

**SUPPLY AND DEMAND FACTORS INFLUENCING PASTORALISTS'  
CHILDREN'S PARTICIPATION RATE IN SECONDARY SCHOOL  
EDUCATION IN TURKANA SOUTH SUB COUNTY, TURKANA**

**Okumu Aloice Wanjala**

**Research Project Submitted in Partial Fulfillment of the Requirement for  
the Award of Master Degree in Educational Planning**

**University of Nairobi**

**2017**

## DECLARATION

This project is my original work and has not been submitted for award of a degree in any other University

Sign ..... Date.....

**Okumu Aloice Wanjala**

E55/73889/2014

This project has been submitted with our approval as University supervisors

Sign ..... Date.....

**Dr. Ibrahim W. Khatete**

Senior Lecturer

Department of Educational Administration and Planning

University of Nairobi

Sign ..... Date.....

**Dr. Reuben G. Mutegi**

Lecturer

Department of Educational Administration and Planning

University of Nairobi

## **DEDICATION**

I dedicate this work to Uhuru Girls Secondary school, Class of 2017. Thank you for allowing me to be part of your lives.

## ACKNOWLEDGEMENT

I wish to express my sincere gratitude for the support and encouragement accorded to me by various people throughout the course of writing this project paper. I am grateful to my supervisors Dr. Ibrahim Khatete and Dr. Mutegi Reuben for their patience, guidance and continuous support which helped me shape and complete this project.

I am also grateful to the community of Turkana South for greatly supporting my data collection process, security organs and other education officers stationed in Lokichar, In addition, I am grateful to the key informant guides who played a big role in enriching the data collected and offering valuable insights that enriched this project.

Finally, I am indebted to my parents, family and friends for always encouraging me to write the project. Your faith in my abilities challenged me to believe in myself and aim higher. I pray that the Lord blesses you. While recognizing the invaluable contributions of different people to this work, the views expressed in this paper are solely mine and therefore take full responsibility for any errors and omissions.

## TABLE OF CONTENTS

DECLARATION .....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT .....	iv
LIST OF FIGURES .....	viii
LIST OF TABLES.....	ix
ABBREVIATIONS AND ACRONYMS.....	x
ABSTRACT .....	xi

### CHAPTER ONE

#### INTRODUCTION

1.1 Background of the Study .....	1
1.2 Statement of the Problem.....	12
1.3 Purpose of the Study .....	14
1.4 Objectives of the Study.....	14
1.5 Research Questions.....	14
1.6 Significance of the Study.....	15
1.7 Limitations of the Study .....	16
1.8 Delimitation of the Study.....	16
1.9 Assumptions of the Study .....	16
1.10 Definition of terms and Phrases.....	17
1.11 Organization of the Study .....	18

### CHAPTER TWO

#### LITERATURE REVIEW

2.1 Introduction.....	20
2.2 An Overview of Nomadic Pastoralism and Nomadic Education .....	20
2.4 The Influence of Gender Disparities on Nomadic Children Participation Rate on Secondary.....	24
2.5 The Influence Formal Curriculum Relevance, on Nomadic Children's Participation Rate in Secondary Education .....	25
2.6 The Influence of Teacher-student's Ratio on Nomadic Children Participation Rate in Secondary Education.....	26
2.7 Summary of the Literature Review.....	27

2.8 Theoretical Framework.....	28
2.8.1 Human Capital Theory .....	28
2.8.2 Social Learning Theory .....	29
2.9 Conceptual Framework.....	31

### **CHAPTER THREE**

#### **RESEARCH METHODOLOGY**

3.1 Introduction.....	33
3.2 Research Design .....	33
3.3 Target Population.....	33
3.4 Sample Size and Sampling Technique .....	34
3.5 Research Instruments.....	36
3.6 Instrument Validity .....	37
3.7 Instruments Reliability.....	37
3.8 Data Collection Procedure.....	38
3.9 Data Analysis Techniques .....	39
3.10 Ethical Considerations .....	39

### **CHAPTER FOUR**

#### **DATA PRESENTATION, ANALYSIS AND INTERPRETATIONS**

4.1 Introduction.....	41
4.2 Demographic Information .....	41
4.2.1 Gender Response .....	41
4.2.2 Age Analysis.....	43
4.2.3 Educational Level .....	45
4.3 Poverty and Its Effect on Participation Rate.....	46
4.3.1 Impact of Gender Disparity on Participation Rate of the Learner.....	50
4.3.2 Impact of Curriculum Relevance on Participation Rate of Nomadic Children in Education .....	56
4.3.3 Impact of Teachers Student- Teacher Ratio on Participation Rate.....	61
4.4 Discussion of the Finding .....	64

### **CHAPTER FIVE**

#### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

5.1 Introduction.....	67
-----------------------	----

5.2 Summary of the Findings.....	67
5.3 Conclusion .....	69
5.4 Recommendation .....	69
<b>REFERENCES .....</b>	<b>71</b>
<b>APPENDICES.....</b>	<b>75</b>
Appendix I: Letter of Introduction to the Respondents .....	75
Appendix II: Focus Group Discussion Guide for Learners .....	76
Appendix III: Focus Group Discussion Schedule for Parents .....	78
Appendix IV: Key Informant Guide.....	80
Appendix V: Questionnaire for Teachers. ....	83
Appendix VI: Interview Guide for Sub-County Education Directors and Sub-County QUASOs .....	84
Appendix VII: NGO Representatives, Ward Administrators and Church Leaders .....	85
Appendix VIII : Authorization Letter.....	86
Appendix IX: Research Permit.....	87

## LIST OF FIGURES

Figure 2.1: Conceptual Framework .....	31
Figure 4.1: Age Analysis of the Respondent .....	43
Figure 4.2: Causes for Low Enrollment in Secondary Schools in Turkana South sub County .....	48
Figure 4.3: School Fees Payment by Different Stakeholders for Learners in Secondary School in Turkana South Sub county .....	49
Figure 4.4 Learners Interest in Subject Categories.....	59



## LIST OF TABLES

Table 3.1 Sample size .....	36
Table 4.1: Gender Response .....	42
Table 4.2: The Age Brackets of Teachers in Turkana South Secondary Schools .....	44
Table 4.3 Data Showing Counties of Origin of Secondary School Teachers in Turkana South-sub County .....	45
Table 4.4: Number of School Going Children Compared to Out of School Children (By Learners) .....	47
Table 4. 5: Criteria of Choice for Students to Attend Schooling.....	51
Table 4. 6 Students' Gender Preferred for Schooling.....	51
Table 4.7 Proportion of Male-female Enrollment in Secondary School in Turkana South .....	53
Table 4. 8: Learners Completion in Turkana South Sub County -2013-2017.....	53
Table 4. 9: Learners Engaged for Marriage.....	54
Table 4.10: Formal Subjects Taught in Secondary Schools in Turkana South Sub County.....	57
Table 4.11: Familiarity with the Subject Content Taught in Secondary Schools in Turkana South .....	58
Table 4.12: Showing Curriculum Relevance Rating .....	60
Table 4.13: Data Showing Length of Stay of Teachers in Particular Work Stations .....	62
Table 4.14: Terms of Employment of Teachers in Secondary Schools in Turkana South .....	63

## **ABBREVIATIONS AND ACRONYMS**

ASALs	Arid and Semi- Arid lands
EFA	Education For All.
GOK	Government of Kenya
MOE	Ministry of Education.
NCNE	The National Commission for Nomadic Education
QASO	Quality Assurance and Standards
SCDE	Sub County Director of Education
SDGs	Sustainable Development Goals
SPSS	Statistical Package for Social Sciences
TSC	Teachers Service Commission
UNESCO	United Nations Education and Cultural Organization
UNICEF	United Nations Children Educational Funds

## ABSTRACT

The study considered the influence of demand and supply factors of education participation rate of nomadic children in secondary education in Turkana South Sub County. Participation rate in this regard was measured in terms of enrollment rates dropout rates, attendance levels, retention rates and completion rates. The research was guided by the following objectives, firstly to establish the influence poverty on nomadic children's' participation rate in secondary education, in Turkana South Sub-county, Kenya, secondly to establish the influence of gender disparities on nomadic children's' participation rate on secondary education, to establish the influence of the formal secondary education curriculum, on nomadic children's' participation rate in secondary education and finally establish the influence of teacher- students' ratio on nomadic children's' participation rate in secondary education. The research adopted two theories, Human Capital Theory and Social Theories, The results suggest that formal education in Kenya has not effectively served the nomadic communities. Education indicators in Turkana County revealed that nomadic groups are at the bottom in national statistics pertaining to enrollment rates, school participation, and classroom performance, gender balance, and student's achievement, progression to the next level of education and by extension training .The research concluded that pastoralists' low participation rate and their perceived resistance to formal education is not about an attribute of incompatibility between pastoralism and education. On the contrary, the perceived resistance is about the aspect to provide formal education in a solely school-based system. It is about schooling in a 'school' setting, irrespective of the environment, rather than the formal education itself per se that is sticky. The research recommends that Government of Kenya and other sector players must come up with ways of analyzing the obstacles that cause inequalities faced by pastoralist, in and outside the school and come up with policies that will keep learners in school focusing on gender disparities, reduction of poverty, customizing the curriculum to address the needs of the pastoralists and reducing the teacher student ratios.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the Study**

Formal education is a key determining factor for individuals' finance, health as well as the ability to interact and communicate with the environment. Despite the importance accorded to education, there is still considerable evidence of unequal opportunities in education in most developing countries (Wainaina, 2010). In many cases, these inequalities are caused by factors such as the disposable income of the household, educational level of the head of the household, ignorance, the cost of education, geographical region of stay and sometimes individual educational aspiration and exposure to the changing world.

Formal education important for the full accomplishment of individuals' aspiration as human being, their survival and lifelong development, the satisfaction of this education is thought to have, as a consequence, the empowerment of individuals (Kratli, 2001). It is noted in many of African countries that the provisions of education and participation rate have dramatically increased since the early years of independence (Leggett, 2001) to the dawn of new millennium. This is largely explained on the basis of various policy changes that has taken place since independence.

Although the educational policies that formed the basis of primary and secondary education expansion were responsive to the needs, interests and aspirations of the many citizens of these African countries, a bigger volume of these policies were inappropriate to the circumstances and situations in pastoral regions, and in many

of the occasion neglecting rights of children, who lived there. The outcomes of these are chronically low participation rate in basic education among pastoralists' communities, and marked disparities in the outcomes and participation between pastoralists and other sedentary communities.

Research shows that there are 21.8 million pastoralist's children out of school globally with 4.3 million in EFA Fast Track Initiative countries (Carr- Hill 2012 in Ayiro,2016). Furthermore, studies by the same researcher have revealed that the percentage of school-age children in pastoralist population posted school attendance ranging between 11% and 39% (Carr-Hill 2006 in Ayiro, 2016).

The 2010 GMR captures statistics for six African countries with high pastoralist populations and show very depressing attendance and participation levels (Ruto, Ongwenyi & Mugo 2009 in Ayiro 2016) as compared to the same cohort of students in the less mobile communities. From this analysis it can be deduced that marginalization and education deprivation is evident in the pastoralist areas across the region (UNESCO, 2010).

This particular study sought to analyze the extent of how demand and supply factors of education affect the participation rate in secondary education between nomadic groups as compared to their more settled Kenyan populations from a scholarly perspective. The studies on pastoralism and education provision bring to the fore a situation that is characterized by marginalization, conflict and competition over meager resources (Dyer, 2012), and emphasize that the present mode of education services provision will have limited impact on the current status of pastoralists' education. Indeed, education programs that assume stability

in the ecosystem of the inhabitants have been at odds with and in opposition to the nomadic fluid and unpredictable environments of discontinuity.

Nomadic learners in Kenya experience similar educational setbacks as other pastoralist children, such as the Tuareg and the Bedouin in the North and the Basarwa or Bushmen of Botswana (Nkinyangi,1980). Studies by Ezeomah (2002) reveal that pastoralist learners are left behind in primary and secondary education attainment due to constant migration, poor staffing, inadequate resources, and compliance with the traditional norms of the communities they are born in.

Pastoralist's knowledge transmission process in aspects such as informal animal husbandry knowledge, skills in colloquial biology and environmental studies are passed on by parents, elders, and peers (Kakonge, 2006). They therefore acquire knowledge and skills in non-formal vocational education contexts. This explains why they will always lag behind in the formal education system, which limits the holistic functional education required for meaningful integration into the pastoralist way of life. Despite nomadic parents' acceptance of the formal national curriculum, a majority of them fear that the education process will force them into sedentary ways of life (Ismail, 2004) thereby stripping them of their herding culture and identity. In response to these concerns therefore, it would be expected that the national educational policies integrate aspects of pastoral socio-economic life in curriculum policy and process in Kenya.

Demand factors include the factors associated with individuals or societies soliciting education some of these factors include disposable income in the household, culture, religion, gender parities, individual or societal attitudes

towards education among many factors . Supply factors are the factors emanating from the government side, which is the main suppliers of education and other givers of education. Some of supply factors include financial capability of the government, political will, teacher students' ratio, nature of the curriculum, availability of educational infrastructures among many supply factors. Demand and supply factors have a great influence on participation rate of learners in school. Demand factors contribute for about 62.7 per cent of non-enrolment and 75.3 per cent of school dropout according to the research carried out in a Turkana. (Ayiro, 2002). The study focused on two demand factors; poverty level and gender disparities and two supply factors; formal curriculum relevance and teachers-student ratio and how each independently affects the participation rate of learners in Turkana South Sub County

Poverty is a key factor that affects the demand for education. Poverty was singled out in a report by ILO/UNCTAD (2001) as an important factor in determining participation rate of learners in schools in many South America countries such as Chile, Mexico and Brazil. In these countries, poverty has necessitated the development of minimum income approach, cash transfer mechanism that is aimed to achieve improvement in the educational attainment of children in poor families and poverty reduction. The initiative is known as Minimum Income for School Attendance (MISA) (ILO/UNICTAD 20001). In this mechanism, families are compensated in cash grant the for the direct and opportunity cost of sending their children to school on condition that the school-age children attended school for a specified number of days per month leading overall increase in enrolment rate (ILO/UNIGTAD, 2001).

In many developing countries especially in Sub-Saharan Africa, gender is also found to be playing key role in education participation among many communities, in terms of school enrollment rate, dropout rate and retention rate. Gender is classified as a demand factor of education. In pastoral community's girls and women in general are subject to more challenging situation as compared to boys and men. The former group faces marginalization on account of their gender, in addition to being marginalized as members of pastoralist communities. Meaning, they are discriminated against both within their pastoral communities specifically by the male gender and outside their communities (Krätli, 2001; Carr-Hill, 2005).

In sub-Saharan Africa, women have limited opportunity to undertake formal education, causing high rates of illiteracy and low rates of participation among this group of gender, this is indicated by low retention and completion rates at all levels of education compared with boys. Most girls from pastoralist communities are out of school, the little education they have is non-formal and many of them do not harbor hopes of enrolling in basic formal education at all (Dyer, 2006).

The study carried out in North East Tanzania, in the District of Moduli Arusha region found that senior members of the communities and young ones have varied attitudes regarding girls' education. Some members in communities in this had positive attitudes towards girls' education; others still did not see the value in educating women and girls and therefore did not see the advantage of sending girls to school. During this research, it was found that there was Open resistance to girls' education.



In a study on carried out in Andhra Pradesh, India to investigate factors affecting the enrolment and retention of students at primary schools, it was established that gender disparities continued to exist in both elementary and secondary education in the entire rural society irrespective of caste (Rena, 2007). The study revealed that parents continued to discriminate girls, by not allowing them to enroll in basic level, creating limited option for higher as well as better education. The study revealed that Child labour was rampant, with more girls being forced to take up either household responsibilities or economic activities at a younger age when compared to boys.

Majority of house hold in nomadic communities do not have adequate resources to send their children to school. In a case where the opportunity to take children to school arise, more often than not parents considers boys over girls since boys are seen as a better investment than girls – with the boys expected to have better labor market opportunities than girls or because girls are expected eventually to marry out of the family in exchange of livestock and hence they may be seen as not good source of old-age support as boys – this will ultimately lead to higher enrollment rates for boys than Girls’.(Kratli, 2001). Moreover, given traditional gender roles, girls in many occasions than boys are engaged in work at home, and because labor market opportunities at the young ages under consideration here are quite limited, this is also expected to contribute to higher school enrollment rates for boys than girls, putting other things constant.

The curriculum taught to nomadic children in most Sub- Saharan countries is outside their social and economic realities (Ayiro & Sang, 2016). The prescribed

curriculum fails to integrate thematic aspects of the content into the functional learning needs of the pastoralist child. Nomadic parents express their disgust with some of the curriculum content. Citing subjects such as Science, where students are taught topics like “operating grass hopper” parents consider such curricula not only dysfunctional to the daily needs of their children, but also ineffective to the needs of their herding and social life style. This then discourages some of the parents from allowing their children to continue with schooling, as they consider the curricula to be an insult to their intelligence and culture. Predictably many parents withdraw their children, or simply do not pressure them regarding the regular attendance required for school completion.

Research carried in Fik and Jijiga region in Ethiopia, to investigate the impact of mainstream education on girls showed that formal basic education provision reached only 16 per cent of children, with many of them coming from urban areas (Oxfam, 2006). In order to tackle the severe problem of lack of participation by nomadic pastoralists in formal basic education in rural areas, Save the Children UK, worked with the Regional Education Bureau, to implement an alternative basic education curriculum programmes for pastoral and agro-pastoral children. This was done by developing an appropriate and relevant curriculum that suits the nomadic way of life, the local curriculum was adapted from the existing formal education curriculum, and teachers recruited locally and then trained on basic teaching skills (Oxfam, 2006).

Modification was done on calendar to fit pastoral flexibility, based on their changing seasons and movement, and the school timetable was also changed in order

to allow both boys and girls to attend classes. Changes in the curriculum were strengthened by maintaining the links with the official education system in order to allow children to be in school. (Oxfam, 2006)

The mobility of nomadic communities, the hardships linked with the Arid And Semi-Arid Lands (ASALs) and the few teachers from a nomadic pastoralist background makes it hard to recruit, deploy, motivate and retain of teachers. The Teacher- student ratios are always low, adversely affecting the participation rate of learners in these areas. Research carried out on the situation of nomadic education in Nigeria at a point found an area with only 4,907 teachers attending to about 1574 schools that is, each school having 3 teachers (Ezemoa, 2004) a ratio that was totally unworkable. Worse still a good percentage of these teachers did not have the basic teaching qualification prescribed by the national government - the Nigerian Certificate in Education. Overall up to 60 percent of the teachers were found unqualified (Abdurrahman, 2016). This is the same problem facing Kenya in nomadic region.

In Kenya the constitution states that, every child, regardless of his or her social background, ethnicity and race has the right to free and compulsory basic education. The Kenya Constitution (2010), it further states that ,the state shall put in place affirmative action programs designed to ensure that minorities and marginalized groups are provided with special opportunities in educational and economic fields, so as to make education a catalyst for national development (GOK, 2010). To a child from a marginalized community, especially the nomadic group, what was promised in the constitution has remained a mirage, Education

for nomads has faced enormous challenges, and consequently their participation rate is comparably low to other non-nomadic regions in Kenya. This study examined how the demand and supply factors of education affects the nomadic children's participation rate in secondary education in Turkana south sub county, Turkana.

Pastoral Nomads in Kenya are found in the Northern Counties of Kenya, that includes Moyale, Marsabit, Isiolo, Northern and Southern counties of Rift Valley region that includes Turkana, West Pokot, Samburu, Kajiado, Narok, and Transmara and Northern part of Coastal region that is Tana-River (Government of Kenya, 2015) since the promulgation of the 2010 constitution, the government of Kenya has put in place some mechanisms, programs and initiatives to expand educational opportunities in all nomadic pastoral zones. Some of these included the building Low Cost Boarding (LCB) schools, establishment of Mobile schools, building sedentary schools for mobile populations, and initiating Open and Distance Learning through Radios and receiver, and introducing School Feeding Programmes, and Scholarship for girls (Government of Kenya, 2015). However, available studies and assessment reports (Munene & Ruto, 2015) indicate that these innovations have not had the intended positive impact. The report says the sector still faces myriads of challenges in terms of access, relevance, quality, equity, and equality. Efficiency in the management of educational resources, cost and financing of education, gender and regional disparities, and teacher quality and utilization were also emerging problems (Wainaina, 2010).

The main source of livelihood for Nomadic pastoralists in Kenya is achieved through sale and use of its products such as milk, meat blood and skin. The nomadic pastoral regions in the country are mostly arid and semi-arid characterized with high temperatures ranges with maximum temperatures reaching 42 degrees Celsius daytime and as low as 12 digress Celsius at night and with rainfall of less than 750 mm a year (Idris, 2009) These ASAL areas makes up an approximate of 74.6 percent of the 582,646 km<sup>2</sup> of Kenya's landmass, and their livestock makes up to 30 percent of the total population and nearly half of the country's livestock population (Kratli & Dyer, 2000). In of arid regions, the soils are poor, thin, and saline with low moisture content and rains are unreliable, consequently rain-fed farming is impossible except irrigation in some areas, making pastoralism the only possible form of productive land use (Oxfam, 2006).

This study is focused on Turkana County, which is arid and receives mean annual rainfall of about 350mm. Any agricultural crop farming in this region is irrigation based. The climate is dry, with sporadic flood caused by unpredictable rainfall that abets soil erosion. The terrain is sandy and some areas rocky with sparse vegetation majorly composed of shrubs and thorn bushes (Ayiro & Sang, 2016). Turkana area accounts for 13 percent of all ASAL landscape is home to Kenya's nomadic pastoralist community called the Turkana. An analysis conducted in 2007 by the Ministry of Education to map schooling levels of all persons aged six and above (at primary schooling level) indicates that only 16.3 percent in have ever enrolled in school against a national average of 76.8 percent. (Johannes, 2008).

Research also shows that, only 3 percent accounting for 0.5 percent of women in Turkana have attended secondary schools, against a national average of 8.7 percent. Research shows that as low 0.6 percent of Turkana County the population that has attended any post-secondary institutions, (Johannes, 2008). With regard to the net enrollment ratio (NER) (GOK, 2009), the statistics are startling; Turkana County has an NER of 36.5 percent with 45.4percent of (boys) and 29.3 percent (girls). This is in comparison to the national NER which stands at 91.6percent with 94.1 percent boys and 89.0 percent girls. The dropout rates of learners in Turkana county are 18.2 percent (boys-16.8 percent and girls 19.9percent) the national dropout rate is only 3.5percent (boys at 3.2 percent and girls at 3.7percent). This dropout rates in county are representative of most of the ASAL counties and hence the concern on education performance in Turkana county. The survival rates in Turkana stands at 40.9 percent (boys-42.2 percent and girls 39.4 percent). A statistic of worry is that of Low completion rate with Turkana having a rate of 43.9 percent (boys at 61.0 and girls at 25.5 percent). Turkana County has an average of one teacher for 53.4 pupils against 1:43.9 for those counties that are agricultural and sedentary (KNBS, 2014).

Notable factors that are contributing to the above scenario include, high poverty level that limit families and the communities' capacities to demand and invest in the education, gender disparities, cultural and traditional practices like early marriages. Perceived 'irrelevant' curriculum that does not meet the needs of the pastoralist and limited number of teachers have been cited as key supply factors. (Kratli, 2000). This paper set to discuss how the above demand and supply factors of education, are influencing the enrollment rate, retention rate and

completion rate of nomadic children in secondary education in Turkana south sub county.

## **1.2 Statement of the Problem**

Providing a formidable formal education, an education that is of quality, relevance and that which is able to meet the aspirations of Nomadic pastoralist has been for long time been a desire not only for the Kenyan government, but also for the international community Sielele, as quoted in Kratli and Dyer (2011) says the Kenya Government is aware of challenges that may hinder the achievement of this goals and is committed to overcoming them. Overcoming this challenge is key if the government is to meet the Sustainable Development Goals on education.

Available data in addition of what has been described in the background information shows that, 80 per cent of the 2 million of children who are supposed to be in school are not schooling are found in Arid and Semi-Arid Lands, (Republic of Kenya, 2014), it is noted still that a big percentage of those who are in school in these region records poor retention rate, poor completion rates, do not learn effectively and achieve poor learning outcomes compared to children from the rest of the country (Munene & Ruto, 2015); Gross and net enrolment rate for both primary and secondary level is below the national level (GOK, 2015), the retention rate is low, while repeaters rate is very high.

On a whole scale Kenya's national literacy rate of 87.4 percent is quite impressive. However, there is still the existence of regional disparities, and what is of great concern are the high levels of dropout rates of children in Turkana

region. The average national completion rate stands at 45 percent, comparably higher than that of Turkana County which stands at 5 percent. Meaning in Turkana County, the dropout rate is about 95%. In regard to performance, limited numbers of students accumulate above average marks required for them to join secondary schools, for those transiting from primary education and few manage to get the average grade that would allow them to further their education in institutions of higher learning when transiting from secondary level of education.

Research has been carried out on the viability of customized nomadic education, and policies designed both by the Kenyan Government and international community to address the issues affecting pastoral community, and seeking to know contents of the Nomadic pastoralist Education Policies through a dimension of pastoral lifestyle and resilience and seeking to understand the extent, of how the existing policies can offer an option to move from the past, contributing not only to increased enrolment and participation rate in learning centers but also enhancing the adaptability of pastoralist communities with the changing environment (Idris, 2011). However, it seems that no local study has been carried out on the extend of influence of supply and demand factors on the participation rate of nomadic children in secondary education in Turkana south sub county. It is against this back ground that this study was carried out to bring out a clear picture of how the Key demand and supply factors influence nomadic children participation rate in secondary school education, in Turkana south Sub county, Turkana.



### **1.3 Purpose of the Study**

The purpose of this study was to establish the extent to which selected supply and demand factors influence nomadic children's participation rate in secondary education in Turkana South sub county, Turkana. Kenya.

### **1.4 Objectives of the Study**

The study was guided by the following objectives

- i) To establish the influence poverty on nomadic children participation rate in secondary education, in Turkana South Sub-county, Kenya.
- ii) To establish the influence of gender disparities on nomadic children participation rate on secondary education, in Turkana South Sub-county, Kenya.
- iii) To establish the influence of the secondary education curriculum, on nomadic children participation rate in secondary education in Turkana South Sub County.
- iv) To establish the influence of teacher- students' ratio on nomadic children participation rate in secondary education, in Turkana South Sub-county, Kenya.

### **1.5 Research Questions**

The proposed study was premised on the following research questions

- i) To what extend does poverty affect nomadic children participation rate in secondary school education?
- ii) To what degree does gender disparities affect nomadic children participation rate in secondary education in Turkana south?

- iii) To what extent does the secondary education curriculum affect the nomadic children participation rate in secondary education in Turkana south sub county?
- iv) To what level does teacher-student ratio affect the nomadic pastoralist children in secondary education?

### **1.6 Significance of the Study**

This research is beneficial to different parties and actors inside and outside the education sector with the hope that it will provide a bench mark for future plans and endeavors to establish and improve the education for pastoralist. Ministry of Education may use the findings of the study to identify attractive ways of allocating and distributing resources to the marginalized communities in their endeavor to meet both national and international obligation of providing education to its citizen.

The policy and decision makers could also use the findings of the study to come up with best models of alternative education to nomadic communities and frameworks implemented in other countries and give them a full image about Kenyan setting. The data obtained from this research can help in creating responsive Education programs exclusively for pastoralist communities. The study will also provide information to international donors and supporters of the Kenyan education system on how to utilize and direct their funds toward all inclusive education that is of high quality, easily accessible, and the education that provide life-long learning opportunities for all.

Empirical data from the research will help in contributing to the achievement of both international and national educational goals such as The SDG and EFA goals. And lastly, the data obtained can help in increased awareness about the importance of education in pastoralist community and available education opportunities for them.

### **1.7 Limitations of the Study**

The research involved an analysis examination of the lifestyles and experiences of nomadic pastoralists thus requiring long distance travel to the interior coupled with poor transport networks to interact and meet with the respondents in this case the researcher will have to use a local means of transport of a motorcycle to access the interior, language barrier between the researcher and the respondents was also be another limitation, to overcome this challenge the researcher had to engage the interpreter. There had been reported cases of insecurity in the area, in this case the researcher liaised with relevant security organs like the chiefs office and sub county commission for help.

### **1.8 Delimitation of the Study**

The study was carried out in secondary schools in Turkana South Sub County and views of the people from other sub counties were not sought.

### **1.9 Assumptions of the Study**

One of the assumptions of the study was that there were inherent supply and demand factors that influence children's participation in Turkana Sub County. The other assumption was that the views expressed by the sampled population were to be a representation of the views that could have been given by the entire

population Turkana South Sub County. The research relied upon life experiences and perceptions of respondents through accurate decoding and recording of responses by data collectors.

### **1.10 Definition of terms and Phrases**

**Access** refers to the ability, means and interest of a learner to enroll in an educational institution or Centre.

**Completion rate** is the ratio of first year entrants in a level of education to those who complete or finish the level in accordance with the required number of years of study.

**Demand** this refers to a desire and the willingness of an individual to pay a price for a specific good or service in this case education.

**Education** refers to the process of training individual citizens to become responsible member of the society. An act or the process of acquiring Education

**Equality** refers to the same treatment in resource allocation.

**Equity** fairness in the allocation, distribution and utilization of educational resources and opportunities

**Nomadic children** refer to children who belong to the nomadic community.

**Nomads** are members of a community that keeps on moving from one place to another in search of resources for their survival

**Participation rate** is the ability, means and willingness to enroll and stay in school (retention) till completion of education and training, involving aspects such as repeater rate, dropout rates, retention rates, completion rate and transition rate.

**Pastoralism** practice where move people from one place to another with their livestock in search of water and pasture for their livestock.

**Retention rate** is the rate at which learners who enroll in the 1<sup>st</sup> grade of a particular level of education go up to the final year of that level of education. It's keeping the learners in school from their time of enrolment until the legal completion of the expected level of education.

**School drop out rate** is the ratio of learners who leave school during the year to those who remain in schooling as well as those who complete the grade level but fail to enroll in the next grade.

**School enrolment rate:** Number of learners admitted in school in any specific year

**Schooling** the process of teaching or being taught in school or home, or any center designed for acquisition of knowledge.

**Supply** this is the total amount of good or service that is available to the consumer at a specific price or across a range of prices.

**Transition rate** it is the degree of movement from a lower level of education to a higher level, example from Primary to Secondary level.

### **1.11 Organization of the Study**

The study is organized into five chapters as follows: Chapter one comprises of the introduction to the background to the study, the statement of the problem, the aims of the study, objectives of the study, the research questions, significance of the study, limitations of the study, and assumptions of study, definition of terms and phrases and organization of the study. Chapter two provides the literature review, reading on what other scholars, researchers, and government documents and policies have written about nomadic pastoralist's basic education provision. The theoretical and conceptual framework related to provision of nomadic

pastoralist education are also discussed in this section. Chapter three deals with the research design and the methodology. Methods of data collection are discussed in detail. The sample and sampling procedures, validity and ethical issues of the research are also discussed. Chapter four entailed putting forward the research finding and summary, conclusion and recommendations made up chapter five.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter analyzed literature on the education for nomadic children, it focused on analyzing how demand and supply factors of education affects the participation rate of nomadic pastoralist children in secondary education as tackled by other scholars, the study gaps in nomadic education field and the theories in education that will guided the study.

#### **2.2 An Overview of Nomadic Pastoralism and Nomadic Education**

Nomadic Pastoralism is lifestyle where the primary activity is raising livestock, such as Cattle, goats sheep and camels and individuals move with these livestock seasonally from place to place in search of water and pasture for livestock. (African Union, 2010).

Nomadic pastoralism is carried out by millions of people and hundreds of communities across the world. it is dominant in most parts of Africa, the Middle East, and south, and central Asia. . Roma group crisscross parts of Europe especially in Russia and Britain.

Because of their mobility, it is hard to reach pastoralist with formal education that is typical with sedentary communities. The challenge of mobility has caused millions of nomadic children who are supposed to go to school to remain outside the education system. (Kratli, 2000). Nomadism is old as humanity, and virtually every continent of the globe has a characteristic group of nomads. So the challenge of offering formal education to nomads is found in every continent.

Nomadic pastoralist education challenges can be classified as being conceptual or practical, the challenges that questions the tenets about the nature of education itself (Krätli & Dyer, 2009), but given the large percentage of nomadic pastoralist population, these challenges should not be a hindrance to making sure that the nomadic pastoralist child get access to quality and affordable education.

Several studies and literature points out that it is challenging task to provide formal education in pastoral setting. Gorham (1978) assert that conventional approaches to education provision in subsistence pastoral conditions are not workable; Morton (2010) highlights that formal education models of schooling are directly imported from the west hence they cannot work the way they designed without modification, the reason being that they are incompatible with prevailing cultural, and social values practiced in nomadic pastoralism lifestyle.

Nomadic pastoralism lifestyle, high illiteracy level among adults, chronic poverty, recurrent drought and lack of awareness of the value of education among the parent are some of the notable factors highlighted in many research to cause a disruptions of children education, so any education model design that ought to be used in nomadic education programs should be able to address the above factors to reduce the level of disruption.

The adult literacy rate in Turkana is about 20% (GOK, 2010). This is against the backdrop of the progress that Kenya has been making in its endeavor to meet both national and international goals of education, the efforts which are commendable. Despite all this efforts the Turkana region is so much behind the national values on key indicators of EFA goals. The combined massive



investments in the education activities by the government and non-governmental actors within the Turkana have not borne the expected fruits. These may be attributed to several supply and demand factors of education such as high household poverty, gender inequalities, inability of the curriculum to meet the needs and the aspirations of the entire community.

### **2.3 Influence of Poverty on Nomadic Children Participation Rate in Secondary Education**

High poverty level in many nomadic families has hindered families to demand and invest wholesomely in education. Based on different poverty indicators such poor health, water, and sanitation services; absence of electricity; inadequate roads, and other physical and social infrastructure which are poorly developed, highly ineffective public and community service departments; uneducated population; and limited access to regional, national, and global markets and opportunities (GoK, 2012) Turkana pastoralist community is then ranked the most poorest in Kenya. This means that any available capital both social and economic available is better invested in more demanding needs than education. Families could prefer to use available income to build proper housing and water, restocking of livestock than taking children to school (Idris, 2009)

Families with low socio economic status have a low probability of sending their children to school, this is according to research by Rao (1990). In his research he says that children from such families are not encouraged to learn and lack intrinsic motivation to learn compared to children from families high economic status.

With schools that are not the above factors of poverty could cause children to drop out of school and even if they are retained in school the learning may be ineffective. Inadequate water or sanitation facilities, many a times interfere with the learning process older girls, in areas where provision exist such facilities often fails to meet quality standards (Kratli, 2001) making them drop out of school. Poor families in pastoral areas in particular are mostly disadvantaged by constraints related to inability to pay school fees, indirect costs of schooling like school uniforms, books, pens, and sanitary pads for girls. (GOK, 2015). In schools where school feeding programs have been implemented, many a times the nutritional values and the diet is not considered

In Turkana County and in other ASAL areas, livestock is the single-most significant source of income, supplying 60-70 percent of the total livestock market locally with some for export. The prevalence of drought in the area results in water shortage, crop failure, and death of animals, leading to a compromised livelihood (Serna, 2011). The lack of food, clean water for drinking and other domestic usage, as well as inadequate sanitation facilities undermines children's ability to live healthy and quality lives. Because of food scarcity learners may abandon going to school so that they can look for manual jobs to get income to sustain families (Ngasike, 2011). (Keriga & Burjira, 2009) notes that nomadic pastoral regions have limited infrastructures and poverty is extreme. Hence these places are underdeveloped in terms of health and education facilities.

## **2.4 The Influence of Gender Disparities on Nomadic Children Participation Rate on Secondary**

Cultural and traditional practices like early marriages affects the education of nomadic children especially the girl child. A Participatory Rural Appraisal (PRA) studies carried out on Alternative Basic Education for the people of Karamoja (ABEK) in North Eastern Uganda showed that, many girls drop out of school because of early pregnancies and marriages thus being denied the chance to realize their full potential. Very few girls have been given chance by their families to school. Girls in this region are seen as source of family income as many are married and in return the parent gets rewards in terms of livestock. (UNICEF, 2014). In any social setting in Kenya girls and boys ought to have a right to good-quality basic education, but in pastoralist setting female children access less education than male, and the participation rate for female and their achievements are usually lower, than those of male (Oxfam, 2005).

A study on gender inequalities in Eritrea by Rena (2004) shows gender equality in education depends on several factors such as social framework ,political framework and economic framework. In the same study the author cites the of gender gap where male dominates female as domestic chores, such as taking care of the young ones, fetching firewood and fetching water. Other factor stated by Rena (2007) to be causing increasing gap in gender disparities include, traditional believes, poverty , nomadic lifestyle and lack of parental support. A journal by Oxfam, (2005) notes that pastoral areas are engulfed in extreme poverty, with most women bearing the responsibilities of raising families as men take care of animal.

## **2.5 The Influence Formal Curriculum Relevance, on Nomadic Children's Participation Rate in Secondary Education**

Any curriculum is closely related to goals of any educational system, the curriculum should be relevant and of value to the people it is supposed to serve. In the Kenyan case the curriculum has not been of help in many of nomadic way of life. Scholars believe that the curriculum has not been differentiated to suit the nomadic way of life. Lack of differentiation of the curriculum is believed to a vital cause of pastoralists' low interest in education leading to low participation rate (Kratl, 2010).

Formal Curriculum does not relate in any way to creation of new job opportunities in nomadic environment. The language of instruction of this formal curriculum has been the national language rather than the tribal language at basic level, which often cause retardation in academic progress. (Sifuna, 2005) claim that this is a form of alienation. Ole Kosabba (2013) says formal curriculum does not tackle the aspirations of the nomadic people and their way of life as well as not being sensitive to the immediate and future need of the nomadic pastoralists, they view formal curriculum as a threat to their livelihood and culture because it weakens their social capital and make them vulnerable.

Most nomadic pastoralists use social system to impart skills, and the fact that this is not included in the formal system, confirms fear of destruction of the social system. This is true because nomadic pastoral children who have got a chance of attending formal education spend less than 100 days a year with their parents (Kratli, 2001). And this is seen as forced alienation. It makes children lose their

social ties with their communities. Participatory approach should be applied to overcome the challenge of curriculum relevance. Nomads should be allowed to choose what is best for themselves allowing flexibility so that if any change arise it will be easily be accommodated.

## **2.6 The Influence of Teacher-student's Ratio on Nomadic Children Participation Rate in Secondary Education**

Limited and inadequate number of teachers and poor teacher's management policies, especially in regarding recruitment, the posting and motivation of teachers, to nomadic region has been a challenge. The GOK (2015) recognizes that the movement of nomadic communities, the harsh climatic condition associated with the pastoralist region and the low numbers of teachers from nomadic background make recruitment, posting and reduction of staff turnover difficult. The solution to these problems may be pegged to the idea that the whole spectrum of teachers training should be reviewed, since the existing teacher management policies that deal with decentralization have not fully tackled staffing problems (GOK, 2015).

Teachers mostly are not from pastoral background hence compatibility becoming an issue because of language barrier even when the teacher and learners have a common language. In some schools, majority of children are non-pastoral because education in these places is cheap and subsidised heightening competition for places. High rate of Staff turnover in this region is also worth mentioning because teachers are always requesting to be moved to other areas with conducive working environment. Kratli (2010) says Teachers from non-

pastoral community are always requesting for transfers to other non-nomadic areas because of the feeling of insecurity, isolation, low salary and harsh life conditions. Studies by Semali (2007) established that teachers in nomadic pastoral region are hardly motivated especially in terms of finance and this directly impacts on the participation rate of learners.

## **2.7 Summary of the Literature Review**

Krätli and Dyer (2009), points out that providing formal education to nomad is both conceptual and a practical challenge. Among several factors affecting the participation rate of nomadic children secondary education key among the supply factors are irrelevant curriculum and higher student teacher ratio. Research by Kratli (2001) shows that formal curriculum given to nomads is largely irrelevant and does not meet the aspiration and needs of the nomads. This research confirms the findings and further suggests that formal education curriculum needs to be customized and differentiated to meet the needs of nomads.

Semali (2007) established that teachers in nomadic pastoral region are hardly motivated especially in terms of finance and this directly impacts on the participation rate of learners, this research found out that teacher student ratio is very low in Turkana South Sub County and teachers turnover rate is very high, due to isolation and lack of motivation. Research by Keriga and Burjira (2009) shows that most nomadic pastoral areas are engulfed in extreme poverty, in terms of structure and household income, this research found out that poverty , measured in terms of house hold income negatively impacts the participation rate

of learners in nomadic pastoral regions. These factors have a particular degree of impacting the participation rate of nomadic children secondary education.

Gender disparity according to the review is creating a scenario where a boy child is favoured over a girl child while choosing children to attend school. This findings is supported by research carried out by Rena (2007) in Eritrea where it was confirmed that male-female gender schooling gap is so big in that 47 per cent of female are illiterate nationally.

## **2.8 Theoretical Framework**

### **2.8.1 Human Capital Theory**

This study was guided by human capital theory; it is a theory that originated from labor economics. Schultz (1963) coined the concept of education as an economic investment by analyzing the return-on education against the cost which involved in acquisition of the education. (Becker, 1964) used this concept to develop Human Capital Theory. Becker in his analysis saw human capital as a way of production like any other form of capital such as land and labor. He says that, an investment in human capital leads to increased production. From his understanding, when one invests in education his value as a citizen increases in terms of skills and knowledge needed in production process and which will ultimately help and improve the overall standard of life. In Beckers understanding, when an individual develops his skills, it is expected that his production capacity will also increase which is a key component in production process.

In relation to this study pastoralists' children, require education that can be used to develop their economy. Since this group is not able to finance their education, the government and other market players should pay for their education. By so doing, they are investing in education. It is expected that the participation rate in education will improve.

Conversely, by investing in them, the expected output will be improved human capital: increasing their skills so that they can become environmentally sensitive, so that they can have good living standard. Because nomadic pastoral children are expected to manage their livestock and the environment well they need well developed curriculum that is sensitive to their environment. It is therefore against this argument that nomadic pastoral children needs to be given education which will help them contribute to the economic growth, investing in pastoral children will helps directly by empowering them to stand up for their rights as well as that of others in their jurisdiction. The central argument of this theory is that when education is accessed, it enhances development. It is essential in understanding the demand and supply factors that affects the participation and access to secondary education by children from nomadic pastoralist communities.

### **2.8.2 Social Learning Theory**

The study also adopted a theoretical approach centered on Bandura's Social Learning Theory (SLT) (1977). The theory is based on four principles of social learning:

The first principle is attention, the study assumed an individual only learns if they are focused on the task the learning approach should be deliberate to bring out



aspects that reveal innovations, that are novel or unique in some way, so as to capture the attention the learners in such challenging environments. Social setting in pastoralism society will help to strengthen these perceptions.

The second principle is retention; the principle says that learners learn by internalizing information in the memories. The learners recall this information later when required to respond to a situation that is similar to the situation within which they first learnt the information. Given the environmental set up in arid areas, knowledge accumulation is a challenge so learners need conducive environment to successfully perform in secondary school.

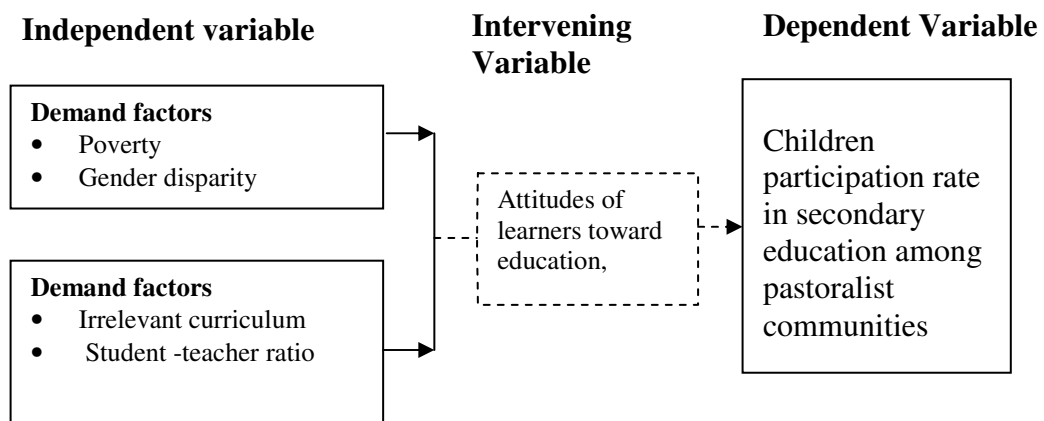
The third principle is reproduction; Learners' are expected to reproduce previously learnt information, example behavior, skills, and knowledge when required. However, learners in the arid areas lack opportunity for practice through mental and physical rehearsal given their habitats and survival concerns which would help them to improve their responses.

The last principle is attention; human being needs to be motivated to do anything. Often that motivation originates from our observation of someone else being rewarded or punished for something they have done or said. This usually motivates us later to do, or avoid doing, the same thing. The set up in the semi-arid areas presents very few motivation opportunities. Social modeling is a very powerful method of education. If children see positive consequences from a particular type of behavior, they are more likely to repeat that behavior themselves. Conversely, if negative consequences are the result, they are less likely to perform that behavior.

Novel and unique contexts often capture students’ attention, and can stand out in the memory. Students are more motivated to pay attention if they see others around them also paying attention. It is obvious that given their circumstance, pastoralist children walk the path disadvantage in this regard. Another less obvious application of this theory is to encourage students to develop their individual self-efficacy through confidence building and constructive feedback, a concept that is rooted in social learning theory. With the scarcity of teachers in these regions, constructive feed-back is rare and in most cases non-existent.

This theoretical framework helped to conceptualize the study in terms of the drivers of learning- namely attention, retention, reproduction and motivation in relation to pastoralist learners. The theory further led to an understanding of the implications of low attainment rates by pastoralists’ children being subjected to formal learning. The theory in addition allowed for extrapolating the results into key findings of the study.

## 2.9 Conceptual Framework



**Figure 2.1 Conceptual framework**

In a bid to get good education there are many factors which positively or negatively influence participation rate. Poverty and gender disparity are the two factor classified as demand factor while curriculum relevance and student-teacher ratio are classified as supply factors.

The participation rate of learners is dependent on the above factors; any change on the supply and demand factors will subsequently affect the participation rate of learners. The participation rate of the learners will be measured in terms of the enrollment rate, retention rate, completion rate and survival rate. Learners' attitude towards secondary education may determine key decisions in participation though it may not directly be felt; it is an intervening variable.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The chapter entails the discussion of the design used in the research, target population of the research, the size of the sample and procedure used in sampling, instruments used in the research, validity of the instrument and instrument reliability. Procedure of data collection and analysis techniques were also discussed.

#### **3.2 Research Design**

The study adopted descriptive research design. Design presented the general account of the factors that affects the nomadic children participation in secondary school and the characteristics of the of the participants involved in the research. According to Blaikie (2009) this type of design present an account and the distribution of characteristics in population under study, the patterns of relationships in some social context at a particular time or the changes of those characteristics over time. The design also allows for investigation of the variables without manipulation. This design suited the study because the supply and demand factors that influence children participation in education in pastoralist communities will not be manipulated.

#### **3.3 Target Population**

Ngechu (2004), defined a study population as a well-defined set of people or group things with similar characteristics under investigation. Kombo and Tromp (2014) also defines population under study as a group of individuals or items

which samples are taken for measurements. Target population should have specific characteristic that the researcher wants to investigate, the target population is expected to be homogenous. The study will have targeted the residence of Turkana south sub county in the Southern region of Turkana county, Rift Valley region of Kenya. The sub-county is made up of four wards: Lokichar, Kalabata, Katilu and Kainuk (Turkana South District Development Plan 2008-2012). The Study targets a total of 38,756 community members who shall be information providers. This will include, households, parents, students in 7 secondary schools in Turkana South, 210 teachers, TSC sub county director in Turkana south, Ministry of Education sub county director in Turkana south, representative of NGOs and representative of churches in Turkana South including ward administrators

### **3.4 Sample Size and Sampling Technique**

Sampling is choosing a given number of object from a uniform population to represent the population under study. Kombo & Tromp (2006) defined sampling as the method a researcher uses to group items for study. The outcome from the sample should be a representation of the whole population. The research covered all the 7 secondary schools in Turkana South, but not all the teachers and students were interviewed as well as the parents. A study sample was selected to take part in the study. Parent and other education stakeholders were interviewed. Because of the uniformity of the population, the study used Fisher's method of sampling that allowed generalization of a large population with a margin error that can be determined which allows inferential statistics (Mugenda & Mugenda, 1999).

The quantitative data was collected from household heads and guardians and children aged between 12-18 years. The Fisher's method was used in determining the sample size, where CI = +5, design effect = 1.5 and Confidence level = 95%, and maximum prevalence =50%. This was calculated as follows:

$$N=Z^2 (pq)/d^2$$

Where n=the desired sample size

Z = the standard normal deviation, set at 1.96 which corresponds to 95% confidence

d= design effect, p=prevalence rate set at 50%, Population>10, 000 residence

$$N=\frac{1.96^2 \times 1.5 \times 0.5}{0.05^2} = 576 \text{ participants}$$

$$0.05^2$$

Thus the sample size will be about 576.

Purposive sampling was used to select community groups including CBOs, guardians, children and the youth to participate in the Focus Group Discussions (FGDs). Purposive samples of the relevant individuals were selected to participate in key informant interviews. The selection was based on project areas and relevant topics as well as beneficiary groups. Turkana south sub county covers a large geographical area; therefore, cluster sampling was used to divide the areas into manageable units. Then systematic sampling was used to select the number of clusters and thereafter use random sampling to select the household to be interviewed. Gay (2003) recommended minimum sample size of 10% this will be used to get the final samples from the selected clusters. Then From the above approach the expected respondents are, 120 parents, 427 students, 25 teachers,7

principals from seven secondary schools, 2 QASOs, 2 SCDEs, 2 NGO representatives and 4 church representatives totaling to 578 respondents.

**Table 3.1: Sample Size**

<b>Target population</b>	<b>Total Sample</b>
Students	427
Parents	120
Teachers	25
QASOs	2
SCDEs	2
Church reps	4
NGOs	6
<b>TOTAL</b>	<b>578</b>

### **3.5 Research Instruments**

Primary sources were used in data collection and will involve focus group discussion and interviews. Focus group discussions guide was designed to collect qualitative data that was compared with data collected using other methods. Composition of the Focus group discussion participants included students from secondary school and house hold heads. The FGDs exercise was tailored on specific study objectives and was mostly made up of 6-10 people.

Focus group discussion mostly generated qualitative data. Although many a times data from one respondent differed from another, there was much objectivity because there was room to probe the respondents for clarifications aided by the checklists.

Interview schedule were used to interview on key informants who were the principals of schools, church representatives, parents' representative, NGOs representative and sub-county directors. This method of data collection was used because extensive inquires was used to get fairly reliable results from the respondents (Kothari, 2009)

Questionnaires were used to collect data from teachers and some parents. Questionnaires entailed a series of questions and prompts that are used to get answers from the respondents. The questionnaires were advantageous in that they were able to collect data that was not observable (Gall, 1996)

### **3.6 Instrument Validity**

According to Kombo and Tromp (2006) validity is measure of how well a test measures what it is supposed to measure. The validity of the instruments was determined by presenting the instrument to two research supervisors for guided expert information, who will examine the content and gave advice on the face validity. Their suggestions were used to revise the questionnaire and the interview schedule guide for better results.

### **3.7 Instruments Reliability**

Reliability is the ability of an instrument to give consistent results over using similar samples in series of tests over a given period of time (Kombo & Tromp, 2006). A pilot study of the seven schools available for study, seven head teachers and seven teachers will be used. The instrument test-retest method was used to test the reliability of the instruments. It involved administering a test to the same



group of subject. The second administration was done after a time lapse of one week after the first one.

The Karl Pearson correlation coefficient was used to compute the correlation coefficient between the two score to establish the extent to which the content of the instruments were consistent in eliciting the same responses every time the instrument was administered. If the Persons r value from -1.00 to 0 it shows negative association and if the value ranges from 0 to 1.00 it means, there is the positive association, a reliability of 0 shows that there is no association of instrument but if the value is -1 or +1, it shows that there is perfect negative or perfect positive association respectively. Reliability co-efficient was computed by use of Pearson Moment Correlation Coefficient (r)

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{\{N\sum X^2 - (\sum X)^2\} \{N\sum Y^2 - (\sum Y)^2\}}}$$

Where: -

$\sum X$  = the sum of scores in x distribution

$\sum Y$  = the sum of scores in y distribution

$\sum$  = symbol of summation

$\sum X^2$  = the sum of squared scores in x distribution

$\sum Y^2$  = the sum of squared scores in y distribution

$\sum XY$  = the sum of products of paired x and y scores

N = the total number of subjects.

### 3.8 Data Collection Procedure

A research permit was obtained from the National Council of Science and Technology. The permit was shown to Turkana County commissioner, the Sub-

County Director of Education Office (SDEO) and the TSC sub county commissioner Turkana south sub County and principals of participating schools. There was reconnaissance to the schools that was take part in the study for introduction and establishing time for administering of instrument. The teachers' questionnaires were to be administered through the principals of respective schools.

### **3.9 Data Analysis Techniques**

Mugenda and Mugenda (2003) points out that all information collected should be assigned codes and entered into whatever computer program is being used to keep the data. The data for supply and demand factors affecting pastoralists' children participation in secondary school was entered into scoring software and tallies generated for each sub test as well as total score. All the data for this study were entered into the Stata/SE version 13.1 statistical software. Quantitative data was analyzed by descriptive statistics presented in percentages and frequencies. Qualitative data obtained from interview schedules was transcribed, organized into themes and presented in prose according to the research objectives of this study.

### **3.10 Ethical Considerations**

Great ethical care was taken while planning the study, during the study and during data analysis and great care has been taken to ensure that the data obtained is disseminated and used by authorized group only , without harming or damaging the person in the respondent (Mugenda & Mugenda, 2003) considering that consent and voluntary participation of the respondents was be sought from

the school heads and other individuals involved in research and confidentiality assured. Respondents too were be assured that information collected from them will be only used for this research only and will not be used in any way against them.

## **CHAPTER FOUR**

### **DATA PRESENTATION, ANALYSIS AND INTERPRETATIONS**

#### **4.1 Introduction**

This chapter deals with analysis and presentation of findings obtained from the research on the of the demand and supply factors of education on participation rate of nomadic pastoralist children in secondary education in Turkana south sub County through in depth interviews with the teachers, sub county education officers, Focus Group Discussions with parents and learners, and document study. The data was analyzed with the help of SPSS software version twenty and STATA version 13. Frequencies, tables, percentages, graphs and charts were used to present the findings. The data obtained from the study are presented in the objective sequence and guided by the research questions.

#### **4.2 Demographic Information**

The study required the respondents to give information concerning their gender, age, number of children schooling in secondary school per family for respondents who are parents, education level, and year of working in a given school for the respondent who are teachers, the type of the school for the respondents, the student enrollment ,type of school in terms of gender, school sponsors, and school transition in terms of numbers teachers and learners. Demographic findings for this study are indicated as follows:

##### **4.2.1 Gender Response**

The participants were required to state their gender. The results are outlined in the Figure 4.1.

**Table 4.1: Gender Response**

<b>Respondents</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Of total</b>
Learners	280	147	427	430
Parents	80	38	118	120
Teachers	16	8	24	25
Educational official	3	0	3	4
NGOs Leaders	4	1	5	6
Church leaders	4	0	4	4
<b>Total</b>	<b>387</b>	<b>194</b>	<b>581</b>	<b>585</b>

From the data in Table 4.1 it is that found, majority of the respondents 66.1 percent being male and 33.16 percent female. The findings showed that men comprised the largest percentage of the population active in education provision in Turkana South despite the national census statistic showing that Turkana county having an approximate population of 1:1 between male and female, 52 percent for males and 48 percent for females (CRA). This indicates that men as compared to women have taken a bigger responsibility of education, a factor influenced by the social responsibilities undertaken by men in this region. This cuts across the entire spectrum ranging from enrollment, financial responsibility, school leaderships and decision making on who goes to school from particular families. This has led to major education regarding education favoring more male than because of bias.

#### 4.2.2 Age Analysis

The age of participants in the category was important since there are social groupings within the community set up both in terms of age and sex which influence one's role in the society and their perception towards some issues such as education. The participants were asked to state the age bracket they belonged. The findings are illustrated in the Figure 4.1.

**Figure 4.1: Age Analysis of the Respondent**

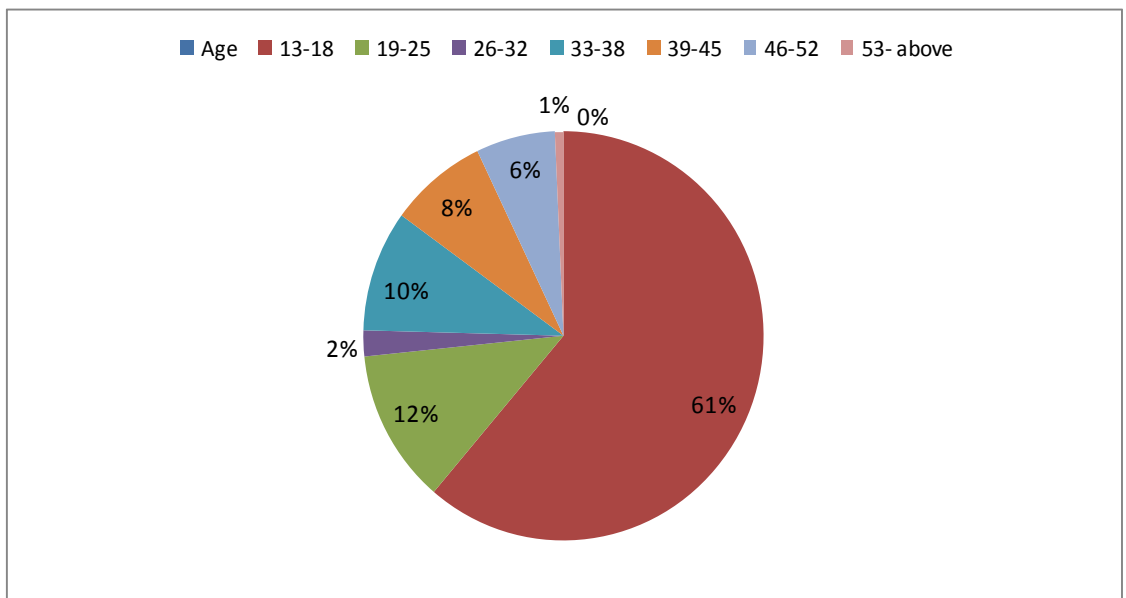


Figure 4.1 reveals that, majority of the respondents 60 percent indicated that they were aged between 2-18 years, mostly students in secondary school. These findings therefore shows that most of the active group in education in Turkana south is the young mostly aged below thirty years, indicating an increasing trend in participation in secondary schooling.

The researcher investigated the age of teachers on teaching in Turkana South. The results to this question are shown in Table 4.2.

**Table 4.2: The Age Brackets of Teachers in Turkana South Secondary Schools**

<b>Age bracket</b>	<b>Frequency</b>	<b>Percentages</b>
25-30	15	62.5
30-40	05	20.8
Above 40	04	16.7
<b>Total</b>	<b>24</b>	<b>100</b>

From table 4.2 the research reveals that majority of teachers, 62.5 percent are aged below 30 years, this group of teachers mostly comprises of those who have just finished teacher training and are recently employed by the government, or some are employed on temporary terms by the school board of management. From the same table it is found that 37.5 percent of teachers are aged above thirty years and it is a likely indication that the turnover of teachers is very high, meaning that few are willing to remain for a longer time to teach in Turkana south, due to harsh working conditions. Low retention rate of teachers means that there is a lack of that needed cohesion between teachers and learners. It shows that chances of a teacher teaching a particular cohort of learners from form one to form four are very low. Continuous change of teachers handling a particular cohort will likely impact negatively on the learning outcomes

#### **4.3.4.1 Counties of Origin of Teachers in Turkana South Sub-county**

The research endeavored to find the county of origin of teachers working in Turkana south-sub county secondary school. The expected response to this

question was to be presented as either Turkana county, other- pastoral county and other-non pastoral county. The response yielded the following results.

**Table 4.3 Data Showing Counties of Origin of Secondary School Teachers in Turkana South-sub County**

<b>County of origin of teachers</b>	<b>Frequency</b>	<b>Percentage</b>
Turkana county	19	79.1
Other(pastoral)	0	00
Other(non-pastoral)	5	20.9
<b>Total</b>	<b>24</b>	<b>100</b>

Data from table 4.3 reveals that most teachers in secondary schools in Turkana south sub county comes from other non-pastoral county an indication that many of them may not be having necessary skills to handle nomadic pastoralist children, having foreknowledge on nomadic pastoralism helps learner's to know the challenges this learners undergo thus making it easier to help them. Limited number of teachers from nomadic counties may be due to low educational levels among the pastoral communities.

#### **4.2.3 Educational Level**

The respondents were also required to give information regarding their education level. From the data collected it was found that 73.7 percent are shown not to have obtained any education certificate and 21.1 percent of the respondents had obtained diplomas as their highest education qualification. Some respondents 5.3 percent had obtained a degree as their highest level of education. It is therefore



implied that many of the respondents in the research in Turkana South sub County have not completed any major education level and this might be a contributing factor to low participation rate.

#### **4.3 Poverty and Its Effect on Participation Rate**

Interviews with some respondents especially parents and learners indicated that, many of them recognized the importance of education and wanted their children to go to secondary school and on addition that learners were willing to go school, but majority felt that they could not afford to do so. Several questions were posed to the respondents to establish how poverty impacts the participation rate of learners in secondary schools in Turkana south sub county.

Parents were asked about the number of school going children they had in their household. They were further probed to state, out the number given, how many were in or of out of school. From the responses it was found that 43 percent of schools going children are out of school in Turkana South sub County.

For Parents and guardians with children who are not schooling were asked reasons why some of the children in their household were out of school? The questions elicited the following responses and are illustrated in the Table 4.4.

**Table 4.4: Causes of Low Enrollment Ratios in Secondary Schools in Turkana South**

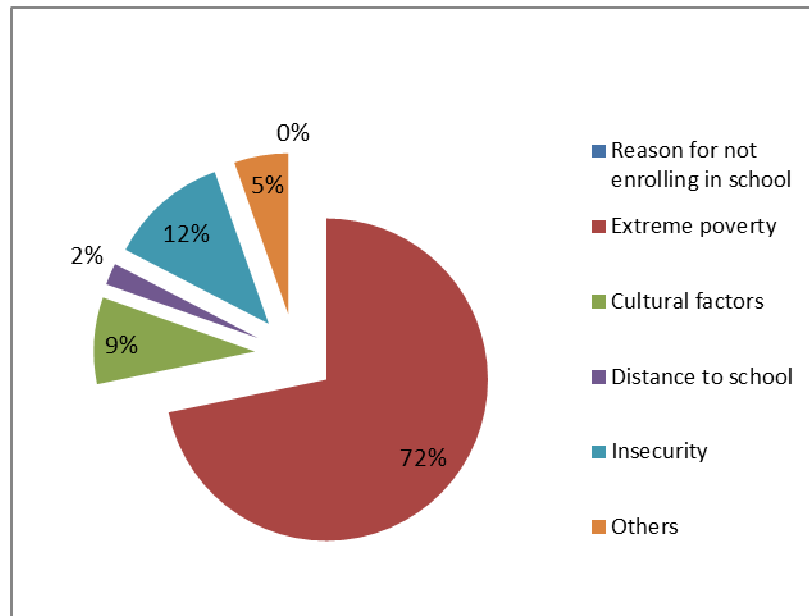
<b>Reason for not enrolling</b>	<b>Frequencies</b>	<b>Percentages</b>
Extreme poverty	60	51
Cultural factors	12	10
Distance to school	08	7
Insecurity	20	17
<b>Others</b>	18	15
<b>Total</b>	118	100

From Table 4.4 it was found out that poverty accounted for 51 percent among many factors that hinders many children to get enrolled in secondary schools in Turkana South Sub County. Learners were asked to give numbers of school going siblings they had in their household. They were further asked to give the number of those who are in school and those not schooling.

**Table 4.4: Number of School Going Children Compared to Out of School Children (By Learners)**

<b>Number of school going children</b>	<b>Children who are schooling</b>	<b>Children out of school</b>
<b>620</b>	458	162

Learner with sibling out of school, were asked to suggest the reason why their siblings out of school. The reasons given are illustrated in the Figure 4.2.



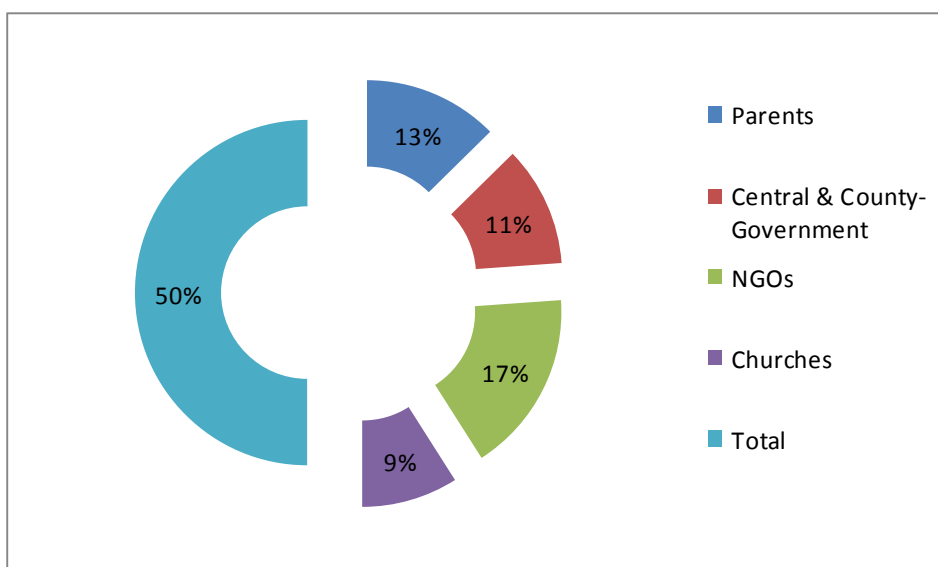
**Figure 4.2: Causes for Low Enrollment in Secondary Schools in Turkana South sub County**

Comparatively, the data obtained from almost the same question fielded to the parents and learners show some resemblance regarding the number of household school going children, those in school and those that are out of school. Further, the data shows some resemblance in the perceived factors that may be causing low participation rate of learners in secondary school education for pastoralists' children.

From Figure 4.2 the research established that despite a good number of schools going children being in school, quite a number who are supposed to be schooling are out school. Of interest is poverty among other factors that impact the participation rate of learners in secondary education in Turkana south sub county. The above data shows that the inability of learners to enroll in secondary school might have been contributed by several factors, but key among them is the inadequate finance which was one parameter of measuring finance. Based on the

data above, poverty hinders school enrollment, increases dropout rate and lowers completion rate in Turkana south.

The research sought to understand key stakeholders responsible for the payment of school fees and other levies needed in school for learners in addition to what the national government give. This question was posed to school principals, parents, and learners. The data is in correspondence with payment per individual students.



**Figure 4.3: School Fees Payment by Different Stakeholders for Learners in Secondary School in Turkana South Sub county**

From the data in the Figure 4.3, it is observed that there is commendable effort by head of the families to take their children to school as shown by indices of their school fees payment which is 13 percent, but from Figure 4.3, it is clear that a large percentage of learners are in school because of increased effort by the government, both county and national government to pay school fees for the

pastoral children with about 50 percent, NGOs and churches have also contributed immensely in paying of school fees for pastoral children. The observed participation could be a bit lower if the burden of school fees payment was left to parents alone because many parents could not afford to.

Secondary school charges which include user fee plus other unclassified expenses are at many times unbearable for pastoral community. From the above analysis, it is found that the financial burden is so enormous for parent to pay for their children secondary education. Financial burden for secondary school is coupled with increased opportunity cost, because a pastoral family is labor intensive, so when a child goes to school it means that the community will have to forego the labor that is usually provided by this child. Based on this analysis the implication of poverty to a nomadic community education in secondary education is so high.

#### **4.3.1 Impact of Gender Disparity on Participation Rate of the Learner**

Many research, Rena (2007) and Kratli (2001) have faulted gender inequality as one among many factors that contributes to low participation rate in secondary school education among many pastoral communities in that one type of gender is favored over the other in education provision. This means that a learner of the gender that is not favored finds it hard to access educational services. In endeavor to find how gender disparity affect participation rate in secondary education in Turkana south sub county, several question were posed to different respondents in order to ascertain the degree of its impact.

#### 4.3.1.1 Criteria of Choice for Students to Attend Schooling

Respondents were asked about the basis they use when sending children to school. From the research, it was found out that there are several factors that determine the choice of learners to be taken to school, among these factors were the families' disposables income, social responsibilities, distance between and school, family perception and education, insecurity and the gender of the student. This question was paused to learners, parents and family heads

**Table 4. 5: Criteria of Choice for Students to Attend Schooling**

<b>Factors for choice of learners to go to school</b>	<b>Frequency</b>	<b>Percentage</b>
Disposable income	30	21
Distance to school	10	07
Security	14	10
Family perception on education	10	07
Gender	60	42
Others	18	13

From Table 4.5 it is found that, the gender of the learners plays a key role in choosing a what child to be send to schooling this is based on the number of responses. When the respondents were further probed to say which gender was preferred, different responses were got and are recorded in the table below.

**Table 4. 6 Students' Gender Preferred for Schooling**

<b>Preferred gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	215	63
Female	126	37
<b>Total</b>	<b>341</b>	<b>100</b>

It emerged from table 4.6 that male gender were preferred to female gender hence girls miss out on schooling primarily because of gender bias from the family heads and not their choice. From the research it was established that male learners are most preferred because parents believe they will be there to help them in future; while girls are supposed to remain, and herd livestock and sometimes support their mothers as they prepare to get married. Others believed that culturally male are superior to female hence they should take the first priority these findings are line with the findings of (Rena, 2007)

When learners, both boys and girls, and their teachers were asked to explain on gender distribution of children in their school and the reason why this was the case, different responses were elicited. Schools that had more boys indicated that boys are preferred in the family compared to girls. Those who indicated that girls were more gave the explanation that their school was a girls' school and only enrolled girls.

#### **4.3.2.2 Proportion of Male- Female Participation in Secondary School**

In regards to boy-girl enrollment ratio, retention rate and dropout rate respondents were asked about the number of girls who get enrolled in their school and the proportion of number of boy to girl who completes the whole course. The data is as shown below.

Turkana south sub-county Enrollment Summaries for secondary School between February 2013 and February 2017

**Table 4.7 Proportion of Male-female Enrollment in Secondary School in Turkana South**

<b>Gender</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Male	270	296	303	365	386
Female	220	244	267	300	312
<b>Total</b>	490	540	570	665	698

The data from Turkana south sub county for the same cohort se completing the fourth form in their respective years is shown in table 4.7:

**Table 4. 8: Learners Completion in Turkana South Sub County -2013-2017**

<b>Gender</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Male	234	242	277	332	336
Female	166	182	180	220	240
<b>Total</b>	400	424	457	552	576

A closer look at the table 4.7 and 4.8 reveals a wide gap in enrollment between male and female over the years. From all the schools where the research was carried out, the data shows that there are many male students than female enrolled in secondary schools. Yet still the retention rate is higher in males than female.

In an attempt identify the cause of gender gap in nomadic education in Turkana south sub county; the researcher endeavored to look for the general causes of low female school enrollments in Turkana south sub county. It was found out that generally early marriages and teenage pregnancies were the major factors for female student’s low enrollment in secondary school, based on the explanation



that many girls fall prey to early pregnancies and marriages at the final years in primary school. These are common experiences in the in the entire Turkana county.

A principal of a girl’s school was quoted saying;

This year alone we have lost six girls they have dropped out school due to pregnancies. Last year 2016, ten girls in this school sat for their final examination while Expecting and the same time Four had given birth by the time they were sitting for exam. This alone has a great impact on the performance of these Girls and to the general school performance, which in overall affect the education result of the whole region

Early pregnancies were found to be the leading causes for the disproportionate male-female enrolment secondary school in this region, as a whole reducing the number of females in schools leading to low participation rate.

#### **4.3.2.4 Early Marriages as a Factor Gender Disparity and its Impact on the Participation Rate of Pastoral Learners**

Learners were asked if at one point they encountered a situation where they were to choose schooling over marriage, this question was posed to female learners in secondary school. The question gave the following results that are tabulated in the Table 4.9

**Table 4. 9: Learners Engaged for Marriage**

<b>Learners engaged For Marriage</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Yes</b>	60	42
<b>No</b>	82	58
<b>Total</b>	<b>142</b>	<b>100</b>

From the response in table 4.9, a big proportion of girls said that many are forced to get married at a very tender age, still others said that in many case, they are booked to prospective suitors immediately they are born as they wait to grow before they begin family responsibilities. Despite the figures of those subjected to early marriages being lower than those who have not, still the number is such significant. This shows that female gender is not favored when it comes to prioritizing matters of education.

Some girls indicated that though they are in secondary school they are indeed married and it is by agreement between family members that they are allowed to learn. This shared responsibility of schooling and family chores among many girls has contributed to poor performance in schools. A form three student was quoted saying:

I got married just after I finished my primary education. It is only that my father agreed with my husband that I do not give birth to children until I finish my forth form, and it is true we are many who are married but many who are not known do not want reveal it. Some are married by choice, others are forced by family situation and others are married off, a decision made by parent.

The above statement depicts what many female student experience in Turkana south sub county. Although many find it a daunting task to balance between family responsibility and education, others are happy and comfortable.. A form two student was quoted

My husband is a deputy teacher of primary school, he provides everything I need, and I do not have to strain with books because my needs are already taken care of.

With such an attitude portrayed by the form two students quoted above, the expected learning outcome are dismal. (Serna, 2011) says that this is a common experience in many families; in some cases parents of a boy in the community can actually give a ring to an expectant woman to book the pregnancy for their boys in case it turns out to be a girl. In most cases, if that boy is not enrolled in school, then the chance of also keeping the girl out of school is very high just for the girl and the boy to be of equal status. Even when enrolled in school, such girls are forced to drop out of school when the time for marriage comes. Early marriage therefore becomes one of the biggest challenges in girls' education in the in many pastoral communities.

Sometimes, due to poverty and insecurity in Turkana south sub county, a girl' may decide to get married because she sees marriage as the only exit route of the poverty trap. The above data shows that a bigger percentage of girls who are supposed to be schooling are out of school because of early marriages.

#### **4.3.2 Impact of Curriculum Relevance on Participation Rate of Nomadic Children in Education**

One of the key factors that motivate parents and pastoral communities to take their children to school is sometimes the general status of the curriculum and the qualification it offers. So this prompts educationists to focus on the nature and the importance of the curriculum, because a good curriculum that is of value helps in retaining learners in school. (Kratli,2000). If the curriculum can be matched with the concern of its relevance, then that will be a sure way of granting pastoral children a formal education in the same subject areas like the sedentary learners.

The curriculum should be relevant in that it should be able to meet both individuals and societal current and future aspirations. Endeavors to increase participation rate of education in pastoral areas is usually rendered useless by irrelevant curriculum that is believed to be insensitive to the needs of the society. The researcher sought to understand how formal national curriculum influences the participation rate for learners in secondary school. To understand these, several questions were posed to different respondents.

#### 4.3.2.1 Formal Subjects Taught in School

What formal subjects are taught in secondary school in Turkana south sub county. From the response the researcher established a common array of subject taught across all school. The results are displayed below:

**Table 4.10: Formal Subjects Taught in Secondary Schools in Turkana South Sub County**

<b>Categories</b>	
Languages	Kiswahili English
Mathematics	Mathematics alternative A
Sciences	Biology Chemistry Physics
Technical and applied	Agriculture Business studies
Humanities	History Geography Christian religious education

Like any other schools under taking mainstream education in Kenya, learners in Turkana south sub county studies common subjects that are studied in other sedentary counties in Kenya as shown in table 4.10. Only the two applied and

technical subjects offered were agriculture and business education, this is in contrast with what is offered in other schools in sedentary counties. Subjects such as power mechanics, wood work, music and metal work were not being offered, meaning that learners in these areas are limited to the choices of practical subjects they have to study.

Parents were asked if they were familiar with what their children learn at school.

The question elicited different response. The finding tabulated in Table 4.11.

**Table 4.11: Familiarity with the Subject Content Taught in Secondary Schools in Turkana South**

<b>Familiarity with the subject in secondary school</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	46	39
No	72	61
<b>Total</b>	<b>118</b>	<b>100</b>

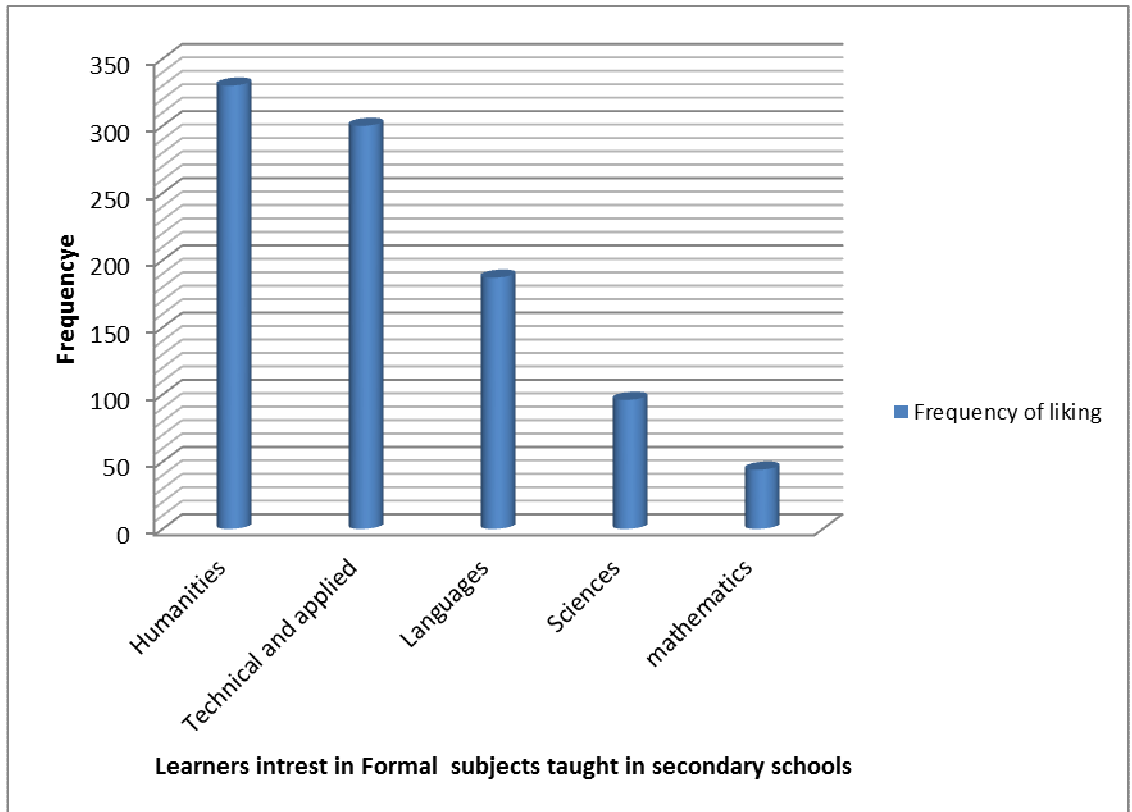
From table 4.11, it is found that 39 percent of respondents said they were aware of what their children were learning in school and were interested to know the value of what they were learning. 61 percent of parents and guardian stated clearly that they were not familiar with what was being taught to their children in school.

#### **4.3.2.2 Learners Interest in Subject Categories**

The study asked the respondent to indicate which categories subjects taught in school that they liked most and which category of subject they disliked most.

They were further asked to state why the liked particular subject and reason for

the dislike for the other subject. The responses were rated on 5-Point Likert scale provided where 1=most disliked, 2= disliked, 3= less disliked, 4=liked and 5= much liked. The table below illustrates the findings



**Figure 4.4 Learners Interest in Subject Categories**

From the data in figure 4.4 above, mathematics is the most disliked subject, with a frequency of 44 of the total respondents and humanities being the most liked group of subject with a frequency of 330 of the total respondents ,the explanation behind the dislike of mathematic and to some level sciences was that this groups of subject tend to be much abstract with little relevance in their way of life. Few students appreciated the importance of mathematics and science in their way living.

Many considered humanities and technical and applied subject to have big impact to their nomadic way of life noting the importance of agriculture and business in the management of their livestock which is the backbone of their nomadic pastoralism life. It was also important to note that learners found it easier to comprehend and understand humanities and applied and technical than it is with sciences and mathematics.

#### **4.3.2.3 Individual and Societal Perception of the Value of Formal Subjects Taught in Secondary School and their Relevance to Nomadic Way of Life**

Respondents were asked about their feeling and perception on the relevance of education provided in secondary school in Turkana south sub county? The responses were rated on 5-Point Likert scale provided where 1 means Not at all, 2 means Less relevant, 3 means moderately relevant, 4 means relevant and 5 means Very relevant. Table 4.12 illustrates the findings

**Table 4.12: Showing Curriculum Relevance Rating**

<b>Rating</b>	<b>Frequency</b>	<b>Percentage</b>
Not at all	146	34
Less relevant	96	22
Moderately relevant	96	22
Relevant	50	34
Very relevant	40	9
<b>Total</b>	<b>428</b>	<b>100</b>

From table 4.12, it is revealed that a good proportion of respondent appreciated the importance of the current curriculum in their way of life. But still there was

group which still insisted that the current curriculum the way it is does not cater the needs of the pastoralists but instead favors the sedentary way of life.

#### **4.3.3 Impact of Teachers Student- Teacher Ratio on Participation Rate**

One of the key factors which are a pre-condition that assures children is having well trained, qualified, competent and well-motivated teachers. The standard recommended teacher-student ratio according to the Kenyan education system is 1:42 (KNBS, 2014). In such a setting necessary support mechanism such as adequate learning materials are needed to support leaning process.

Majority of teachers that are from non-pastoral communities do not wish working in pastoral areas because these areas are remote, and when is posted there, it is usually a daunting task than teaching in any normal school which necessitates further training and additional incentives to cope with such scenarios. This hardly happens in Kenya, but a common practice in countries like Nigeria (Kratli & Dyer, 2009)

The research sought to understand the impact teacher student ratio on nomadic children participation in secondary education in Turkana south sub county. Respondents were asked to state time duration he work station. Results were entered in the Table 4.13



**Table 4.13: Data Showing Length of Stay of Teachers in Particular Work Stations**

<b>Length of stay in the work station</b>	<b>Frequency</b>	<b>Percentage</b>
Below 2 years	16	66.7
2-5 years	05	20.8
5-8 years	03	12.5
Above 8 years	-	
<b>Total</b>	<b>24</b>	<b>100</b>

Table 4.13 shows that most teachers in where research was carried out have worked in their station for less than two years, about 66.7 percent. The numbers of teachers who have worked for more than 3 years' accounts for only 33.3 percent. Possible explanation for the above scenario is that due to harsh working conditions, teachers in these zones do not spend more than five years. The turnover of teacher in this place is high the resulting effect will be the absence of much needed experience in particular subject area, and even management of schools. In the long run, learning outcome will be low. Respondent were asked to state their terms of employment as either permanent or temporary. The question yielded the following response

**Table 4.14: Terms of Employment of Teachers in Secondary Schools in Turkana South**

<b>Terms of employment</b>	<b>Frequency</b>	<b>Percentage</b>
Permanent	15	57.7
Temporary	11	42.3
Total	26	100

Table 4.14 reveals that the proportion of teachers on permanent contract to that of teachers on temporary basis is almost equal. This is a true reflection of the teacher student ratio across the county and in the country as a whole. Teachers on permanent basis are those teachers employed by the government whose recruitment is usually rigorous so it is expected that they are qualified. Teachers on temporary basis are employed by the board of management, not all them are qualified teachers, some are usually engaged in situation that may be termed as urgent especially when qualified teachers are hard to get, this arrangement sometimes compromises the quality of education offered affecting the participation rate of learners in secondary school.

#### **4.3.4.2 The Trend of Teacher Student Ratio and the Impact on Participation Rate of Nomadic Children Participation Rate in Secondary School Education**

The study sought to establish the teacher-student ratio trend in Turkana south sub county. The respondents were school teachers, principals of secondary school and other key educational informants. The study established that the teacher student

ratio is very high. It was established from teachers that individual teacher lesson per week were much too high with an average of 30 lessons. In such a situation, teachers do not have adequate time to have remedial lessons for learners that are below average. Large number of lessons per individual teacher also means that a teacher will not have adequate time to carry out assessment and evaluation of the work covered.

Principals of secondary schools in which the research was carried out had similar responses; they noted that the numbers of teachers available in school are quite low compared to school enrollment. This they said increases individual work load per teacher than the accepted level forcing the school management to pay more for teachers on temporary basis. The sub county directors of education and quality assurance officers of education had noted that teacher-student ratio is quite low, and they cited it as one of the major reasons for poor performance of learners in Turkana south sub county. Information from sub county offices showed that the region has high staff turnover and the highest rate of request for moving to other location.

#### **4.4 Discussion of the Finding**

Research findings confirms that not all respondents in Turkana south are not willing to take their children to school, but instead the low participation rate is found to be an issue caused by several factors that include poverty, gender inequality, lack of the curriculum to address the needs and issues of the pastoralists and lower teacher- student ratio.

Poverty has been attributed to low participation rate in secondary schools in Turkana south. Widespread poverty is caused by lack of market for their animals because depend entirely on income from their livestock. Other factors that have contributed to high poverty levels include inadequate job opportunities, cattle thefts, pests and diseases and severe droughts that cause the loss of livestock, flash floods. Because of insufficient income few pastoralists are able to enroll their children in schools thus lowering, participation rates in secondary school education.

Research finding has shown that a girl child is underprivileged when it comes to accessing quality education; this is a norm in almost in all of pastoral community, although it is a different case in Mongolia where girls are more in school than boys (Government of Mongolia, 2000). In Turkana south, few girls access education as compared to boys. Several reasons put forward to explain this includes, early marriages, making it impossible for parents to pay them school fees (Roth 1991). According to research by Kratli (2000), a woman need not to be educated than the husband , because this will reduce the chance of getting a good husband thus being married off cheaply to non-pastoral so parents prefer to have girls in non-formal education.

Parental selection of male gender over female gender when sending learners to school has adversely affected participation rate of students in Turkana south. Kratli and Dyer (2009) says this is a deliberate choice parents make to control the number of children in school, which lowers participation rate.

The findings of this study confirms the study by Ayiro & Sang (2016 ) that the formal education system in Kenya has generally not served the nomadic communities effectively over the nearly fifty four years since independence. It is found that children do not perform well in the national examination; they believe that the national examination is based on the curriculum that befits sedentary communities.

According to curriculum experts, Kratli (2000) the success of any education system, rely on standard curriculum in any nation, so children in similar age bracket in that nation should study the same thing in almost similar manner but the environment in which learning is taking place should be considered because it affects the overall outcome. Meaning a curriculum can be customized without necessarily removing key components that makes it uniform, in order to allow it to be flexible and be relevant in the environment in which it is being undertaken. The relevance according to Dyer (2012) will enhance participation rates that is increasing enrollment and reducing dropout rates.

Research has confirmed the staff turnover in Turkana south is very high. (Idris, 2009) says, the explanation for this, is that teachers feel isolated with salaries that are very low coupled with little motivation. Harsh working condition and inadequate teaching resources are also factors that might be causing teacher to seek transfer from pastoralist region leading to low teacher-student ratio that affect overall result in secondary schools.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents a summary of the research Findings, Conclusions and Recommendation for father research. The main focus of the study was finding how demand and supply factors influence the participation rate of nomadic children's secondary education in Turkana south sub County, Turkana Kenya.

#### **5.2 Summary of the Findings**

The ratio of male to female in Turkana south general population is almost the according to the national census (KNBS, 2014) but number of female participating in education activities is lower than of male, both in terms of enrollment in basic and higher level of education. The gender disparity is not only reflected in educational setting but also in other spheres of life like political and church leadership.

On the status of poverty, the research established that many families are willing to send learners to school but finance has become a hindrance, prompting the parent to control the number of children to be taken to school depending on individual preference, and available income, this has led to low enrollment ratio in secondary schools. In many occasion male gender is preferred over the female gender when making choice of those to attend school.

It has been established through research that poverty has led to many school going children to drop out of school to go to look for subsistence work to provide for the families thus increasing dropout rates in schools. Research also found out

that many families have married off school going girls so that they are able to get livestock that many a times are sold to finance family needs.

In regard to gender inequality, it is revealed from research that gender as a demand factor of education has played a bigger role in participation rate of pastoralist children in nomadic education. Data from the field shows that the participation rate for women in education is much lower than that of boys. In a situation where a parent has to choose the children to attend schooling which is a common practice in pastoral community, boys are much preferred to girls. Research has revealed that the enrollment rate, retention rate and completion rate is much lower in girls than boys.

Research has indicated that the curriculum offered in Nomadic pastoral zone is irrelevant, it is found to be insensitive to the general environmental setting of the pastoral people. The curriculum is being accused to not meeting the desires and the aspirations- current and future aspiration- of the nomadic community. Scholars believe that the curriculum irrelevance has contributed to low participation of secondary school learning in Turkana South. Kratli (2000) suggest that the curriculum should be differentiated and customized to fit in the pastoral setting.

Research has confirmed the staff turnover in Turkana south is very high. Teacher-student ratio is very low because teachers are seeking transfer to work in a very conducive environment. High staff turnover has contributed to poor performance in Turkana south sub county. Causative factors behind high staff turnover in Turkana South, include harsh working condition, inadequate learning resources insecurity, isolation and poor remuneration

### **5.3 Conclusion**

Pastoralists' low participation rate and their perceived resistance to formal education is not about an attribute of incompatibility between pastoralism and education. On the contrary, the perceived resistance is about the aspect to provide formal education in a solely school-based system. It is about schooling in a 'school' setting, irrespective of the environment, rather than the formal education itself per se that is sticky.

Pastoralists have a fear of skewed curriculum that tends to favor sedentary communities. Low motivation and poor teacher management policies have contributed to teachers shunning away pastoralists regions. Teachers from non-pastoral zone are deployed to this zone without prerequisite knowledge of handling challenges that arise when in nomadic zones. It has also emerged from the research that few educational policies have been designed confront the problem of how to support girls to remain in school until they have achieved a good-quality education which can improve their capabilities. Lastly majority of parents are willing to take their children to school, but low family income an indicator of poverty has contributed to low enrollment of their children in secondary school

### **5.4 Recommendation**

Government of Kenya and other sector players must come up with ways of analyzing the obstacles that cause gender inequalities faced by pastoralist girls and women, in and outside the school and come up with policies that will keep girls in school.



Depending on the set up, initiatives to be developed should be inclusive of girls, and should be aimed at supporting them to be school and complete their secondary education, example might include developing schools for girls only both boarding and day and female ‘animatrices’ mobilizing the community to take girls to school.

Curriculum experts with the help of the Ministry of Education should endeavor to customize the curriculum to meet the aspirations of nomadic people, example modification of the school calendar allow proper timing for learning and evaluation.

The governments should monitor and control school budget to end some hidden cost and end user income. Teachers in pastorals areas should undergo extra training to help them understand the needs and aspirations of the nomadic people a case with it is the case with Nigeria. Government should increase capitation for every learner in nomadic setting in addition to the normal national capitation.

## REFERENCES

- Abdulrahman, Y. M. (2016). Trends and Innovations in Education of Nigerian Nomadic Population. *Foro de Educación*, 14(20), 407-428. doi: <http://dx.doi.org/10.14516/fde.2016.014.020.020>
- Aiken, L. R. (2007). *Psychological testing and assessment*. Alyn and Balon. University of Michigan.
- Amina O. (2009). Case Study. Challenges in Policy and Practice: Pastoralists and Nomadic people. State of The World's Minorities and Indigenous people.
- Aminu, Jibril (1991). The Evolution of Nomadic Education Policy in Nigeria in Gidado Tahir (ed). Education and Pastoralism in Nigeria. Ibadan: Agoro Publicity Company.
- Carr-Hill, R. & Peart, E. (2005) *The Education of Nomadic Peoples in East Africa; Djibouti, Eritrea, Ethiopia, Kenya, Tanzania and Uganda. Review of relevant literature*. Paris: UNESCO-IIEP.
- Carr-Hill, R. (2012). Finding and then counting Out-Of-School. *A Journal of Comparative and International Education*, 42(2), 187-212. Retrieved February 10, 2017, fro doi:org/10.1080/03057925.2012.652806
- Dyer, C. (2012). Formal Education and Pastoralism in Western India: Inclusion, or Adverse Incorporation? *Compare* 42 (2): 259–282.
- Ezeomah, C. (2004). *Nomadic Education in Nigeria*. Jos: University Press.
- Federal Republic of Nigeria (2000). *National Policy on environmental studies*. Abuja: Ministry of environment.
- Fratkins, E. (2001). East African Pastoralists in Transition: Maasai, Boran and Rendile cases. *African Studies Review*, V. 44. (3) pp. 1-25.
- Galaty, John, G.,D.L (1990). Introduction: Pastoral system. In *The world of Pastoralism: Herding System In comparative perspective*, Ed. New York: Guildford press.
- Gok, (2006). *Kenya National youth policy*. Nairobi: Government Printer.
- Gorham, A.B., (1978) "The provision of education in pastoral areas". Pastoral Network Paper 6b. London: Overseas Development Institute.
- Government of Kenya –GOK. *National policy for the sustainable development of arid and semi-arid lands of Kenya*. Nairobi: Government Printers.

- Government of Kenya-GOK. *Getting To the Hardest-To-Reach: A Strategy to Provide Education To Nomadic Communities In Kenya Through Distance Learning*. Nairobi: Government Printers, 2010
- Government of Kenya-GOK. *Policy Framework for Nomadic Education in Kenya*. Nairobi: Government Printers, 2010.
- Idris, Ahmed,(2011). Taking the camel through the eye of a needle. Enhancing Pastoral Resilience Through Education Policy In Kenya. Resilience. Inter disciplinary perspective on Science and Humanitarianism, Volume 2, March 2011.
- Johannes, M. E. (2010). *The dynamics of female access to formal schooling among pastoralist communities in Kenya: a case of Turkana district in northwestern Kenya*. University of Illinois at Urbana-Champaign.
- Kenya National Bureau of Statistics, (2007). *Kenya National Adult Literacy Survey*. Nairobi: Government Printers .
- Keriga L, Burjra A.(2009) Social Policy, Development and governance in Kenya : An evaluation and profile of education in Kenya : Research report. Nairobi: Development Policy Management Forum.
- Kombo, K. & Trompm, D. L (2002). *Thesis writing*, Nairobi, Paulines publications.
- Kothari, C. (2004), *Research methodology: Methods and Techniques*, Willey Eastern, New Delhi.
- Kothari, C. R. (2009). *An introduction to operational Research*. Vikas Publishing House Pvt Ltd.
- Krätli, S. & Dyer, C. 2009. Mobile Pastoralists and Education: Strategic Options. Education for Nomads Working Paper 1. International Institute for Environment and Development. London. UK.
- Kratli, S. (2000). The bias behind nomadic education. *UNESCO COURIER*, 53, 15-16.
- Kratli, S. (2001) "Education Provision to Nomadic Pastoralists: A Literature Paper."IDS Working Paper 126. Institute of Development Studies, University of Sussex, UK.
- Leggett, I. (2001), learning to improve education policy for pastoralist in Kenya, Nairobi Kenya.
- Mugenda, A.G. (2011). *Social science Research. Theory and Principles*. Nairobi: Applied Research & training press.

- Mugenda, O. & Mugenda A, (2003). *Research methods: Qualitative and quantitative approaches*. Nairobi: Acts press.
- Mugo, J.K., Ruto, S.J. Nakabugo, M.G.Mgalla, Z. (in press): A Call to Learning Focus in East Africa: Uwezo's Measurement of Learning in Kenya, Tanzania and Uganda. In: Africa Education Review.
- Munene, I., & Ruto, S. (2015). Pastoralist education in Kenya: Continuity in exclusion in Arid and Semi-Arid Lands (ASALs). *A Journal of Third World Studies* Vol. XXXII No 1 .Retrieved on March 10, 2017.
- Ng'asike, J. T. (2011). Turkana children's rights to education and indigenous knowledge in science teaching in Kenya. *New Zealand journal of teachers' work*, 8(1), 55-67.
- Oxfam, GB (2005) beyond the mainstream, Education for nomadic pastoralist girls and boys. Gender equality series, programme insights. Oxfam. Available from [www.google.com](http://www.google.com) [Accessed on 12/02/2017].
- Rao S.N (1990) Educational psychology: Willy Eastern Ltd New Delhi
- Rena, P. (2005). Gender Disparity in Education-An Eritrean Perspective.
- Republic of Kenya (2014). National Education Sector Plan 2013/2014 – 2017/2018. Nairobi: Ministry of Education.
- Ruto, S., Z. Ongweny, & J. Mugo. (2009). *Educational Marginalisation in Northern Kenya*, Background Paper to the 'Education for All Global Monitoring Report 2010. Nairobi.
- Schultz, T. (1963). *The Economic value of education*. New York: Columbia University.
- Semali, L. (2007). The Social and Political Context of Literacy for Pastoral Societies: The Case of the Maasai of Tanzania. *Nomadic People*, 11(2), 9-29.
- Sifuna, D. (2005) Increasing access and participation of pastoralist's communities in primary Education in Kenya. *International Review of Education*, 51 (5/6): 499-516.
- UN-DHR. (1948). The Universal Declaration of Human Rights. *United Nations*. Retrieved from <http://www.un.org/Overview/rights.html>
- UNDP.UNESCO (2000). The Dakar Framework for Action: Education for all, Meeting Our Collective Commitments. Paris
- UNESCO. (2000a). *The World Education Forum: Education For All*. 26th-28th April. Dakar, Senegal: UNESCO.

- UNICEF. (2009). *Study on Alternative Delivery Models for Primary Schooling and Primary Teacher Training for Karamoja- Draft Report*
- United Nations Development Programme (2000) *Human Development Report. Mongolia 2000*. Ulaanbaatar.
- Wainaina, G. (2005) An Inequality perspective of education structure and performance in Kenya. Available from [www.google.com](http://www.google.com) [Accessed on 06/12/2016]
- WDEFA. 1990. *World Declaration of Education For All: Meeting Basic Learning Needs*. World Conference on Education For All: Jomtien, Thailand. [www.un.org/millenniumgoals](http://www.un.org/millenniumgoals) (Accessed 12/12/2016).
- World Bank, *Education in Sub-Saharan Africa: Policies for Adjustment, Revitalization and Expansion*, <http://documents.worldbank.org/curated/en/1988/01/440255/education-sub-saharan-africa-policies-adjustment-revitalization-expansion>.(Accessed 12/12/2016).

## APPENDICES

### APPENDIX I: LETTER OF INTRODUCTION TO THE RESPONDENTS

University of Nairobi

P.O. Box 30197

Nairobi

Dear respondent,

#### **RE: PARTICIPATION IN RESEARCH.**

I am pursuing Master of education in educational planning in the Department of Educational Administration and Planning University of Nairobi. Currently conducting research on the **‘Supply and Demand Factors Influencing Pastoralists Children’s Participation Rate in Secondary Education in Turkana South Sub County, Turkana. Kenya.’**

All information given is solely meant for the study and will be treated with utmost confidentiality. Do not write your name on the questionnaire.

Kindly, respond to all items. Your positive response is highly appreciated.

Yours faithfully,

**Okumu Aloice Wanjala**

## APPENDIX II: FOCUS GROUP DISCUSSION GUIDE FOR LEARNERS

Focus Group No. \_\_\_\_\_ Date of Focus Group \_\_\_\_\_

Location of Focus Group \_\_\_\_\_

Name and Description of Participants \_\_\_\_\_

Moderator's Name \_\_\_\_\_

Moderator's Phone Number \_\_\_\_\_

### Opening Question:

Tell us your name, age, when you joined school and whether you have a sister or brother who is also in school, \_\_\_\_\_

Gender:                      Male [ ]                      Female [ ]

County of origin:      Nomadic [ ]                      Sedentary [ ]

### **The influence of poverty on nomadic children's participation rate in secondary education**

(a) What are some of the problems that affect your attending school?

(b) When coming to school?

(c) When at school?

(d) When at home?

(e) Who pays for your schooling? Specify?

(f) Do you have siblings in school?

    If yes how many \_\_\_\_\_ who pays for their schooling \_\_\_\_\_

(g) How many siblings are out of school?

**The influence of gender disparities on nomadic children's participation rate on secondary**

(a) Has any one of you been influenced to start a family over schooling? \_\_\_\_\_

If yes, who did? \_\_\_\_\_

(b) Do you have siblings who are supposed to be schooling but are out because of marriage? \_\_\_\_\_

If yes How many \_\_\_\_\_ male [ ] female [ ].

(c) Who makes the choice of allowing you to go to school?

**To establish the influence of the secondary education curriculum, on nomadic children's participation rate in secondary education**

(a) What subject do you study in school?

(b) Which subjects do you like and why?

(c) Which subjects are you taught in school that you don't like? Why?

(d) What other subject do you think ought to introduce in school that is not currently being taught.

**The influence of teacher- student's ratio on nomadic children participation rate in secondary education**

(a) According to the number of teachers in the school, are they sufficient enough to handle the learning activities in school.



**APPENDIX III: FOCUS GROUP DISCUSSION SCHEDULE FOR  
PARENTS**

**Opening Question:**

Tell us who you are, your age and where you come from and how many children you have send to school \_\_\_\_\_

Gender:                      Male [ ]                                      Female[ ]

**The influence of poverty on nomadic children participation rate in secondary education**

- (a) What encourages parents to take their children to school?
- (b) What kind of support do you play as a parent with a child in the secondary school for

Education of your child?

(PROBE IF NOT MENTIONED):

- i) Materially
- ii) What other needs do you support them with?
- iii) Specific time for learning
- iv) What kind of support does the government/sponsor play in provision of education in secondary schools?

(PROBE IF NOT MENTIONED):

- (c) What can be done to encourage more children to join secondary schools?

(PROBE IF NOT MENTIONED):

By parents?                      By teachers?                      By the Government?

- (d) What are the obstacles that hinder children from accessing education in secondary schools?

(PROBE IF NOT MENTIONED):

(iii) Factors related to source of income for the family

(e). If you were put in charge of a secondary school in Turkana County, what would you do differently?

(PROBE IF NOT MENTIONED):

(i) Through parents

(ii) Through the Government

(iii) Through the pupils.

**The influence of gender disparities on nomadic children participation rate on secondary**

a) Tell me what made you send your child to school?

b). How do you choose them when sending them to schooling?

Elaborate\_\_\_\_\_

c). How many of your children are out school, yet they are supposed to be either primary or secondary school\_\_\_\_\_

If yes what is the cause.

d). Are many children able to join secondary school from your neighborhood?

**To establish the influence of the formal secondary education curriculum, on nomadic children participation rate in secondary education**

a. How familiar are you with what your children learn at school?

b. What do you and people feel about the relevance of education provided in secondary school?

c. In your opinion, what does the nomadic child need to be taught?

## APPENDIX IV: KEY INFORMANT GUIDE

### *Key Informant interview Guide for teachers and Head teachers*

My name is Okumu Aloice Wanjala. I am a graduate student of the University of Nairobi. I am interested in finding out how demand and supply factors of education Influence the participation rate of nomadic children in their secondary education. I will be glad if you participate in my study by answering a few questions.

#### **II. Information from the Head teacher**

- a) For how long have you held this position?
- b). How many students are enrolled in your school?
- (c) What is the type of the school? [Boys] [Girls] [Mixed]
- (d) Who are the sponsors of this secondary school?
- (e) Since the inception of this institution, in what ways has the institution grown?  
(Physical facilities & Teachers, students)
- (f) What changes have been there in terms of the number of children who are able to access education?

#### **The influence of poverty on nomadic children participation rate in secondary education**

- (a). Do parents have difficulties in paying school fees?
- (b) Apart from parents and the government, what other agents both governmental and non-governmental facilitates learners fee in schooling.
- (c) In what ways is the community involved in education of their children?
- (d) What are some of the obstacles hampering provision of education to children in Turkana south sub county?

- (e) Suggest ways in which they can be countered?
- (f) In a statement suggest one thing that is needed to keep a Turkana child in school
- (g) What are the major challenges facing students especially girls education in this area?
- (h) Suggest different ways of improving education in the area?
- (i). Do you think all school- going age children are enrolled in school?

**The influence of gender disparities on nomadic children participation rate on secondary education**

- a). From the enrolled student, how many are girls?
- b). Do all students who enroll in form 1 go all the way and complete form four?
- c) What are some cases of students dropping out of school?
- d) What are some of the cases of girls dropping out of school?
- e) What preferences do parents have in terms of the child to be released to join school? Are you able to explain why?
- f). Comment about performance in examinations of the students in in this zone in relation to schools in sedentary regions?

**To establish the influence of the secondary education curriculum, on nomadic children participation rate in secondary education**

- (a) What subjects are taught in school? Are they relevant to day today's life of the learner in this region and their future career prospects? Explain
- (b). How does the nature of subjects provided in school affects the participation of nomadic children?

(c) What standards are used to qualify learners as to have successfully completed the O level course?

**The influence of teacher-student's ratio on nomadic children participation rate in secondary education**

(a). How many teachers are on board?

Male [ ]

Female [ ]

(b).How many originate from Turkana county \_\_\_\_\_other counties in \_\_\_\_\_?

(c) What are their age brackets?

25-35 [ ]

above 35 [ ]

(d) What are their terms of employment?

Permanent [ ]

Temporary [ ]

(e) What is the overall turn over of teachers in your school?

(f) Do you think the number of teachers above is sufficient enough to handle the number of children in school?

(g). what qualification concerns are considered for recruitment as a teacher

## APPENDIX V: QUESTIONNAIRE FOR TEACHERS.

My name is Okumu Aloice Wanjala. I am a graduate student of the University of Nairobi. I am interested in finding out how demand and supply factors of education Influence the participation rate of nomadic children in their secondary education. I will be glad if you participate in my study by answering a few questions.

a) Name of the teacher \_\_\_\_\_

Gender: Male [ ] Female [ ]

b) County of origin \_\_\_\_\_

c) County of schooling \_\_\_\_\_

d) To which of the following age groups do you belong?

i) 20-30

ii) 31-41

ii) 42-52

e) For how long have you been in this school?

f) Do you prefer teaching in nomadic school? \_\_\_\_\_

g) Highlight the reasons for your answer in (f) above?

h). How many pupils are in your class

i). Do your students especially girls attend classes regularly?

j). How is the performance in your class?

k) Between boys and girls who performs better?

l) What factors influence performance among the pupils?

m) In your opinion, what are the challenges faced by students especially in your class?

## APPENDIX VI: INTERVIEW GUIDE FOR SUB-COUNTY EDUCATION

### DIRECTORS AND SUB-COUNTY QUASOS

#### Background Information

1. Gender Male [ ] Female [ ]
2. To what extend does direct or indirect levies charged on student affecting their participation in school Bigger extent [ ] smaller extend [ ]
3. (a)What is your opinion on student teacher ratio in the nearest secondary school  
Low [ ] High [ ]  
(b)in your own view what is the impact of student -teacher ratio on the participation rate of learners in schooling?
4. What are the obstacles that hinder children from accessing education in secondary schools?

(PROBE IF NOT MENTIONED):

- (a) Customs/beliefs-related issues
  - (b) Issues related to what they are taught?
  - (c) Factors related to source of income for the family
5. What can be done to encourage more children to join secondary schools?

(PROBE IF NOT MENTIONED):

By parents? By teachers? By the Government?

9. What kind of support does the government/sponsor play in provision of education in secondary schools?

(PROBE IF NOT MENTIONED):

- (a) Materially
- (b) What other support does it provide?

## APPENDIX VII: NGO REPRESENTATIVES, WARD

### ADMINISTRATORS AND CHURCH LEADERS

#### Background Information

1. Gender Male [ ] Female [ ]
2. To what extend does direct or indirect levies charged on student affecting their participation in school Bigger extent [ ] smaller extend [ ]
3. (a)What is your opinion on student teacher ratio in the nearest secondary school  
Low [ ] High [ ]  
(b)in your own view what is the impact of student -teacher ratio on the participation rate of learners in schooling?
4. What are the obstacles that hinder children from accessing education in secondary schools?

(PROBE IF NOT MENTIONED):

- (a) Customs/beliefs-related issues
  - (b) Issues related to what they are taught?
  - (c) Factors related to source of income for the family
5. What can be done to encourage more children to join secondary schools?

(PROBE IF NOT MENTIONED):

By parents? By teachers? By the Government?

9. What kind of support does the government/sponsor play in provision of education in secondary schools?

(PROBE IF NOT MENTIONED):

- (a) Materially
- (b) What other support does it provide?



## APPENDIX VIII : AUTHORIZATION LETTER



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Tel: +254 20 221 0471  
Tel: +254 20 221 0470  
Fax: +254 20 221 0471/0470  
Email: [info@nacosti.go.ke](mailto:info@nacosti.go.ke)  
Website: [www.nacosti.go.ke](http://www.nacosti.go.ke)  
When applying please quote:

Office: Nairobi  
Urbani Ng'ethe  
P.O. Box 2925-00100  
Nairobi, Kenya

Ref: NACOSTI/P/17/92060/18709

Date: 17<sup>th</sup> August, 2017

Alice Wanjala Okumu  
University of Nairobi  
P.O. Box 30197-00100  
NAIROBI.

#### RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Supply and demand factors influencing pastoralists' children's participation rate in secondary school education in Turkana South Sub County, Turkana, Kenya*" I am pleased to inform you that you have been authorized to undertake research in Turkana County for the period ending 17<sup>th</sup> August, 2018.

You are advised to report to the County Commissioner and the County Director of Education, Turkana 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.



GODFREY P. KALERWA MSc., MBA, MKIM  
FDR: DIRECTOR GENERAL/CEO

Copy to:

The County Commissioner  
Turkana County

The County Director of Education  
Turkana County

## APPENDIX IX: 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



National Commission for Science,  
Technology and Innovation

### RESEARCH CLEARANCE PERMIT

Serial No.A 15345

CONDITIONS: see back page

### THIS IS TO CERTIFY THAT:

**MR. ALOICE WANJALA OKUMU**  
of UNIVERSITY OF NAIROBI, 0-50226  
MYANGA, has been permitted to conduct  
research in **Turkana County**

on the topic: **SUPPLY AND DEMAND  
FACTORS INFLUENCING PASTORALISTS'  
CHILDREN'S PARTICIPATION RATE IN  
SECONDARY SCHOOL EDUCATION IN  
TURKANA SOUTH SUB COUNTY,  
TURKANA, KENYA**

for the period ending:  
**17th August,2018**

.....  
**Applicant's  
Signature**

Permit No : NACOSTI/P/17/92060/18709

Date Of Issue : 17th August,2017

Fee Received :Ksh 1000



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