 Managing impossible values and missing values

Descriptive analysis through running frequencies for categorical data was done and the impossible values were rectified by tracing for the right values back in the questionnaires and replacing in the SPSS dataset. For the questions where there was no response, the values were well coded and uniquely identified in the SPSS datasets as missing values.

4.3.2 Managing outliers

It is only interval and ratio scale variables that are susceptible to outlier scores (Gravetter *et al*, 2000), and therefore, for this study we analyzed for presence of outliers in the constructs (Academic achievement, perceived teacher perception and support, perceived peer perception and support, perceived parental perception and support, self-esteem, class

size). Gravetter et al. (2000) describe outliers as points that stretch beyond 1.5 box lengths at the box edge of the plot and end points (indicated in a boxplot asterisk *) extend beyond three box lengths at the boxplot edge. The results of the analysis on outliers were as illustrated under figures 4.1 and 4.2.

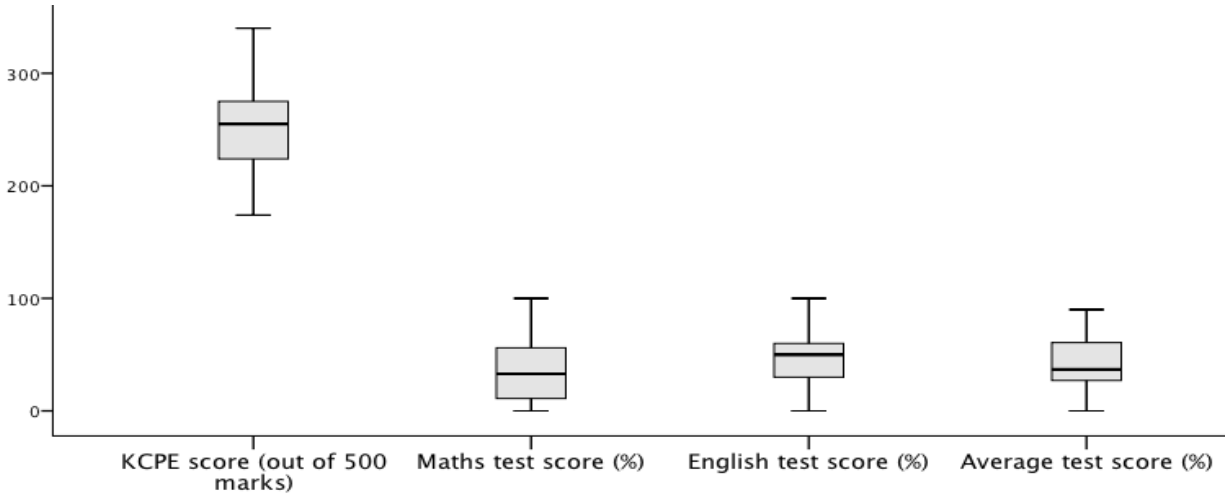

Figure 4.1: Boxplots for testing presence of outliers for academic achievement scores

Based on figure 4.1, there were no outliers nor extreme values in the data scores for all the academic achievement measures (KCPE score, Mathematics test score, English test score and average test score) since there was no value extending more than 1.5 box-lengths from the edge of the boxplots.

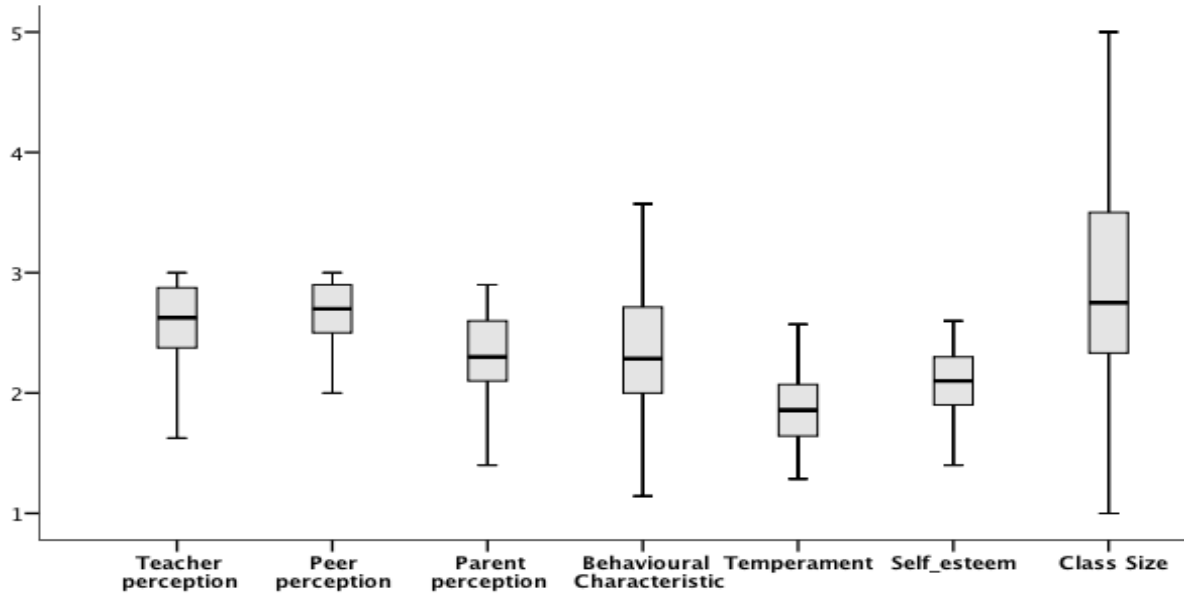

Figure 4.2: Boxplots for testing presence of outliers for independent variables

In Figure 4.2, the data scores for all the independent variables did not convey outliers nor extreme values, because the box-length of the box-plots had no value extending beyond 1,5.

4.4 Test for Regression Assumptions

The research sought to test the linear regression assumptions used to model the relationship between academic achievement in high schools of slow learners and perceived social perception and support (Perceived Teacher perception and support, Perceived Parental perception and support, and perceived peer perception and support). The analysis included normality, linearity, Homoscedasticity and outliers presence.

4.4.1 Test for Normality

The research examined the standard distribution of scores for all variables. The analysis was carried out using the Shapiro-Wilk Test and the results shown in Table 4.2 for this purpose. The zero hypothesis was that all variables did not vary substantially from the normal distribution in terms of ratings.

Table 4.2: Test for Normality

Variables		Shapiro-Wilk test		
		Statistic (W)	df	p-value
Dependent variable	Academic Achievement	.959	232	.072
Independent variables	Perceived Teacher perception and support	.927	232	.063
	Perceived Peer perception and support	.834	232	.059
	Perceived Parental perception and support	.967	232	.071
	Class size	.978	232	.073
	Self-esteem	.965	232	.061
Moderator variable	Temperament	.974	232	.058

From the results in Table 4.2, the p-values for all the variables were greater than 0.05 level of significance; Academic Achievement (W= 0.959, p-value = 0.072 > 0.05), Perceived Teacher perception and support (W= 0.927, p-value = 0.063 > 0.05), Perceived Peer perception and support (W= 0.834, p-value = 0.059 > 0.05), Perceived Parental perception and support (W=0.967, p-value=0.071 > 0.05), Self-esteem(W=0.965, p-value=0.061 > 0.05), Class Size (W=0.978, p-value=0.073 > 0.05) and Temperament (W= 0.974, p-value = 0.058 > 0.05). We therefore reject the null hypothesis and conclude that the scores for all the variables were normally distributed.

4.4.2 Test for Linearity and Homoscedasticity linear regression assumption

To test for homoscedasticity and linearity between Academic Achievement of slow learners in Secondary Schools and perceived social perception and support (Perceived Teacher, Parental and Peer perception and support), the study used residual scatterplots and normal probability plots respectively.

4.4.3 Test for Linearity and Homoscedasticity for Perceived Teacher Perception and Support

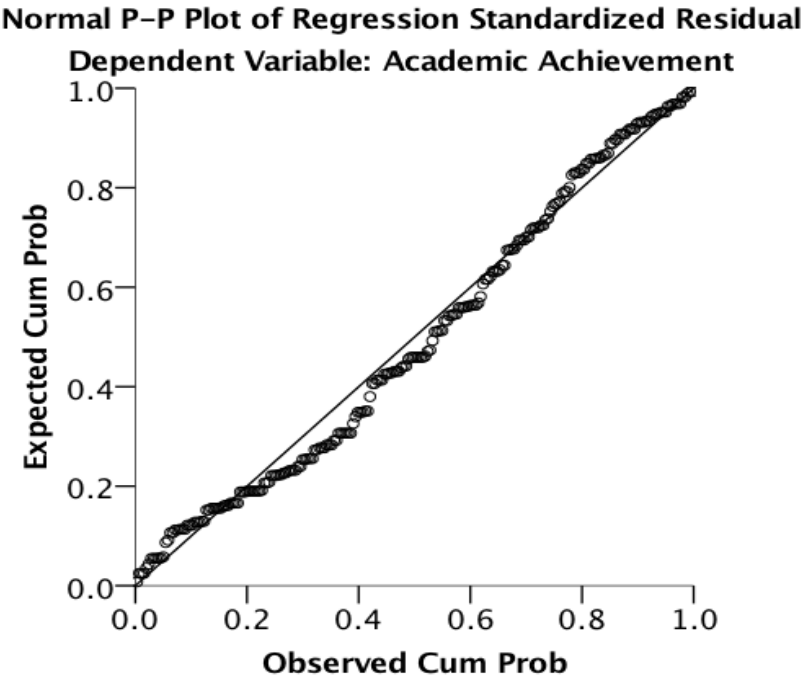

Figure 4.3: Normal P-P Plot of Regression Standardized Residual for Perceived Teacher Perception and Support

In Figure 4.3, the remaining points lie along the diagonal axis, indicating a linear association exists between perceived awareness and encouragement of teachers and the academic achievement of secondary school students in the county of Kakamega.

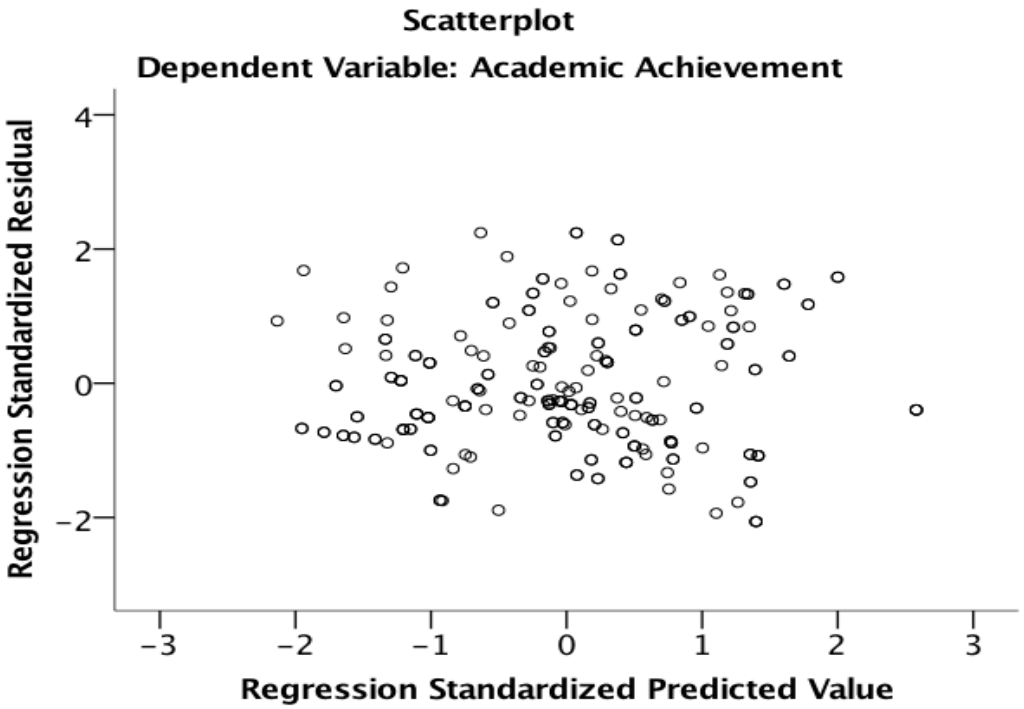

Figure 4.4: Residual scatterplot for Perceived Teacher Perception and Support

The remaining points are approximately rectangular dispersed, with most scores concentrated in the middle, from the residual scattered map, as shown in figure 4.4, thus indicating that the acceptance of homoscedasticity lies in the connection between perceived teacher perception and help and slow student academia.

4.4.4 Test for Linearity and Homoscedasticity for Perceived Peer Perception and Support

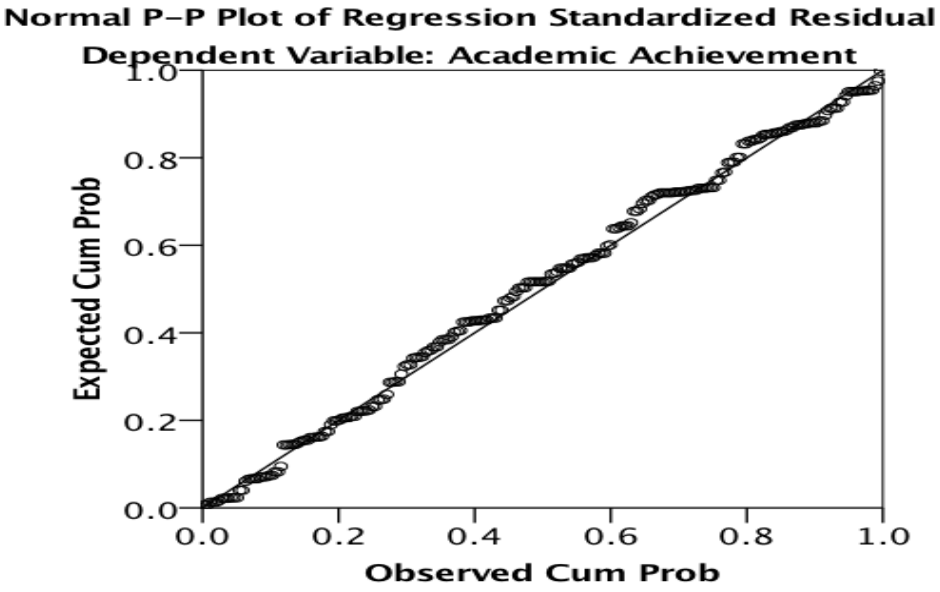

Figure 4.5: Normal P-P Plot of Regression Standardized Residual for Perceived Peer Support and Perception

From figure 4.5, the residual points are lying along the diagonal line thus an indicator that there exists a linear relationship between perceived peer perception and support, and academic achievement of the slow learners in secondary schools in Kakamega county.

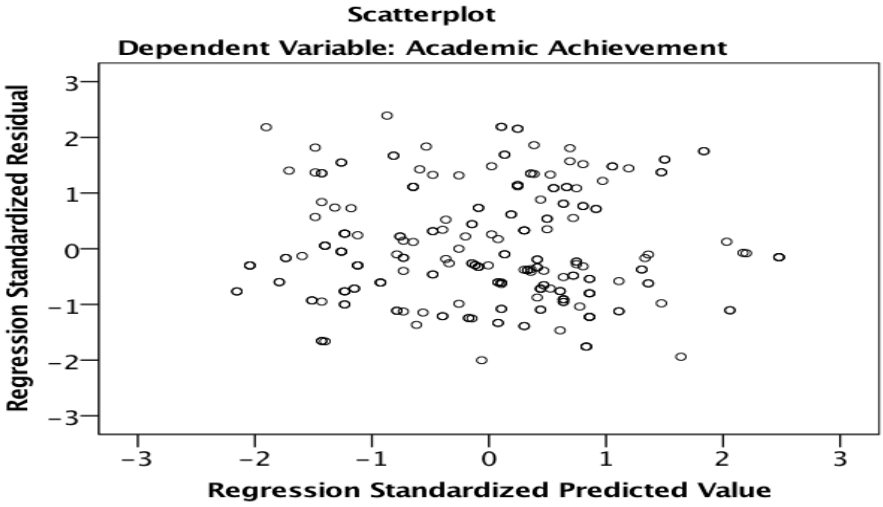

Figure 4.6: Residual scatterplot for perceived Peer Support and Perception

The residual points are approximately rectangular distributed in the residual scatterplot shown in figure 4.6, with the majority of the scores clustered in the middle, indicating that the presumption of homoscedasticity holds for the relationship between perceived peer perception and encouragement and academic achievement of slow learners.

4.4.5 Test for Linearity and Homoscedasticity for Parent Perception and Support

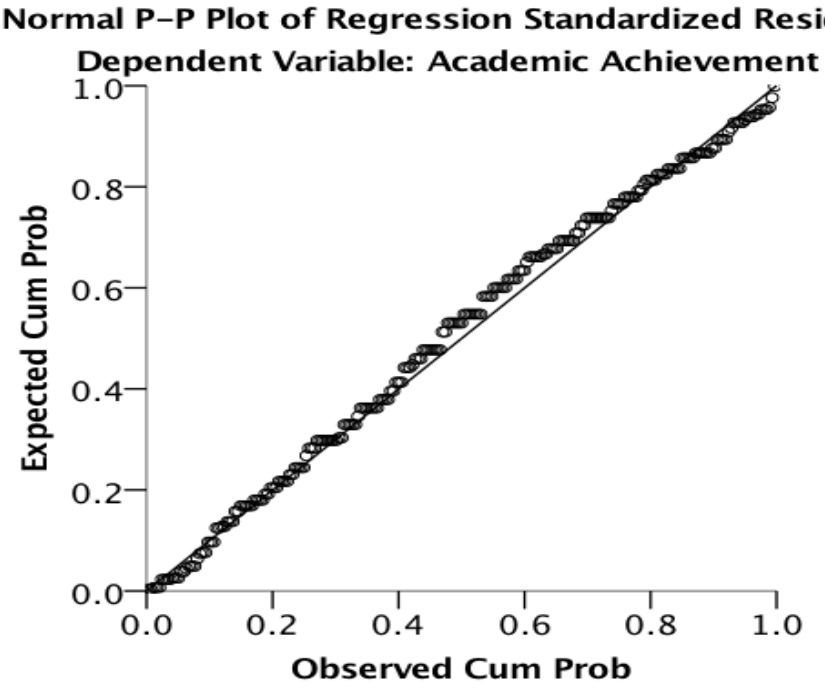

Figure 4.7: Normal P-P Plot of Regression Standardized Residual for Perceived Parental Perception and Support

From figure 4.7, the residual points are lying along the diagonal line thus an indicator that there exists a linear relationship between perceived parental perception and support, and academic achievement of the slow learners in secondary schools in Kakamega county.

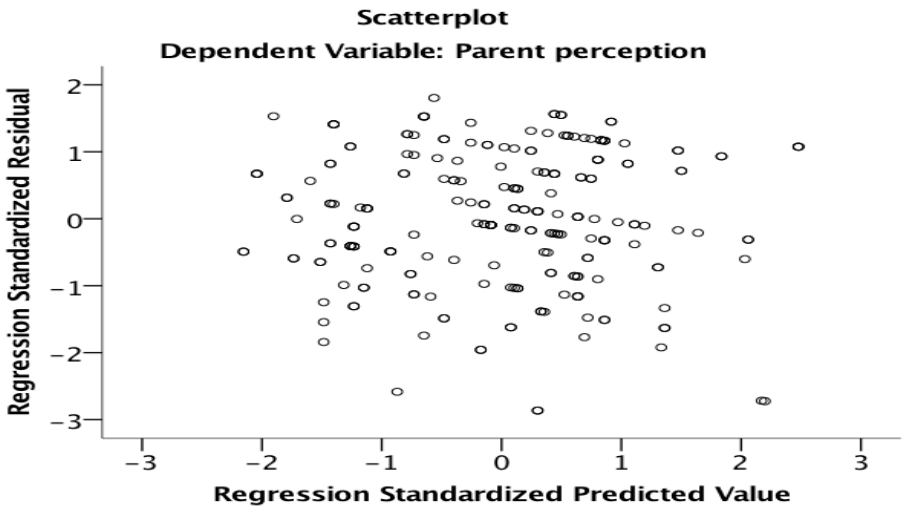

Figure 4.8: Residual scatterplot for Perceived Parental Perception and Support

The residual points are approximately rectangular distributed in the residual scatterplot shown in figure 4.8, with the majority of the scores clustered in the middle, indicating that the presumption of homoscedasticity holds for the relationship between perceived parental awareness and encouragement and academic achievement of slow learners.

4.4.6 Test for Linearity and Homoscedasticity for Self-Esteem

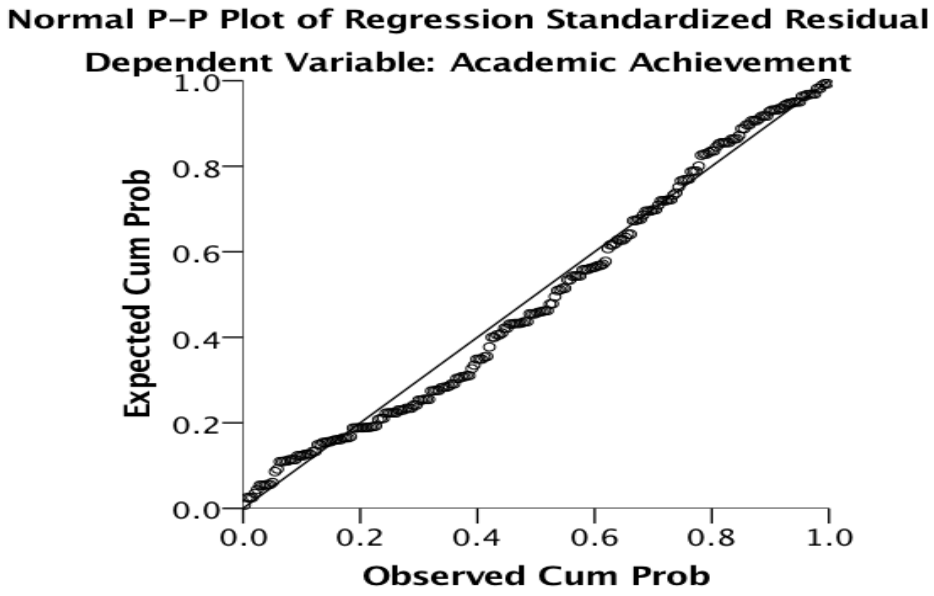

Figure 4.9: Normal P-P Plot of Regression Standardized Residual for Self-esteem

From figure 4.9, the residual points are lying along the diagonal line thus an indicator that there exist a linear relationship between Self-esteem and academic achievement of the slow learners in secondary schools in Kakamega county.

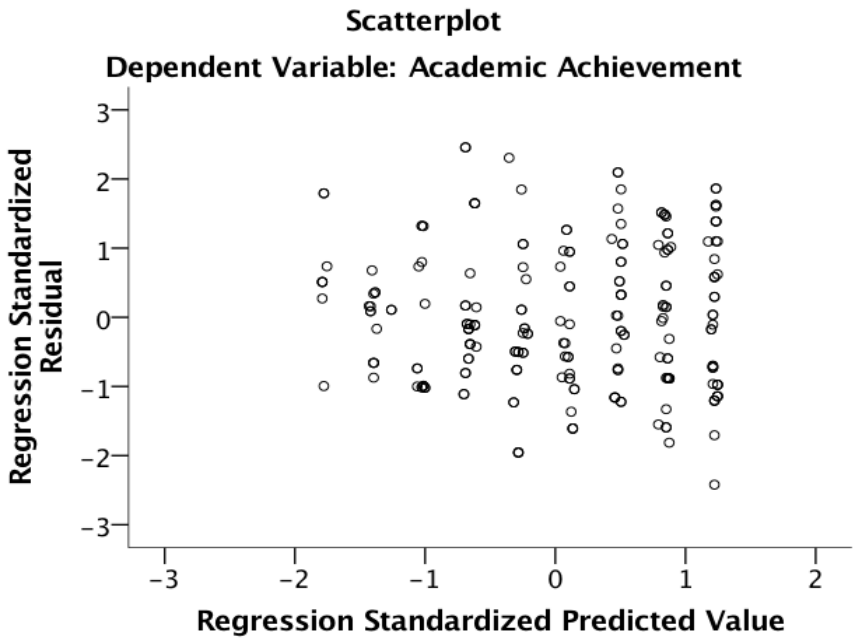

Figure 4.10: Residual scatterplot for Self-esteem

The residual points are approximately rectangular distributed in the residual scatterplot shown in figure 4.10, with the majority of the scores clustered in the middle, indicating that the presumption of homoscedasticity holds for the relationship between self-esteem and academic achievement of slow learners.

4.4.7 Collinearity Test

Collinearity indicates that a predictor variable can be linearly predicted by one multi-regression model with a substantial degree of precision (O'Brien, 2007); this phenomenon between the independent variables has an effect, whereby the regression model matches the data, but neither explanatory variables has a significant impact on prediction of the

regression model. The research used the variance inflation factor (VIF) to measure collinearity O'Brien (2007) has suggested the removal from multiple linear regression models of the independent variables with VIFs greater than 5 or with a value less than 0,2, which suggests multi-linearity. Table 4.3 displays the collinearity test results.

Table 4.3: Collinearity Test Using Variance Inflated Factor (VIF)

Independent Variable	Tolerance (1/VIF)	VIF
Perceived Teacher Support and Perception	.661	1.513
Perceived Peer Support and Perception	.756	1.323
Perceived Parent Support and Perception	.739	1.352
Gender	.951	1.052
Self-esteem	.680	1.471

Source: Research Data, 2019

The results of the collinearity test show that the tolerance values of all five indigenous variables were above 0 and VIF values less than 5, indicating no collinearity between independent variables, and all 4 independent variables were thus included in the multilinear regression model. This means that there was no collinearity of the independent variables.

4.5. Demographic Characteristics

Statistics for overall demographic profile of student sample were as presented in Table 4.4

Table 4.4: Demographic Characteristics

Variable	Category	Research Sample Size (n=233)	
		Frequency	Percentage (%)
Gender	Male	112	48
	Female	121	52
Total		**233**	**100**
Type of School	Boys	38	16
	Girls	53	23
	Mixed School	142	61
Total		**233**	**100**
Nature of School	Boarding School	62	27
	Day School	127	54
	Both day and boarding school	44	19
Total		**233**	**100**
School Status	National School	2	1
	Extra County School	59	25
	County School	29	13
	Sub-county School	143	61
Total		**233**	**100**
Father's Level of education	Primary	80	36
	Secondary	76	34
	College/University	58	26
	None	10	4
Total		**233**	**100**
Mother's level of education	Primary	94	41
	Secondary	72	32
	College/University	51	22
	None	12	5
Total		**233**	**100**
Age	Mean	19.03	
	Standard Deviation	1.471	
	Minimum	16	
	Maximum	23	
	Range	7	

Source: Research Data, 2019

The overall demographic statistics for this study indicated that 48.1% male and 51.9% female students participated in the study as shown in table 4.4. The study involved participants from all types of secondary schools with majority (60.9%) of the respondents being from the Mixed Schools. The study also involved all nature of schools and the highest frequency and percentage (54.5%) being the respondents from Day School, 26.6% of the respondents from Boarding Schools and 18.9% from both Day and Boarding Schools. The study involved schools of different status; 61.4% of the respondents from the Sub-county schools, 25.3% of the respondents from Extra County School, 12.4% from County Schools and 9% of the respondents from the National Schools. Majority of the parents seem to be literate which is indicated by; 34.3% and 40.3% of the respondents' fathers and mothers respectively having attained to Primary education, 32.6% and 30.9% of the respondents' fathers and mothers respectively went to Secondary schools, 24.9% and 21.9% respectively went to college/university while 4.3% and 5.2% of the respondents' fathers and mothers respectively never went to school. The minimum age of the students involved in the study was 16 years old while the maximum age of students involved in this study was 23 years old. Averagely the students involved in this study were 19 years old as shown in the table 4.4.

4.6 Descriptive Characteristics of Sample Learners

The cognitive characteristics and academic achievement of the learners is depicted and interpreted in the subsequent sub-section

4.6.1 Cognitive Characteristic of Slow Learners

Class teachers were asked to rate the cognitive characteristics of the identified slow learner and the sample findings were as shown in table 4.5.

Table 4.5: Cognitive Characteristics.

Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4 and Strongly Agree = 5.

Statement	Strongly Disagree	Disagree	Somehow Disagree	Agree	Strongly Agree
Comprehends meaning of words	3%	66%	28%	3%	0%
Follows instructions	7%	48%	42%	3%	0%
Comprehends class discussions	10%	56%	27%	3%	3%
Retains information	19%	63%	15%	3%	0%
Pays attention	4%	43%	44%	9%	0%
Organization	3%	44%	49%	4%	0%
Completion of assignments	11%	49%	32%	7%	0%

Mean	% Mean	Std. Deviation	Std. Error of Mean	Minimum	Maximum
2.3631	47%	.47669	.03123	1.14	3.57

Source: Research Data, 2019

Based on the findings majority of the sampled learners had cognitive problems linked with learning difficulties; 69% had concerning problems in comprehending meaning of words, 55 % had problems in following instructions, 66 % had deficits in comprehending class discussions and 82% had difficulties in retaining information; as shown in table 4.4. The findings also indicate that 47 % were rated as having attention deficits, 47% had

organization difficulties while 60% had concerning difficulties in completion of assignments.

Generally, the learners' cognitive abilities were considered low as indicated by the teachers rating, 47% (Mean = 2.3631, Std. dev. = 0. 47669) as shown in table 4.5. This is an indication that the learners in the sample qualify to be categorized as having learning difficulties. Qian (2008) identified key characteristics of slow learners as low information retention power, poor memory and poor organization skills.

4.6.2 Descriptive Characteristic for Academic Achievement of Sampled Slow Learner

The academic level and achievement of the participant slow learners in secondary school was described by the KCPE scores, previous year academic performance and a standard English and Mathematics tests. The findings are detailed in table 4.6 and 4.7.

Table 4.6: KCPE performance

Mean score	% Mean score	Std. Deviation	Std. Error of Mean	Minimum	Maximum
251.21	50%	35.839	2.348	174	340

Source: Research Data, 2019

Majority of the respondents among the slow learners in secondary schools in Kakamega county had average performance in KCPE examinations as indicated by a mean score of 251.21 marks (50%) with the lowest student scoring 174 marks and the highest scoring 340 marks (Mean score = 251.21, Std. dev. = 35.839) as shown in table 4.6. This is an indication that majority of the sampled learners performed poorly in previous KCPE examinations.

The performance of the sampled respondents may be attribute to the fact that majority of the learners were derived from mixed schools 142(61%), day schools 127 (54%) and sub-county 143 (61%). Generally, these nature and type of schools admit average and below average performers in the Kenya Certificate Primary Examination (Simiyu, 2015). Similarly, Waseka and Simatwa (2016) noted that while national and county schools admitted learners with high entry marks, sub county schools that are mostly mixed and day in nature admitted learners with lower KCPE marks a scenario that is reflected in the current findings. The general academic performance of the previous year for the identified learners is depicted in figure 4.11

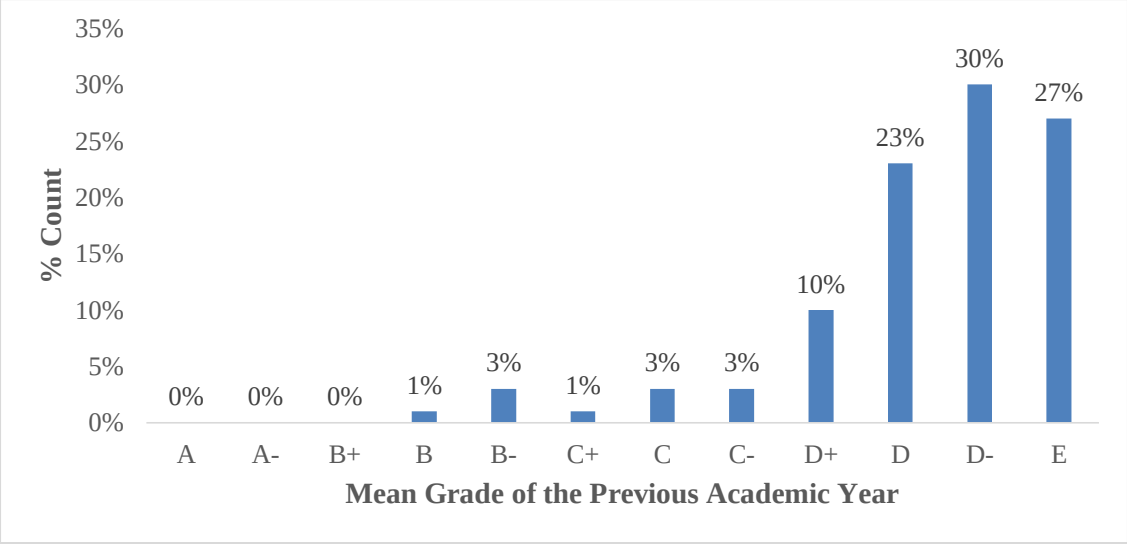

Figure 4.11: Mean Grade for previous year academic performance for slow learners

From figure 4.11, it is evident the majority of the sampled learners in secondary schools in Kakamega county performed poorly the previous academic year as indicated by the performance that is skewed towards lower grades; majority of the students (90%) scored D+ and below; 10% achieved a mean of D+, 23% got a D, 30% scored a D- and 27% scored

an E. the sample therefore depicts general low academic achievement based on the Kenya Education Grading System.

The study also administered a standard test for English and Mathematics, which was uniform across all the sampled schools to assess the current performance of the students. Double marking was used in the moderation of the scores. Individual subject teachers marked the scripts awarded the scores. Then two KCSE examiners one for Mathematics paper 1 and English paper 2 were then assigned to remark the scripts and independently award scores and an average score generated. The summary of academic test findings was as shown in table 4.7.

Table 4.7: Performance in the Standard Achievement Tests

	Mean	Std. Deviation	Minimum	Maximum
Mathematics (Percentage)	37.98%	11.549	0	100
English (Percentage)	48.00%	19.494	0	100
Average academic Achievement	42.89%	21.88217	0	90

Source: Research Data, 2019

The findings of the standard achievement test as shown in table 4.7 indicates that the sampled learners in secondary schools in Kakamega county generally performed below average. The mean score for the mathematics test was 37.98% (Mean score = 37.98%, Std. dev. = 11.549) and that for the English test was 48% (Mean score = 48%, Std. dev. = 19.494). On average, the academic achievement score was 42.89% % (Mean score = 42.89%, Std. dev. = 21.88217); this was below the average performance of 50%. This confirms the assertions that slow learners struggle to grasp the curriculum, have mild

intellectual disability and generally below average cognitive abilities and scholastic performance (Borah, 2013; Reynold & Fletcher-Jansen, 2006; Vasudevan, 2017; Abosi 2007). It similarly upholds the argument by Qian (2008) and Shenoy (2011) that slow learners are low achievers, have low information retention power, below average ability to comprehend academic concepts and ability that is significantly below grade level. The outcome in the tests therefore suggests that indeed most of the respondents have learning difficulties as depicted by low academic achievement as evident in the mean scores in the mathematics test (37.98%) and English mean score (48%) and average mean of (42.89%). However, it is also an indication that while learners described as slow learners generally perform poorly in academic tests there are others who are capable of performing well in specific conditions. Consequently, teachers should not summarily dismiss the slow learners as impossible cases in terms of academic achievement.

4.7. Correlation Analysis

The study sought to understand the strength and direction of the relationship between the dependent and independent variables. The study used the Pearson moment correlation coefficient to determine the strength and direction of the relationship between the dependent and independent variables and the findings were as shown in table 4.8.

Table 4.8: Correlation Analysis

			1	2	3	4	5	6	7
1.	Academic Achievement	Coefficient	1						
		Sig. (2-tailed)							
2.	Perceived Teacher perception	Coefficient	.296**	1					
		Sig. (2-tailed)	.000						
3.	Perceived Peer perception	Coefficient	.135*	.436**	1				
		Sig. (2-tailed)	.040	.000					
4.	Perceived Parental perception	Coefficient	.264**	.404**	.313**	1			
		Sig. (2-tailed)	.000	.000	.000				
5.	Gender	Coefficient	.173**	.103	.161*	-.003	-.011	1	
		Sig. (2-tailed)	.008	.116	.014	.967	.862		
6.	Self-esteem	Coefficient	.146*	.469**	.349**	.391**	.276**	.164*	1
		Sig. (2-tailed)	.026	.000	.000	.000	.000	.012	
7.	Class Size	Coefficient	-.199*	-.128	-.027	-.121	.043	.068	.010
		Sig. (2-tailed)	.023	.145	.759	.166	.626	.439	.907

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

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

The correlation analysis results as shown table 4.8 indicates that at 5% level of significance, Perceived Teacher perception and support, Perceived Peer perception and Support, Perceived Parental perception and Support, Gender and Self-esteem have a statistically significant positive relationship with academic performance as indicated by ($r = 0.296$, $p = 0.000<0.05$), ($r = 0.135$, $p = 0.04 < 0.05$), ($r = 0.264$, $p = 0.000 < 0.05$), ($r = 0.173$, $p = 0.008 < 0.05$) and ($r = 0.146$, $p = 0.026 < 0.05$) respectively. Class Size was found to have a negative significant relationship, ($r = -0.199$, $p = 0.023 < 0.05$). The implication of these findings are discussed in subsequent sections.

4.8 Relationship between Perceived Teachers' perception and Support and Slow Learners Academic Achievement

The first objective sought to examine the relationship between perceived teacher perception and support and slow learner's academic achievement in secondary schools in Kakamega county. Contreras (2011), argued that generally, teachers' beliefs, practices and attitudes are important for understanding and improving educational processes thus implying that teacher perception and support is an important component of the learning process. To assess the level of perceived teacher support respondents were asked to indicate the number of remedial classes by subject teachers per term. The findings were as shown in table 4.9.

Table 4.9: Number of remedial classes by subject teachers per term

Statement	Below 2	2 - 3	4 - 5	6 and above
Number of remedial classes by subject teachers per term	10%	15%	18%	57%

Source: Research Data, 2019

From table 4.9, majority of the respondents (57%) indicated that subject teachers had given 6 or more remedial classes per term while 18% of the respondents pointed out that the subject teachers had held between 4 to 5 remedial classes. This is an indicator that most teachers were making efforts to provide extra support to slow learner. However, some teachers need to increase provision of remedial classes because 25% of the respondents indicated that the remedial classes were 3 and below which is deemed to be too low bearing in mind that on average a term has 13 weeks. The respondents were asked to rate their

perceived teachers' perception and support measured on a 3-point Likert Scale and the findings were as shown in table 4.10.

Table 4.10: Perceived Teachers Perception and Support of Slow Learners. 1= Never at all, 2= Occasionally, 3= Always

Statement	Always	Occasionally	Never at all
My teachers appreciate my academic efforts	39%	49%	12%
My teachers make hurting comments about my academic performance	11%	37%	52%
The teachers' comments in my report book discourage me	16%	21%	63%
My teachers show a personal concern about my academic performance	61%	34%	5%
My teachers are friendly and encourage me about my class work	78%	20%	2%
I feel that my teachers care about my class performance	75%	21%	4%
I feel that my teachers have given up on me	3%	15%	81%
I feel neglected by my teachers	3%	21%	76%

Average satisfaction level of teachers' perception and support	Mean	% Mean	Std. Deviation	Std. Error of Mean	Minimum	Maximum
	2.5927	86%	.33248	.02178	1.63	3.00

Source: Research Data, 2019

The data in table 4.10 indicates that 39% of respondents felt that teachers always appreciate their academic efforts while 49% of the respondent felt teachers occasionally appreciate their efforts notably, 12% felt that teachers never appreciate their academic efforts. This indicates that while most of the teacher acknowledge the efforts made by slow learners to

improve academically a few teachers tend to ignore the efforts made which demoralize the learner. According to the findings 52% of the respondents' felt that teachers never make hurting comments about their academic performance. However, 37% claimed that their teachers occasionally make hurting comments about their academic performance whereas 11% indicated that their teachers always made hurting comments about their academic performance. This suggests that a number of teachers are not aware of the adverse impact of negative comments on learner's academic performance and particularly slow learners who need a lot of encouragement. Teachers ought to be sensitized about the influence of the comments they make to slow learners.

Even though majority of the respondents (63%) felt that teachers' comments on their report cards were not discouraging, a substantial portion (16% always, 21% occasionally) observed that the teachers' comments were discouraging as shown in table 4.10. This suggests that teachers ought to consider the remarks written in the learner's report card and strive to write comments that inspire the learner to work harder. It is worth noting that most of the respondents felt that teachers show a personal concern about students' academic performance as indicated by 61% of the respondents all the same 34% felt the concern is occasional while 5% felt that their teachers never show concern. Similarly, 78% of the respondents felt that their respective teachers are always friendly and encourage them about classwork, whereas 75% felt that the teachers always care about their class performance.

Majority of the students (81%) perceived that the teachers have not given up on them which is encouraging however, 15% occasionally felt that the teachers have given up on them while 3 % always felt that the teachers have given up on them. The danger of the self-

fulfilling prophecy is implied in this as observed by Ahmed et al (2010) who noted that when the teacher communicates the belief that the learner will not make it then the learner is likely to give up and stop working hard eventually not making it. Equally, 76% of the respondents indicated that they did not feel neglected by their teachers, however 21% indicate they occasionally felt neglected while 3% always felt neglected. The implication is that a substantial number of the students (24%) perceived that their teachers were not giving them enough attention. Which is detrimental to a learner's academic efforts. Borah, (2013), Sebastian, (2016) and Vasudevan (2017) observed that slow learners require a lot of attention and need a lot of encouragement to realize academic progress. Teachers therefore need to make encouraging comments despite the slow learner's perceived low academic performance.

Generally, the average level of the students perceived teachers' perception and support was 86% (Mean = 2.5927, Std. dev. = 0. 33248) as shown in table 4.10; an indication that majority of the slow learners in secondary schools in Kakamega county regard their teacher's perception and support as favourable. In essence most of the slow learners feel that their teachers have a positive perception and give them needed support however, some of the slow learners feel that their teachers have a negative perception and do not provide adequate support. It is argued that the notion of a teachers' negative perception and inadequate support militates against academic achievement of slow learners hence it's a risk factor.

Focus group discussions corroborated the findings. Most of the learners portrayed a favourable view in regard to their teachers' perception and support. However, some of them felt that the teachers ought to be more approachable and should strive to make the

staffroom more learner friendly to encourage extra consultations. It emerged that in most schools the staffroom is out of bounds for students, in other schools you can only talk to the teacher through the staffroom window which the students felt was demeaning and hindered frequent consultation with teacher negatively impacting their academic achievement. Furthermore, the students observed that some teachers have a tendency of delivering a stream of censures as you enter the staffroom, for instance *"Hey you! Where is your tie", "Look at your skirt", Those are not school shoes come here!".* The overall effect was that the slow learners eventually avoid personal consultations with specific subject teachers which adversely affects their academic achievement.

Based on the focus group discussions the students yearned for empathy from teachers. "*At least let my teachers understand that I did not finish my homework because I had no kerosene'* one student remarked. "*Let the principal allow us to attend classes even though we have fee balances instead of sending us home every day, yet we know there is no money at home"* another student commented. It also emerged that some teachers do make hurting comments and insults; "*ona huyu mjinga*" (look at this stupid one), "*mjinga kama mamako*" (as stupid as your mother) which according to the learners was humiliating and demoralizing. One student while referring to the form four revision program observed "*wanadivide class into two ya wajinga na werevu, kisha walimu wanataka walipwe kitu ndo waje kwa darasa ya wajinga*". Essentially the learner's observation is that the class is divided into two, for the 'stupid' and 'clever' and teachers require an incentive to go to the 'stupid' class. This implies that the learners are aware of the underlying unfavourable teachers' perception. According to the students the scenario described discouraged them

from working harder. The students' remarks therefore point out the need for teachers to reconsider careless remarks and be more accommodating and empathetic.

Class teachers' questionnaires and interviews also gave insight on how teachers perceive the slow learners. It emerged that some teachers, mock them, ignore and neglect them, consider them jokers, time wasters, careless, a liability to the subject, failures, low achievers, lazy, a burden, foolish in nature, negative drivers slowing down the class, not fit, useless people, or cursed. A recurrent term used to refer to slow learners was that they are a "bother" because they lowered the subject mean. One teacher noted that some colleagues comment "*Hawa ni wa kukulia mshara tu"* (these ones are just to help us earn our salary) in reference to the slow learners. Such an attitude depicts a negative perception and militates against offering requisite support to improve slow learner's academic achievement. However, it was evident that some teachers have embraced slow learners and make efforts to support them by giving remedial classes and individual guidance and counselling sessions.

Biggs (2011) asserted that as a facilitator the teacher has to create a learning environment by encouraging and supporting the learner. Paul (2016) similarly observed that no significant learning can occur without a personal cordial relationship between the teacher and the learner. Views support Contreras (2011) and Sebastian (2016) who noted that teacher support and clear consistent expectations of behavior is significantly related to levels of perceived academic competence. Contreras emphasized that students in a caring learning environment perform better on standardized tests than students in a less caring environment. Ogadho (2012) lends credence to the importance of teacher perception by pointing out that 72% of the respondents in Kisumu East Sub County felt that teacher

attitude influenced the dropout rate of pupils with learning difficulties to a large extent The current study findings indicate that most of the learners view their teachers as caring (75%) and friendly (78%) table 4.9 and notably only 2% (Table 4.19); indicated that they have ever felt like dropping out of school thus supporting Bye (2017), view that teachers' provision of a caring and friendly environment reduces disengagement towards school activities.

However, the findings also point out that teachers need to appreciate the efforts exhibited by slow learners more since only 49% of the respondents indicated occasional appreciation from teachers and 12% felt that the teachers never appreciate their academic efforts. Teachers should also desist from making hurting comments as indicated by the responses; 11 % responded always and 37% occasionally in relation to teachers making hurting comments. The importance of positive comments by teachers was underlined by teachers' questionnaire (Appendix 11); 52.5% and 41.0% indicated that positive comments by teachers will positively influence academic achievement of the slow learner in secondary schools to a very large extent and large extent respectively. Incidentally, 80.3% of the teachers felt that negative teacher perception will negatively influence the academic achievement of slow learners thus a risk factor.

Further, from the students' questionnaires it was established that 40% of the respondents had 2-3 individual academic counselling talks with their respective class teacher per term, 20% had 4-5% talks and 15% had 6 and above talks per term; this is an indicator that most of the class teachers were holding regular individual academic counseling however evidently the frequency ought to be increased based on the study findings. Mureithi, Nyaga,

Barchok and Oundo (2013) advocated for increased personal contact and free interaction between learner and the teachers as a way of realizing academic achievement. According to the study findings it is concluded that teachers' negative perception of slow learners and inadequate support is a risk to their academic achievement. It is therefore imperative that teachers assess their perception of slow learners and review the support accorded in order to improve academic achievement.

Based on the first objective the study sought to test the following hypothesis;

H_{01}: There is no significant relationship between perceived teacher perception and support and the academic achievement of slow learners in secondary schools in Kakamega County.

To test for the first hypothesis, the study used the Simple Linear Regression analysis to assess the influence of Teacher Perception and Support on the Academic Achievement of Slow learners in Secondary Schools in Kakamega County. The results were as shown in Table 4.11.

Table 4.11: Linear Regression Analysis between Perceived Teacher Perception and Support and Academic Achievement of Slow learners in Secondary Schools in Kakamega.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.296[a]	.088	.084	20.94615

a. Predictors: (Constant), Perceived Teacher Perception & Support

ANOVA[a]

Model		Sum of Squares	df.	Mean Square	F	Sig.
1	Regression	9699.103	1	9699.103	22.107	.000[b]
	Residual	100910.483	230	438.741		
	Total	110609.586	231			

a. Dependent Variable: Academic Achievement

b. Predictors: (Constant), Perceived Teacher Perception & Support

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		β	Std. Error	Beta	T	Sig.
1	(Constant)	-7.588	10.823		-.701	.484
	Perceived Teacher Perception & Support	19.477	4.143	.296	4.702	.000

a. Dependent Variable: Academic Achievement

Results for the ANOVA test as shown in Table 4.11 were F (1, 230) = 22.107, P = 0.000 < 0.05; this indicated that the adopted linear regression model was a good fit to the study dataset. The model (Perceived Teacher perception and support) was able to explain 8.4% of the variation in the academic achievement of the slow learner students in secondary schools in Kakamega county as indicated by the Adjusted R Square = 0.084 as shown in the model summary of Table 4.10. The regression Coefficient results showed that β = 19.477, t = 4.702, $p=0.000<0.05$; therefore, the study rejected the null hypothesis and

conclude that Perceived Teacher perception and support had a statistically significant influence on the academic achievement of the slow learner students in secondary schools in Kakamega county. Perceived Teacher perception and support had a positive standardized beta coefficient = 0.296 as shown in the coefficients results of Table 4.11; this indicates that a unit improvement in perceived Teacher perception and support was likely to result to an improvement in the academic achievement of the slow learner students in secondary schools in Kakamega county by 29.6%. To predict academic achievement of a slow learner from secondary schools in Kakamega County, when given the level of the perceived teacher perception and support, the study suggested the use of the following model;

Academic Achievement = -7.588 + 19.477 Perceived Teacher Perception and Support

The correlation analysis table 4.8, indicated that perceived teacher perception and support had a statistically significant positive relationship with academic achievement as indicated by ($r = 0.296$, $p = 0.000<0.05$). In essence when slow learners perceive teachers as supportive and regard them positively then their academic achievement is likely to improve. Whereas when they perceive inadequate support and negative perception then academic achievement is lowered. These findings are consistent to assertions by researchers. Paul (2016) observed that no significant learning can occur without a personal cordial relationship between the teacher and the learner a view supported by Contreras (2011) and Sebastian (2016) who note that teacher support and clear consistent expectations of behavior is significantly related to levels of perceived academic competence. The study carried out in Kisumu East Sub County indicated that, 72% of the

respondents felt that teacher attitude influenced the dropout rate of pupils with learning difficulties to a large extent (Ogadho 2012).

The current study has implied that most of the learners view their teachers as caring (75% and friendly (78%) and notably only 2% indicated that they have ever felt like dropping out of school these implies teachers provision of a caring and friendly environment reduces disengagement towards school. However, based on the findings teachers need to appreciate the efforts exhibited by slow learners since 49% indicated occasionally and 12% never at all in relation to teachers appreciating their academic efforts. Teachers should desist from making hurting comments as indicated by the response 11 % responded always and 37% occasionally. Biggs (2011) argued that teachers must create a learning environment that facilitate learning outcomes a view supported by Bye (2017) who described the teacher as a personal trainer adjusting weights whilst encouraging and supporting in order for the learner to attain the academic goals. The current study findings indicate that favorable perception and intensive support from teachers is likely to improve academic achievement of slow learners in secondary schools therefore unfavorable teacher perception and inadequate support is a risk to slow learner's academic achievement. Teachers therefore ought to be encouraged to cultivate positive perception and increase support of students with learning difficulties in particular the slow learners.

4.9 Relationship between Perceived Peer perception and support and slow learners' academic achievement

The study sought to examine the relationship between Perceived peer perception and support and slow learner's academic achievement in secondary schools in Kakamega County based on the second objective. It is observed that peers tend to have great influence

on behavior of an individual especially in the adolescent stage (Cillessen & Van den Berg, 2012). Williamson and Ryan, (2012) observed that peers readily accept individual differences and are likely to empathize with the academic struggle of a fellow learner. Similarly, Hamm and Zhang, (2010) and Kindermann, (2015) pointed to the fact that peers are more patient in assisting and tutoring a fellow student. Respondents were therefore asked to rate classmates' assistance per term and level of perception and support of fellow classmates. The findings are depicted in table 4.12 and 4.13.

Table 4.12: Classmates Assistance to Slow Learners

Statement	0 – 1	2 – 3	4 – 5	6 and above
Number of times classmates assist in academic assignments per term.	6%	31%	21%	42%

It is evident that the respondents perceive some level of academic assistance from peers. Based on the response 42% had gotten academic assistance 6 times and above, 21% had received assistance 4 to 5 times in a term, 31% had received assistance between 2 to 3 times while 6% had 1 or none. This implies that most slow learners receive some level of academic assistance from their classmates. The respondents were also asked to rate their classmate's perception and support measured on a 3-point scale and the findings were as shown in table 4.13.

Table 4.13: Descriptive Statistics for Perceived Peer Perception and Support

Statement	Always	Occasionally	Never at all
I feel that my classmates show concern about my class performance.	45%	45%	9%
My class mates make hurting comments about my class performance.	8%	36%	56%
I feel that my classmates give me enough support in my class work.	55%	34%	11%
My class mates are friendly and encourage me in class.	69%	27%	4%
My classmates assist me during revision time.	63%	30%	7%
I feel that my classmates care about me.	62%	32%	6%
My classmates mock me because of my class performance	6%	24%	70%
I feel that my class mates don't like me	3%	18%	79%
I feel that my classmates expect me to fail examinations anyway	5%	10%	85%
I feel neglected by my classmates	5%	25%	70%

Average satisfaction level in Peer perception and support	Mean	% Mean	Std. Deviation	Std. Error of Mean	Minimum	Maximum
	2.5901	86%	.42995	.02817	1.00	3.00

Table 4.13 depicts that most of the learners feel that their classmates care for them, 62% felt that classmates always care for them, 32% felt occasional care while only 6% felt that their classmates do not care about them. Similarly, the findings depict that most of the learners feel they are being accorded enough support by their classmates (55% always and 34% occasionally) only 11% felt the classmates never offer the requisite support. Majority of the learners (69%) felt that their classmates are friendly and encourage them in their academic work.

The findings also indicate that 63% (always) and 30% (occasionally) confirm getting assistance from their classmates during revision. Notably only 5% feel neglected by their classmates and 3% feel their classmates do not like them. The findings therefore imply that the respondents felt their classmates perceive them favorably and offer them adequate support. On average, the satisfaction level of the slow learner students about peer support and perception was 86% (Mean = 2.5901, Std. dev. = 0. 42995) as shown in table 4.13; an indication that majority of the slow learners in secondary schools in Kakamega county feel that their classmates regard them favorably and accord them adequate support in their academic pursuit. However, a few students feel that their peers have neglected them and do not offer requisite support. This implies that the guidance and counselling department in schools need to sensitize the learners on the need to empathize and assist fellow classmates.

The responses from focus group discussions validated the findings that some classmates were not as caring as depicted from the questionnaires. According to one respondent some classmates made remarks to the effect that they are on *"attachment"* contemptuously implying that they (slow learners) will not be promoted to the next class and may eventually leave the specific school. Some of their classmates went as far as writing graffiti on desks and walls derisively describing their poor class performance. Others pointed out that some classmates mocked them when they made efforts to consult the teacher or do extra class work with comments such as *"You will still fail after all", I will still pass you in class after all"* being rife. These incidents according to the respondents discouraged their personal efforts to improve their academic performance.

Hamm and Zhang, (2010) indicated that acceptance by peers' fosters motivation and learning, conversely rejection by peers' limits participation in classroom activities which may be detrimental to academic achievement. Daly, Shin, Tharkal, Selders and Vera, (2009) also observed that peer support enhances participation in academic and other related school activities. The findings of the current study imply that in general the peers in Kakamega County provide support and have a positive perception of slow learners thereby making the learning environment for the slow learner in school bearable which is likely to reduce drop-out. The findings table 4.19 indicated that only 2% of the respondents always thought of dropping out of school while 78% indicated that they have never thought of dropping out of school which suggests a high level of engagement and attachment to school and school activities.

The findings reflect the observation that the need to belong and be accepted by peers is paramount, especially in the adolescent population in secondary schools (Murat, 2013). Adolescent learners place a lot of value on peer support and perception compared to teacher and parent support and perception (Bowen, Hopson, Rose, & Glennie, 2012; Hayashi, 2016; Kindermann, 2015; Korir & Kipkemboi, 2014). It is also noted that peers readily accept individual differences and are likely to empathize with the academic struggle of a fellow learner (Williamson & Ryan, 2012). Furthermore, Kindermann argues that peers make children's time at school tolerable and fun providing companionship, help and emotional support. Perception and support of class peers is therefore perceived as a vital component in academic achievement of a leaner in general and a slow learner in particular.

Murat, (2017) postulated that positive perception and willingness to support each other leads to better academic achievement while negative perception limits peer support thereby impeding the academic progress of the learner. He further points to the fact that lack of peer support may precipitate a decrease in academic achievement. This view is supported by Oelsner, Lippold & Greenberg (2011). Subsequently, based on empathy; peers are more patient in assisting and tutoring fellow students (Hamm & Zhang, 2010; Kindermann, 2015). Additionally, teachers' responses (Appendix 11) indicated that 24.6% and 54.1% felt that negative perception by peers negatively influenced academic achievement of slow learners to a very large extent and large extent respectively. This implies that a majority of the teachers (78.7%) felt peer perception is an important factor influencing academic achievement of slow learners in a secondary school. Subsequently learners' observation of negative peer perception and inadequate support is a risk to slow learner's academic achievement.

Based on the second objective the study tested the following hypothesis;

H_{02}: There is no significant relationship between Perceived Peer perception and support and the academic achievement of slow learners in secondary schools in Kakamega County.

To test for the second hypothesis, the study used the Simple Linear Regression analysis to assess the influence of perceived Peer Perception and Support on the Academic Achievement of Slow learners in Secondary Schools in Kakamega County. The results were as shown in Table 4.14.

Table 4.14: Linear Regression Analysis between Perceived Peer Perception and Support and Academic Achievement of Slow learners in Secondary Schools in Kakamega.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.135[a]	.018	.014	21.72870

a. Predictors: (Constant),Perceived Peer Perception & Support

ANOVA[a]

Model		Sum of Squares	df.	Mean Square	F	Sig.
1	Regression	2018.171	1	2018.171	4.275	.040[b]
	Residual	108591.415	230	472.137		
	Total	110609.586	231			

a. Dependent Variable: Academic Achievement

b. Predictors: (Constant), Perceived Peer Perception & Support

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	Std. Error	Beta	T	Sig.
1	(Constant)	15.259	13.439		1.135	.257
	Perceived Peer Perception & Support	10.320	4.992	.135	2.067	.040

a. Dependent Variable: Academic Achievement

Results for the ANOVA test as shown in Table 4.14 were F (1, 230) = 4.275, P = 0.040 < 0.05; this indicated that the adopted linear regression model was a good fit to the study dataset. The model (Perceived Peer perception and support) was able to explain 1.4% of the variation in the academic achievement of the slow learner students in secondary schools in Kakamega county as indicated by the Adjusted R Square = 0.014 as shown in the model summary of Table 4.14. The regression Coefficient results showed that β = 10.320, t = 2.067, $p=0.040<0.05$; therefore, the study rejected the null hypothesis and conclude that perceived peer perception and support had a statistically significant influence on the academic achievement of the slow learner students in secondary schools in Kakamega county. Perceived Peer perception and support had a positive standardized beta coefficient = 0.135 as shown in the coefficients results of Table 4.14; this indicates that a unit improvement in perceived Peer perception and support was likely to result to an improvement in the academic achievement of the slow learner students in secondary schools in Kakamega county by 13.5%. To predict academic achievement of a slow learner from secondary schools in Kakamega county, when given the level of the perceived Peer perception and support, the study suggested the use of the following model;

Academic Achievement = 15.259 + 10.320 Perceived Peer Perception and Support

The correlation analysis table 4.8 depicted a positive significant relationship (r = 0.135, p = 0.04 < 0.05) between peer perception and support and slow learner's academic achievement. This implies that positive perception and adequate support from peers is likely to raise slow learner's academic achievement while negative perception and inadequate support is likely to lower slow learner's academic achievement. Comparatively, Ezzarouki (2016) found a significant correlation (r=.566, p .003≤ .01)

between peer influence and academic achievement. However, it was based on university students and general peer influence instead of peer perception and support. Hamm &Zhang (2010), indicated that acceptance by peers' fosters motivation and learning, conversely rejection by peers' limits participation in classroom activities which may be detrimental to academic achievement. Daly, Shin, Tharkal, Selders & Vera, (2009) also observed that peer support enhances participation in academic and other related school activities.

The findings of the current study imply that generally the peers in Kakamega County have a positive perception of slow learners and provide academic support thereby making the learning environment for the slow learner in school tolerable which reduces disengagement and drop-out rates. Based on the findings depicted in table 4.19, majority respondents (78%) had never thought of dropping out of school, 21% had occasionally while only 2% always thought of dropping out of school. The findings are in line with research findings that observe that the need to belong and be accepted by peers is paramount, especially in the adolescent population in secondary schools (Murat, 2013).

It has been observed that adolescent learners place a lot of value on peer support and perception compared to teacher and parent support and perception (Bowen, Hopson, Rose, & Glennie, 2012; Hayashi, 2016; Kindermann, 2015; Korir & Kipkemboi, 2014). It is also noted that peers readily accept individual differences and are likely to empathize with the academic struggle of a fellow learner (Williamson & Ryan, 2012). Consequently, based on the empathy peers are more patient in assisting and tutoring a fellow student (Hamm & Zhang, 2010; Kindermann, 2015). Furthermore,

Kindermann (2015) further argued that peers make children's time at school tolerable and fun providing companionship, help and emotional support. Perception and support of class peers is therefore perceived as a vital component in academic achievement of a leaner in general. Murat, (2017) postulated that positive perception and willingness to support each other leads to better academic achievement while negative perception limits peer support thereby impeding the academic progress of the learner. He further points to the fact that lack of peer support may precipitate a decrease in academic achievement. This view is supported by Oelsner, Lippold & Greenberg (2011). The current study therefore indicates that observation of positive peer perception and adequate support raises slow learner's academic achievement while negative peer perception and inadequate support lowers academic achievement and is therefore a risk factor.

4.10 Relationship between Perceived Parental Perception and Support and Slow Learners Academic Achievement

To assess perceived parental perception and support, the researcher asked the respondents the number of school visits by parent/guardian per term and the number of revision books bought by parent/guardian per year. The responses were as shown in table 4.15.

Table 4.15: Perceived Parental support

Statement	0 – 1	2 – 3	4 – 5	6 and above
Number of school visits by parent/guardian per term	27%	53%	15%	5%
Number of revision books bought by parents/guardian per year	39%	42%	10%	8%

The findings in table 4.15 indicate that majority of the parents (53%) had visited school at most 2 to 3 times in a term, 15 % had visited 4 or 5 times while only 5% had visited 6 times or more. Notably, 27% had made one or no visit at all. Similarly, most of the parents (42%) had bought 2 to 3 revision books in a term only 8 % had bought 6 or more revision books while 39% had bought one or no revision book. The finding indicates that while parents are making effort to visit the schools for academic follow up there is need to improve and increase the termly visit for consultation purposes. Furthermore, parents need to increase the support in terms of availing extra revision materials to the leaner. The study sought to determine the learners perceived parental perception and support and the descriptive findings were as shown in table 4.16.

Table 4.16: Descriptive statistics for Perceived Parental Perception and Support

Statement	Always	Occasionally	Never at all
My parents/guardians attend academic days/parents meetings in school.	65%	32%	3%
My parents/guardians come to school to find out about my academic progress.	28%	52%	21%
My parents/guardians buy me extra reading materials.	17%	49%	33%
My parents/guardians have friendly discussions with me about my academic progress.	63%	31%	6%
My parents/guardians reward any improvement in my academic performance.	24%	46%	30%
I feel loved by my parents/guardians.	84%	13%	3%
My parents/guardians make hurting comments about my academic performance.	18%	39%	44%
My parents/guardians insult me because of my academic performance.	23%	35%	42%
I feel that my parents/guardians are too harsh to me.	8%	40%	52%
I feel Neglected by my parents/guardians.	5%	23%	72%

	Mean	% Mean	Std. Deviation	Std. Error of Mean	Minimum	Maximum
Average satisfaction level in parent perception and support	2.3388	78%	.34505	.02261	1.40	2.90

Based on the findings in table 4.16, most respondents feel that parents regard them positively and give them requisite support. In that, 84% felt loved by the parents and only 3% felt that the parents do not love them. Similarly, 63% indicate that they have friendly

discussions with their parents about their academic performance and only 6% indicate never at all. But areas of concern are evident based on statement about personal initiative to follow up the learner's performance (52% occasionally and 21% never at all), buying of extra revision materials (17% always and 33% never at all) and rewarding improvement in academic performance (46% occasionally and 30% never at all). This implies that parents need to be encouraged to increase support to their children in these areas. Generally, the average parental support and perception as perceived by the slow learners was 78% (Mean = 2.5901, Std. dev. = 0. 42995) as shown in table 4.16. This implies that majority of the slow learners in secondary schools in Kakamega county feel that their respective parents have a favourable perception and accord them ample support.

Focus group discussions revealed that some of the learners truly feared their parents. The insults and derision from parents made some of them to hide their end term report cards. One female student became emotional and had tears in the eyes as she described how the parents disdainfully described her because of her low academic achievement. Another male student pointed out how the parent described him as a "*makanga"* (tout) implying that he simply escorted other students while he achieved nothing from being in school. Some learners expressed the view that parents showed partiality in the way they treated them in relation to their siblings. The above average siblings were given preferential treatment in terms of paying school fee and school visits.

Furthermore, some of the day scholars indicated that some parents were insensitive as concerns household chores. One female student gives the following description "*My mother is not employed but she leaves all the work for me to do in the evening after school I have to wash the breakfast utensils, fetch water for use yet she has been home the whole*

day. She doesn't care whether I have homework. After all the work am too tired to even study". It also emerged that it's mainly the female students in day schools who complained about the burdensome household chores while the male students had no complaint about the same. This view was supported by some of the teachers interviewed who inferred that girls especially in day school are affected by a heavy load of household chores assigned by the parents. Moreover, the findings from teacher questionnaires (Appendix 11) indicate that 58.1% of the teachers felt that negative comments from parents negatively influenced the academic achievement of slow learners to a very large extent while 29.0% felt it did to a large extent thereby implying that on average 87.1% felt that parents' negative comments jeopardize the academic achievement of slow learners in secondary school. Similarly, on average 80.6% of the teachers felt that parents' negative perception is a risk to the academic achievement of slow learners in secondary schools.

Research findings (Hanson, 2001; Heward, 2006; Navarro et al, 2007) have generally inferred that positive comments and reward from parents, paying school fees, visiting students at school, and attending academic days in the school form a repertoire of parental support that may influence the academic achievement of the student. In relation to the same, positive parent-student discussions have been noted to positively affect student achievement and reduce behavioral problems (Shute, Hansen, Underwood & Razzouk, 2011; Hardcastle, 2006).

Reese, Bird, and Tripp (2007) found that, when parents interacted with their children frequently, positive outcomes generally occurred. They inferred that positive talk in parent-child conversations regarding a conflict situation had a profound effect on the self-concept of a child. The link between conversations regarding past positive events and children's

self-esteem was substantial. Insufficient family support system and negative attitudes of parents are considered risk factors in the development of children with learning difficulties; it is further observed that disappointed parents tend to develop negative attitudes toward the child with learning difficulties (Chandramukil, Indiramma, & Mysore, 2012).

The emerging perspective is that positive parental involvement in the life of a student with learning difficulties may facilitate improvement in not only the social relationship but also in the academic sphere. Indeed, Wapula, (2011) pointed to the fact that influence of parental support in reducing dropout rates in children with learning difficulties is greater than that of the teacher, counselor or therapist. The observation is supported by finding in table 4.19 which indicated that only 2% of the learners had ever felt like dropping out of school while 78% had never had an inclination to drop out of school. Similarly, Howard (2006) observed that, it is the responsibilities of parents to make their children with learning difficulties succeed in class by cultivating self-awareness and self-confidence.

The view support Vidhya (2014), who noted that parents of slow learners should accept and respect them despite repeated failures in order to boost their confidence and morale. This can be achieved by developing positive perception and providing requisite support. Based on the findings from questionnaire and focused group discussions it is evident that parents ought to be encouraged to develop and maintain positive perception of the learner irrespective of their perceived low academic achievement. The slow learner particularly needs the approval of the parent and requires extra moral and physical support.

Based on the third objective, the following hypothesis was derived for testing;

H_{03}: There is no significant relationship between perceived Parental perception and

support, and the academic achievement of slow learners in secondary schools in Kakamega County.

To test the third hypothesis, the study used the Simple Linear Regression analysis to assess the influence of perceived Parental Perception and Support on the Academic Achievement of Slow learners in Secondary Schools in Kakamega County. The results were as shown in Table 4.17.

Table 4.17: Linear Regression Analysis between Perceived Parental Perception and Support and Academic Achievement of Slow learners in Secondary Schools in Kakamega.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.264[a]	.070	.066	21.15108

a. Predictors: (Constant), perceived Parental Perception & Support

ANOVA[a]

Model		Sum of Squares	df.	Mean Square	F	Sig.
1	Regression	7714.893	1	7714.893	17.245	.000[b]
	Residual	102894.693	230	447.368		
	Total	110609.586	231			

a. Dependent Variable: Academic Achievement

b. Predictors: (Constant), perceived Parental Perception & Support

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	Std. Error	Beta	T	Sig.
1	(Constant)	3.683	9.542		.386	.700
	Perceived Parental Perception & Support	16.777	4.040	.264	4.153	.000

a. Dependent Variable: Academic Achievement

Results for the ANOVA test as shown in Table 4.17 were F (1, 230) = 17.245, P = 0.000 < 0.05; this indicated that the adopted linear regression model was a good fit to the study dataset. The model (Perceived Parental perception and support) was able to explain 6.6% of the variation in the academic achievement of the slow learner students in secondary schools in Kakamega county as indicated by the Adjusted R Square = 0.066 as shown in the model summary of Table 4.17. The regression Coefficient results showed that β = 16.777, t = 4.153, $p=0.000<0.05$; therefore, the study rejected the null hypothesis and conclude that perceived parental perception and support had a statistically significant influence on the academic achievement of the slow learner students in secondary schools in Kakamega county.

Perceived Parental perception and support had a positive standardized beta coefficient = 0.264 as shown in the coefficients results of Table 4.17; this indicates that a unit improvement in the Perceived Parental perception and support was likely to result to an improvement in the academic achievement of the slow learner students in secondary schools in Kakamega county by 26.4%. To predict academic achievement of a slow learner from secondary schools in Kakamega county, when given the level of the perceived Parental perception and support, the study suggested the use of the following model;

Academic Achievement = 3.683 + 16.777 Perceived Parental Perception and Support

The correlation analysis: table 4.8 portrays a significant positive relationship (r = 0.264, p = 0.000 < 0.05) between perceived parental perception and support and academic achievement of slow learners in secondary school. The findings support research that has

demonstrated positive relationship between parental involvement and academic outcomes such as achievement test scores. Wapula (2011) observes that parents' attitude (of support, encouragement and optimism) will have the most lasting impact on children with learning difficulties. Moss (2012) imputes that mild-moderate learning difficulties may demonstrate the impact of parental rejection, poor social network and low self-esteem. Additionally, Rice, Barth, Guadagno, smith & McCallum (2013) noted that parents' perception of learners' academic ability, achievement expectations and support influence children's academic self-perception. The argument is supported by Wilkins and Ma (2003) who established that parental support was predictive of college student's grade.

The findings support Shute, Hansen, Underwood & Razzouk (2011) who postulated that parental involvement is an important component of education out comes and indicated that discussing academic issues yielded the strongest positive association with academic achievement. Their study indicated that parent- child discussion had a significant relationship to student achievement (β=.15, $p < .01$). Similarly, Chen (2009) found the correlation of overall parental involvement to academic achievement as r= .25. Correspondingly, the current study established a positive correlation of r=.264 (table 4.8) between perceived parental perception and support and slow learner's academic achievement. In essence if the slow learner perceives positive parental perception and support then academic achievement improves. Conversely, if they consider negative parental perception and inadequate support then academic achievement is lowered. It is therefore concluded that discernment of negative parental perception and inadequate support is a risk factor to the academic achievement of slow learners.

4.11. Relationship between Gender and the Academic Achievement of Slow Learners

Based on objective four, the following 4th (a) hypothesis for the study was;

H_{04a}: There is no significant relationship between gender and the academic achievement of slow learners in secondary schools in Kakamega County.

To test for the 4th (a) hypothesis, the study used the student t-test technique to assess the influence of gender on the Academic Achievement of Slow learners in Secondary Schools in Kakamega County. The results were as shown in Table 4.18.

Table 4.18: T-test Analysis for the influence of Gender on Academic Achievement.

Descriptive Statistics of the academic achievement across gender				
Gender	Sample size	Mean performance (%)	Std. Deviation	Std. Error Mean
Male	112	46.7946	23.28182	2.19992
Female	120	39.2417	19.90270	1.81686

t-test for equality in the means						
					95% Confidence Interval of the difference	
t value	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
2.662	230	.008	7.55298	2.83785	1.96146	13.14449

T-test Analysis for the influence of Gender on Mathematics and English Tests.

Test	Gender	N	Mean	Std. Deviation	Std. Error Mean	**t-test for equality in the means**		
						t	df	p-value
Mathematics (% Score)	Male	112	42.00	34.963	3.304	1.884	230	.061>0.05
	Female	120	34.23	27.613	2.521			
English(% Score)	Male	111	52.05	18.280	1.735	3.096	229	.002<0.05
	Female	120	44.25	19.902	1.817			

The descriptive results of table 4.18 indicates that in Mathematics, male slow learner students scored an average of 42% (Mean = 42.00, Std. Dev. = 34.963) and female slow learner students scored an average of 34.23% (Mean = 34.23, Std. Dev. = 27.613). However, the t-test results indicated that the two mean scores were not significantly different from each other as shown by t =1.884, df= 230, p-value = 0.061 > 0.05. The

findings are supported by Karimi (2013) who found no significant difference between gender in relation to mathematics learning disabilities. However, it contradicts prevailing assumptions about males outperforming females in mathematics (Else-Quest, 2010; Mwalya, 2017). In essence in the slow learners' category both males and females struggle and ultimately both gender attain low scores in mathematics. For the English test, the males had a mean score of 52.05% (Mean = 52.05, Std. Dev. = 18.280) and female scored a mean of 44.25% (Mean = 44.25, Std. Dev. = 19.902) and the means were significantly different from each other (t =3.096, df= 229, p-value = 0.002 < 0.05); this is an indication that the male students among the slow learners performed better in English compared to the female slow learners.

Equally, this is a contradiction to popular assumptions that girls generally perform better in literacy subjects particularly English (Hdii & Fagroud, 2010; Else-Quest, 2010). Implicitly, in the slow learners' cadre the male students outperform the female students in English compared to the general student population where commonly the girls outperform boys in languages and literacy subjects. Based on the findings the female slow learner needs more support and assistance from teachers, peers and parents in order to improve their academic performance. It is therefore recommended that teachers arrange more remedial classes for the female slow learners. The guidance and counselling department sensitize parents of female students to accord them more emotional and material support in order to realize academic improvement.

The descriptive results of table 4.18 also indicate that male slow learner students scored an average of 46.7946% (Mean = 46.7946, Std. Dev. = 23.28182) and female slow learner students scored an average of 39.2417% (Mean = 39.2417, Std. Dev. = 19.90270). The t-

test results indicated that the mean difference (Mean = 7.55298, Std. Dev. = 2.83785) was significant as shown by t =2.662, df= 230, p-value = 0.008 < 0.05. We therefore, reject the null hypothesis (H_{04a}) and conclude that there is a relationship between gender and academic achievement of slow learners in Kakamega county.

The male slow learner performs better compared to the female slow learner in secondary schools in Kakamega county. However, based on the teachers' questionnaires (Appendix 11) majority (40.3%) felt that gender had no influence on the academic achievement of slow learners while 24.2% felt that the influence was to a very small or small extent. This implies that 88.7% of the teachers felt that gender has a minimal influence on the academic achievement of slow learners in secondary schools in Kakamega County. The sub-county director of education nonetheless observed "*The boys wonder why they should continue to hustle and be ridiculed by teachers and peers yet there is a ready means of earning money by boda boda. The girls on the other hand have limited options hence they are less likely to drop out of school".* This implied that the presence of the motor bike courier services (boda boda) increases the risk of male slow learners dropping out of school. The interpretation is, when the academic pressure is too high most male slow learners may opt to drop out of school however the female slow learners are more likely to stay in school.

The current study established that male slow learners outperform female slow learners. These finding support the assertions by Mukonyi and M'mbasu (2014) and Mwalya (2017) that boys outperform girls in academic achievement but are in contradiction to the findings by Zembar & Blume (2009) and Smith (2015) who observed that females outperform males academically. Zembar & Blume (2009), indicated that on average girls perform better in school than boys; girls get higher grades and complete high school at higher rates compared

to boys a view supported by Smith (2015). However, it is noted that boys show spelling deficits and general low performance in language and arts subjects while the girls have a greater deficit in arithmetic and science subjects (Moll, kunze, Neuhoff, Bruder & Schulte-Korne (2014).

This study finding support Else-Quest (2010) findings that boys outperformed girls in math and science however it contradicts the assertion that girls outperform boys at literacy subjects. It similarly, contradicts Voyer & Voyer (2014) who found that performance was statistically different but in favor of females because in the current case it is in favor of males. The current study findings indicate that in the case of Kakamega County the gender at risk is the female slow learner. These findings are in line with Wapula (2011) who observed that the girl-child in Botswana, is disadvantaged by inadequate access to basic education particularly those with learning difficulties. Moreover, Reiser (2006) points out that the tradition of favoring boys runs deep in most African culture. Society in general has a negative attitude towards people with special needs but the situation is worse for the girl child with special needs and disabilities. The implication is girls with learning difficulties are likely to face more negative social perception and less social support hence they are in greater jeopardy of dropping out of school.

4.12. Relationship between Self-Esteem and Academic Achievement of Slow Learners

The fifth objective was to establish the relationship between self-esteem and the academic achievement of slow learners in secondary schools. First the study sought to rate the level

of self-esteem among the sampled slow learner students in secondary schools in Kakamega County and the study findings were as shown in table 4.19.

Table 4.19: Descriptive findings for Self-Esteem.

Always = 1, Occasionally= 2 and Never at all = 3.

	Statement	Always	Occasionally	Never at all
i.	I often wish I were someone else	41%	21%	37%
ii.	I am confident	68%	26%	6%
iii.	I feel my life is just full of problems	14%	38%	48%
iv.	I feel that if I work hard I can achieve my goals	95%	5%	0%
v.	I feel hopeless about my life	9%	26%	65%
vi.	If I have something to say I normally say	43%	44%	12%
vii.	I feel I am just a failure in life	5%	13%	82%
viii.	I get discouraged at what I am doing easily	17%	44%	39%
ix.	I find it very hard to talk in front of a group of people	12%	42%	46%
x.	There are times that I feel like dropping out of school	2%	21%	78%

Average level of Self-esteem	Mean	% Mean	Std. Deviation	Std. Error of Mean	Minimum	Maximum
	2.1073	70%	.24120	.01580	1.40	2.60

The average level of self-esteem among the slow learner students in secondary schools in Kakamega county was 70% (Mean = 2.1073, Std. dev. = 0. 24120) as shown in table 4.19;

an indication that majority of the respondents had a fairly moderate level of self-esteem. The findings indicated that a majority of the learners (63%) had confidence in themselves and only (6%) lacked self-confidence. Self- confidence is an indicator of an individual's self-esteem (Waseka & Simatwa, 2016). Similarly, the respondents had a fairly high self-value with findings indicating that only 5% felt they are failures in life and only 9% felt hopeless about their circumstances while the majority (95%) felt that if they worked hard they can achieve their goals which implies that most of the learners have not given up on themselves.

However, it is notable that 41% always wished they were someone else and 21% occasionally felt the same. This suggests a greater percentage in those who experience dissatisfaction with self. Similarly, the findings indicated that 42% found it difficult to talk before others while 44% easily got discouraged an indication that quite a number of the respondents had self-esteem problems. Furthermore, teachers felt that low self-esteem is a possible risk factor. Based on teachers' questionnaires (Appendix 11); 57.4% and 36.1% felt that low self-esteem negatively influenced academic achievement of slow learners to a very large extent and large extent respectively. In essence 93.5% of the teachers felt that low self-esteem is a risk factor.

Moller, Streblow, & Pohlmann, (2009) and Sternke (2010) markedly observed that students with learning difficulties have low self-esteem. However, the current study contradicts this assertion because the learners generally exhibited a moderate to high level of self-esteem (Mean 2.1073, Std. Deviation .2410). Furthermore, it has been argued that students with learning difficulties in inclusive schools have lower self-esteem than those of their peers in schools for students with special educational needs (Kususanto, Ismail, & Jamil 2010)

which may account for the variance since the respondents came from regular schools hence some may feel inferior compared to their above average classmates. Alesi et al., (2014) identify learned helplessness; basically giving up on self as a common phenomenon associated with students with learning difficulties. This situation is characterized by a tendency to give up and expect the worst because they think that no matter how hard they try they will fail. However, the findings of the current research are in a contradiction since a majority of the slow learners (95%) feel they can still achieve their academic goals if they work hard hence discounting feelings of helplessness.

According to Otenyo and Otieno, (2014) lack of positive self-concept results in low academic output a view supported by Waseka and Simatwa (2016) who noted that learners with low entry marks lack self-confidence and have low self-esteem and as a result performed below average in class. The current study findings however depict that slow learners' self-esteem is rated as average to high despite low academic achievement. The implication is that not all slow learners have low self-esteem while some slow learners may have low self-esteem others have average to high self-esteem.

Based on the fourth objective, the following 4th (b) hypothesis was formulated and tested;

H_{04b}: There is no significant relationship between Self-esteem and the academic achievement of slow learners in secondary schools in Kakamega County.

To test for the 4th (b) hypothesis, the study used the Simple Linear Regression analysis to assess the influence of Self-esteem on the Academic Achievement of Slow learners in Secondary Schools in Kakamega County. The results were as shown in Table 4.20.

Table 4.20: Linear Regression Analysis between Self-esteem and Academic Achievement of Slow learners in Secondary Schools in Kakamega.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.146[a]	.021	.017	21.69563

a. Predictors: (Constant), Self-esteem

ANOVA[a]

Model		Sum of Squares	df.	Mean Square	F	Sig.
1	Regression	2348.459	1	2348.459	4.989	.026[b]
	Residual	108261.127	230	470.701		
	Total	110609.586	231			

a. Dependent Variable: Academic Achievement

b. Predictors: (Constant), Self-esteem

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		β	Std. Error	Beta	T	Sig.
1	(Constant)	15.091	12.526		1.205	.230
	Self-esteem	13.191	5.905	.146	2.234	.026

a. Dependent Variable: Academic Achievement

Results for the ANOVA test as shown in Table 4.20 were F (1, 230) = 4.989, P = 0.026 < 0.05; this indicated that the adopted linear regression model was a good fit to the study dataset. The model (Self-esteem) was able to explain 1.7% of the variation in the academic

achievement of the slow learner students in secondary schools in Kakamega county as indicated by the Adjusted R Square = 0.017 as shown in the model summary of Table 4.20. The regression Coefficient results showed that $\beta = 13.191$, $t = 2.234$, $p=0.026<0.05$; therefore, the study rejected the null hypothesis and conclude that Self-esteem had a statistically positive significant influence on the academic achievement of the slow learner students in secondary schools in Kakamega county. Self-esteem had a positive standardized beta coefficient = 0.146 as shown in the coefficients results of Table 4.20; this indicates that a unit improvement in the Self-esteem was likely to result to an improvement in the academic achievement of the slow learner students in secondary schools in Kakamega county by 14.6%. To predict academic achievement of a slow learner from secondary schools in Kakamega County, when given the level of the slow learners Self-esteem, the study suggested the use of the following model;

Academic Achievement = 15.091+ 13.191 Self-esteem

Ogadho, (2012) observed that children with learning difficulties generally have low self-esteem, feelings of rejection. The argument is that low self-esteem may impede academic progression. Learners with learning difficulties may be inclined to talk to people but are not able to be the first ones to start a conversation, as they are shy, mostly due to low self-esteem. The implication is that the child may not seek help from teachers or peers thereby compounding the poor academic achievement. The learner gets to be demoralized after repeated efforts that yield no positive change in performance. Learned helplessness is one phenomenon associated with students with learning difficulties. This is a situation characterized by a tendency to give up and expect the worst because they think that no matter how hard they try they will still fail.

Education research points out the fact that pupils with learning difficulties may develop lower levels of self-esteem (Alesi et al., 2014). Moss (2012), similarly observed that people with learning difficulties; tend to have low esteem and impoverished support and further noted that having good social support, and esteem within society is beneficial to a learner's mental health and academic performance. Kususanto et .al (2010) noted that low achievers had a low score on self-esteem compared to high achievers noting that teachers' perception influenced learner's self-esteem which impacts the academic achievement of the learner.

Comparatively, Sheykhjan, Jabari, & Rajeswari (2014), established that high self-esteem has been positively correlated with academic achievement. Their finding in a study undertaken in Iran indicated a very high correlation between self-esteem and academic achievement (r=.96 for males and r=.93 for females) while the current study had a modest correlation of r=.146; table 4.8. However, Sheykhjan et al. study had a sample of 40 compared to the current study sample of 233 students. Nevertheless, the implication is, teachers ought to consider their attitude and perception of the slow learners in order to boost the learner's self-esteem this will inspire the slow learner to consult the teachers and the peers which is likely to lead to improvement in academic performance. It can therefore be summed up that low self-esteem lowers academic achievement of slow learners while high self-esteem is associated with higher academic achievement. The implication is that low self-esteem is an apparent risk factor in relation to the academic achievement of slow learners

4.13. Class Size

The fifth objective was to examine the influence of class size on the academic achievement of slow learners. To achieve this, the study first sought to describe the state of class sizes among secondary schools in Kakamega County. The respondents involved in this study were asked to indicate their class sizes based on common and optional subjects and the responses were as shown below in table 4.21.

Table 4.21: Descriptive Statistics for Class Sizes

Statement	1-15	16-30	31-45	46-60	60 and above
Class size for the common subjects	5%	15%	45%	25%	10%
Class Size for optional subject 1	13%	34%	25%	17%	11%
Class Size for optional subject 2	13%	29%	29%	19%	10%
Class Size for optional subject 3	10%	34%	30%	18%	8%
Class Size for optional subject 4	10%	30%	35%	14%	11%
Class Size for optional subject 5	12%	27%	39%	17%	6%

Table 4.21 indicates that most of the class sizes are large ranging between 31and above 60 for both common and optional subjects. A considerable number of classes (35%) are 46 and beyond. These findings correspond with Chokera (2014) who found a similar scenario in the study carried out in Akithii Division; Meru County; majority of the class sizes (41%) ranged between 41-50 while 29% ranged between 51 and above Waseka and Simatwa (2016) also found the average class sizes in Kakamega County as follows; 18- 45 (60.8%) and 50-60 (37.5%). This implies that generally class sizes are large in other parts of the

country and Kakamega County in particular. Comparatively studies carried out in developed countries depicted classes that ranged between 15-17 and 22-25 for instance the STAR research program (Monks & Schmidt, 2010; Whitehurst &Chingos, 2011). Class size has been viewed as a risk factor in academic achievement (Mirani & Chunawala, 2015). This implies that generally small class sizes are associated with better academic achievement while large class size is associated with low academic achievement. It is therefore imperative to keep the class size below 30 in order to assist the slow learner.

Generally, over bloated classes have been linked to falling standards of education according to Owoeye and Yara (2011) and Sebastian (2016). It is postulated that student achievement decreases as class size increases. Yara, (2010) observed that academic achievement in mathematics was influenced by class size in a study carried out in Nigeria, with those in smaller classes performing better than those in larger classes. Whitehurst and Chingos (2011) also noted that elementary students assigned to smaller classes performed better than those in regular large classes. However, it emerged that the effect was more in boys. The general argument is that a smaller class for teachers dealing with struggling students is logical (Korir & Kipkemboi, 2014; Vasudevan, 2017; Whitehurst &Chingos, 2011).

Comparatively, Vandenberg (2012) initial correlational analysis of results of his study showed a positive relationship between class size and academic achievement. However, Vandenberg's filtered data that removed the small classes because they were specifically for slow learners revealed no association between class size and academic achievement. In contrast teachers interviewed in Vandenberg's study held the opinion that smaller classes

had a positive impact on student achievement indicating that class sizes of 20 or less students are ideal. Incidentally, Monks & Schmidt (2010) observed that class size had a negative and statistically significant impact on student course evaluation.

Bandiera et. al. (2009) also, found a significant negative but highly nonlinear effect of class size on students' test results. Monks and Schmidt assertions were; a reduction of class size and total number of students will lead to significant improvement in student outcomes. The current study findings from teachers' questionnaires (Appendix 11) indicated that 18.0% felt that large class sizes negatively influenced academic achievement of slow learners to a very large extent while 54.1% felt that the class size negatively influenced the academic achievement to a large extent. This implies that on average 72.1% of the teachers felt that large class sizes are a risk factor in relation to the academic achievement of slow learners in secondary schools in Kakamega County.

The Fifth hypothesis for the study was;

H_{05}: There is no significant relationship between Class Size and the academic achievement of slow learners in secondary schools in Kakamega County.

To test for the sixth hypothesis, the study used the One-Way ANOVA technique to assess the influence of Class Size on the Academic Achievement of Slow learners in Secondary Schools in Kakamega County. The results were as shown in Table 4.22 and figure 4.12.

Table 4.22: ANOVA for the relationship between Class Size and Academic Achievement of Slow learners in Secondary Schools in Kakamega.

	Academic Achievement (out of 100%)					
Class Size	Count	Mean	Std. Deviation	Std. Error	Minimum	Maximum
1 – 15	16	45.7813	19.60439	4.90110	26.00	80.00
16 – 30	35	42.7857	20.58636	3.47973	15.50	79.50
31 – 45	50	39.3700	24.32933	3.44069	.00	90.00
46 – 60	22	40.2045	16.01759	3.41496	15.00	73.50
60 and above	8	20.8125	6.38602	2.25780	15.00	30.00
Total	**131**	**40.0725**	**21.23550**	**1.85535**	**.00**	**90.00**

ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	3771.731	4	942.933	2.166	.047
Within Groups	54851.331	126	435.328		
Total	58623.061	130			

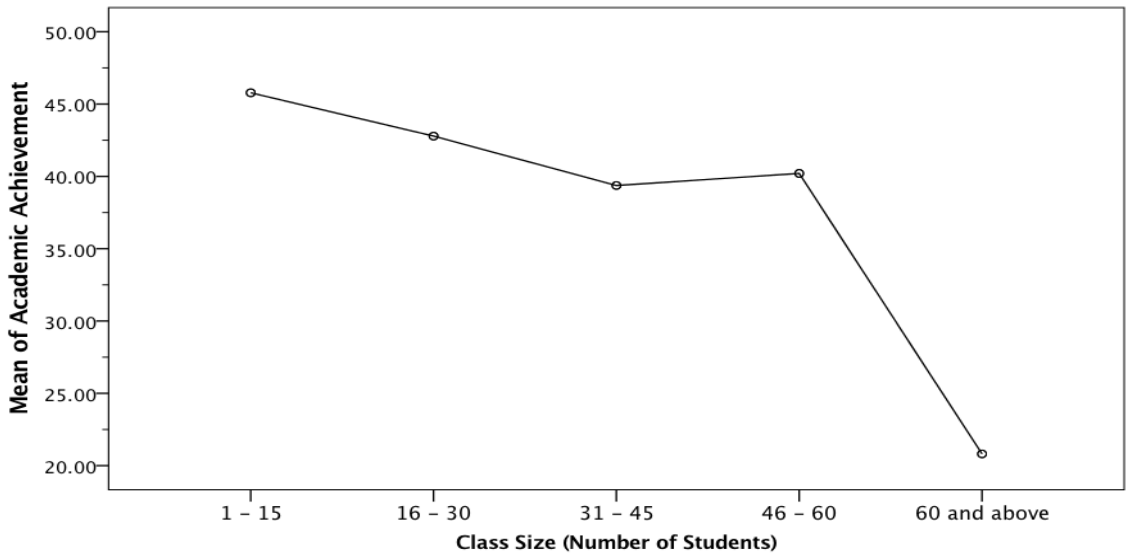

Figure 4.12. Mean Plot for the academic Achievement across class sizes

Results for the ANOVA test as shown in Table 4.22 were F (4, 126) = 2.166, P = 0.047 < 0.05; this indicated that the class Size had a significant influence on the academic performance. For class size of 1-15 students, the average mean score was 45.7813, for class

size of 16-30 students, the average mean score was 42.7857, for class size of 31-45 students, the average mean score was 39.37, for class size of 46-60 students, the average mean score was 40.2 and for class size of above 60 students, the average mean score was 20.8125. The Mean plot (see figure 4.12) also indicate a decrease in the academic achievement as the class size increases. The study therefore concludes that having a large class size is likely to lead to poor academic achievement among the slow learner students in the secondary schools Kakamega County.

Class size has been viewed as a risk factor in academic achievement (Mirani & Chunawala, 2015). It is postulated that student achievement decreases as class size increases. This finding therefore, support the argument advanced by Owoeye and Yara (2011) and Sebastian (2016) that over bloated classes are linked to falling standards of education. Similarly, they are in line with Yara, (2010) who observed that academic achievement in mathematics was influenced by class size, with those in smaller classes performing better than those in larger classes. Owoeye and Yara had further argued that small class sizes led to less retention, less referrals to special education and fewer drop outs. This assertion was supported by Bye (2011) who noted that large class sizes hinder the effective working of a teacher. As a facilitator the teacher needs a small class in order to cultivate self-monitoring and self-regulation skills in the learner that ultimately achieve learning outcomes.

The findings also support the STAR program studies carried in the Tennessee State (USA). The findings inferred that reduction of class size increased student achievement. Whitehurst and Chingos (2010) noted that elementary students assigned to smaller classes performed better than those in regular large classes though the effect was greater in boys

and economically disadvantaged children. The study further revealed that class size reduction had meaningful long term effect on student achievement if introduced in lower grades and for the less advantaged students. Comparatively, Vandenberg (2012) initial correlational analysis of results of his study showed a positive relationship between class size and academic achievement. However, after the removal of small class sizes reserved for students with learning difficulties, data revealed no association between class size and academic achievement.

The teachers in Vandenberg's study however observed that smaller classes had a positive impact on student achievement indicating that class sizes of 20 or less students are ideal. Incidentally, Monks & Schmidt (2010) observed that class size had a negative and statistically significant impact on student course evaluation. Bandiera et. al. (2009) also, found a significant negative but highly nonlinear effect of class size on students' test results. Monks and Schmidt assertions were; a reduction of class size and total number of students will lead to significant improvement in student outcomes.

Whitehurst and Chingos (2011), Korir and Kipkemboi (2014), and Vasudevan, (2017), have pointed to the logic of smaller classes for teachers dealing with struggling students. The current study supports the findings that small class sizes are likely to be beneficial to students with learning difficulties because they enable teachers to provide individualized attention. Conversely, large classes may be considered a risk to the academic achievement of slow learners. It may be imperative for teachers to employ techniques that divide up the class into small manageable groups or make use of collaborative and cooperative teaching techniques to overcome the challenge posed by large class sizes.

4.14 Test of Sixth Hypothesis Multiple Regression Analysis

To determine the partial influence of perceived social perception and support (perceived Teacher, Peer and Parent perception and support) and personal factors (Gender and self-esteem) on the academic achievement of the slow learners in the secondary schools in Kakamega County, the study adopted use of Multiple linear regression. The study findings were as shown in table 4.23.

Table 4.23: Multiple Linear Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.373[a]	.139	.120	20.52319

a. Predictors: (Constant), perceived Teacher, Peer and Parent perception and support, Gender and Self-esteem.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15418.081	5	3083.616	7.321	.000[b]
	Residual	95191.505	226	421.201		
	Total	110609.586	231			

a. Dependent Variable: Academic Achievement

b. Predictors: (Constant), perceived Teacher, Peer and Parent perception and support, Gender, and Self-esteem.

Partial Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	Std. Error	Beta	t	Sig.
1	(Constant)	-12.325	15.479		-.796	.427
	Perceived Teacher perception & support	16.014	4.988	.243	3.210	.002
	Perceived Peer perception & support	-3.041	5.412	-.040	-.562	.575
	Perceived Parental perception & support	12.856	4.481	.202	2.869	.005
	Gender	7.103	2.764	.163	2.570	.011
	Self-esteem	-5.511	6.665	-.061	-.827	.409

a. Dependent Variable: Academic Achievement

Source: Research Data, 2019

From the ANOVA results as shown in Table 4.23 were, F (5, 226) = 7.321, P = 0.000 < 0.05; an indicator that the multiple linear regression model was a good fit to our dataset. The model (perceived Teacher, Peer and Parental perception and support, Gender and Self-esteem) was able to explain 12% of the variation in the academic achievement of the slow learners in the secondary schools in Kakamega county as indicated by the Adjusted R Square = 0.120 as shown in the model summary in Table 4.23.

The study revealed that the perceived Teacher perception and support, perceived parental perception and support and Gender had a significant partial influence in predicting academic achievement of the slow learners in the secondary schools in Kakamega county as indicated by the significant unstandardized beta coefficients: perceived Teacher perception and support had $\beta = 16.014$, $t = 3.210$, p-value = 0.002 < 0.05, perceived parental perception and support had $\beta = 12.856$, $t = 2.869$, p-value = 0.007 < 0.05 and Gender had $\beta = 7.103$, $t = 2.570$, p-value = 0.011 < 0.05 which were considered to be significant at 5% level of significance. However, Perceived Peer perception and support had $\beta = -3.041$, $t = -.562$, p-value = 0.575 > 0.05 and Self-esteem had $\beta = -5.511$, $t = -.827$, p-value = 0.409 > 0.05 which were considered insignificant at 5% level of significance.

The study sought to determine which variable among the perceived social perception and support factors (perceived Teacher, Peer and Parental perception and support) and personal factors (Gender and Self-esteem) had greatest influence on academic achievement of the slow learners in the secondary schools in Kakamega County. To achieve this, the study used the standardized beta coefficient to compare the influence of the independent

variables. According to Brien (2007), the higher the value of standardized beta coefficient, the stronger a variable is in predicting the dependent variable. From the findings of table 4.23, perceived Teacher perception and support had the greatest influence in predicting academic achievement of the slow learners in the secondary schools in Kakamega county as it had the highest standardized beta coefficient of 0.243; thus a unit improvement in perceived Teacher perception and support in the presence of the other four factors is likely to lead to improved academic achievement by 24.3%. perceived Parental perception and support had the second largest influence in predicting academic achievement of the slow learners in the secondary schools in Kakamega county as it had the second highest standardized beta coefficient of 0.202; a unit improvement in perceived Parental perception and support in the presence of the other four factors is likely to lead to improved academic achievement by 20.2%. These findings contradict Bowen et al. (2012) who gave greater weight to friend support and less weight to parent and teacher support influence on academic achievement.

Gender had the third highest influence in predicting academic achievement of the slow learners in the secondary schools in Kakamega County as it had the third highest standardized beta coefficient of 0.163. Since female were coded as the reference category, a male slow learner student, in the presence of the other four factors is likely to perform better in academics by 16.3% compared to a female slow learner student.

In case one wishes to predict the academic achievement of the slow learner in the secondary schools in Kakamega county when given the perceived social perception and support (Teacher, Peer and Parent perception and support) and personal factors (Gender and Self-esteem), the study suggested the adoption of the following multiple linear regression

model:

AC = -12.325+ 16.014PTPS - 3.041PPPS + 12.856P PAPS + 7.103 G -5.511SE

Where;

AC	=	Academic Achievement
PTPS	=	Perceived Teacher perception and support
PPPS	=	Perceived Peer perception and support
PPAPS	=	Perceived Parental perception and support
G	=	Gender
SE	=	Self-esteem

Barile et. al. (2012) observed that positive parental, teacher, classmate and school relationship are hypothesized to counteract negative attitude and improve self-efficacy in maths and science. Similarly, Demaray et. al. (2009) had also noted that perceived frequencies of parental, teacher and peer support were related positively to higher academic self-concept. Most research findings have surmised that having supportive family members, teachers and peers has a positive impact on a variety of academic outcomes especially for the adolescents. (Daly et. al, 2009; Ahmed et, al, 2010; Rueger et.al, 2010). Rice et. al. (2013) found out that students who perceived greater social support for math and science from parents, teachers, and friends had a better attitude towards math and science and a greater sense of their ability in the subjects. The findings therefore suggest that emphasis ought to be put on improving teacher perception and support and

parental perception and support particularly to the female student with learning difficulties. This is likely to reduce disengagement and lead to improved academic achievement. However, teachers emerge as the focus since the perceived teacher perception and support accounts for greater variation in academic achievement of slow learners. Furthermore, teachers are also better placed to influence parental and peer perception and support.

4.15 Temperament Descriptive Statistics

Class teachers were asked to assess temperament among the identified slow learners the descriptive findings were as shown in table 4.24.

Table 4.24: Descriptive Statistics for Slow Learners Temperament

Statement		Never at all	Occasionally	Always
i.	Seems to have difficulty in sitting still	45%	52%	3%
ii.	Shy	33%	45%	22%
iii.	Easily distracted From his/her work	17%	62%	21%
iv.	Gets easily upset by things that do not bother others	43%	45%	12%
v.	Able to sit quietly for a reasonable amount of time	13%	60%	27%
vi.	It is difficult to tell what he or she is feeling	15%	49%	36%
vii.	Speaks before class without hesitation	41%	45%	14%
viii.	He/she takes failure lightly	16%	54%	30%
ix.	Gets angry and upset when corrected by the teacher	53%	40%	7%
x.	Overreacts in stressful situations	45%	45%	9%
xi.	Movements are slow	23%	42%	35%
xii.	Gets easily upset with other students	35%	56%	9%
xiii.	Seems angry and moody most of the time	41%	48%	10%
xiv.	Actively attentive in class	24%	64%	12%

Average level of Temperament	Mean	% Mean	Std. Deviation	Std. Error of Mean	Minimum	Maximum
	1.8556	62%	.29063	.01904	1.29	2.57

The average level of temperament among the slow learner students in secondary schools in Kakamega county was 62% (Mean = 1.8556, Std. dev. = 0. 29063) as shown in table 4.24; an indication that majority of the slow learners had a mild or moderate temperament. This finding is comparable to Rudasil, Gallagher and White (2010) who observed a moderate to high temperament rating among the students. Edward, Mumford & Serra-Roldan (2007), observed that difficult temperament increases the probability that a child fails to adhere to classroom rules and follow academic instruction heightening tendencies of negative perception from teachers and classmates. Furthermore, there is a tendency of teachers giving less attention, fewer praise statements and more negative statements to children who exhibit inappropriate temperament. It is therefore necessary for teachers to consider the likely hood of learner's temperament influencing perception and support accorded to slow learners particularly. This may reduce the possibility of learner's temperament heightening teacher's negative perception and a tendency of withholding support from the learner.

Checa and Abundis-Gutierre (2017) similarly, noted that children with easy temperament have less trouble following class and home rules which predisposes positive perception and more support from the teachers and parents. Furthermore, children with easy temperament socialize better with their peers increasing a favorable perception and greater support. the favorable perception and greater academic support leads to higher academic achievement. Conversely, children with difficult temperament fail to adhere to rules both at home and school which may reduce teacher and parental support and heighten negative perception. Furthermore, children with difficult temperament have trouble in tolerating

frustration and in friendship formation which precipitates negative perception from peers and limits academic support.

In essence temperament is regarded as moderating the relationship between social perception and support and academic achievement. Teachers tend to have positive perception of learners with an easy temperament and give them more support increasing the chances of a higher academic achievement. On the contrary teachers tend to have negative perception of learners with a difficult temperament and accord them less support increasing the chances of lower academic achievement.

4.15.1. Moderation Analysis

The study sought to determine the moderation effect of temperament on the relationship between social perception and support (Teacher, Peer and Parent perception and support) and personal factors (Gender and self-esteem), and the academic achievement of the slow learners in the secondary schools in Kakamega county. To achieve this, the study used the stepwise (Hierarchical) linear regression technique and the findings were as shown in the subsequent subsections.

4.15.2 Moderation Effect of Temperament on Relationship between Perceived Social Perception and Support, Personal Factors and Academic Achievement of Slow Learners

The study sought to determine the moderation effect of temperament on the relationship between perceived social perception and support (perceived teacher, peer, parental perception and support) and the academic achievement of the slow learners in the secondary schools in Kakamega county. The study Hypothesis was that:

H_{08}: There is no significant moderation effect of Temperament on the relationship between

Social Perception and Support (Teacher, Peer and Parental perception and support) and the academic achievement of slow learners in secondary schools in Kakamega County.

The findings were as shown in table 4.25 (see detailed SPSS output in Appendix 12, Appendix 13 and Appendix 14)

Table 4.25: Results for moderation effect of Temperament

Model 1 represent the results of the simple linear regression. Model 2 represent the results for moderation analysis using hierarchical linear regression

	Social perception and support					
	Perceived Teacher Perception and Support		**Perceived peer Perception and Support**		**Perceived Parental Perception and Support**	
Model summary	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
R	0.296	0.297	0.135	0.137	0.264	0.264
R Square	0.088	0.088	0.018	0.019	0.070	0.070
Adjusted R Square	0.084	0.080	0.014	0.010	0.066	0.062
R Square Change	0.088	0.001	0.018	0.001	0.070	0.000
ANOVA						
Degrees of freedom (*a*, *b*)	(1, 230)	(2, 229)	(1, 230)	(2, 229)	(1, 230)	(1, 229)
F- statistic, F(*a*, *b*)	22.107	11.110	4.275	2.206	17.245	8.610
p-value for F- statistic	0.000	0.000	0.040	0.112	0.000	0.000
F-Change statistic		0.192		0.153		0.047
p-value for F- Change		0.662		0.696		0.829
Regression Coefficients						

	Social perception and support					
	Perceived Teacher Perception and Support		**Perceived peer Perception and Support**		**Perceived Parental Perception and Support**	
Intercept	-7.588	-8.498	15.259	15.181	3.683	3.797
β (Unstandardized coefficient)	19.477	19.783	10.320	10.348	16.777	16.772
Standardized Beta Coefficient	0.296	0.301	0.135	0.026	0.264	0.264
t (β)	4.702	4.701	2.067	2.069	4.153	4.143
p-value (β)	0.000	0.000	0.040	0.040	0.000	0.000
t (Intercept)	-0.701	-0.770	1.135	1.127	0.386	0.396
p-value (Intercept)	0.484	0.442	0.257	0.261	0.700	0.692
Interaction Effect						
β (Unstandardized coefficient)		-0.584		0.581		0.349
Standardized Beta Coefficient		-0.028		0.026		0.014
t (β)		-0.438		0.391		0.216
p-value (β)		0.662		0.696		0.829

The study findings of model 2 in Table 4.25, it is evident that the Interaction Effects for perceived social perception and support (perceived Teacher, Peer and Parental perception and support) had no significant influence on the academic achievement of the slow learners in the secondary schools in Kakamega county as indicated by (*F-change* = 0.192, *p-value* = 0.662 > *0.05;* ß = -0.584, *t* = -0.438, *p-value =0.662 > 0.05*), (*F-change* = 0.153, *p-value* = 0.696 > *0.05;* ß = 0.581, *t* = 0.391, *p-value =0.696 > 0.05*) and (*F-change* = 0.047,

p-value = 0.829 > *0.05;* ß = 10.349, *t* = 0.216, *p-value* = 0.829 > *0.05*) respectively; this indicates that temperament among the slow learners had no significant moderating effect on the relationship between perceived social perception and support (perceived Teacher, Peer and Parental perception and support) and academic achievement of the slow learners in the secondary schools in Kakamega county.

This implies that a slow learners easy or difficult temperament will not necessarily strengthen or weaken the teachers' peer, parental perception and support. Subsequently, Keogh (2003) suggestion that both special and regular classrooms teachers perceive temperament dimension of teachability in a student as the most important element. Observation that individuals with difficult temperament characterized by high activity, inflexibility and low attention increases the probability for failure to adhere to classroom rules and follow academic instruction hence predisposing negative perception from teachers, peers and parents and limiting support is refuted by this study finding.

Even though Edward, Mumford & Serra-Roldan (2007), observed that there is a tendency of teachers giving less attention, fewer praise statements and more negative statements to children who exhibit difficult temperament the current study depicted that difficult or easy temperament had no significant influence on the interaction between teacher, peer and parental influence on academic achievement of slow learners. However, McClelland, Cameron, Connor, Farris, Jewkes, & Morrison, (2007) argued that increased understanding of the role of temperament may help teachers to create an environment that can allow the child's temperament to work with the demands and features of the classroom rather than setting the classroom in opposition to the child's temperament.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMEDATIONS

5.1 Introduction

This chapter represents summary of the findings, conclusions drawn, and recommendations based on the conclusions and suggestions for further research.

5.2 Summary of the Findings

The overall purpose of the study was to examine the influence of selected risk factors on the academic achievement of students with learning difficulties in secondary schools in Kakamega county. It entailed establishing the relationship between perceived teacher, peer and parental perception and support on academic achievement of slow learners. Examine the influence of gender, self-esteem and class size on academic achievement of slow learners alongside assessing the relationship between temperament and the independent and dependent variables. The study had seven objectives to: examine the relationship between perceived teacher perception and support and academic achievement of slow learners, peer perception and support and academic achievement of slow learners, establish the relationship between parental perception and support and academic achievement of slow learners. Examine the relationship between gender and self-esteem and the academic achievement of slow learners, alongside establishing the relationship between class size and academic achievement of slow learners.

The study also sought to examine the comparative influence of perceived social perception and support, gender and self-esteem on the academic achievement of slow learners along with the moderating influence of temperament on the relation between the independent

variables (perceived teacher, peer perception and support, parental perception and support, gender and self-esteem) and the academic achievement of the slow learners.

The study revealed that most of the teacher were supportive and had a favorable perception of the slow learners (table 4.10). However, a number of the teachers had unfavorable perception and still labeled them as unteachable and viewed them as slowing down the pace of syllabus coverage. Based on the focused discussion the students expressed the need for the teachers to be more compassionated in order to encourage more individualized consultation. It was established that some teachers still made hurting comments about the slow learners' academic achievement which discouraged the learner hence aggravating the poor academic performance. However, in general majority of the learners (96%) felt that their teachers cared about their academic performance and provided requisite support (table 4.10).

The study found an important link between perceived perception and promotion of teachers and the academic performance of slow students ($r=.296$, $p\leq.01$); table 4.8. The implication is that when teachers have a favorable perception and give ample support to the slow learners it increases the chance of academic improvement. The study established that a unit improvement in perceived Teacher perception and support was likely to result to an improvement in the academic achievement of the slow learner students in secondary schools in Kakamega county by 29.6% (table 4.11). The inference drawn from the findings is that discernment of negative teacher perception by slow learners and inadequate teacher support is a risk factor in relation to academic achievement of slow learners.

Majority of the respondents (94%) indicated that their peers perceived them favorably and gave them necessary support (89%) in their academic pursuits (table 4.13). On the overall the slow learners were satisfied with the support accorded by peers. However, in the focused group discussions it emerged that some of students were concerned about the derisive comments made by their peers concerning their academic performance and their personal effort towards improved academic performance which was a source of discouragement. This indicated that other students ought to be inducted to desist from making snide remarks about the academic efforts of the slow learners in order to inspire more consultation that may lead to improved academic performance.

The study established a significant relationship between peer perception and support and academic achievement of slow learners ($r=.135$, $p\leq.05$); table 4.8. The study established that a unit improvement in perceived Peer perception and support was likely to result to an improvement in the academic achievement of the slow learner students in secondary schools in Kakamega county by 13.5% (table 4.14). This implies that favorable perception and support by peers is a vital component in realizing improved academic achievement among slow learners. Consequently, discernment of negative peer perception by slow learners and inadequate peer support is a risk to academic achievement of slow learners.

Perceived Parental perception and support emerged as an important aspect in enhancing academic achievement of slow learners. Most of the respondents felt that the parents cared for them and provided adequate support (table 4.16). However, the findings also indicated that parents need to increase support in the area of personalized visits to school to discuss the academic performance of their child and provision of extra revision materials (table

4.15). Furthermore, based on the focused group discussions most of the students expressed some dissatisfaction in the way the parents treated them *vis a vis* their presumably above average siblings. They felt parents should accord them equal treatment in paying school fees and avoid making demeaning comments about their future prospects. The study indicated a significant relationship between parental perception and support and academic achievement of slow learners ($r=.264$, $p\leq.01$); table 4.8. The study established that a unit improvement in Perceived Parental perception and support was likely to result to an improvement in the academic achievement of the slow learner students in secondary schools in Kakamega county by 26.4% (table4.17). This is an indication that when parents of slow learners depict a favorable perception and give adequate support there is a likelihood of the academic performance of the learner improving. Consequently, discernment of negative peer perception by slow learners and inadequate peer support is a risk to academic achievement of slow learners.

The results revealed there is a significant relationship between gender and academic achievement ($r=.173$, $p\leq.01$); table 4.8. The findings indicated a significant difference in the academic achievement means of male and female (t =3.096, df= 229, p-value = 0.002 < 0.05). It emerged that among the slow learners in secondary schools in Kakamega county, the male students are likely to perform better than the female students by 17.3%. The findings imply that the female slow learner needs more assistance and encouragement from teachers, parents and peers because she is at greater risk of performing poorly compared to the male student.

Majority of the respondents had a fairly moderate level of self-esteem; table 4.19. The

findings indicate that a majority of the learners (63%) had confidence in themselves and only (6%) lacked self-confidence (table 4.19). Self- confidence is an indicator of an individual's self-esteem (Waseka & Simatwa, 2016). Similarly, the respondents had a fairly high self-value with findings indicating that only 5% felt they are failures in life and only 9% felt hopeless about their circumstances while the majority (95%) felt that if they worked hard they can achieve their goals (table 4.19) which implies that most of the learners have not given up on themselves. The study findings depicted that there is a relationship between self-esteem and academic achievement ($r=.146$, $p\leq .05$); table 4.8. The study established that a unit improvement in the Self-esteem was likely to result to an improvement in the academic achievement of the slow learner students in secondary schools in Kakamega county by 14.6%. This implies that an increase in self-esteem is likely to lead to an increase in academic performance because improved self-esteem facilitates increased consultation with teachers and peers.

The study established that most of the class sizes were large ranging between 31and above 60 for both common and optional subjects (table 4.21). The findings further established that there is a significant negative relationship between class size and academic achievement ($r=-.199$, $p\leq.05$); table 4.8. Findings indicate that increase in class size is associated with decrease in academic achievement as depicted in table 4.22 and figure 4.12. Students in class size of 30 and below performed better than those in class size 31 and above. The implication is that as class size increases there is a corresponding decrease in academic achievement of slow learners. Consequently, based on the findings class size of more than 30 students are deemed to be a risk to slow learners.

The study further established that comparatively, perceived teacher perception and support has the greatest influence on academic achievement of slow learners; β = 16.014, *t* = 3.210, p-value = 0.002 < 0.05, followed by perceived parental perception; β = 12.856, *t* = 2.869, p-value = 0.007 < 0.05 and gender; β = 7.103, *t* = 2.570, p-value = 0.011 < 0.05 (table 4.23). However, the influence of self-esteem and perceived peer perception and support cease to be significant in the presence of the other factors as indicated ; β = -5.511, *t* = -.827, p-value = 0.409 > 0.05; β = -3.041, *t* = -.562, p-value = 0.575 > 0.05 (table 4.23). The study also found that temperament has no moderating effect on the relationship between perceived social perception and support, gender, self-esteem and slow learner's academic achievement (table 4.24, appendices 12, 13 & 14). This implies that whatever temperament the slow learner exhibits the influence of perceived social perception and support, gender and self-esteem on the academic achievement remains the same.

5.3 Conclusions

Based on the findings the study had the following conclusions. There is a significant positive relationship between perceived teacher perception and support and academic achievement of slow learners. As evidenced by the correlation index (r=.296, p≤.01); table 4.8. Discernment of negative teacher perception and inadequate teacher support is therefore a risk to academic achievement of slow learners. Similarly, there is a significant positive relationship between perceived peer perception and support and academic achievement of slow learners. This is indicated by the correlation index (r=.135, p≤.05); table 4.8. Discernment of negative peer perception and inadequate peer support is therefore a risk to academic achievement of slow learners.

The study further established a significant positive relationship between perceived parental perception and support and academic achievement of slow learners. Illustrated by the correlation index (r=.264, p≤.01); table 4.8. In essence, discernment of negative parental perception and inadequate parental support is a risk to academic achievement of slow learners. Correspondingly, the study revealed a significant relationship between gender and academic achievement of slow learners, based on the correlation index (r=.173, p≤.01); table 4.8. The female slow learner was therefore at a greater risk of performing poorly in academics as indicated by the difference in the means; males, 46.7946%, Mean = 46.7946, Std. Dev. = 23.28182) and females 39.2417%, Mean = 39.2417, Std. Dev. = 19.90270. There was a significant positive relationship between self-esteem and academic achievement of slow learners indicated by the correlation index (r=.146, p≤. 05); table 4.8. Low self-esteem is therefore a risk to the academic achievement of slow learners.

The study further revealed a significant negative relationship between class size and academic achievement of slow learners, as evidenced by the correlation index (r=-.199, p≤.05); table 4.8. Essentially, as the class size increases the academic achievement decreases. This implies that, large class sizes of 30 students and above are a risk to slow learners' academic achievement (table 4.22 and figure 4.12). Additionally, perceived teacher perception and support had the greatest influence on academic achievement of slow learners as indicated by; $\beta = 16.014$, $t = 3.210$, p-value = 0.002 < 0.05, followed by perceived parental perception; $\beta = 12.856$, $t = 2.869$, p-value = 0.007 < 0.05); table 4.23. Learners temperament however, had no moderating influence on the relationship between perceived teacher, peer, parental perception and support, gender and self-esteem and academic achievement of slow learners as evidenced by the findings depicted in table 4.24.

5.4 Recommendations

The following recommendations were made based on the findings and conclusions of the study:

i. It is recommended that teachers cultivate a positive perception and accord more support to the slow learners in order to improve academic achievement of slow learners.

ii. It is recommended that classmates be encouraged to view their struggling classmates with compassion and desist from making fun of their attempts to improve their academic performance.

iii. Parents should be encouraged to form a rapport with the slow learner, hold amicable discussions about their academic performance and desist from making demeaning statements about the future prospects of the learner.

iv. Small class sizes are highly recommended, however teachers ought to be encouraged to embrace group learning, collaborative and cooperative learning to counteract the negative effects of large class sizes.

v. Schools through the guidance and counseling departments should organize activities that enhance self-esteem of the slow learners.

vi. Female students should particularly be provided with appropriate guidance and counseling from teachers and parents to facilitate improved academic achievement.

vii. The slow learners be assessed to identify those that have learning disabilities in order to facilitate appropriate remedial measures.

5.5 Suggestions for Further Research

The following suggestions were made after research findings and discussions because they were not adequately underscored:

i. The study established that some teachers have negative perception while others have positive perception of slow learners. A study should therefore be conducted in Kakamega County to examine factors influencing teacher perception of students with learning difficulties in secondary schools this will facilitate capacity building of the teachers to provide requisite support to the students.

ii. This study focused on slow learners. It is imperative that a comparative study be undertaken of the perception of above average students and slow learners on factors influencing their academic achievement in secondary schools in Kakamega County in order to differentiate the approaches in resolving the students concerns.

iii. The study approach was cross-sectional hence causality could not be determined. Therefore, a longitudinal study should be conducted to give a better perspective of the association between perceived teacher, parent, peer perception and support and academic achievement of students with learning difficulties.

iv. The study focused on perceived social perception and support. A study should therefore be undertaken to examine the influence of actual social perception and support on academic achievement of slow learners to provide a clearer perspective.

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APPENDICES

Appendix 1: Questionnaire for Students with Learning Difficulties

This questionnaire is designed to help the researcher collect information concerning education issues in secondary schools. Your responses will be treated with uttermost confidentiality. The information will be used for research purpose only. In order to ensure privacy and confidentiality do not write your name on any part of the questionnaire. You have a free choice to respond or not to respond to the questionnaire.

Instructions: Please fill in the blank spaces with the appropriate response or put a tick [√] at the appropriate place.

Biographical Information

Section: A

1. Code Number ---------- Class---------- Age------

2. Gender

a) Male [ ]

b) Female [ ]

3.Type of school

a) Boys school [ ]

b) Girls school [ ]

c) Mixed school [ ]

4. Nature of school

a) Boarding school [ ]

b) Day school [ ]

c) Both day and boarding [ ]

5. School status

a) National school [ ]

b) Extra county school [ ]

c) County school [ ]

d) Sub- county [ ]

Section: B. Put a [√] in one place only that appropriately applies to your situation or fill in the relevant details.

a) Father's level of education

Primary [ ] secondary [ ] college/university [ ] none [ ]

b) Mother's level of education

Primary [ ] secondary [ ] college/university [ ] none [ ]

c) Father's occupation ----------
d) Mother's occupation ----------

Section: C. Views regarding your parent or guardian's support and perception

Put a [√] in one place only that appropriately applies to your situation.

a) My parent/guardian attends academic days meeting in school.

Always [ ] occasionally [ ] Never at all [ ]

b) My parents/guardians come to school to find out about my academic progress.

Always [ ] occasionally [ ] Never at all [ ]

c) My parents/guardians buy for me extra revision materials.

Always [ ] occasionally [ ] Never at all [ ]

d) My parents/guardians have a friendly discussion with me about my academic progress.

Always [ ] occasionally [ ] Never at all [ ]

e) My parents/guardians reward any improvement in my academic performance.

Always [ ] occasionally [ ] Never at all [ ]

f) I feel loved by my parents/guardians.

Always [ ] occasionally [ ] Never at all [ ]

g) My parents/guardians make hurting comments about my academic performance.

Always [ ] occasionally [ ] Never at all [ ]

h) My parents/guardians insult me because of my academic performance.

Always [ ] occasionally [ ] Never at all [ ]

i) I feel that my parents/guardians are too harsh to me.

Always [ ] occasionally [ ] Never at all [ ]

j) I feel neglected by my parents/guardians.

Always [ ] occasionally [ ] Never at all [ ]

Section: D. Personal views about yourself. Put a [√] in one place only that appropriately describes your situation.

a) I often wish I were someone else.

Always [ ] occasionally [ ] Never at all [ ]

b) I am confident.

Always [ ] occasionally [ ] Never at all [ ]

c) I feel my life is just full of problems.

Always [ ] occasionally [ ] Never at all [ ]

d) I feel that if I work hard I can achieve my goals

Always [ ] occasionally [ ] Never at all [ ]

e) I feel hopeless about my life.

Always [ ] occasionally [ ] Never at all [ ]

f) If I have something to say I normally say

Always [ ] occasionally [ ] Never at all [ ]

g) I feel am just a failure in life

Always [ ] occasionally [ ] Never at all [ ]

h) I get discouraged at what I am doing easily

Always [ ] occasionally [ ] Never at all [ ]

i) I find it very hard to talk in front of a group of people

Always [ ] occasionally [ ] Never at all [ ]

j) There are times when I feel like dropping out of school.

Always [ ] occasionally [ ] Never at all [ ]

Section E. Give your views about your teachers support and perception by putting a [√] in one place only that appropriately describes your situation

a) My teachers appreciate my academic efforts.

Always [ ] occasionally [ ] Never at all [ ]

b) My teachers make hurting comments about my academic performance.

Always [ ] occasionally [ ] Never at all [ ]

c) The teachers' comments on my report card discourage me.

Always [ ] occasionally [ ] Never at all [ ]

d) My teachers show a personal concern about my academic performance.

Always [ ] occasionally [ ] Never at all [ ]

e) My teachers give me extra tuition.

Always [ ] occasionally [ ] Never at all [ ]

f) My teachers are friendly and encourage me about my classwork.

Always [ ] occasionally [ ] Never at all [ ]

g) I feel that my teachers care about my class performance

Always [ ] occasionally [ ] Never at all [ ]

h) I feel that my teachers have given up on me.

Always [ ] occasionally [ ] Never at all [ ]

i) I feel neglected by my teachers.

Always [ ] occasionally [ ] Never at all [ ]

Section F. Views about your classmates support and perception. Put a [√] in one place only that appropriately describes your situation

a) I feel that my classmates show concern about my class performance.

Always [ ] occasionally [ ] Never at all [ ]

b) My classmates make hurting comments about my class performance.

Always [ ] occasionally [ ] Never at all [ ]

c) I feel that my classmates give me enough support in my class work.

Always [ ] occasionally [ ] Never at all [ ]

d) My classmates are friendly and encourage me in class.

Always [ ] occasionally [ ] Never at all [ ]

e) My classmates assist me during revision time.

Always [ ] occasionally [ ] Never at all [ ]

f) I feel that my classmates care about me.

Always [ ] occasionally [ ] Never at all [ ]

g) My classmates mock me because of my class performance

Always [ ] occasionally [ ] Never at all [ ]

h) I feel that my classmates do not like me.

Always [ ] occasionally [ ] Never at all [ ]

i) I feel that my classmates expect me to fail examinations anyway.

Always [ ] occasionally [ ] Never at all [ ]

j) I feel neglected by my classmates.

Always [ ] occasionally [ ] Never at all [

Section G: Fill in the details or Put a [√] in one place only that describes your situation.

1). Class size for the common subjects

1-15 [ ] 16-30 [ ] 31-45 [ ] 46-60 [ ] 60 and above [ ]

2). Class size for your optional subjects

a) Optional subject 1----------

1-15 [ ] 16-30 [ ] 31-45 [ ] 46-60 [ ] 60 and above [ ]

b) Optional subject2----------

1-15 [ ] 16-30 [ ] 31-45 [ ] 46-60 [ ] 60 and above [ ]

c) Optional subject 3----------

1-15] 16-30 [ ] 31-45 [ ] 46-60 [ ] 60 and above [ ]

d)Optional subject 4----------

1-15] 16-30 [ ] 31-45 [ ] 46-60 [ ] 60 and above [ ]

e) Optional subject 5----------

1-15 [ ] 16-30 [ ] 31-45 [ ] 46-60 [ ] 60 and above [ ]

3). Number of school visits by parent/guardian per term.

0-1 [ ] 2-3 [ ] 4-5 [ ] 6 and above [ ]

4.a) Number of revision books bought by parent/guardian per year.

0-1 [ ] 2-3 [[4-5 [ ] 6 and above [ ]

b) Indicate the subjects for which the books were bought ----------
---
---

5. Number of individual academic counseling talks with class teacher per term

0-1 [ ] 2-3 [[4-5 [ ] 6 and above [ ]

6.a) Number of remedial classes by subject teachers per term.

0-1 [ ] 2-3 [[4-5 [ ] 6 and above [ ]

b) Indicate the subjects which you have had remedial classes ----------
---

7.a) Number of times classmates assist in academic assignments per term.

0-1 [ ] 2-3 [[4-5 [ ] 6 and above [ ]

b) Indicate the subjects----------

Appendix 2: Focus Group Discussion Guide

This discussion is designed to help the researcher collect information concerning education issues in secondary schools. Your responses will be treated with uttermost confidentiality. You have a free choice to respond or not to respond to the questions. You have the freedom of withdrawing from the discussion group at any given time.

1. -What is your perception of your parent's/guardians support?

- How does it influence your performance in class?

- What would you wish your parents to do in order to assist in improving your academic performance?

2. -What is your perception about your classmates support in class?

-Describe your relationship with your classmates.

- How does your relationship with your classmates influence your academic achievement?

- What would you wish your classmates to do in order to assist in improving your academic performance?

5 -What is your view about the number of students in class in relation to your academic performance?

-In which ways would the class size affect your class academic performance?

6.-What is your perception of your teachers support in regard to your academic performance?

-How does it influence your class academic performance?

-What is your view about your teachers' perception about you in regard to your academic performance?

-What is the effect of your teachers' perception on your class academic performance?

- What would you wish your teachers to do in order to assist in improving your academic performance?

Appendix 3: English Test -Answer all the Questions

Code Number ……. Class…….

Oral skills

1 a) Underline the silent letter(s) in the following words (3mks)

i. Wednesday

ii. Psychology

iii. Mnemonic

2. Grammar

Use the correct form of the word in the brackets in the sentences that follow

a) I wonder why the bell is being (ring) this early (1mk)
---

b) I could not remember the (define) of the word
---

3. Poetry

Mama is a sunrise
When she comes ship-footing through the door
She kindles us like lump coal lighted,
And we wake up glowing.
She puts a spark even in Papa's eyes
And turns out our darkness
When she comes sweet- talking into the room,
She warms us
Like grits and gravy
And we rise up burning.
Even at night-time mama is sunrise
That promises tomorrow and tomorrow.

a) What is the subject of the matter of the poem? (2mks)
---

b) Identify

i. Similes used in the poem (2mks)

---
ii. Metaphor used in the poem (1mk)

Appendix 4: Mathematics Test-Answer all Questions

Code Number…… class……
Instructions
Answer all questions

1. Evaluate ⅓ of (2 ¾ -5 ½) × $3\frac{6}{7} \div \frac{9}{4}$ (3mks)

2. The equation of a line is 2y = X + 5. Find

a) Gradient of the line (1mk)

b) Equation of the a line passing through point (3, 1) and parallel to 2y = x + 5 (2mks)

3.Given that a = $\begin{bmatrix} 4 \\ 6 \end{bmatrix}$ c = $\begin{bmatrix} -2 \\ -5 \end{bmatrix}$ and 3a - 2b + 4c = $\begin{bmatrix} 10 \\ -19 \end{bmatrix}$ find b (3mks)

Appendix 5: Slow Learners Data Form and Cognitive Rating Scale (To be filled by class teacher)

SECTION A

Please provide the following details for the identified student with learning difficulties

1. Code number ---------- Class ----------
2. Cases of indiscipline.
3. Yes [ ] No [ ]
4. Has been identified with disability cases (put a tick [√] in the areas that apply to the identified learner)
5. Hearing [ ] Visual [ ] Speech [ ] Physical [ ] None [ ]
6. Learner's class attendance in percentage ----------
7. Parental support to the identified learner (put a tick [√] in the appropriate place)

   High [ ] Average [ ] low [ ]

Assess the identified learner in the following aspects (put a [√] in the appropriate place)

Characteristic	**Yes**	**No**
1. Ineligible handwriting		
2. Excessive grammatical errors in written English		
3. Inability to perform basic arithmetic operations		
4. Uneven and unpredictable test performance		
5. Poor concept formation/comprehension skills		
6. Slow in thinking and reasoning process		
7. Frequently in the last ten class position		
8. Should repeat the class		

9. Predominantly scores mean grade D in exams		
10. Predominantly scores D- and E in more than five subjects		

KCPE MARKS

Subject	Term 1 Score in (%)	Term 2 Score in (%)	Term 3 Score in (%)	Average

Mean Grade

SECTION B

Please rate the identified learner on the following cognitive characteristics. Circle the number besides the statement that appropriately describes the identified learner.

	Rating
1. Comprehending Meaning of Words	
Extremely immature level of understanding	1
Fails to grasp simple word meaning, misunderstands words at grade level	2
Good grasp of vocabulary for age and grade	3
Understands all grade-level vocabulary	4
Superior understanding of abstract words	5

2. Following Instructions

Unable to follow instructions, always confused 1

Usually follows simple instructions but often needs help 2

Follows instructions that are familiar and not complex 3

Remembers and follows extended instructions 4

Unusual skillful in remembering and following instructions 5

3. Comprehending Class Discussions

Unable to follow and understand class discussions, always inattentive 1

Listens but rarely understands well; mind often wanders 2

Listens and follows discussions according to age and class 3

Understands well; benefits from discussions 4

Becomes involved; shows unusual understanding of material 5

4. Retaining information

Almost total lack of recall; poor memory 1

Retains simple ideas and procedures if repeated 2

Average retention of materials, adequate memory for age and class 3

Remembers information from various sources; good immediate and delayed recall 4

Superior memory for details and content 5

5. Attention

Never attentive; very distractible 1

Rarely listens; attention frequently wanders 2

Attention adequate for age and class 3

Above average in attention; almost always attends 4

Always attends to important aspects; long attention span 5

6. Organization

Highly disorganized 1

Often disorganized in manner of working; careless 2

Maintains average organization of work; careful 3

Above average organization; organizes and completes work 4

Highly organized; completes assignment in a meticulous manner 5

7. Completion of assignments

Never finishes even with guidance 1

Seldom finishes even with guidance 2

Average performance; follows through on assignments 3

Above average performance; completes assignment without urging 4

Always completes assignment without supervision 5

Summary Scores

1. Comprehending meaning of words _____

2. Following instructions _____

3. Comprehending class discussions _____

4. Retaining information _____

5. Attention _____

6. Organization _____

7. Completion of assignments _____

Total Score _____

(Adopted from Myklebust, 2009)

SECTION C

Use the following statements to assess the identified learner's temperament. Indicate in the space after the statement with the appropriate number. (1) Never at all (2) Occasionally (3) always

1.Seems to have difficulty sitting still	
2.Shy	
3.Easily distracted from his/her work	
4.Gets easily upset by things that do not bother others	
5. Able to sit quietly for a reasonable amount of time	
6.It is difficult to tell what he/she is feeling	
7.Speaks before class without hesitation	
8.He/she takes failure lightly	
9.Gets angry and upset when corrected by the teacher	
10.Overreacts in stressful situation	
11. Movements are slow	
12. Gets easily upset with other students	
13.Seems angry and moody most of the time	
14. Actively attentive in class	

Appendix 6: Questionnaire for class teacher

I am a MMUST student conducting a research on, Selected Risk factors influencing academic achievement of students with learning difficulties. The purpose of the questionnaire is to collect information on selected factors, and the extent they influence academic achievement of slow learners. Kindly respond to the statements by filling in the blank space or ticking [√] where appropriate. All information will be treated with utmost confidentiality and used for research purpose only.

Section A: Biographical information

1.Current designation

Class teacher [ ]

Director of Studies [ ]

2.Gender

Male [ ] Female [ ]

3.Type of school

Boys school [ ]

Girls school [ ]

Co-educational/mixed school [ ]

4.Nature of school

Boarding school [ ]

Day school [ ]

Both day and boarding [ ]

5.School status

National school [ ]

Extra county school [ ]

County school [ ]

Sub- county [ ]

6.Teaching experience

0-6 years [ ]

7-13 years [ ]

14-20 years [ ]

21-27 years [ ]

28 years and above [ ]

7.Highest level of education

Diploma [ ]

PGDE [ ]

Bachelor's degree [ ]

Master's degree [ ]

PhD [ ]

8.Age

20- 24 years [ ]

25-29 years [ ]

30-34 years [ ]

35-39 years [ ]

40-44 years [ ]

45 years & above [ ]

Section B: Views on extent to which identified factors influence academic achievement of slow learners

The following statements indicate selected factors and the extent to which they may influence the academic achievement of slow learners. Give your opinion by ticking [√] in the position that corresponds with your conviction: Very Large Extent, Large Extent, Not at All, Small Extent and Very Small Extent.

Statement	**Very large Extend**	**Large Extend**	**Small Extend**	**Very Small Extend**	**Not at All**
1. The parents'/guardians negative perception of the learner negatively affects the academic achievement of slow learners.					
2. Frequent school visits by parents positively influence the academic achievement of slow learners					
3. Attendance of academic meetings by parents/guardians positively influence academic achievement of slow learners					
4. Provision of extra revision books by parents/guardians positively influence academic achievement of slow learners					
5. Negative comments from parent/guardian negatively influence academic achievement of slow learners					
6.The gender of the learner will influence the academic achievement of slow learners					
7. High level exam anxiety negatively influences academic achievement of slow learners.					
8. Low Self-esteem will negatively influence academic achievement of slow learners.					
9. Excessive shyness may negatively influence academic achievement of slow learners.					
10. Tendency to easily get annoyed may negatively influence academic achievement of slow learners.					
11. Teachers negative perception will negatively influence academic achievement of slow learners					

Statement	**Very large Extend**	**Large Extend**	**Small Extend**	**Very Small Extend**	**Not at All**
12. Extra remedial tuition positively influences academic achievement of slow learners.					
13. Teachers positive comments will positively influence academic performance of slow learners					
14. High number of students in class negatively influence academic performance of slow learners					
15. Negative perception by classmates negatively influence academic performance of slow learners					
16. Acceptance by classmates positively influence academic performance of slow learners					

Section C: According to your observations which are the key factors that influence academic achievement of slow learners?

Section D: Your views about school aspects and slow learners.

a) Describe how teachers perceive the slow learners in class ----------
---

Describe the support given by teachers to slow learners----------
---

Describe the classmate perception of slow learners----------

Describe the support given to slow learners by their classmates ----------
---

In your opinion what is the influence of class size on the academic performance of slow learners -
---

In your opinion what is the influence of gender on the academic performance of slow learners
---

Appendix 7: Interview Schedule for class teachers

The purpose of the interview is to collect information on selected factors, and the extent they influence academic achievement of slow learners. You have the freedom to respond or not respond to the questions. All information will be treated with utmost confidentiality and used for research purpose only.

1. What do you understand by the term learning difficulties?
2. What do you understand by the term slow learner?
3. How would you identify a slow learner in class?
4. What is the school policy about slow learners/ students with learning difficulties?
5. In your opinion what are some of the key risk factors influencing academic achievement of slow learners?
6. a) How would you describe the perception of teachers towards the slow learners?

Would you say the attitude of teachers is negative, positive, neutral or mixed?

b) Could you please account for the observed perception/attitude?

In your opinion what is the influence of teachers' perception on academic achievement of slow learners?

7. a) What are some of the challenges faced by slow learners in the regular classroom?
8. What is the influence of student's gender on the academic achievement of the slow learner?
9. How would you describe the perception of parents towards the slow learners?
10. Would you say the attitude of parents is negative, positive, neutral or mixed?

b) Could you please account for the observed perception/attitude?

In your opinion what is the influence of parents' perception on academic achievement of slow learners?

Appendix 8: Interview with Sub County Director of Education

The purpose of the interview is to collect information on selected factors, and the extent they influence academic achievement of slow learners. You have the freedom to respond or not respond to the questions. All information will be treated with utmost confidentiality and used for research purpose only.

Q1. In your opinion how do the following factors influence academic achievement of slow learners in secondary schools in Kakamega County?

a) Teacher perception of slow learners----------

---

b) Teacher support----------

---

c) Peer perception of slow learners----------

---

d) Peer support----------

---

e) Parent perception of slow learners----------

---

f) Parent support----------

---

g) Class size----------

Q2. What other factors are likely to influence academic achievement of slow learners?----
----

Q3. What remedial measures would you recommend to resolve challenges faced by slow learners in Kakamega County? --
----

Appendix 9: Kakamega County KCSE Examination Results (2015 – 2019)

YEAR	ENTRY	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
2015	23889	48	372	920	1664	2348	2907	3428	3899	3733	**3082**	**1287**	**49**
2016	226456	1	128	386	734	1080	1607	2503	3374	4477	**5735**	**5737**	**594**
2017	28352	2	52	202	445	795	1305	2113	3292	4720	**7065**	**7514**	**741**
2018	28450	8	73	382	554	867	1568	2024	3365	4711	**7188**	**6981**	**729**
2019	29771	7	122	494	1066	1816	2343	2236	3572	4680	**7013**	**5943**	**601**

Source: Kakamega County Academic Committee

Appendix 10: KCSE Results Bungoma, Busia and Vihiga County (2016 – 2019)

Bungoma County

YEAR	ENTRY	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
2016	22038	3	146	374	591	823	1178	1747	2603	3638	**4884**	**5184**	**758**
2017	25676	6	93	228	342	560	964	1441	2562	4037	**6187**	**7868**	**1274**
2018	28891	4	84	258	553	1035	1442	2425	3469	4667	**7061**	**6943**	**990**
2019	32114	12	157	422	831	1484	1990	2960	4049	5012	**6692**	**7022**	**1205**

Source: Sub-county director

Busia County

YEAR	ENTRY	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
2016	11667	0	14	69	178	327	567	1055	1445	2090	**3011**	**2784**	**217**
2017	11977	0	23	75	236	338	700	1180	1565	2202	**2889**	**2562**	**207**
2018	-	-	-	-	-	-	-	-	-	-	-	-	-
2019	12895	0	35	130	318	527	774	1208	1797	2128	**2812**	**2812**	**284**

Source: Sub-county director

Vihiga County

YEAR	ENTRY	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
2016	12257	1	60	166	343	543	863	1167	1582	1947	**2492**	**2744**	**303**
2017	13075	3	63	162	269	400	610	1000	1556	2023	**2987**	**3583**	**377**
2018	13820	11	78	348	269	583	998	1264	1786	2213	**2852**	**3074**	**344**
2019	15184	12	137	659	585	922	1127	1502	2055	2318	**2915**	**2913**	**330**

Source: Sub-county director

Appendix 11: Descriptive Statistics for Class Teachers

Current Designation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Class teacher	60	96.8	96.8	96.8
	Director of studies	2	3.2	3.2	100.0
	Total	62	100.0	100.0	

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	34	54.8	54.8	54.8
	Female	28	45.2	45.2	100.0
	Total	62	100.0	100.0	

Type of School

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Boys school	13	21.0	21.0	21.0
	Girls school	12	19.4	19.4	40.3
	Co-educational/mixed school	37	59.7	59.7	100.0
	Total	62	100.0	100.0	

Nature of School

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Boarding school	17	27.4	27.4	27.4
	Day school	33	53.2	53.2	80.6
	Both day and boarding	12	19.4	19.4	100.0
	Total	62	100.0	100.0	

School Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	National school	2	3.2	3.3	3.3
	Extra county school	14	22.6	23.0	26.2
	County school	7	11.3	11.5	37.7
	Sub-county school	38	61.3	62.3	100.0
	Total	61	98.4	100.0	
Missing	System	1	1.6		
Total		62	100.0		

Teaching Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-6 years	41	66.1	66.1	66.1
	7-13 years	9	14.5	14.5	80.6
	14-20 years	5	8.1	8.1	88.7
	21-27 years	4	6.5	6.5	95.2
	28 years and above	3	4.8	4.8	100.0
	Total	62	100.0	100.0	

Highest level of education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	5	8.1	8.1	8.1
	Bachelors degree	52	83.9	83.9	91.9
	Masters degree	5	8.1	8.1	100.0
	Total	62	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-24 years	14	22.6	22.6	22.6
	25-29 years	17	27.4	27.4	50.0
	30-34 years	11	17.7	17.7	67.7
	40-44 years	14	22.6	22.6	90.3
	45 years and above	6	9.7	9.7	100.0
	Total	62	100.0	100.0	

Parents/ guardians negative perception of the learner negatively affects academic achievement of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	23	37.1	37.1	37.1
	large extent	27	43.5	43.5	80.6
	small extent	7	11.3	11.3	91.9
	very small extent	3	4.8	4.8	96.8
	not at all	2	3.2	3.2	100.0
	Total	62	100.0	100.0	

Frequent school visits by parents positively influence the academic achievement of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	19	30.6	30.6	30.6
	large extent	25	40.3	40.3	71.0
	small extent	12	19.4	19.4	90.3
	very small extent	5	8.1	8.1	98.4
	not at all	1	1.6	1.6	100.0
	Total	62	100.0	100.0	

Attendance of academic meetings by parents/guardians positively influence academic achievement of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	24	38.7	38.7	38.7
	large extent	25	40.3	40.3	79.0
	small extent	9	14.5	14.5	93.5
	very small extent	1	1.6	1.6	95.2
	not at all	3	4.8	4.8	100.0
	Total	62	100.0	100.0	

Provision of extra revision books by parents /guardians positively influence academic achievement of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	14	22.6	22.6	22.6
	large extent	26	41.9	41.9	64.5
	small extent	15	24.2	24.2	88.7
	very small extent	3	4.8	4.8	93.5
	not at all	4	6.5	6.5	100.0
	Total	62	100.0	100.0	

Negative comments from parents/ guardians negatively influence academic achievement of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	36	58.1	58.1	58.1
	large extent	18	29.0	29.0	87.1
	small extent	5	8.1	8.1	95.2
	very small extent	1	1.6	1.6	96.8
	not at all	2	3.2	3.2	100.0
	Total	62	100.0	100.0	

The gender of the learner will influence the academic achievement of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	1	1.6	1.6	1.6
	large extent	6	9.7	9.7	11.3
	small extent	15	24.2	24.2	35.5
	very small extent	15	24.2	24.2	59.7
	not at all	25	40.3	40.3	100.0
	Total	62	100.0	100.0	

High level of exam anxiety negatively influences academic achievement of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	10	16.1	16.1	16.1
	large extent	28	45.2	45.2	61.3
	small extent	11	17.7	17.7	79.0
	very small extent	10	16.1	16.1	95.2
	not at all	3	4.8	4.8	100.0
	Total	62	100.0	100.0	

Low self-esteem will negatively influence academic achievement of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	35	56.5	57.4	57.4
	large extent	22	35.5	36.1	93.4
	small extent	3	4.8	4.9	98.4
	very small extent	1	1.6	1.6	100.0
	Total	61	98.4	100.0	
Missing	System	1	1.6		
Total		62	100.0		

Excessive shyness negatively influence academic achievement of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	19	30.6	31.1	31.1
	large extent	25	40.3	41.0	72.1
	small extent	9	14.5	14.8	86.9
	very small extent	5	8.1	8.2	95.1
	not at all	3	4.8	4.9	100.0
	Total	61	98.4	100.0	
Missing	System	1	1.6		
Total		62	100.0		

Tendency to easily get annoyed negatively influence academic achievement of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	1	1.6	1.7	1.7
	large extent	27	43.5	45.0	46.7
	small extent	21	33.9	35.0	81.7
	very small extent	8	12.9	13.3	95.0
	not at all	3	4.8	5.0	100.0
	Total	60	96.8	100.0	
Missing	System	2	3.2		
Total		62	100.0		

Teachers negative perception will negatively influence academic achievement of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	30	48.4	49.2	49.2
	large extent	19	30.6	31.1	80.3
	small extent	7	11.3	11.5	91.8
	very small extent	3	4.8	4.9	96.7
	not at all	2	3.2	3.3	100.0

	Total	61	98.4	100.0	
Missing	System	1	1.6		
Total		62	100.0		

Extra remedial tuition positively influence academic achievement of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	25	40.3	41.0	41.0
	large extent	26	41.9	42.6	83.6
	small extent	8	12.9	13.1	96.7
	very small extent	2	3.2	3.3	100.0
	Total	61	98.4	100.0	
Missing	System	1	1.6		
Total		62	100.0		

Teachers positive comments will positively influence academic performance of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	32	51.6	52.5	52.5
	large extent	25	40.3	41.0	93.4
	small extent	4	6.5	6.6	100.0
	Total	61	98.4	100.0	
Missing	System	1	1.6		
Total		62	100.0		

High number of students in class negatively influence academic performance of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	11	17.7	18.0	18.0
	large extent	33	53.2	54.1	72.1
	small extent	8	12.9	13.1	85.2
	very small extent	6	9.7	9.8	95.1

	not at all	3	4.8	4.9	100.0
	Total	61	98.4	100.0	
Missing	System	1	1.6		
Total		62	100.0		

Negative perception by classmates negatively influence academic performance of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	15	24.2	24.6	24.6
	large extent	33	53.2	54.1	78.7
	small extent	9	14.5	14.8	93.4
	very small extent	4	6.5	6.6	100.0
	Total	61	98.4	100.0	
Missing	System	1	1.6		
Total		62	100.0		

Acceptance by classmates positively influence academic performance of slow learners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very large extent	19	30.6	31.1	31.1
	large extent	31	50.0	50.8	82.0
	small extent	8	12.9	13.1	95.1
	very small extent	2	3.2	3.3	98.4
	not at all	1	1.6	1.6	100.0
	Total	61	98.4	100.0	
Missing	System	1	1.6		
Total		62	100.0		

Appendix 12: Moderation Effect of Temperament on the relationship between Teacher Perception and Support and the academic achievement of the slow learners.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.296[a]	.088	.084	20.94615	.088	22.107	1	230	.000
2	.297[b]	.088	.080	20.98306	k.001	.192	1	229	.662

a. Predictors: (Constant), Teacher perception

b. Predictors: (Constant), Teacher perception , Interaction between Teacher perception and Temperament

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9699.103	1	9699.103	22.107	.000[b]
	Residual	100910.483	230	438.741		
	Total	110609.586	231			
2	Regression	9783.468	2	4891.734	11.110	.000[c]
	Residual	100826.118	229	440.289		
	Total	110609.586	231			

a. Dependent Variable: Academic Achievement

b. Predictors: (Constant), Teacher perception

c. Predictors: (Constant), Teacher perception , Interaction between Teacher perception and Temperament

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	-7.588	10.823		-.701	.484
Teacher perception	19.477	4.143	.296	4.702	.000
2 (Constant)	-8.498	11.040		-.770	.442
Teacher perception	19.783	4.208	.301	4.701	.000
Interaction between Teacher perception and Temperament	-.584	1.334	-.028	-.438	.662

a. Dependent Variable: Academic Achievement

Appendix 13: Moderation Effect of Temperament on the relationship between Peer Perception and Support and the academic achievement of the slow learners.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.135[a]	.018	.014	21.72870	.018	4.275	1	230	.040
2	.137[b]	.019	.010	21.76881	.001	.153	1	229	.696

a. Predictors: (Constant), Peer perception

b. Predictors: (Constant), Peer perception , Interaction between Peer perception and Temperament

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2018.171	1	2018.171	4.275	.040[b]
	Residual	108591.415	230	472.137		
	Total	110609.586	231			
2	Regression	2090.781	2	1045.390	2.206	.112[c]
	Residual	108518.805	229	473.881		
	Total	110609.586	231			

a. Dependent Variable: Academic Achievement

b. Predictors: (Constant), Peer perception

c. Predictors: (Constant), Peer perception , Interaction between Peer perception and Temperament

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	15.259	13.439		1.135	.257
Peer perception	10.320	4.992	.135	2.067	.040
2 (Constant)	15.181	13.466		1.127	.261
Peer perception	10.348	5.001	.135	2.069	.040
Interaction between Peer perception and Temperament	.581	1.483	.026	.391	.696

a. Dependent Variable: Academic Achievement

Appendix 14: Moderation Effect of Temperament on the relationship between Parental Perception and Support and the academic achievement of the slow learners.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.264[a]	.070	.066	21.15108	.070	17.245	1	230	.000
2	.264[b]	.070	.062	21.19505	.000	.047	1	229	.829

a. Predictors: (Constant), Parent perception

b. Predictors: (Constant), Parent perception , Interaction between Parental perception and Temperament

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7714.893	1	7714.893	17.245	.000[b]
	Residual	102894.693	230	447.368		
	Total	110609.586	231			
2	Regression	7735.916	2	3867.958	8.610	.000[c]
	Residual	102873.670	229	449.230		
	Total	110609.586	231			

a. Dependent Variable: Academic Achievement

b. Predictors: (Constant), Parent perception

c. Predictors: (Constant), Parent perception , Interaction between Parental perception and Temperament

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.683	9.542		.386	.700
Parent perception	16.777	4.040	.264	4.153	.000
2 (Constant)	3.797	9.577		.396	.692
Parent perception	16.772	4.049	.264	4.143	.000
Interaction between Parental perception and Temperament	.349	1.612	.014	.216	.829

a. Dependent Variable: Academic Achievement

Appendix 15: Letter of approval from the University

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

Tel: 056-30870
Fax: 056-30153
E-mail: directordps@mmust.ac.ke
Website: www.mmust.ac.ke

P.O Box 190
Kakamega – 50100
Kenya

Directorate of Postgraduate Studies

Ref: MMU/COR: 509079

Date: 23rd July, 2018

Naomi Khakasa Wafula,
EPY/H/24/2014,
P.O. Box 190-50100,
KAKAMEGA.

Dear Ms. Khakasa,

RE: APPROVAL OF PROPOSAL

I am pleased to inform you that the Directorate of Postgraduate Studies has considered and approved your Ph.D proposal entitled: ***"Selected Risk Factors Influencing Academic Achievement of Secondary School Students with Learning Disabilities in Kakamega County,Kenya"*** and appointed the following as supervisors:

1. Dr Kennedy Bota - SEDU
2. Dr. Erick Kabuka - SEDU

You are required to submit through your supervisor(s) progress reports every three months to the Director Postgraduate Studies. Such reports should be copied to the following: Chairman, School of Graduate Studies Committee and Chairman, Educational Psychology Department. Kindly adhere to research ethics consideration in conducting research.

It is the policy and regulations of the University that you observe a deadline of three years from the date of registration to complete your PhD thesis. Do not hesitate to consult this office in case of any problem encountered in the course of your work.

Appendix 16: Authorization from County Commissioner office

REPUBLIC OF KENYA

THE PRESIDENCY

MINISTRY OF INTERIOR & CO-ORDINATION OF NATIONAL GOVERNMENT

Office Mobile No: 0707 085260
Email-cckakamega12@yahoo.com

When replying please quote

Ref No: ED/12/1/VOL.IV/71

COUNTY COMMISSIONER
KAKAMEGA COUNTY
P O BOX 43-50100
KAKAMEGA.

Date: 08/01/2019

NAOMI KHAKASA ALICE WAFULA
MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY
P O BOX 190-50100
KAKAMEGA

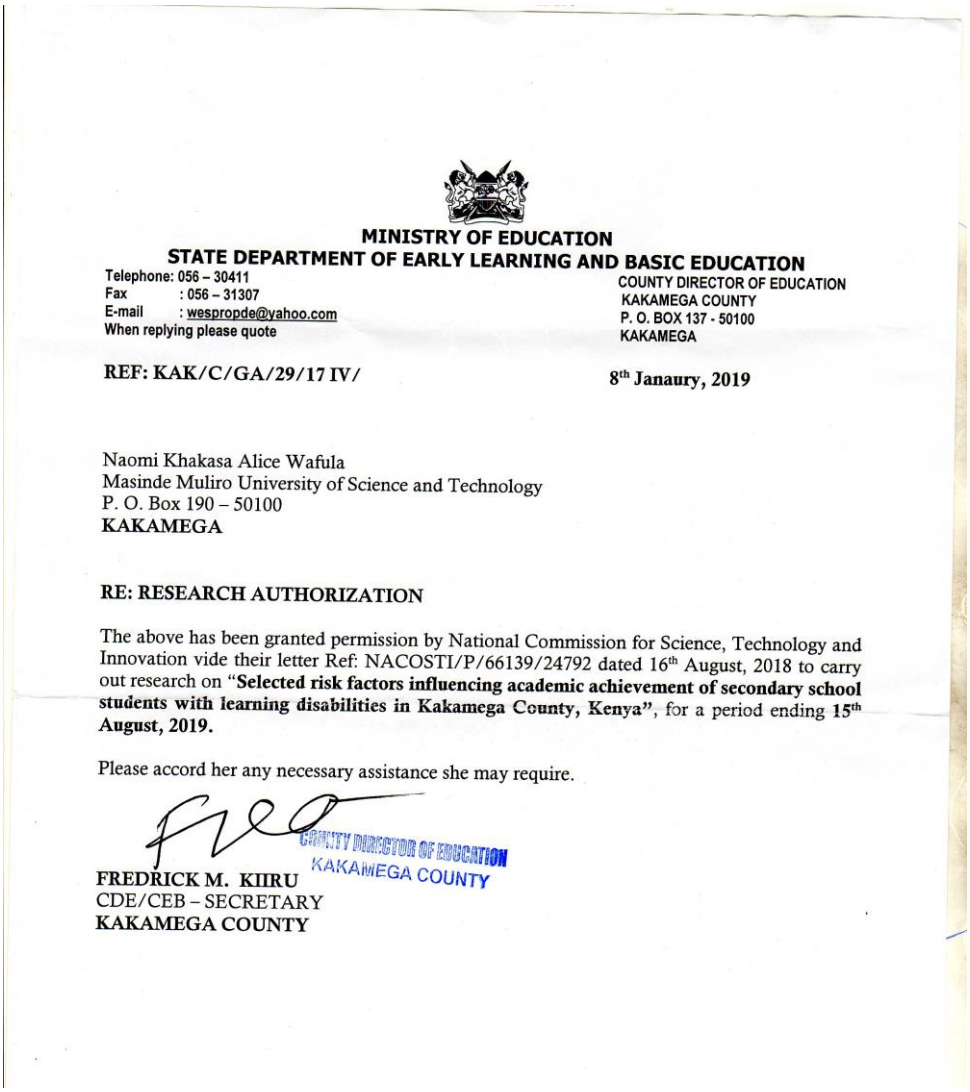
RE: RESEARCH AUTHORIZATION

Following your authorization vide letter Ref: NACOSTI/P/18/66139/24792 dated 16th August, 2018, 2018 by NACOSTI to undertake research on ***"Selected risk factors influencing academic achievement of secondary school students with learning disabilities in Kakamega County.*** I am pleased to inform you that you have been authorized to carry out the research on the same.

COUNTY COMMISSIONER
KAKAMEGA COUNTY

V. CHERONO
FOR: COUNTY COMMISSIONER
KAKAMEGA COUNTY

Appendix 17: Authorization from County Education office



MINISTRY OF EDUCATION
STATE DEPARTMENT OF EARLY LEARNING AND BASIC EDUCATION

Telephone: 056 – 30411
Fax : 056 – 31307
E-mail : wespropde@yahoo.com
When replying please quote

COUNTY DIRECTOR OF EDUCATION
KAKAMEGA COUNTY
P. O. BOX 137 - 50100
KAKAMEGA

REF: KAK/C/GA/29/17 IV/

8th Janaury, 2019

Naomi Khakasa Alice Wafula
Masinde Muliro University of Science and Technology
P. O. Box 190 – 50100
KAKAMEGA

RE: RESEARCH AUTHORIZATION

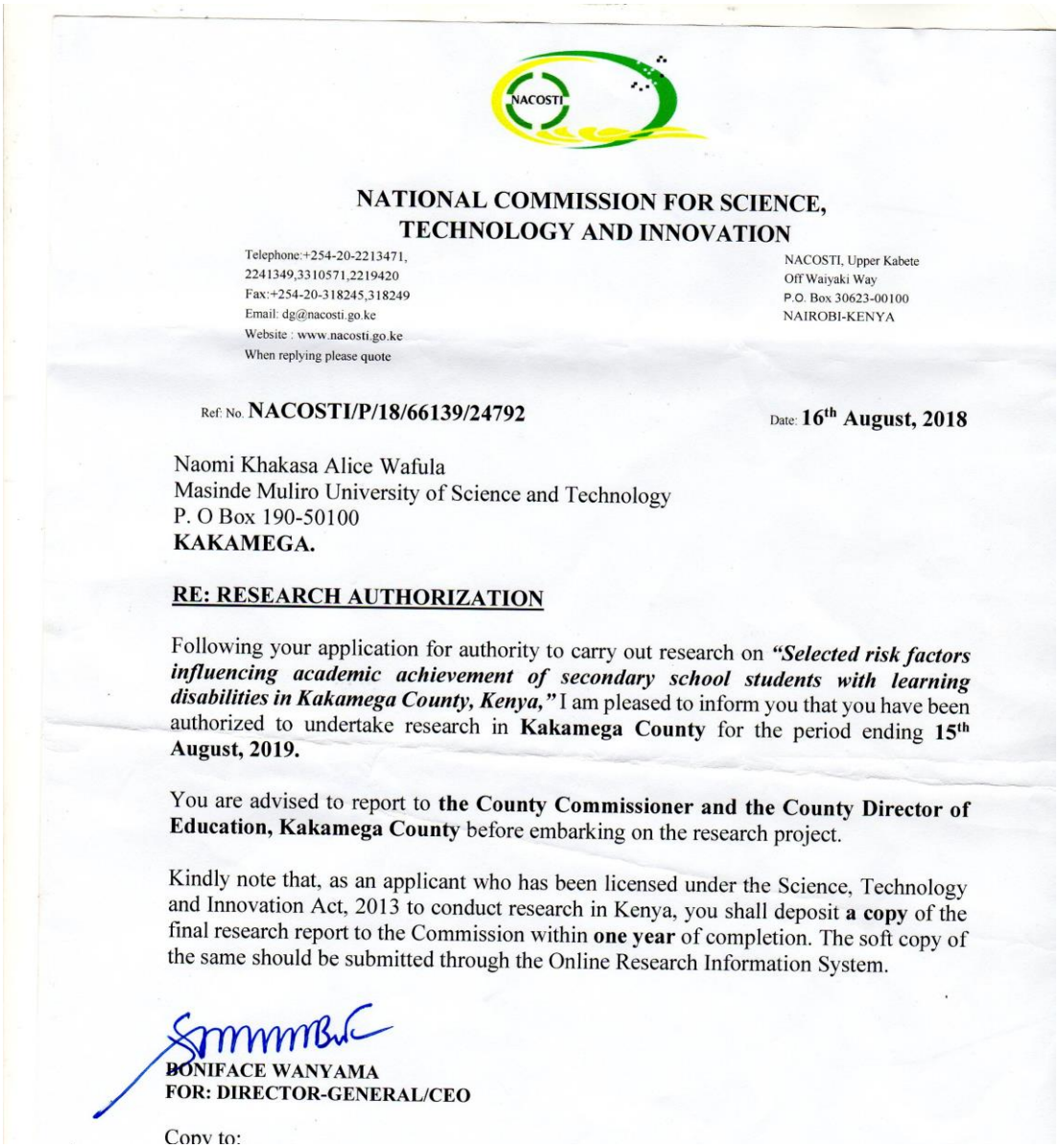
The above has been granted permission by National Commission for Science, Technology and Innovation vide their letter Ref: NACOSTI/P/66139/24792 dated 16th August, 2018 to carry out research on **"Selected risk factors influencing academic achievement of secondary school students with learning disabilities in Kakamega County, Kenya"**, for a period ending **15th August, 2019.**

Please accord her any necessary assistance she may require.

COUNTY DIRECTOR OF EDUCATION
KAKAMEGA COUNTY

FREDRICK M. KIIRU
CDE/CEB – SECRETARY
KAKAMEGA COUNTY

Appendix 18: Research Authorization



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/18/66139/24792**

Date: **16th August, 2018**

Naomi Khakasa Alice Wafula
Masinde Muliro University of Science and Technology
P. O Box 190-50100
KAKAMEGA.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Selected risk factors influencing academic achievement of secondary school students with learning disabilities in Kakamega County, Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Kakamega County** for the period ending **15th August, 2019.**

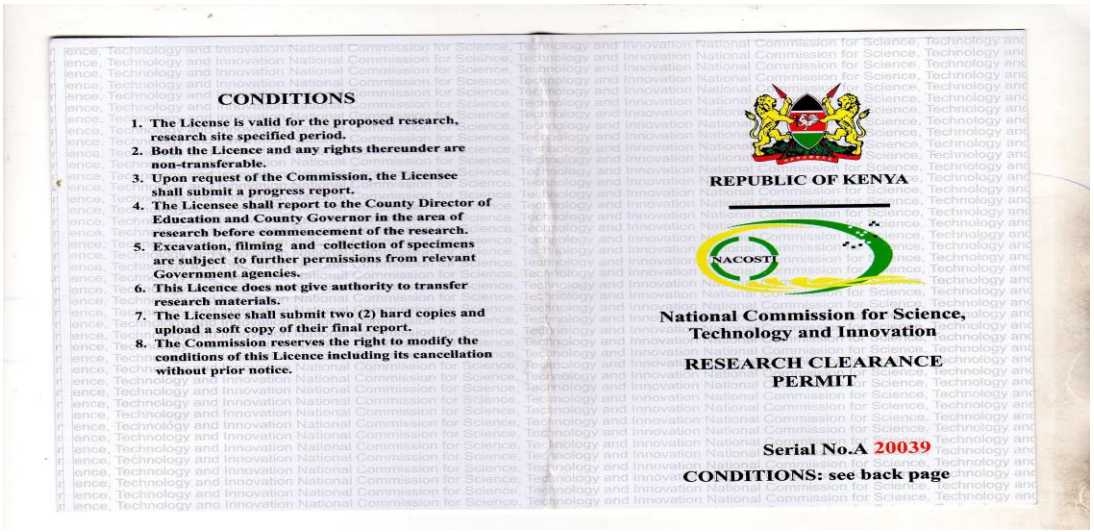
You are advised to report to **the County Commissioner and the County Director of Education, Kakamega County** before embarking on the research project.

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.

BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

Appendix 19: Research Permit



CONDITIONS

1. The License is valid for the proposed research, research site specified period.
2. Both the Licence and any rights thereunder are non-transferable.
3. Upon request of the Commission, the Licensee shall submit a progress report.
4. The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.
5. Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.
6. This Licence does not give authority to transfer research materials.
7. The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.
8. The Commission reserves the right to modify the conditions of this Licence including its cancellation without prior notice.

REPUBLIC OF KENYA

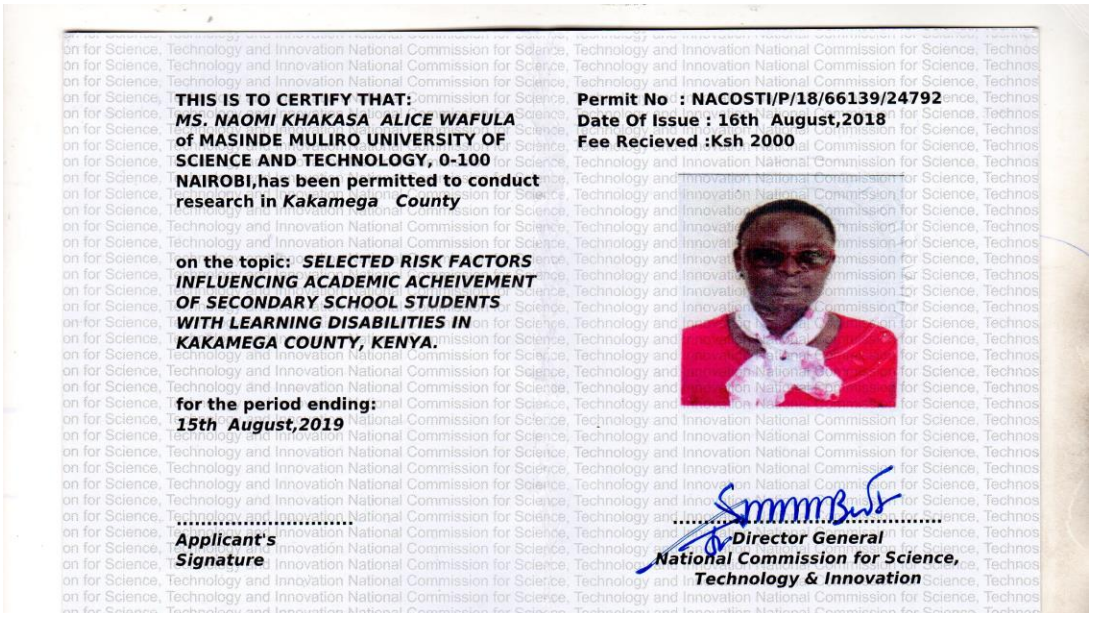
NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No.A 20039

CONDITIONS: see back page



THIS IS TO CERTIFY THAT:
MS. NAOMI KHAKASA ALICE WAFULA
of MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY, 0-100 NAIROBI,has been permitted to conduct research in *Kakamega County*

on the topic: *SELECTED RISK FACTORS INFLUENCING ACADEMIC ACHEIVEMENT OF SECONDARY SCHOOL STUDENTS WITH LEARNING DISABILITIES IN KAKAMEGA COUNTY, KENYA.*

for the period ending:
15th August,2019

Permit No : NACOSTI/P/18/66139/24792
Date Of Issue : 16th August,2018
Fee Recieved :Ksh 2000

.....
Applicant's Signature

.....
Director General
National Commission for Science, Technology & Innovation

Appendix 20: Map of Kakamega County