INFLUENCE OF THE STUDENTS' PERCEPTION TOWARDS FARMING ON THE CHOICE OF AGRICULTURE AS A LEARNING SUBJECT IN SECONDARY SCHOOLS IN KISII AND NYAMIRA COUNTIES

BY

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DEDICATION

I dedicate this work to my parents; wife, and children for they supported me spiritually, morally and physically. The parents used their valuable time shaping and preparing me for the task. The wife and children spent lonely times while I was away either searching the internet or collecting data in the field.

DECLARATION AND RECOMMENDATIONS

DECLARATION BY CANDIDATE

This research report is my original work and has not been submitted for a degree assessment in Kisii University or any other university or institution to the best of my knowledge.

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RECOMMENDATIONS

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ABSTRACT

Agriculture contributes to economic development and food security of the nation. The main objective of the study was to assess the influence of the student's perception towards farming on the choice of agriculture as a learning subject in secondary school in Kisii and Nyamira Counties. The specific objectives were to: assess the learner's perception on the value of agriculture subject as compared to other technical subjects or applied sciences, establish the influence of gender attitudes on students' choices of Agriculture subjects; evaluate the role of parents and teachers in students' choices of agriculture subjects; determine the influence of the subject teacher on students' choices of agriculture subjects and to determine the enrolment trends in agriculture subject in selected schools in Kisii and Nyamira Counties in the period between 2012-2016. The study employed a descriptive design. The sampling frame for this study was principals, teachers and all agriculture students and the sample size was375 respondents. The study adopted both quantitative and qualitative data where the quantitative data was cleaned, coded and keyed in into Statistical Packages for Social Scientists (SPSS Version 20) software and analyzed using descriptive statistics and inferential statistics. The finding revealed that, out of the returned questionnaires, 263 were completed by males which translated to (57.3%) while 112represented by (42.7%) were completed by female. The findings showed that most of the respondents had an age bracket of 15-18 years which translate to 69.6% followed by students with age of 19 years and above which translate to 24.0% and those in age below 14 years were represented by 5.3%. The findings further revealed that, most students choose agriculture since they consider it a booster as compared to other technical subjects. However, when it comes to gender wise there were more male students selecting agriculture subjects compared to female counterparts at 55.5% and 24.3% respectively. The findings revealed that, other than parents/teachers that influenced students on subject selection which was represented by 23.1%, student subject performance in agriculture which was presented by 74.4% play a critical role on the choice of the subject while the school policy at 2.6% where students ought to do a certain subjects regardless other factors such as, what student feel about the subject, what the parents/teachers feel about the students' capability to do the subject or how the students perform in agriculture which either comes as an added advantage to the students or as burden to the students. The findings also revealed that the number of student enrolment in agriculture increase steadily at R^2 =0.297 followed by computer at R^2 =0.292, then Business studies at R^2 =0.000 and finally home science at R^2 =0.371 as presented in Figure 4. The findings further revealed that in the year 2012-2013 there was significance decline in agriculture enrollment compared other years from 2013 to 2016 there was significance increase in agriculture enrollment of the students. Based on the findings, the following recommendations were reached: Students to have a positive attitude towards agriculture subjects. They are also required to consider their academic goals, and interests, while choosing subjects. Teachers need to adapt their subjects to better meet the objectives to their students. It's the responsibility of the curriculum developers to ensure that subjects maintain the much-needed content which is quality and reduced in terms of workload.

TABLE OF CONTENTS

COPYRIGHT----------

DEDICATION----------

DECLARATION AND RECOMMENDATIONS ..... **iv**

ACKNOWLEDGEMENTS ..... **v**

ABSTRACT ..... **vi**

TABLE OF CONTENTS ..... **vii**

LIST OF FIGURES ..... **x**

LIST OF TABLES ..... **xi**

LIST OF ACRONYMS ..... **xii**

CHAPTER ONE: INTRODUCTION **1**

1.1. Background of the Study ..... Error! Bookmark not defined.

1.2. Statement of the Problem **4**

1.3. The Purpose of the study **5**

1.3.1. The Objectives of the study **5**

1.3.2. Research Questions **5**

1.4. Significant of the Study **6**

1.5. Scope of the Study **6**

1.6. Assumption of the Study **6**

1.7. Limitation of the Study **7**

1.8. Conceptual Framework **8**

1.9. Definition of Operational Terms **10**

CHAPTER TWO: REVIEW OF LITERATURE **11**

2.1. Introduction **11**

2.2. Agriculture Education on a global scale ..... Error! Bookmark not defined.

2.3. Agriculture Education in Africa ..... Error! Bookmark not defined.

2.4. Agriculture Education in Kenya **15**

2.5. Careers prospects in Agriculture **16**

2.6. Learners' Perception towards farming **18**
2.7. Subject Teachers influence of the Choice of Subject **19**
2.8. Gender Attitudes and how it Influence theChoice of Subject **20**
2.9. Parents/Guardians and Teacher's roles in Students' Choices of Subjects..... **20**
2.10. Research Gaps **26**
CHAPTER THREE: RESEARCH METHODOLOGY **27**
3.1. Introduction **27**
3.2. Research Design **27**
3.3. Location of the Study **27**
3.4. Target Population **28**
3.5. Sample Size and Sampling Techniques **29**
3.6. Data Collection Procedures **32**
3.7. Data Collection Instruments **32**
3.8. Validity of the Research Instrument **32**
3.9. Reliability of Research Instrument **33**
3.10. Data Types and Source **33**
3.11. Administration of Research Instruments and Data Collection **34**
3.12. Data Analysis and Presentation **35**
3.13. Ethical Considerations **35**
3.14. Expected Outcome and Benefits **35**
CHAPTER FOUR: RESULTS AND DISCUSSIONS **36**
4.1. Introduction .....Error! Bookmark not defined.
4.2. Questionnaire Return Rate **36**
4.3. Demographic Information **36**
4.4.1. Respondent's Gender **36**
4.4.2. Respondent's age **37**
4.4.3. Status of the school **38**
4.5. Learner's perception on the value of agriculture as subject compared to other technical subjects or applied sciences. **39**
4.5.1. Subject chosen in form three **39**

4.5.2. Reasons for not choosing agriculture as subject.....Error! Bookmark not defined.
4.5.3. Value attached to subject choice in relation to career development..... **42**
4.5.4. Competitiveness of agriculture in job market..... **43**
4.5.5. Student's career path they intend to achieve **44**
4.6. Influence of gender attitudes on students' choices of Agriculture subjects **45**
4.6.1. Influence of gender on the choice of learning subject..... **45**
4.6.2. Inferential Analysis on gender and the choice of learning subjectError! Bookmark not defined.
4.7. The role of parents and teachers in students' choices of subjects **48**
4.7.1. Parents and teachers as role model on students subject choiceError! Bookmark not defined.
4.7.2. Other factors that influence students' choice of subjects Error! Bookmark not defined.
4.8. Influence of the subject teacher on students' choices of subjects **54**
4.8.1. Method of teaching or handling the subject **54**
4.9.1. School enrollment in agriculture subject.....Error! Bookmark not defined.
4.9.2. Role of the school on choice of agriculture subjects.....Error! Bookmark not defined.
CHAPTER FIVE **57**
SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS..... **57**
5.1. Introduction **57**
5.2. Summary of the findings **57**
5.3. Conclusions **59**
5.4. Recommendations **60**
5.5. Suggestions for Further Research..... **61**
REFERENCES **62**
APPENDIX I: MAPS OF KISII COUNTY **69**
APPENDIX II: MAPS OF NYAMIRA COUNTY..... **70**
APPENDIX III: QUESTIONNAIRE FOR STUDENTS..... **76**
APPENDIX IV: QUESTIONNAIRE FOR AGRICULTURE TEACHERS **82**
APPENDIX V: INTERVIEW SCHEDULE FOR SCHOOL PRINCIPALS..... **87**

APPENDIX VI: SCHOOLS CATEGORIES IN NYAMIRA AND KISII COUNTIES **.**Error! Bookmark not defined.
APPENDIX VII: LIST OF SELECTED SCHOOLS IN THE STUDY AREAS**.....**Error! Bookmark not defined.

LIST OF FIGURES

Figure 1: Conceptual framework 9
Figure 2: Distribution of Respondents by gender 37
Figure 3: Distribution of age of the respondent 38
Figure 4: Enrolment trends of technical subjects in schools.....**Error! Bookmark not defined.**

LIST OF TABLES

Table 1: Target population statistics 28
Table 2: Status of the school frequency table 38
Table 3: Subject chosen frequency table .....**Error! Bookmark not defined.**
Table 4: Reasons for not choosing agriculture .....**Error! Bookmark not defined.**
Table 5: Value attached to subject frequency table 43
Table 6: Competitiveness of agriculture in job market..... 44
Table 7: Student's career path they intend to achieve 44
Table 8: Influence of gender on the choice of learning subject table ..... **Error! Bookmark not defined.**
Table 9: Correlation between gender and choice of learning subject..... **Error! Bookmark not defined.**
Table 10: Role of parents and teachers choices of subjects.....**Error! Bookmark not defined.**
Table 11: What influence agriculture selections by students.....**Error! Bookmark not defined.**
Table 12: level of satisfaction on other factors influencing the choice of agriculture subject .....**Error! Bookmark not defined.**
Table 13: Influence of the subject teacher on students' choices of subjects **Error! Bookmark not defined.**
Table 14: Enrollment in agriculture subjects .....**Error! Bookmark not defined.**
Table 15: Role of the school on choice of agriculture subjects .....**Error! Bookmark not defined.**
Table 16: Role of school on the choice of subjects or future career..... **Error! Bookmark not defined.**

LIST OF ACRONYMS

ANOVA	Analysis of variance
CVI	Content Valid Index
G.O.K	Government of Kenya
K.I.E	Kenya institute of education
KICD	Kenya institute of curriculum development
KNEC	Kenya national examination council
KCSE	Kenya certificate of secondary education
MDG	Millennium development goals
MOEST	Ministry of education science and technology
NACOSTI	National Commission of Science Technology and Innovation
SPSS	Statistical package for social sciences
USA	United States of America
USDA	United States department of agriculture

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Professionals and leaders have been seriously worried that skilled agricultural occupations will be missing in the future. The decrease in the enrollment of students in agriculture is troubling, and this is due to negative perceptions among high school students in the field of agriculture. Most of them are unaware of many of the job prospects that come with agriculture, and they compare agriculture with agriculture alone instead (Opare et al. 2004). A research conducted by Fraze et al. (2011) came to the same conclusion that students view farming as just ranching and farming, since many students are not exposed to farming as a way of life (Esters & Bowen, 2004).

Minority students in the U.S.A. have described social status and job expectations as an obstacle to the pursuit of agriculture as a career, as well as insufficient knowledge on career opportunities (Outley, 2008). These expectations may affect the enrolment of students in agricultural jobs and decrease the contribution of workers to the agricultural sector. 10.2 percent of the U.S.D.A.'s population was Latino/Hispanic and American-African (U.S.D.A., 2007), and 10 percent were enrolled in a four-year undergraduate program. Latinos are currently the largest minority group in the United States Census, and are likely to triple by 2050 (Passel & Cohn, 2008), making them a valuable group from which potential agricultural careers can be recruited (Mullinixet al. 2006).

Agriculture in Australia, on the other hand, does not seem to have an oversupply or lack of skilled workers in the field, and enrollment in their high school secondary agriculture programs,

such as in the large state of Queensland, has increased marginally. Australian agriculture varies from the United States because it consists mainly of family-owned ranches with little reliance on foreign labor. Inadequate sources of water across the world. In addition, the sector of agricultural handling and production is not as well developed as that of the United States (Cecchettini, 1992).

Agriculture was viewed by urban secondary school students as a profession with good agricultural background training (White et al. (1991). Conroy 0, in his analysis, noted that agriculture is correlated with science by students but not with teaching, engineering, and computers. Agriculture colleges have developed strategies to resolve this gap overtime, but through research, numerous academics have proposed that attempts to increase enrollment in agricultural related courses should be directed at communications, media representation, biotechnology, ecology, urban horticulture in order to expand student perceptions of agriculture as well as urban horticulture. Wiley et al. (1997) stated that the positive attitude towards agriculture was improved by a pre-college workshop.

The agricultural education system for secondary schools is rigid and current trends point to a missing link and divide between theory and reality (Kagwiria, 2013; Tom, 2009). At the cost of rule-based information and practice, teaching curricula and syllabi are often rife with classroom hypotheses. Learning subjects, more often than not, are closely related to agricultural productivity. There are very small cases of revenue production at the same time, rendering agriculture less desirable (Tom (2009). The subject was introduced for selection in most African

nations in the high school curriculum. The key goal was to confront and resolve the negative feelings of secondary school students with restricted occupational choices against agriculture (Abalu, 2001). Dlamini (2004) states that in senior secondary schools, agriculture is provided for students to choose from. In comparison, it is obligatory in junior secondary schools in Botswana and Ghana. Farming is optional in other nations, such as Swaziland, Lesotho, Zimbabwe, Uganda and Kenya (Dlamini, 2004).

It injects 30% to the Gross Domestic Product Government of Kenya in Kenya-G.O.K., 2003). It serves as a way to produce wealth and livelihoods. Agriculture's full potential has not been tapped. Agricultural growth is a synonym for change. Therefore, agriculture, which is taught in high schools, is intended to teach the principles, expertise, attitudes and practical skills required to increase agricultural production. In primary schools, agriculture is taught but given little focus in secondary schools where it is provided as an examinable technical topic (K.I.E., 2002). Not only because it is optional, but also considered as the lower subject, most students have a low perception of agriculture.

The aim of secondary school agriculture teaching is to be self-reliant (K.I.E. 2002). Agriculture offers a window for meeting the Millennium Development Goals (M.D.G.s) and the 2030 Vision, which both promote food security. The world population relies directly or indirectly on agriculture, according to the Economic Survey (2004). It is the main industry in Sub-Saharan Africa's economies. It contributes to more than 75% of the economy in Kenya. Since the early

1900s, agriculture has become a major economic activity, and it has undergone a lot of evolution. Developing economies put a great deal of emphasis on agriculture. When young people grow up, they need to be exposed to agricultural activities, so teaching agriculture in schools introduces them to agricultural activities early on.

For more skills focused on expertise, there is a need to adopt Vision 2030. If the country is to succeed in dealing with the challenge of deplorable choice and performance in agricultural subjects, concerted efforts from all stakeholders are needed. Therefore this study will attempt to determine the impact of the student's understanding of agriculture on the choice of agriculture as a learning topic. At the same time, agriculture teaching has not received as much emphasis as it should, because for K.C.S.E. exams nationally, only a few students seem to enroll in agriculture.

1.1. Statement of the Problem

The meaningful of agriculture can be realized if the students have a positive attitude and perceptions about the subject. In the colonial era, agriculture was held in low esteem by both the students and parents; the issue was being taken as a tool for equipping necessary skills for farm work. Such perception was and still is detrimental to the country's economic growth (Opare *et al*. 2004; Sifuna, 1990). Thus, there is a need to assess the current status of agriculture subjects in secondary schools (Opare *et al*., 2004). Even though agriculture is the backbone of Kenya's economy, the teaching of agriculture in schools has not received much emphasis. The Ministry of Education Science and Technology (M.O.E.S.T.) recommended that teaching of agriculture should be made optional in form three and four. The students will have the opportunity to select the best subject to form the core of their future careers. Agriculture is offered alongside other

optional subjects like computer studies, home science, business studies etc. However, only a few students seem to enroll for agriculture K.C.S.E. examination nationally, and the performance is low. Could this be due to their perception of farming?

Approximately fifty-one per cent of the Kenyans do not sufficiently meet their nutritional needs (Ministry of Agriculture, 2007). This requires substantial interventions and investments, particularly useful agricultural education background in schools.

1.2. The purpose of the study

The primary purpose of this study was to assess the influence of the student's perception of farming on the choice of agriculture as a learning subject in a secondary school in Kisii and Nyamira Counties.

1.2.1. The Objectives of the study

1. To assess the learner's perception of the value of agriculture subject as compared to other technical issues or applied sciences.
2. To establish the influence of gender attitudes on students' choices of Agriculture subjects.
3. To evaluate the role of parents and teachers in students' choices of agriculture subjects.
4. To determine the influence of the subject teacher on students' choices of agriculture subjects.
5. To determine the enrolment trends in agriculture subject in selected schools in Kisii and Nyamira Counties in the period between 2012-2016.

1.2.2. Research Questions

1. What is the learner's perception of the value of agriculture subject as compared to other technical issues or applied sciences?
2. How do gender attitudes influence students' choices of agriculture subjects?
3. What is the role of parents and teachers in students' choices of agriculture subjects?

4. How does the subject teacher influence students' choices of agriculture subjects?
5. What determines the enrolment trends in agriculture in Kisii and Nyamira counties in the period between 2012-2016?

1.3. Significant of the Study

Upon successful completion of the study, the findings would be necessary to the education policymakers in K.I.C.D., K.N.E.C. and schools in Kenya and in particular those in Kisii and Nyamira counties in decision making to improve enrolment and performance in agriculture. The results would be used as intervention strategies to change the attitude of learning towards agriculture and subsequently step- up the enrolment of students in agriculture and related courses. Finally, suppose the research findings would prove to be successful. In that case, similar research could be extended to cover other counties in Kenya and even be inferred to the whole education system.

1.4. Scope of the Study

This study sought to assess how the students' perception towards farming influences selection of agriculture as a learning subject in secondary schools. The respondents would be drawn from sampled schools in the two counties and agriculture teachers, principals and agriculture students were tested. The factors that influence the selection of other subjects would not be taken into account. Since the students themselves were interviewed using a guided questionnaire, they were able to state the factors that favors the choice of agriculture.

1.5. Assumption of the Study

The study was based on the following assumptions.

i. Agriculture is offered in the sampled schools alongside other subjects like Business Studies, Computer, Home Science etc.
ii. Students who opt to pursue agriculture are made aware of the lucrative opportunities available in agriculture.
iii. All the respondents are honest.

1.6. Limitation of the Study

Geographical coverage of this study was limited to two counties and is based on a sample; the generalizations may have limitations. There are different farming systems in Kenya, and the learner involvement might be further; hence their perception would also be different. Due to constraints such as time, human resources and funding, it might not be possible to cover all the schools in these counties. Also, some teachers and principals might be reluctant to fill the questionnaires; these research findings could, therefore be generalized to selected schools and cannot be used to cover all the schools in Kenya.

1.7. Conceptual Framework

The conceptual framework of this study was based on the assumption that the student's perception towards farming is influenced by independent variables such as; careers in agriculture, learners' perceptions on the value of the influence of subject, the subject teacher on the choice of subject, gender attitudes on the choice of subject, parents/guardians and other teacher's impact on the choice of subject and student's environment.

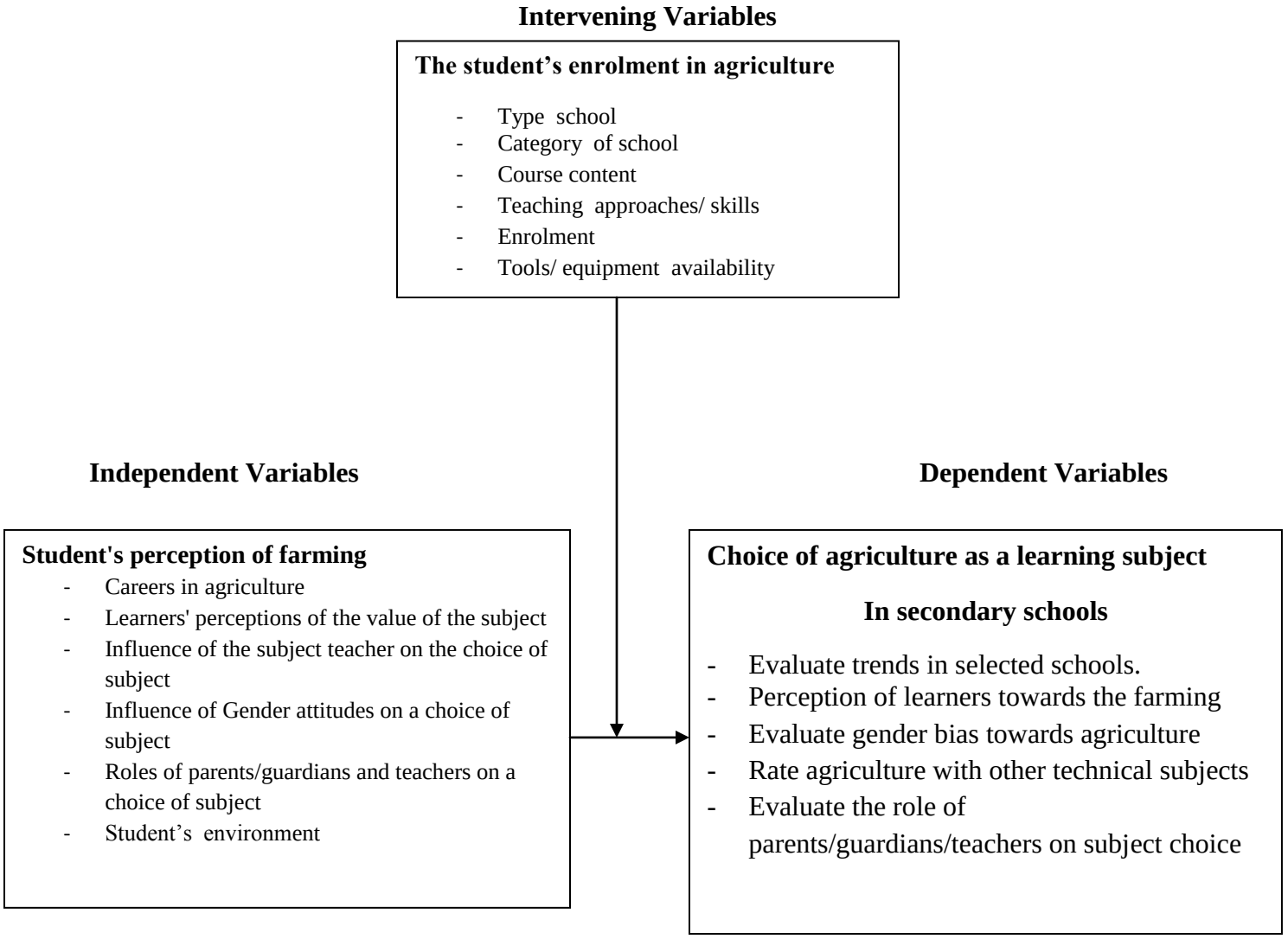

Figure 1: Conceptual framework

1.8. Definition of Operational Terms

Agriculture teacher: The teacher assigned to teach agriculture in the school, control and Supervise all agriculture-related activities.

Factor: The situation that influences a direction or circumstance in context. In this study, we were considering factors that make students select or not select agriculture as a learning subject.

Methods of teaching: These are approaches of content delivery for example lecture, project, practical demonstration experimentation, discussion methods, among others.

Student Enrolment: The numbers of students studying agriculture from form one to form four.

Perception: The meaning we attach to information through our senses, in this the research will be used to evaluate the factors students use to select agriculture.

Teachers' influence: Refers to teachers' ability to convince or not to convince a student to study a subject up-to K.C.S.E. level.

Gender influence: Perception of female or male while deciding to select subjects to study.

Role of teacher in subject selection: the duty and responsibility of a teacher during the selection of subjects by students.

Role of parent/guardian in subject selection: the duty and responsibility of parents during subject selection by students.

CHAPTER TWO: REVIEW OF LITERATURE

2.1. Introduction

This chapter provides a literature review that is connected to the study's objectives. It covers literature on careers in agriculture, the views of learners towards the family, the impact of the subject teacher on the choice of subject, the influence of gender attitudes on the choice of subject, the role of parents or guardians and teachers in the subject choice of students and the gap in study.

2.2. Agricultural Education on a global scale

In 1917, agricultural education and expansion began. There was an overall decrease in the number of people interested in agriculture from 38 percent to 2.6 percent in 2000, according to the United States Department of Agriculture in 2000. The United States Department of Agriculture (USDA) (2005) stated that at the beginning of the 20th century, high school agricultural programs began. The main focus of these programmes was on the development of material for agriculture. In general, the programs were designed to support young people to effectively pursue a career in production farming. Over the years, agricultural education systems have grown to stay in line with the improvements in the agricultural sector that have been seen. Over time, agricultural education priorities have developed from the need to increase production to the need to ensure that learners have acquired knowledge and skills that will help them to succeed in the agricultural sector.

The difficulties faced by inexperienced agriculture teachers were examined by Camp, Broyles, and Skeleton (2002). In this report, the lack of trained and skilled teachers to take on current and expected agricultural roles has been shown to have a major effect on participation in agricultural

programs. The American Association for Agriculture Education (AAAE Study 2011-2015) estimated that by 2050, 9 billion people are predicted to be impacted by the global population. Furthermore, the study indicated that the percentage of the population not engaged in agricultural activities had a limited understanding of the difficulties and complexities of the management and maintenance of viable agricultural systems. A highly literate population and policy decisions that promote sustainable systems are required to ensure the long-term sustainability of agriculture and improve the quality of life of communities around the globe. The advances in technology and the economy that have led to the decrease in the number of farms and rural communities (American Farm Office Federation, 2002) are a major challenge to the growth of agriculture.

A decision or choice based on the use of relevant information on the merits and demerits of potential actions in accordance with one's own beliefs has been described as an informed decision (Bekker, Thornton and Connelly, 1999). Awareness of food and fiber development, manufacturing, marketing standards, renewable energy, nutrition, natural resource management, community resilience, food protection and agro-based and bio-processing items must be included in the related knowledge for agriculture.

Teacher teaching has a huge effect on the enrollment of students (Rock Off, 2004). Rock off also noticed that most of the staff serving as teachers did not engage in any organized programs for teacher training. In this case, he noted that because they are just subject matter experts, a vast number of university professors do not have any teaching experience. Teachers who develop adaptive awareness have the ability to effectively teach (Camp, 1995). Therefore, if they are to be competitive, agricultural educators need to possess a number of skills; study, evaluation, and the ability to develop and execute professional development programs to promote effective teaching skills.

Chee (2003) examined Brunei students' explanations for poor enrollment in secondary school agriculture, finding that schools pressured weak students to enroll in agriculture. It was further stated that no agricultural budget existed, which therefore meant limited financial support for agricultural teaching. In addition, insufficient planting tools and laboratory equipment and a lack of proper storage system resulted in this. Camp et al (2002) argued that future job opportunities and the effect of information being gained significantly affect the interest of students in a particular subject. The lack of adequate and relevant knowledge on job opportunities in agriculture and related professions, including the nature of work and pay, has generated enormous misconceptions that have led to low agricultural enrollment (Sereno, 2004).

Recommendations have been made to ask high school teachers to study or create an agricultural program that is specifically based on meeting the community's agricultural needs. In addition to affecting their subject choices later, this will impact students' attitude towards agriculture as students advance their studies at higher levels, such as universities and technical institutes. Teachers should be the strongest advocates of agriculture's merits to the world and advertisers (Kritsada, 2012). Therefore the implication is that high school teachers and career masters or career guidance officers should be given opportunities to attend professional development workshops to familiarize themselves with current agricultural trends. They would be up to date and important to society's needs in this way.

2.3. Agricultural Education in Africa

In general, agricultural education in secondary schools across Africa has been rigid and does not comply with current trends and demands for trainees, thereby failing to meet the community's needs (Tom, 2009). Together with syllabuses and lessons, the teaching curricula at secondary

level are largely focused on the acquisition of information rather than on transferable and achievable skills that could be applied to sector development. Topics covered by agriculture in secondary schools primarily revolve around agricultural development and entrepreneurship.

While secondary school farming offers a large number of opportunities for students to learn and understand different agricultural concepts and practices, it is sad to note that a limited percentage of these high school graduates have pursued agriculture as a profession or become agricultural producers (Lindley, 1993). Many of these high school graduates in agriculture have tended to conduct studies in higher education institutions without harnessing their knowledge of agriculture to increase agricultural production at the farm level (Lindley, 1993).

Abalu (2001) revealed that when they implemented agricultural curricula in secondary schools, various countries in Africa followed distinct models. For example, agriculture has been introduced as a compulsory subject in some countries, whereas it has been introduced as an optional subject in others. Abalu further noted that agriculture was widely adopted across Africa as a topic to try to alleviate and reverse the negative view of secondary school students with limited career choices against agriculture.

For all students at the junior secondary level in Botswana, agriculture learning is obligatory (Dlamini, 2004). This decision was based on a collection of guidelines from the 1977 National Education Commission, which recommended incorporating realistic subjects into the curriculum of schools. Dlamini (2004) stated that agricultural teaching is supported in Botswana through the provision of adequate resources. Making their learning and teaching successful.

Instead of realistic knowledge, there is normally an excess of the curriculum and syllabi with factual knowledge that can be used to turn the agricultural sector (Abalu, 2001). Dlamini (2004)

further revealed that most countries offer agriculture in senior secondary schools as an optional subject. In Botswana, it is obligatory at junior secondary level and optional at senior secondary level. Notable examples include: In Lesotho, it is optional in secondary schools at all levels; and in Ghana, at junior secondary level it is compulsory, while at senior secondary level it is optional (Dlamini, 2004). It is optional in other nations, such as Uganda, Zwaziland, Zimbabwe, and Kenya.

2.4. Agriculture Education in Kenya

The teaching of the practical aspects of agriculture has been neglected in the Kenyan education system (Mburu, 1996). The Kenya Institute of Education (KIE) posits that the theoretical and practical aspects are very crucial in the effective learning of agriculture and therefore, should be complimentary and importance should be focused on both them (KIE, 2002). The Kenyan education system was changed in 1985 with the aim of vocationalizing the curricula to integrate various practical subjects with the aim of imparting skills that could improve the field of work (Ngesa, 2006). Agriculture was then introduced from the primary level to the secondary level as a result of the change of the curriculum. Further reforms in the education system were instituted in the year 2002 by the education ministry, it was agreed that agriculture be offered as an optional subject at the secondary school level (Ngesa, 2006).

The Phelps-stokes commission in 1924 had noted that the Kenyan natives were highly dependent on agriculture and therefore proposed agriculture vocational education for Africans would be more meaningful. However, it was reported that the colonial government only focused on teaching agriculture in primary and intermediate schools and further in primary teachers training colleges (Eshiwani, 1993).

The number of students opting to study agriculture up-to K.C.S.E level has been declining over the years. For instance, it dropped from 70% in 1990 to 40% in 2018 (Mwiria, 2005). This study will therefore seek to determine the reasons contributing to the decline. It was revealed that

agricultural clubs in secondary schools contribute to enhanced quality of agriculture in Kenya. However, a majority of the students do not participate in club activities except for the farm projects and agricultural shows (Ngesa, 2006).

Since the introduction of the 8.4.4 system of education agriculture has been delivered without necessarily considering the practical farming situation therefore delivering content that is not relevant to the current farming trends (Ngugi, Isinika and Kitali, 2002). This scenario arose from the decline in financial support to schools. Ngugi (2002) since teachers do not participate in activities that expose them to the current farming trends, they are largely unaware or isolated from farming realities, research institutes and stations and agricultural resource centers'. This means therefore that they do not get regular updates on emerging trends and best practices in agriculture.

The years just after the introduction of agriculture in secondary schools marked a period where there were strong links among secondary schools, extension agents and farming communities (Ngumy, 2011). Ngumy further reveals that, these links were maintained by the members of the young farmers clubs in the schools, and when the members participated in agricultural shows that are organized by the agricultural society of Kenya. Participation in clubs and societies ensured that members acquired hands on skills that complemented knowledge learnt in classrooms therefore enhancing a positive attitude towards agriculture.

Ngesa (2006) carried out a study that revealed that the in-service teacher programme and school inspection were generally weak in the country. The use of practical approaches to teaching that include hands on activities and adoption of student-centered approaches to teaching are not well captured during the inspection process. Further, the country did not have a structured in-service teaching programme for agriculture, but science and mathematics do have a programme for in-service training. Therefore, there was need for urgent action to adopt new models of teaching that keep emerging (Ngesa, 2006).

2.5. Careers prospects in Agriculture

Princeton Review (2013) posits that students have numerous options for their careers after secondary school education; the major and most popular career paths include education, nursing,

biology, psychology, management and business administration. It is evident that the agriculture career path is not among the most popular for students; however, it is important to mention that agricultural production and agricultural economics are among the top ten career paths with over 98% employment rate in the US (Business Insider, 2013).

Agriculture provides opportunities for employment into diverse fields. The different career that exists within the agriculture major includes plant science, agricultural business, animal science, agricultural engineering and soil science. Previously, agriculture graduates could only work on their family farms, sometimes eventually becoming entrepreneurs. Thiesse (2012) reports that in the past employment opportunities in the agriculture sector were very scarce, thus discouraging students from pursuing this career path. Further, in the past, agriculture was practiced as a source of food rather than an income generating activity (Steadman, 2000). Labour was equally supplied by family members.

Presently, modern agriculture has provided numerous job opportunities for agriculture graduates. However, in the United States, the agriculture sector represents only 1.6 percent of all jobs and 5.9 percent of jobs in rural areas (USDA, 2009). It has further been argued that besides providing direct jobs, the agriculture sector indirectly employs a lot of people in agriculture dependent sectors such as agricultural processing, agricultural services and marketing (USDA, 2009). Therefore, this has offered students numerous options to select while studying agriculture and thus, instead of going to work in family farms. Job opportunities for agriculture graduates are now diverse and may include working as extension service providers, marketers for various agricultural companies such as crop production service and agricultural machinery, working in agricultural production and commodity trading, and as agriculture teachers in secondary schools (Thiesse, 2012).

There exist numerous career paths available for students and the most common five college majors are education, nursing, biology, psychology, management and business administration (Princeton Review, 2013). Various statistics have confirmed that agriculture is not the most popular major field; however, agricultural production and agricultural economics are among the top ten majors with 98% employment rate (98%) in the US (Business Insider, 2013).

2.6. Learners' Perception towards farming

Learners' perceptions towards science subjects including agriculture influence their choice of the subjects they want to pursue. In most cases, a negative attitude to a particular subject may result to lack of interest to choose the subject, as in senior secondary high schools, as a result, learners avoid undertaking the subject. In addition, a positive perception towards science subjects' results in continued interest to pursue science in higher levels of learning (Simpson & Oliver, 1990).

Due to greater interest in the subject, the student places a greater value to the knowledge that has been acquired. However, there is need for learners to be provided with quality education which may be influenced by the value and relevancy the student places on the subject after graduation. These may include employment rates and salary scale for graduates. Nagy *et al*., (2006) argues that if a course has what high school students' desire, then, they will highly likely undertake the course at college level. The potential for employment and salary for respective employees in a specific subject area greatly influences high school students to select and study that subject (Ackerman &Gross, 2006). Wilhelm (2004) further argues that as students approach graduation, the relevancy of certain subjects towards their future careers and employment opportunities play significant roles in their decision to study that subject.

The quality of a specific subject has a greater determination whether a student will make a decision to enroll or not to enroll. For instance, a decision to enroll in agriculture may be based on the fact that agricultural classes cover a wide range of factors and areas. A case of science subject, it may be deemed to be of high quality when it well taught including the teaching of theories and practical by qualified teachers using well equipped laboratories. There are instances where students may have strong passion towards certain subjects, however, if content delivery is poor, it may affect the students desire to study the subject. Research studies have revealed that the quality of teaching has been over time influencing student selection of some subjects (Babad & Tayeb, 2003). Wilhelm (2004) posits that students are four times likely to select a subject if they believe they are going to learn a lot even if they will need to devote more time to reading and undertaking assignments. Ferrer-Caja & Weiss (2002) argues that learners will seek to determine how they will be assessed and if the assessment offers opportunities for improvement, then, they may go for that subject. Hence, classes with clear and objective goals have a

significant influence on students' decisions whether to study or not to study the specific subjects and classes (Curran & Rosen, 2006).

Research studies have reported that interaction both within and outside the classroom determine students' interest and passion in science subject including agriculture (Fraser *et al.* 1999). Strong interest to specific subjects is not only determined by individual desires but also by peer pressure and encouragement. It is obvious that each individual learner has their own perception and value that they attach to specific subjects that they wish to enrol which may entail relevancy to career and the job market.

2.7. Subject Teachers influence of the Choice of Subject

Teachers responsible for a particular subject play an important role in encouraging students over the subject selection. Role model teachers who perform its duties passionately and diligently this alone may influence students to choose him/her subjects. Some teachers are perceived well by their students and this may attract students into his/her class whereas some learners perceive other teachers not to be the right instructor for such subjects the phenomenon that might reduce the enrolment rate of the subject by the students (Omondi, 2013).

The teacher has a fundamental role in determining how students treat a subject as important or less important because learners are aware and have diverse preferences for the type and kind of knowledge, they can acquire from a class rather than from a teacher (Wilhelm, 2004). The quality of the content being delivered is as important as the mode of teaching adopted by the teacher (Babad & Taybe, 2003). The attitude of a student towards a specific subject influences their attitude towards a specific class. It has been reported that students are attracted to subjects that are taught by highly enthusiastic, knowledgeable, supportive and friendly teachers as compared to subjects taught by arrogant, rigid and less supportive teachers (Curran & Rosen, 2003). Smith *et al*. (2006) argues that when teachers are rigid, less supportive and unclear in their teaching, the learners learning experiences is negatively affected therefore a major issue for learners. Wilhelm (2004) further argues that when learners are concerned about an instructor, their probability of enrolling in the subject is less and vice versa.

Teachers' academic and professional qualifications have a huge impact on the performance of students in agriculture (Irumbi, 1998). It has been observed that well trained and experienced teachers demonstrate less autocratic teaching approaches to teaching (Twoli, 1986). The quality of the teachers determines how effective a curriculum can be because it is the responsibility of the teachers to translate syllabi into practical and instructional materials in the classroom.

Training equips teachers with pedagogical and classroom management skills that enables the teachers to successfully manage classroom tasks (Bishop, 1985). A study was conducted to determine factors that impact on primary school pupils' performance in exams by Kathuri (Kathuri, 1996). The study revealed that pupils' performance was positively correlated with teachers' qualifications. Kathuri (1996) further conducted another study that reported that teachers' qualifications significantly determined the performance of students in agriculture in secondary schools in Kenya.

Agwata (1996) conducted a study that sought to determine factors influencing students' performance in economics. It was revealed that students' performance was significantly influenced by a teachers' professional and academic qualification. This finding concur with findings by Irumbi (1990) who reported that a significant number of qualified teachers have not received any in-service training on the teaching of 8-4-4 economics thus affecting how students performed in examinations.

Reviewed literature reveals that studies have concentrated on the influence of teachers' qualification on students' performance. Hence, there is need to ascertain the influence of teachers' qualification on students' enrolment in agriculture. Findings would support the Ministry of Education, Science and Technology (MOEST) in reviewing and strengthening training programmes for agriculture teachers.

2.8. Gender Attitudes and how it Influence the Choice of Subject

In the past, gender roles in the workforce have been unequal and distributed unevenly. In most cases, the rolesof women are more complicated, strenuous and typically less paid than those of men (Bronstein & Farnsworth, 1998). Both sexes are more balanced today in the fields of work

opportunity. In the workforce, however, women and men can still be found in traditional fields of employment (Greenwood, 1999). When it comes to choosing a specific profession, young men and women have different styles of thinking, women typically prefer a hierarchical style of thinking whereas male colleagues have a more democratic and liberal style of thinking (Mihyeon, 2009).

In a certain subject that is otherwise viewed, the gender of students still plays a major role in their enrollment. When deciding to choose or not to choose a subject, men and women can have different expectations, beliefs and certain standards. Gender gaps are more evident at age when students are in high school, where male students are more likely than female peers to enroll in science-oriented subjects such as physics, chemistry, mathematics, and biology classes, but more likely to enroll in innovation, languages, and humanities (Tenenbaum, 2008).

Ethnic discrimination still occurs, along with gender disparities in workplaces. The minority community faces various obstacles in the United States while attempting to seek jobs in a controlled race. Jobs, however now demands that there be an ethnic gap between workers working in the same sector. Because of career choices made by minority groups, the gains in ethnic difference were so small, shifting from blue collar form of employment to jobs in corporate and business settings (Gittleman & Howell, 1995). Research has also shown that in admitting more ethnic diversity into agricultural majors, colleges have difficulties. A substantial proportion of ethnic students major in fields other than agriculture, according to Rocca (2013), while the Caucasian race nevertheless accounts for a significant portion of the student body in agricultural colleges.

About the fact that in science subjects, malestudents often believe they are better but in those subjects, female students often do better (Riegle-Crumb et al. 2006). This may be best explained by the fact that female students frequently expect far more from their education than male peers do, thereby appearing to work hard and have high levels of school involvement (Grebennikon&Skaines, 2009). Gender gaps also exist in certain schools, such as mathematics and science, despite the evidence that females are capable of doing so. This may be that, when it comes to the subjects pursued by their children, some parents comment differently on their daughters than they do on their sons, which enforces gender roles that already exist in most families and this could lead female children to feel ignored and less comfortable by choosing to take some subjects that may invite criticism and therefore choose to take other subjects.

They also become more likely to choose subjects that they want to pursue as technical careers as students transition from high school to colleges/universities. Regardless of gender, the enthusiasm and curiosity of students still play a critical role in subject selection (Malgiw et al, 2005). Female students, however, feel more relaxed in subjects with positive input, consistent evaluation criteria and the same workload level during the study period (Grebennikon&Skaines, (2009) But despite numerous differences, studies have shown that the gender difference narrows the understanding of their abilities between males and females. According to Zhao, Carini&Kuh (2005), female students are more pleased with college experience in mathematics, science, technology and even engineering classes than male counterparts, which may contribute to greater academic achievements, thus further reducing the gender gap in some subject enrollment.

According to Nosek, et al, (2006), the stereotype of gender science was compared to the sex disparities of a nation in the performance of science subjects and to other indicators of diverse scientific leadership by extension. Therefore the report attributes lower parental support and

aspirations to the low enrollment of female students in science subjects. In general, females are socialized into features of nurturance, dependency and passivity. Thus, they establish a collection of expectations that do not support high levels of achievement and involvement in subjects of science (Okumu, 2013). Earlier research has shown that female students have more negative views of mathematics and science in general, requiring a lot of calculations; most female students find science subjects more complicated and daunting and consider science-related subjects to be more meaningful to male students (Wasanga, 1997). The perceived challenge in the field of science has greatly discouraged female students from enrolling in the fields of mathematics and technology. In the respective fields, the expectations one has about the subject seem to have a good output indicator. A poor attitude towards subjects such as science, technology and mathematics has been an obstacle to entry to fields related to science, technology and mathematics.

A research by Osborne et al. (2003) showed that there is still stigma towards female students' physical sciences; this suggests that the good number of female students at the personal level still prefer not to take physical science as soon as they can. In mathematics, science and technical subjects, Aigbomian (2002) suggested that male students perform better than female students. Religious and socio-cultural traditions are often considered to have some effect on this disparity of the subject. Gender diversity separates the choice of subjects for women from male students. In general, women often appear to like other subjects more and hate a scenario that has been attributed to setting a basis for whether or not to select a subject (Omondi, 2013).

2.9. Parents/Guardians and Teacher's roles in Students' Choices of Subjects

Some parents and guardians decide on the courses or subjects they want them to learn at both secondary and college levels for their children. Research has shown that decision-makers and educational stakeholders in the industry should be left with the low interest of students in agriculture to raise awareness and use research findings to get more students involved in bringing agriculture to high school and tertiary level colleges. Due to the apathetic perceptions of agriculture, agricultural education in tertiary colleges attracts very less students than other fields of study; attitudes towards agriculture are considered to be a less lucrative occupation and less prestigious career for some parents or guardians from both rural and urban areas, thus discouraging their children from taking agriculture as a career option without career choice

The role of parents/guardians and teachers in career guidance is vital for future career choices for students and children, especially in Africa. Okeke (2000) stated that teachers' impact on the selection of subjects by students is enormous. There is a need for exposure to various opportunities for students to understand that science can lead to many exciting careers in an attempt to make science attractive. It has also been recorded that many students choose subjects without their teachers and parents' help. Furthermore, schools play an important role in deciding the choice of subjects for learners especially in the African context, where they support the decision-making process for careers and subjects. Indeed, this motivates and affects the subject choices of learners. In addition, learners need more knowledge about the content and structure of the science subjects they want to pursue and can help influence their choice of subjects.

Parents or guardians are more likely to influence the subject choice of learners, according to Malgwiet al. (2005), especially if there are discussions beforehand compared with teachers who

can follow methods such as instruction and therapy (Tenenbaum, 2008). The end-of-term or final ratings of children are used to assess the competency and efficacy of a teacher in teaching (Smith et al., 2006). Therefore, parents can inspire their kids to try a range of subjects where they know they can succeed. Fathers are more likely to discourage their children from pursuing certain difficult subjects, especially their female children, in most instances (Tenenbaum, 2008).

In order to instruct students on topic choices, the majority of secondary schools have set up instruction and counselling departments. However, empirical findings that have been reviewed have shown that teachers in a learner's choice of subjects are not as prominent as parents or guardians or peers (Malgwiet al., 2005). Consequently, some teachers have more influence than guidance counselors on a learner's decision on subject selection (Malgwiet al, 2005). It has also been shown that teachers and masters of guidance and therapy have a low likelihood of demoralizing students from enrolling in such subjects; their primary function is to enable students to enroll in subjects of choice (Anderson et al., 2008).

2.10. Gaps in literature review to be filled by the study

Numerous studies have been conducted to identify those factors that affect the student's academic performance according to Amitara et al (2010). He asserts that among others includes socio- economic factors like: student's class attendance, family income, parent's level of education, sex of the learners, presence of trained teachers and distance from schools. Hussein (2006), observes that students who are properly guided by their parents or teachers seem to perform well in their examinations. Individual student's beliefs and attitudes greatly contribute to student's performance in some careers.

This study is different from other researchers because it tries to assess how the learners perception about farming influences his or her choice of agriculture as a learning subject and the extent to which these variables affect the students choice of agriculture related career, there are stereotype notions that agriculture is a booster/ elective subject but then cast in doubt by low

enrolment, poor performance and negative perception of the subject. Little has been documented on how culture influences the student's perception about farming / agriculture. Learners from Kisii and Nyamira counties hail from a background endowed with rich fertile soils, heavy rains and an agriculturally vibrant population. It's common to observe long queues at tea buying centres, poor or delayed payments on farm produce like coffee or tea. The student's background characterized with poor roads, lack of markets leads to loss of quality of farm produce hence low payments.

Child labour on small scale agricultural activities may influence the student's perception on agriculture. While they are used to supplement farm labour they may grow up disliking the subject. Colleta (2001) observed that Kenya had an estimated 3 million children working under intolerable conditions mostly in agricultural sector picking coffee, tea, weeding maize or chasing birds in barley, wheat and rice farms.

In institutions where corporal in outlawed alternative manual punishment is meted out including weeding flower beds or school farms hence they develop poor attitudes. Low enrolment in agricultural related courses and scanty literature on how the learner'sperception about farming affects inspired me to research and enrich the existing literature.

2.11. Research Gaps

Unless and until when the problem of agriculture selection as a learning subjects in secondary schools is solved and increase awareness drive among the students about numerous opportunity that come along with agriculture subjects then it means that agriculture will still continue to receive low enrollment in most secondary schools in both rural and urban areas. Across the world, there will be a competing in technology improvement whose main drive lie in science subjects. It is in this view that this study aims to fill the gap by carrying out a research to assess the influence of the student's perception towards farming on the choice of agriculture as a learning subject in secondary in secondary school in Kisii and Nyamira Counties.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

Especially on research design, study area, target population, sample size and sampling techniques, data collection, analysis and presentation and model specification, Chapter three provides comprehensive descriptions of research methodology.

3.2. Research Design

A descriptive survey design was adopted by this report. A descriptive study is described by Doyle (2004) as a collection of techniques that are used to collect data from research participants using a set of questions already prepared. Surveys are used to include data that can be used to classify the situation and the population the way it is (Kothari, 2004). Surveys are inexpensive to implement and provide possibilities for inferences to be made and results and relationships to be determined (O'Connor, 2002). Survey design provides opportunities for gathering both qualitative and quantitative data without treatment manipulation, so the design of the survey was considered suitable for this analysis. A study was used to examine the effect of the student's understanding of agriculture on the choice of agriculture as a secondary school subject in the counties of Kisii and Nyamira, with a view to providing the requisite information on the objectives set.

3.3. Location of the Study

Two counties were included in the study areas: Kisii and Nyamira. The county of Kisii is situated south of Lake Victoria at latitude 00 41 '0N and longitude 340 46' 0 E.

3.3.1. Kisii County in the former Nyanza Province

It has 9 constituencies and 45 county wards, covering 1,317.9 Km2. The capital and largest town is the town of Kisii. Other major cities include: Ogembo, Suneka, Marani, Masimba Keroka. The counties of Nyamira, Narok, Homabay and Migori share similar boundaries. Kisii has a population of 1,362,779 (650,982 men and 711,797 women) with a population density of 874 people/km2 and contributes to around 3 percent of the population of Kenya, according to the Kenya National Bureau of Statistics (Dec, 2016).

(b) Nyamira county:

With a population of 611,252 inhabitants, Nyamira occupies 899.3 km2. The main towns are Nyamira with upcoming urban centers such as Ekerenyo, Nyansiongo, Manga, Keroka, Kebirigo, Ikonge. Etc Etc. There are 4 constituencies in Nyamira county (Borabu,N. Mugirango,W.mugirango and Kitutu Masaba.

3.3.2. Ecological conditions

The field of research is predominantly endowed with fertile red volcanic soils. The remainder have clay, red loam and sandy soils. Typically, in valleys, black cotton soils are found. The red fertile volcanic soils support the cultivation of crops such as tea, coffee, maize, beans and potatoes.

3.4. Target Population

A community is a group of comparable characteristics of persons, items or cases (Mugenda & Mugenda, 1999). This study will target secondary school teachers and students in the counties of Kisii and Nyamira. Specifically, as shown in Table 1.1, the study will target one (1) principal of

the school, two (2) subject teachers from each school and twenty (20) students from each selected national, extra county, county and private school in the counties of Kisii and Nyamira.

Table 1: Target population statistics

Category of schools	Selected schools	School principals	Subject teachers	Students
National schools	4	4	8	40
Extra county schools	14	14	28	280
County schools	14	14	28	280
Private schools	8	8	16	160
TOTALS	**40**	**40**	**80**	**760**

3.5. Sample Size and Sampling Techniques

Stratified random sampling was introduced as it was relatively heterogeneous for the three groups of respondents (principals, subject teachers and students) chosen from four school categories. Three layers reflect the three groups of respondents. The respondents were expected to be homogenous within each stratum. Moreover, among the respondents drawn from each stratum, simple random sampling and purposeful sampling techniques were performed. Stratified random sampling is alleged to return less error than simply using random sampling alone (Ndunda, Ngahu & Wanyoike, 2015), further supporting its applicability in this analysis.

Students were therefore chosen on that basis by simple random sampling. Furthermore in selecting school principals and subject teachers from each stratum and on the basis of meeting the research criteria, this study followed the use of purposeful sampling. To assess the sample size for the study, Fisher formulas were applied for sample size determination (Mugenda & Mugenda, 2003). The formula is as shown in equation 1.

On that basis therefore, students were selected through simple random sampling. This study further adopted the use of purposive sampling in selecting school principals and subject teachers from each stratum and on the basis of satisfying the requirements of the study. Fisher formulae for sample size determination was applied to determine the sample size for the study (Mugenda & Mugenda, 2003). The formula is as shown in equation 1.

$$n = \frac{Z^2 pq}{\ell^2} \text{...} Equation 1$$

Where: Where:

N = specimen size.

Z = Standard normal deviation at the level of confidence required, normally set at 1.966

P = the proportion of characteristics in the target population reported to have

Studied in this analysis and 50 percent will be used).

q= Approximate proportion that does not have features in the target population

Studying to be studied.

= The margin of error or the accuracy level is typically expressed in decimal, where 5% is used (standard value of 0.05).

By replacing the variables in equation 1 above the sample population of 384 respondents is given, as shown below.

$$n = \frac{1.96^2 x 0.5 x 0.5}{0.05^2}$$

$$n = \frac{3.84x0.25}{0.0025}$$

$$n = \frac{3.84x0.25}{0.0025}$$

$$n = \frac{0.9604}{0.0025}$$

$n = 384$ Respondents

Since the target population (880) is less than 10,000, a modified fisher model shown in equation 2 below wasapplied to estimate the minimum sample size required (Mugenda & Mugenda, 1999).

$$n_f = \frac{n}{1+\frac{n-1}{N}} \quad \text{.....Equation 2}$$

Where:

n_f = the desired sample size when the target population is less than 10,000

n= the desired sample size when the target population is more than 10,000

N= the estimation of the population size

By substituting in the variables in equation 2 above is as shown below:

$$n_f = \frac{384}{1+\frac{384-1}{760}}$$

$$n_f = \frac{384}{1+\frac{383}{760}}$$

$$n_f = \frac{384}{1+0.504}$$

$$n_f = \frac{384}{1.504}$$

$n_f = 255$ Student respondents

Since the 40 school principals and 80subject teachers will be purposively selected making a total of 120 respondents, the required sample size therefore will be 255Student respondents plus 120 that gives a minimum sample size of 375 respondents for this study.

3.6. Data CollectionProcedures

In order to select respondents for this study, the study applied a non-probability sampling design, where respondents were purposely selected. Especially where the student respondents were drawn from the choice of schools across the two counties was solely on the possibility that pieces of paper were cut, written names of all the schools, the piece of paper was then rub-folded in a container, shaken and poured on a table; one piece after another was handpicked with eyes closed to select the estimated number of schools to be chosen. The school's name was then identified.

3.7. Data Collection Instruments

In order to obtain primary data, this study used interview schedules and standardized questionnaires. In order to collect data from students, standardized questionnaires with both open and closed ending questions were used, while the interview schedule was used to collect data from principals and subject teachers. In a five-point likert scale, closed ended issues were structured to obtain information from all variables. Secondary knowledge (school exam records) was compiled from written papers, journals and unpublished documents. In a very short time, the questionnaire allowed the research to collect a huge amount of information. The respondents in the population were literate and large, and time was limited, so the information required could easily be represented in written form. Questionnaires have made it possible to gather data on factors such as beliefs, attitudes and emotions that could not be easily detected.

3.8. Validity of the Research Instrument

Using the Material Validity Index (CVI), the validity of the research instrument was determined. The scale built to assess the significance of the questionnaire items is Kothari (2004) CVI. Based on the research goals, it helps to verify the clarity and meaningfulness of research objects. It defined the validity as follows:

$$\text{CVI} = \frac{\text{Relevant Items}}{\text{Total Number of Items}}$$

For a research analysis to be carried out a CVI of 0.7 is considered to be acceptable. A CVI research tool of less than 0.7 means that the research tool is not valid for a research sample. A CVI of 0.87 was therefore produced in the present study, confirming that the research items in the research instrument were correct for the research study. In addition, colleagues and managers helped to ensure the research instrument's validity. To enhance the research instrument, their feedback and comments were used.

3.9. Reliability of Research Instrument

Reliability is the degree to which outcomes that are similar over a period of time are produced by a research instrument (Kothari, 2004). When it produces results that exceed or are close to expected results, a research instrument is believed to be accurate (Mugenda & Mugenda, 2003). In evaluating the reliability of the testing instrument, the test-retest approach was used. Test participants were exposed to research objects, and then were again exposed to the same collection of questions after a lapse of some time. The responses were reported from the first exposure and the second exposure. To evaluate the similarity between the first and second

scores, the Pearson Product Moment Correlation coefficient was estimated at a 95 per cent confidence level. A coefficient factor of 0.7 is considered sufficient, while test instruments are invalidated by a coefficient factor below 0.7 (Frankel & Wallen, 2000).

Data Types and Source

This study collected primary and secondary sources of qualitative and quantitative data. Data from primary sources came from answers given either from questionnaires or interview schedules by study participants. Form of data included: demographic data, views of learners on the importance of the topic, subject teacher on the choice of subject, gender attitudes on the choice of subject, parents/guardians and teachers on the choice of subject, atmosphere of students, family expectations and history of agriculture, whereas secondary data were collected from reports, published documents such as journal papers and unpublished reports.

3.10. Administration of Research Instruments and Data Collection

Primary data was gathered through the use of structured questionnaire and interview schedule. Structured questionnaire was distributed to students in various secondary schools who filled the questionnaire based on the research items. School principals and subject teachers participated in interviews that focused on research items as detailed in the interview schedule. Secondary data was obtained from journal papers, books, websites, and other internet sources. Before the commencement of the data gathering exercise, an introduction letter was acquired from the University. Additionally, a research permit that allowed the researcher to gather data was acquired from the National Commission of Science, Technology and Innovation (NACOSTI). Closed ended data from the questionnaires were coded after the return of the questionnaires by the research participants. Data from open ended questions were recorded in narrative form because the researcher wanted to capture the opinions or recommendations from research participants as accurately as possible.

3.11. Data Analysis and Presentation

After the return of the questionnaires, the data were edited, coded and entered into statistical package for social sciences (SPSS) software version 22. All anomalies and missing values were dealt with during the data cleaning exercise. Data were analyzed using both descriptive and inferential statistics. Descriptive statistics tools utilized were frequencies and percentages while inferential statistics tools utilized were ANOVA and linear regression. They were utilized to establish the association between independent and dependent variables.

3.12. Ethical Considerations

The objectives of the research study were explained in detail to the research participants by the researcher. Additionally, the researcher assured the researcher participants that data provided during the data collection exercise would be used for academic purposes only and will be handled with strict confidentiality. The researcher also sought permission from the county directors of education and the school principals by explaining the aim and objectives of the research and howit would improve the education sector in the study areas.

3.13. Expected Outcome and Benefits

The findings of this study would enable education sector and stakeholders to overcome the challenges surrounding the choice of subjects to be studied by the students also to enable the students to understand the value of the subject fully before making decisions on whether to choose or not. In addition, the study would be of much importance not only to the education sector but also to the students in undertaking a career subjects at early age while at secondary schools' level.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter discusses the outcomes of the study and subsequent discussions focused on the study's objectives:

i. To assess the impact of the understanding of students on the importance of agriculture in public secondary schools in Kisii County on the choice of agricultural subjects.

ii. To find out the impact of the perspective of students on gender in public secondary schools in Kisii County on the choice of agricultural subjects.

iii. Determine the understanding of students in public secondary schools in Kisii County of the role of parents in choosing agricultural subjects.

iv. To assess the perception of students in Kisii County of the role of teachers in agricultural subject decisions in public secondary schools.

4.1.1 Questionnaire Return Rate

The investigator conducted 109 questionnaires for teachers of values and agriculture and 108 questionnaires were returned, representing a return rate of 99 percent. He also administered 376 student questionnaires and returned 320, representing a return rate of 85 percent.

4.2 Demographic Information

This study's demographic data consisted of: gender, respondent age, and school status.

4.2.1 Respondent's Gender

Of the questionnaires returned, 263 were completed by males translating to (57.3 percent) while 112 were completed by females (42.7 percent) Figure 2.

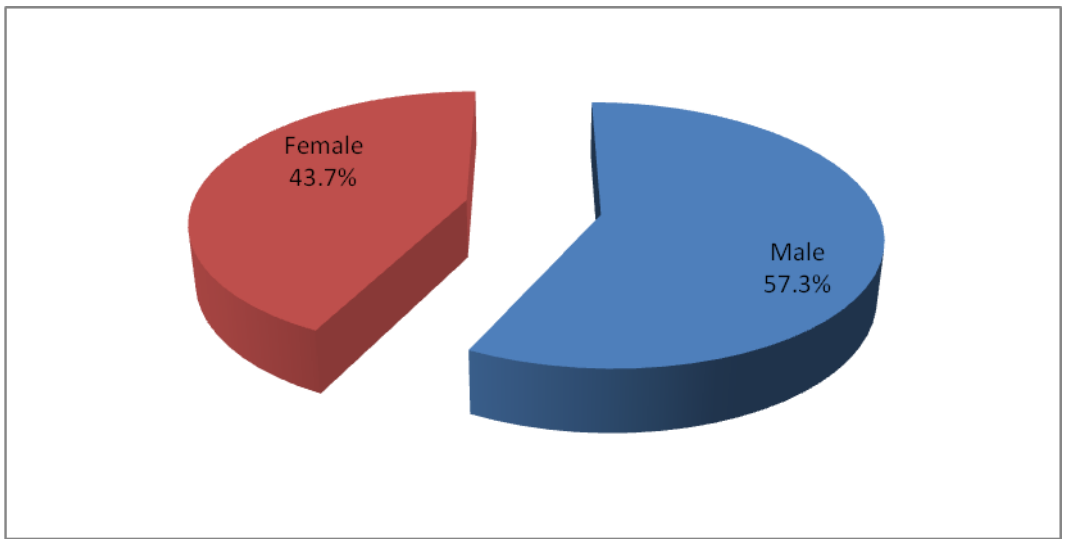

Figure 2: Distribution of Respondents by gender

4.2.2 Respondent's age

The research sought to establish whether the age of the learners had any impact on the perception of the learners towards agriculture and specifically on the choice of agriculture as a topic to be carried out in secondary school. The findings showed that the bulk (69.6%) of respondents were between the ages of 15-18. The age group with the second most student representation was students aged 19 years and over whose population stood at 24.0 percent, while students aged less than 14 years were at least 5.3 percent (Figure 3). Previous researchers propose heavy investments in early childhood, both because the crucial age for the development of knowledge occurs early in the tender age of life, but also because good learning later in life is the basis for successful early learning (Meghir& Palme, 2005). Heckman (2006) argues that various research on human capital development report that the high quality of the childhood environment is a good predictor of adult productivity. Heckman further suggests that the possibility of economic

prosperity in the later stages of life improves if deprived children are enriched in their early years.

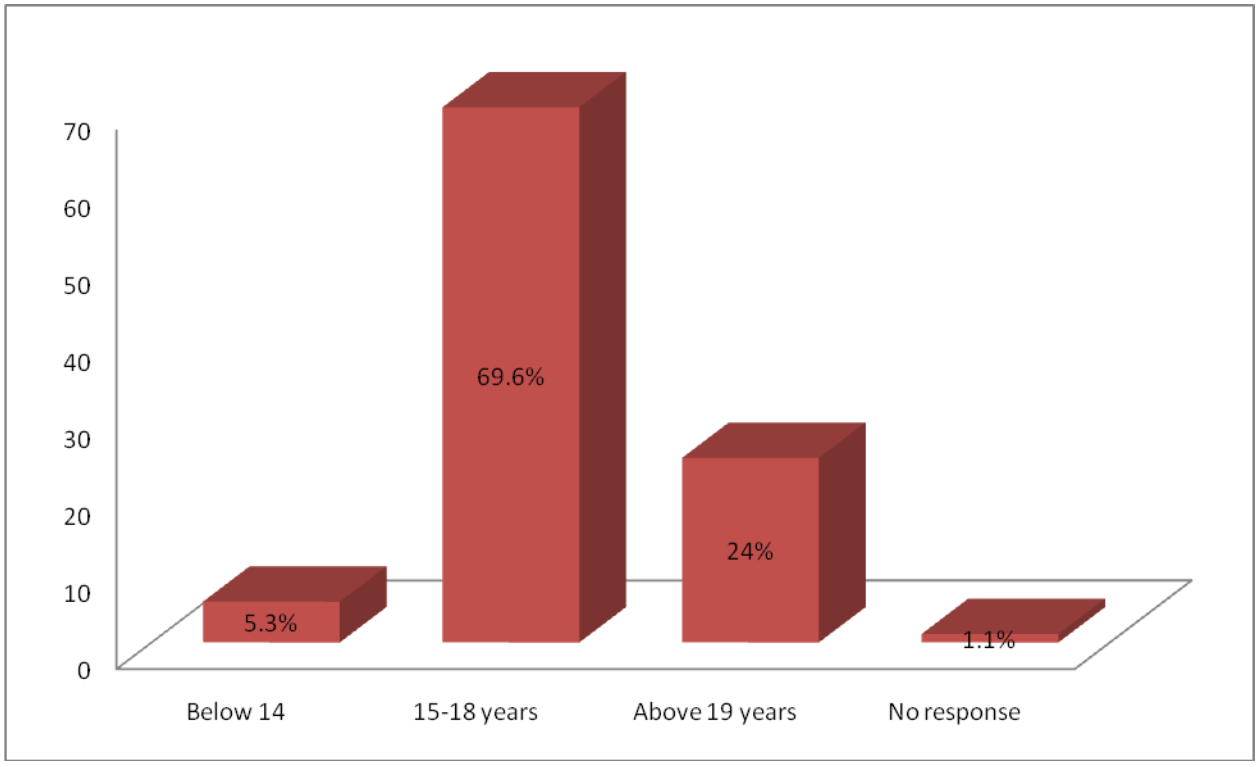

Figure 3: Distribution of age of the respondent

4.2.3 Status of the school

The findings revealed that, the bulk of the respondents came from the boys' school represented by 47.7% followed by mixed school (Boy and Girls) at 32.0% whereas girls came third at 18.4% and 1.9% did not respond (Table 2).

Table 4.1: Status of the school frequency table

Status of the school	Frequency	Percent (%)
Boys schools	179	47.7
Girls' schools	69	18.4
Boys and Girls	120	32.0
No response	7	1.9
Total	**375**	**100.0**

4.3 Influence of students' perception on the value of agriculture on the choice of Agriculture as subject in public secondary schools

The first objective was to evaluate the effect of the understanding of students on the importance of agriculture in public secondary schools in Kisii County on the choice of agricultural subjects. "The question: "Why does the student's understanding of the importance of agriculture affect the choice of the subject of agriculture in public secondary schools in Kisii County? ", the response was given.

As opposed to other technical subjects, it was found that most students chose agriculture because they consider it a booster. The results are listed in the table....

4.3.1 Responses of principals on the perceptions of students on role of value of agriculture on choice of Agriculture subject

Table 4.2 Responses of principals on the perceptions of students on role of value of agriculture on choice of Agriculture subject

Variable	N	Min	Max	Mean	Std. Deviation
There are no teachers to teach the subject	108	1	5	2.47	1.397
There are other options like business studies, computer and home science	108	1	5	3.42	1.492
There are no textbooks for agriculture	108	1	5	2.69	1.586
Agriculture involves a lot of farming	108	1	5	2.56	1.493
Agriculture jobs have low pay	108	1	5	3.14	1.404
Student who take agriculture have no career future	108	1	5	2.47	1.384
Valid N (listwise)	108				

5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree

Table 4.2 demonstrates the principal's responses to the students' expectations of the role of the importance of agriculture in the choice of the topic of agriculture as disagreeing with the absence of teachers to teach the subject (M= 2.47, STD= 1.397). They did not agree or disagree that there

were other choices such as business studies, computer science and home science (M=3.42, STD=1.492), no agricultural textbooks (M=2.69, STD=1.586), a lot of farming involved in agriculture (M=2.56, STD=1.493), and that low pay jobs in agriculture (M=3.14, STD=1.404) were involved. However, the reactions of principals to students' perceptions of the role of importance of agriculture in the choice of the subject of agriculture suggest disagreement that there is no potential career for students who take agriculture (M=2.47, STD=1.384).

4.3.2 Responses of Agriculture teachers on the perceptions of students on role of value of agriculture on choice of Agriculture subject

Table 4.3 Responses of Agriculture teachers on the perceptions of students on role of value of agriculture on choice of Agriculture subject

Variable	N	Min	Max	Mean	Std. Deviation
There are no teachers to teach the subject	108	1	5	2.42	1.624
There are other options like business studies, computer and home science	108	1	5	3.47	1.475
There are no textbooks for agriculture	108	1	5	2.90	1.680
Agriculture involves a lot of farming	108	1	5	2.79	1.361
Agriculture jobs have low pay	108	1	5	2.17	1.329
Student who take agriculture have no career future	108	1	5	2.16	1.320
Valid N (listwise)	108				

Table 4.3 reveals Agriculture teachers' responses to students' perceptions of the role of agricultural importance on the choice of Agriculture topic as disagreeing that there were no teachers to teach the subject (M=2.42, STD=1.624), neither agreeing nor disagreeing; there were other choices such as business studies, computer and home science (M=3.47, STD=1.475), no agricultural textbooks (M=3.47, STD=1.475), They disagreed, however that agriculture jobs

have low pay (M=2.17, STD=1.329) and that there is no career future for students who take agriculture (M=2.16, STD=1.320).

4.3.3 Perceptions of students on the role of value of agriculture on choice of Agriculture subject

Table 4.4 **Perceptions of students on the role of value of agriculture on choice of Agriculture subject**

Variable	N	Min	Max	Mean	Std. Deviation
There are no teachers to teach the subject	320	1	5	2.81	1.327
There are other options like business studies, computer and home science	320	1	5	2.87	1.271
There are no textbooks for agriculture	320	1	5	2.05	1.378
Agriculture involves a lot of farming	320	1	5	2.87	1.472
Agriculture jobs have low pay	320	1	5	2.09	1.327
Student who take agriculture have no career future	320	1	5	1.79	1.035
Valid N (listwise)	320				

5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree

Table 4.4 demonstrates the impression of the student on the role of agriculture importance in the choice of Agriculture topic as it does not accept or disagree that there are no teachers to teach the subject (M=2.81, STD=1.327), Agriculture requires a lot of agriculture (M=2.87, STD=1.472), and that there are other choices such as business studies, computer science and home science (M=2.87, STD=1.271). However, their interpretation revealed a dispute that there were no agricultural textbooks (M=2.05, STD=1.378), Agriculture jobs have poor pay (M=2.09, STD=1.327), and that there is no career future for students who take agriculture (M=1.79, STD=1.035).

The result indicates that principals and teachers assumed that insufficient numbers of agricultural teachers were not the reason for students not choosing agriculture as a topic of learning. The views of both principals and teachers that agriculture required a lot of agriculture and that there are other alternatives such as business studies, computer science and home science is neutral. Principals, teachers of agriculture and students disagreed that there were no agricultural textbooks, low-pay agricultural jobs, and that there was no career future for students taking agriculture.

The results align with the analysis performed by Kabugi, S. W. (2013), that in general, the inference that can be drawn from these results was that the majority of students who study agriculture as a subject is male as opposed to female. The findings are confirmed by Ngesa (2006), that while agriculture is an elective subject in Kenya at the secondary level of education, both public and private schools teach the subject regardless of the school's status. The finding is therefore a true reflection of the need for agriculture in the curriculum of the school and in the community as a whole.

The finding was consistent with that of Mwiria (2005), who discovered that the time set aside for agricultural subjects in most schools in the counties of Kisii and Nyamira is hardly enough for effective learning and teaching of both practical and theoretical lessons, as agricultural teachers pointed out that the syllabus is too long.

Value attached to subject choice in relation to career development

The respondents were asked to give their views on the value attached to the subject choice in relation to career development. The results are in Table….

Table 4.5: Value attached to subject frequency table

Value attached to subject	Frequency	Percent (%)
Yes	236	62.9
No	20	5.3
No response	119	31.7
Total	**375**	**100.0**

Table 5 indicates that 62.9 percent attached value in terms of career development to the subject option, while 5.3 percent did not attach value in terms of career development to the subject choice, and 31.7 percent did not respond to Table 6. The findings of this research were consistent with the study conducted by Apori, Zinnah & Anor (2003), Kabugi, (2013) with close reference to Ghana, where it was found that the decision of students to pursue agriculture was determined by the socio-economic context of learners, gender of learners, the endpoint at agricultural colleges, level of awareness about career prospects in agriculture, parent/guar. Most of the students indicated that agriculture was an applied subject which was considered to have excellent career opportunities when asked to provide other reasons why they chose agriculture.

Furthermore, the results agree with those of Muchena, who discovered in his analysis in 2013 that about seventy per cent of respondents revealed that values were attached to the subject selection in relation to career growth, while thirty per cent of respondents revealed that no values were attached to the subject selected in relation to career development. Wilhelm (2004), argued

that learners are four times more likely to pick a topic where they are interested in learning a 'better deal' of skills, information, even if a lot of tasks and readings are still required by the subject.

4.4.1. Competitiveness of agriculture in job market

The respondents were asked to rate on the competitiveness of agriculture subject in the job market. The results are in Table 7.

Table 4.6: Competitiveness of agriculture in job market

Competitiveness of agric in job market	Frequency	Percent (%)
Quite competitive	49	13.1
Fairly competitive	134	35.7
Competitive	121	32.3
Not competitive	22	5.9
Poorly competitive	3	0.8
No response	46	12.3
Total	**375**	**100.0**

Table 4.6 indicates that 35.7% of respondents said that agriculture was fairly competitive, followed by 32.3% who said it was competitive, while 13.1% said it was very competitive. Furthermore, the results showed that 6.7% of respondents suggested that agriculture is not altogether competitive and poorly competitive, while 12.3% did not respond.

4.4.2. Student's career path they intend to achieve

The students were asked to indicate the career path they intended to achieve. The results are indicated in Table 7.

Table 4.7: Student's career path they intend to achieve

Which career path do you intend to achieve	**Frequency**	**Percent (%)**
Teaching	31	8.3

Physician/Doctor/Dentist	63	16.8
Agronomist/Agriculturalist	101	26.9
Social scientist	1	0.3
Accountant/ Banker	69	18.4
Engineering	69	18.4
Lawyer	20	5.3
No response	21	5.6
Total	**375**	**100.0**

Table 4.7 indicates that 26.6% of students stated that they would like to be agronomist/agriculturalist, 18.4% were followed by accountant/banker and engineering, while 16.8% were third by doctor/doctor/dentist. Other careers were given 0.3 percent and 5.3 percent respectively, such as teaching, social science and law. These results are consistent with Chee (2003), who argued that the interest of learners in a certain subject depends on their perceptions of agriculture in terms of what they are taught in this subject and the type of career opportunity they expect to pursue in the future.

4.4 Influence of perception of gender attitudes on students' choice of Agriculture as a subject

The second objective was to discover the impact of the perception of students on gender on the choice of the topic of agriculture in public secondary schools in Kisii County. Question: "What is the impact of student perception on gender in public secondary schools in Kisii County on the choice of agricultural subjects?" "An response was given.

4.4.1 Responses of principals on the perceptions of students on gender attitudes on choice of Agriculture as a subject

Table 4.9 Responses of Agriculture teachers on the perceptions of students on gender attitudes on choice of Agriculture as a subject

Table 4.8 Responses of principals on the perceptions of students on gender attitudes on choice of Agriculture as a subject

Variable	N	Min	Max	Mean	Std. Deviation
There are more female than male students taking agriculture	108	1	5	2.85	1.317
Female enjoy gardening practices, male tends to livestock related	108	1	5	2.81	1.336
Females are introduced farming activities earlier ages than males	108	1	5	2.72	1.366
Most girls develop biasness towards Mathematics, science and engineering careers	108	1	5	2.66	1.548
Valid N (listwise)	108				

5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree

Table 4.8 indicates that principals' responses to students' perceptions of gender attitudes on agriculture choice as a topic as neither agreeing nor disagreeing that; there were more female students taking agriculture than male students (M=2.85, STD=1.317), female enjoyed gardening practices, male seems to be linked to livestock (M=2.81, STD=1.336), females were introduced earlier farming activities

4.4.2 Responses of Agriculture teachers on the perceptions of students on gender attitudes on choice of Agriculture as a subject

Table 4.9 **Responses of Agriculture teachers on the perceptions of students on gender attitudes on choice of Agriculture as a subject**

Variable	N	Min	Max	Mean	Std. Deviation
There are more female students than male students taking agriculture	108	1	5	2.77	1.280
Female students enjoy gardening practices while male tends to livestock related	108	1	5	2.84	1.375
Females are introduced to farming activities at earlier ages than males	108	1	5	2.30	1.170
Most girls develop biasness towards Mathematics, science and engineering careers	108	1	5	2.25	1.347
Valid N (listwise)	108				

5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree

Agriculture teachers' responses to students' perceptions of gender attitudes on the choice of agriculture as a subject are shown in Table 4.9 as neither agreeing nor disagreeing; there were

more females than male students taking agriculture (M=2.77, STD=1.280) and females enjoying gardening activities, males appearing to be linked to livestock (M=2.84, STD=1.375). They disagreed, however that women were introduced to agricultural activities earlier than men (M=2.30, STD=1.170), and that most girls are skewed towards professions in mathematics, science and engineering (M=2.25, STD=1.347).

4.4.3 Perceptions of students on the role of gender attitudes on choice of Agriculture subject

Table 4.10 Perceptions of students on the role of gender attitudes on choice of Agriculture subject

Variable	N	Min	Max	Mean	Std. Deviation
There are more female students than male students taking agriculture	320	1	5	2.88	1.110
Female students enjoy gardening practices while male tends to livestock related	320	1	5	3.28	1.393
Females are introduced to farming activities at earlier ages than males	320	1	5	3.57	1.511
Most girls develop biasness towards Mathematics, science and engineering careers	320	1	5	2.18	1.123
Valid N (listwise)	320				

5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree

Table 4.11 shows that students' perceptions on the role of gender attitudes on choice of Agriculture subject as neither agreeing nor disagreeing that; there were more female than male students taking agriculture (M=2.88, STD=1.110), and that female enjoyed gardening practices, male tends to livestock related (M=3.28, STD=1.393) but their perceptions showed agreement that females were introduced to farming activities earlier ages than males (M=3.57, STD=1.511). However, they showed disagreement that most girls developed biasness towards Mathematics, science and engineering careers (M=2.18, STD=1.123).

The findings show that both the principals, students and Agriculture teachers were neutral to the view that: more female than male students taking agriculture, and that female enjoyed gardening practices, male tends to livestock related influenced the choice of Agriculture as a subject as a learning subject. Principals were neutral on the view that females were introduced farming activities earlier ages than males as influencing choice of Agriculture while the Agriculture teachers disagreed. Principals were neutral on the view that most girls developed biasness towards Mathematics, science and engineering careers as influencing the choice of Agriculture subject, while the Agriculture teachers and students disagreed with the view.

Male and female may have different expectations, values and certain standards when making decision to choose or not to choose subject. Gender differences become more apparent at the age when student are secondary school where male students are more likely to enroll in science oriented subjects such as physics, chemistry, mathematics, and biology classes compared to female counterparts, but more likely to enroll in creative, languages and humanities (Tenenbaum, 2008).One of the reasons behind this could be the variation in perceptions male and female have towards certain subjects and also their competency and ability in that subject since learners are more likely to enroll in a subject where she/he feels that he can excel(Nagy *et al*., 2006).

4.5 The role of parents in students' choice of Agriculture as a subject

The fourth objective was to determine the perception of students on role of parents on choice of agriculture subject in public secondary schools in Kisii County. The question: "What is the perception of students on role of parents on choice of agriculture subject in public secondary schools in Kisii County?" was answered.

4.5.1 Responses of principals on the perceptions of students on the Role of parents on choices of Agriculture subject

Table 4.12 Responses of principals on the perceptions of students on the Role of parents on choices of Agriculture subject

Variable	N	Min	Max	Mean	Std. Deviation
Some parents decide the subjects /course/ careers for their children	108	1	5	2.77	1.280
Some students whose parents are literate tend to follow careers similar to their parents	108	1	5	2.84	1.375
Parents at times consult with teachers about career choices	108	1	5	2.30	1.170
Most parents motivate their children to pursue career which they feel they can excel	108	1	5	2.17	1.227
Parents normally give advice on subject career choice	108	1	5	2.25	1.347
Valid N (listwise)	108				

5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree

Table 4.12 shows Responses of principals on the perceptions of students on the Role of parents on choices of Agriculture subject as neither agreeing nor disagreeing that some parents decided the subjects /course/ careers for their children (M=2.77, STD=1.280), and that some students whose parents are literate tend to follow careers similar to their parents (M=2.84, STD=1.375). They showed disagreement that Parents at times consulted with teachers about career choices (M=2.30, STD=1.170), Most parents motivate their children to pursue career which they feel they could excel (M=2.17, STD=1.227), and Parents normally give advice on subject career choice (M=2.25, STD=1.347

4.5.2 Responses of Agriculture teachers on the perceptions of students on the role of parents on choices of Agriculture subject

Table 4.13 Responses of Agriculture teachers on the perceptions of students on the role of parents on choices of Agriculture subject

Variable	N	Min	Max	Mean	Std. Deviation
Some parents decide the subjects /course/ careers for their children	108	1	5	2.32	1.433
Some students whose parents are literate tend to follow careers similar to their parents	108	1	5	2.21	1.312
Parents at times consult with teachers about career choices	108	1	5	2.49	1.196
Most parents motivate their children to pursue career which they feel they can excel	108	1	5	2.27	1.141
Parents normally give advice on subject career choice	108	1	5	2.73	1.392
Valid N (listwise)	108				

5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree

Table 4.13 shows the principals' perceptions of on the role of parents on choices of Agriculture subject as neither agreeing nor disagreeing that some parents decided the subjects /course/ careers for their children (M=2.77, STD=1.280), and that some students whose parents are literate tend to follow careers similar to their parents (M=2.84, STD=1.375). They showed disagreement that Parents at times consulted with teachers about career choices (M=2.30, STD=1.170), Most parents motivate their children to pursue career which they feel they could excel (M=2.17, STD=1.227), and Parents normally give advice on subject career choice (M=2.25, STD=1.347).

4.5.3 Perceptions of students on the role of parents on choices of Agriculture subject

Table 4.14 Perceptions of students on the role of parents on choices of Agriculture subject

Variable	N	Min	Max	Mean	Std. Deviation
Some parents decide the subjects /course/ careers for their children	320	1	5	2.67	1.245
Some students whose parents are literate tend to follow careers similar to their parents	320	1	5	2.43	1.260
Parents at times consult with teachers about career choices	320	1	5	2.26	1.259
Most parents motivate their children to pursue career which they feel they can excel	320	1	5	2.21	1.483
Parents normally give advice on subject career choice	320	1	5	2.14	1.374
Valid N (listwise)	320				

5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree

Table 4.14 shows the students' perceptions of on the role of parents on choices of Agriculture subject as neither agreeing nor disagreeing that some parents decided the subjects /course/ careers for their children (M=2.67, STD=1.245). They however, disagreed that some students whose parents are literate tend to follow careers similar to their parents (M=2.43, STD=1.260), parents at times consulted with teachers about career choices (M=2.26, STD=1.259), most parents motivate their children to pursue career which they feel they could excel (M=2.21, STD=1.483), and Parents normally give advice on subject career choice (M=2.14, STD=1.374).

The findings show that principals, Agriculture teachers and students were neutral on the view that the decision of some parents to decide the subjects /course/ careers for their children

influenced choice of Agriculture subject. Principals and Agriculture teachers disagreed with the view that some students whose parents were literate tend to following careers similar to their parents influenced the choice of Agriculture subject. Principals, Agriculture teachers and students also disagreed with the view that most parents motivating their children to pursue career which they feel they could excel and parents normally giving advice on subject career choice influenced choice of agriculture subject.

The findings of this study concur with Muchena, (2013) and Ngome (1993) that, the backgrounds of the learners and parental influence attributing to find out which technical subjects' learners willing to pursue. They further indicated that several students willing to do technical subjects end up abandoning them simply because of parent's pressure to take up a certain subject. This is then a clear indication that these factors greatly influence the choice of subject to be done by the students as indicated by both the parents, teachers and even their learners' responses that majority of the learners are influenced on subject choice by their parents. On the same note, the findings further agree with findings by Mwiria (2005) who reported that usually students select vocational subjects when they have limited options based on subjects available in a specific school. The findings further agree with Hussein (2006), who observed that students who are properly guided by their parents or teachers seem to perform well in their examinations. Individual student's beliefs and attitudes greatly contribute to student's performance in some careers.

These findings differ with a study done by Malgwi*et al.* (2005), that parents or guardian are more likely to influence their children's decisions in subject selection than teachers who use guidance and counseling. Students are more likely to take in subjects if they discuss with their parents or guardians first, this signify that parents do have an influence on their children's decisions on career subjects (Tenenbaum, 2008). The findings further revealed that most parents and guardians judge new teachers' competency by looking at the final grades their children score (Smith *et al.,* 2006). Parents will therefore motivate their children to pursue a variety of subjects where they feel they can excel. In most cases, fathers are more likely to discourage their children from pursuing certain difficult subjects, especially their female child (Tenenbaum, 2008).

Secondary schools have bestowed upon teachers the responsibility of offering guidance to students on subject selection. However, research studies have reported that teachers are not as influential as parents/guardians/peers in determining subject selection of students (Malgwi *et al*., 2005). It has been further revealed that indeed some teachers are more influential than guidance and counseling masters in helping students to make decisions on subject choices (Malgwi*et al*, 2005). It is important to note that guidance counselors and teachers have minimal probability of de-motivating learners from undertaking certain subjects, however, their main role is to encourage students to enroll in other subjects as well (Anderson *et al.,* 2008).

The findings of this study disagree with the previous reports that child labour on small scale agricultural activities might influence the student's perception on agriculture since they are used to supplement farm labour they may grow up disliking the subject thus fell to choose it. According to Colleta (2001) he observed that Kenya had an estimated 3 million children working under intolerable conditions mostly in agricultural sector picking coffee, tea, weeding maize or chasing birds in barley, wheat and rice farms.In institutions where corporal in outlawed alternative manual punishment is meted out including weeding flower beds or school farms hence they develop poor attitudes to the subject.

4.6 Influence of the subject teacher on students' choices of subjects

The third objective was to determine the perception of students on the role of teachers on choices of agriculture subject in public secondary schools in Kisii County. The question: "How is the perception of students on role of teachers on choices of agriculture subject in public secondary schools in Kisii County?" was answered.

4.6.1 Responses of principals on the perceptions of students on Influence of the subject teacher on choice of Agriculture subject

Table 4.15 Responses of principals on the perceptions of students on Influence of the subject teacher on choice of Agriculture subject

Variable	N	Min	Max	Mean	Std. Deviation
Content delivery	108	1	5	2.62	1.365
Through career talks	108	1	5	2.64	1.411
Through subject resource persons on the basis of previous performance of students / progress report	108	1	5	2.59	1.119
Teaching style	108	1	5	2.69	1.315
School curriculum design	108	1	5	2.69	1.315
Identification of learner's strength and weaknesses by the teacher	108	1	5	1.91	1.098
Valid N (listwise)	108				

5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree

Table shows 4.15 responses of principals on the perceptions of students' on Influence of the subject teacher on choice of Agriculture subject as neither agreeing nor disagreeing that content delivery(M=2.62, STD=1.365), career talks(M=2.64, STD=1.411), subject resource persons on the basis of previous performance of students or progress report(M=59, STD=1.119), teaching style(M=2.69, STD=1.315), school curriculum design(M=2.69, STD=1.315), influenced the choice of Agriculture subject. However, they disagreed that identification of learner's strength and weaknesses by the teacher (M=1.91, STD=1.098) influenced it.

4.6.2 Responses of Agriculture teachers on the perceptions of students on Influence **of the subject teacher on choice of Agriculture subject**

Table 4.16 Responses of Agriculture teachers on the perceptions of students on Influence of the subject teacher on choice of Agriculture subject

Variable	N	Min	Max	Mean	Std. Deviation
Content delivery	107	1	5	2.42	1.332
Through career talks	108	1	5	2.29	1.312
Through subject resource persons on the basis of previous performance of students / progress report	108	1	5	2.90	1.594
Teaching style	108	1	5	3.37	1.538
School curriculum design	108	1	5	2.38	1.372
Identification of learner's strength and weaknesses by the teacher					
Valid N (listwise)	107				

5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree

Table shows 4.16 responses of Agriculture teachers on the perceptions of students' on Influence of the subject teacher on choice of Agriculture subject as disagreeing that content delivery(M=2.04, STD=1.144), career talks(M=2.30, STD=1.052), subject resource persons on the basis of previous performance of students or progress report(M=2.07, STD=1.248), teaching style(M=2.10, STD=.979) , school curriculum design(M=2.46, STD=1.336), and identification of learner's strength and weaknesses by the teacher (M=2.19, STD=1.237) influenced the choice of Agriculture subject

4.6.3 Perceptions of students on the role of Agriculture teachers on choice of Agriculture subject

The study sought to find out how students perceived teachers as influencing students to choose Agriculture as a subject.

Table 4.17 Perceptions of students on the role of Agriculture teachers on choice of Agriculture subject

Variable	N	Min	Max	Mean	Std. Deviation
Content delivery	320	1	5	2.04	1.144
Through career talks	320	1	5	2.30	1.052
Through subject resource persons on the basis of previous performance of students / progress report	320	1	5	2.07	1.248
Teaching style	320	1	5	2.10	.979
School curriculum design	320	1	5	2.46	1.336
Identification of learner's strength and weaknesses by the teacher	320	1	5	2.19	1.237
Valid N (listwise)	320				

5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree

Table 4.17 shows students' perceptions on the role of teachers on choices of Agriculture subject as disagreeing that content delivery(M=2.04, STD=1.144), career talks(M=2.30, STD=1.052), subject resource persons on the basis of previous performance of students or progress report(M=2.07, STD=1.248), Teaching style(M=2.10, STD=.979)', school curriculum design(M=2.46, STD=1.336), and identification of learner's strength and weaknesses by the teacher (M=2.19, STD=1.237) influenced the choice of Agriculture subject

The findings show the principals being neutral that content delivery, career talks, subject resource persons on the basis of previous performance of students or progress report and school curriculum design influenced choice of Agriculture subject. On the other hand the Agriculture teachers and students disagreed that; content delivery, career talks, subject resource persons on the basis of previous performance of students or progress report identification of learner's strength and weaknesses by the teacher, and school curriculum design influenced choice of Agriculture subject

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter presents the summary of the results obtained from chapter four, it also presents the conclusions and recommendations based on the overall objectives of this study which was to assess the influence of the student's perception towards farming on the choice of agriculture as a learning subject in secondary school in Kisii and Nyamira Counties, Kenya.

5.1 Summary of the findings

Based on objective one which was to assess the learner's perception on the value of agriculture subject as compared to other technical subjects or applied sciences, the finding show that principals and teachers were of the view that inadequate number of agriculture teachers was not the cause of students not choosing Agriculture as a learning subject. Both principals and teachers were neutral on the views that Agriculture involved a lot of farming. Principals, Agriculture teachers and students disagreed that, Agriculture jobs have low pay, there were no textbooks for agriculture and that student who take agriculture had no career future.

In terms of the value attached to the subject choice in relation to career development, majority of the respondents represented by 62.9% indicated that yes value attached to the subject is key figure one had to look in order to make informed decision before choosing a subject whereas about 5.3% said that there is no value attached to a subject one chooses and about 31.7% did not respond. The respondents were also asked to rate on the competitiveness of agriculture subject in the job market, the findings revealed that, about 35.7% of the respondents indicated that it is fairly competitive followed by 32.3% who indicated that agriculture is competitive whereas 13.1% said it's quite competitive. The findings further revealed that 6.7% of the respondents

indicated that agriculture is not competitive and poorly competitive altogether while 12.3% did not respond

In an effort to determine the students' career path that they intend to pursue or achieve in life, majority of the respondents represented by 26.6% indicated that they would prefer to be agronomist/agriculturalist followed by accountant/banker and engineering at 18.4% while physician/doctor/dentist came third at 16.8%. Other careers such as teaching, social scientist and law were not given much consideration by the students

The second objective was to establish the influence of gender attitudes on students' choices of Agriculture subjects. The findings show that both the principals, students and Agriculture teachers were neutral to the view that: more female than male students taking agriculture, and that female enjoyed gardening practices, male tends to livestock related influenced the choice of Agriculture as a subject as a learning subject. Principals were neutral on the view that females were introduced farming activities earlier ages than males as influencing choice of Agriculture while the Agriculture teachers disagreed. Principals were neutral on the view that most girls developed biasness towards Mathematics, science and engineering careers as influencing the choice of Agriculture subject, while the Agriculture teachers and students disagreed with the view.

Student's gender play big role in their enrollment in a certain subject perceived otherwise. Male and female may have different expectations, values and certain standards when making decision to choose or not to choose subject.

The third objective was to determine the perception of students on role of parents on choice of agriculture subject in public secondary schools in Kisii County.

The findings show that principals, Agriculture teachers and students were neutral on the view that the decision of some parents to decide the subjects /course/ careers for their children influenced choice of Agriculture subject. Principals and Agriculture teachers disagreed with the view that some students whose parents were literate tend to following careers similar to their parents influenced the choice of Agriculture subject. Principals, Agriculture teachers and students also disagreed with the view that most parents motivating their children to pursue career which they feel they could excel and parents normally giving advice on subject career choice influenced choice of agriculture subject.

The fought objective was to determine the perception of students on role of teachers on choices of agriculture subject in public secondary schools in Kisii County. The findings show the principals being neutral that content delivery, career talks, subject resource persons on the basis of previous performance of students or progress report and school curriculum design influenced choice of Agriculture subject. On the other hand the Agriculture teachers and students disagreed that; content delivery, career talks, subject resource persons on the basis of previous performance of students or progress report identification of learner's strength and weaknesses by the teacher, and school curriculum design influenced choice of Agriculture subject

5.3 Conclusions

It was concluded that students' perception towards farming affect their choice of the subject. Generally, a poor attitude towards a certain subject and the teacher handling the subject may results to having negative perceptions. Negative perception or attitude towards farming may result to poor interest in agricultural related careers. There is a tremendous effect on the quality

of a subject on whether learners select to enroll in a class. Learners had developed a career path they want to achieve or attain in life. Learners' enrollment of a certain subjects was motivated on the relevance to their future career aspirations.

The learner's attitude to a subject teacher had a strong influence on its selection. Therefore, subject teachers play a fundamental role in determining learners' options and choices during subject selection. Learners were satisfied with teaching methods and the way agriculture was handled but not satisfied with the methodology of teaching other technical subjects and sciences.

Gender influenced the selection of certain subjects to some extent. The different perceptions males and females on competency and ability in those subjects influenced the selection of subject. Also, parents with farming background and availability of the necessary farm tools and equipment, and land for practical, influenced learner's choice of agriculture as a subjects.

5.4 Recommendations

Based on the findings, the study makes the following recommendations: There is need for learners to develop a positive attitude towards agriculture. While selecting subjects for study, learners should consider a number of factors that include their academic goals, interests and academic potential. There is also need for teachers to adapt their subjects to better meet the objectives to their students. It's the responsibility of the curriculum developers to ensure that subjects maintain the much neededcontent which is quality and reduced in terms of workload.

There should be encouragement to the students to develop a contractive commitment towards agriculture subject at younger age. There should be well equipped workshops for farm tools and equipments for students' practice in the schools. Qualified and competent teachers with agricultural background should handle the subjects.

Agriculture teachers are required to develop cordial relationship with their students so that to create an interest towards the subjects taught by them. Teachers should be knowledgeable about the subject, enthusiastic, well spoken, helpful and caring and need to try to tame students choices over the subject.

It recommended that in each school there should a be strongcareer counseling guidance to enablestudents to interact with their teachers and be guided through each and every subject all the way from form one to form four so that to avoid home background influence. In addition, the students should be provided with career information books to enable them to make informed decision in subject selection by the school management in collaboration with the universities that offer courses related to agriculture. This will ensure that learners have enough background information about the career part one is willing to pursue and assist in decision making process.

The study also recommends that the principals, the Board of Management (BoM), the education stake holders and Parents Teachers Association (PTA) in secondary schools in Kisii and Nyamira counties to invite agriculture mentors to talk to the learners on the issues of agricultural careers. By doing that, it will ensure that learners will make informeddecisions on career choices. The study further recommends that the Department of Agriculture in the study countiesorganize more and regularworkshops and seminars for teachers, students and the parents so as to educate them on differentmethods of generating income through agricultural activities.

Finally,the national and county governments should step up in equipping the schools with enough agriculture resources such as farm tools and equipmentso that teacherscan handle the subject effectivelyduring practical sessions. In as much as guidance from the parents to their children to choose certain subject as a career is encouraged, parents should be more careful to ensure that the their childrenrealizes their potentials without the influence of any family members by following their families' career jobs.

5.5 Suggestions for Further Research

This study assessed the influence of the student's perception towards farming on the choice of agriculture as a learning subject in secondary school in Kisii and Nyamira Counties. From the findings the researcher realized that there is a need forconducting a research on challenges faced by the students while selecting career subjects. The current study was conducted in schools within Kisii and Nyamira counties therefore; a further study of the same research should be done in other schools outside the study areas to establish generalization of findings.

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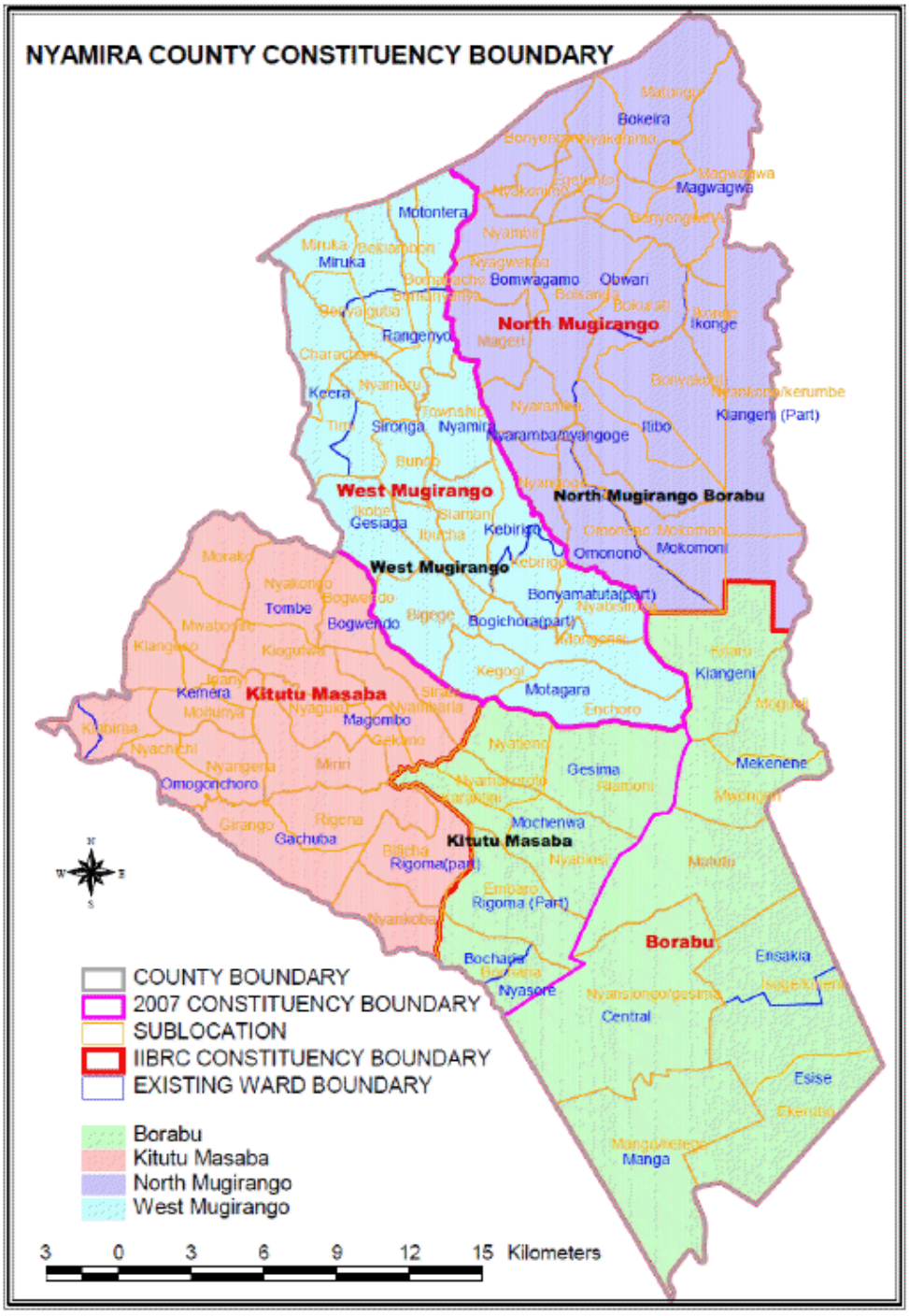
APPENDIX I: MAP OF KISII COUNTY

APPENDIX II: MAP OF NYAMIRA COUNTY



APPENDIX V: INTERVIEW SCHEDULE FOR SCHOOL PRINCIPALS

SECTION A: BIOGRAPHICAL DATA

a) Please respond honestly and accurately to the items given below

b) Please **tick** (✓)where applicable

County……Name of school…….

1. Gender Male [ ] Female [ ]

2. School category? National [ ] Extra county [ ] County [ ] Private [ ]

3. Status of the school? Boys school [ ] Girls school [ ] Boys and girls [ ]

4. What is the status of the textbooks in technical subjects especially Agriculture

Adequate [ ] Not adequate [ ]

5. If they are not adequate what are the reasons for inadequacy?

.....

6. Are there Workshops/ seminars/ agricultural trips organized by the school or outside school for Agriculture teachers and students? **Yes [ ] No [ ]**

SECTION B: VALUE OF THE SUBJECT/STUDENT PERCEPTION TOWARDS AGRICULTURE SUBJECT

1. What is your perception about students not taking Agriculture as a subject in your school? Please tick the option which best explains why according to the statements given below: **5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree**

Reason	**5**	**4**	**3**	**2**	**1**
There are no teachers to teach the subject					
There are other options like business studies, computer and home science					
There are no textbooks for agriculture					
Agriculture involves a lot of farming					
Agriculture jobs have low pay					
Student who take agriculture have no career future					

2. On a likert- scale ranging from 1-5, can you please rate the competitiveness of Agriculture subject in the job market.

- Quite competitive
- Fairly competitive
- Competitive
- Not competitive
- Poorly competitive

3. Which career paths do intend to achieve/attain in life?,select among the following choices:

- Teaching
- Physician/Doctor/Dentist
- Agronomist/Agriculturalist
- Social scientist
- Accountant/Banker
- Engineering
- Lawyer

SECTION C: INFLUENCE OF THE SUBJECT TEACHER ON CHOICE OF SUBJECT

4. Using the table below: rate the various ways through which the teacher may influence the choice of subject.

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Content delivery					
Through career talks					
Through subject resource persons on the basis of previous performance of students / progress report					
Teaching style					
School curriculum design					
Identification of learner's strength and weaknesses by the teacher					

SECTION D: INFLUENCE OF GENDER ATTITUDES ON CHOICE OF SUBJECT

5. In your own opinion, rate the influence of gender on the choice of learning subject by students in your school..

	Strongly	Agree	Neutral	Disagree	Strongly Disagree
There are more female students than male students taking agriculture					
Female students enjoy gardening practices while male tends to livestock related activities					
Females are introduced to farming activities at earlier ages than males					
Most girls develop biasness towards maths, science and engineering careers					

6. In your agriculture class what is the ratio between boys and girls students taking agriculture?

SECTION E: ROLE OF PARENTS ON TEACHERS ON CHOICE OF SUBJECT

7. Using the likert scale below, give your opinion on the role of parents on their children's subject choice or future careers.

	Strongly	Agree	Neutral	Disagree	Strongly Disagree
Some parents decide the subjects /course/ careers for their children					
Some students whose parents are literate tend to follow careers similar to their parents					
Parents at times consult with teachers about career choices					
Most parents motivate their children to pursue career which they feel they can excel					
Parents normally give advice on subject career choice					

Thank you for your time filling this questionnaire. God bless you!

APPENDIX IV: QUESTIONNAIRE FOR AGRICULTURE TEACHERS

SECTION A: BIOGRAPHICAL DATA

a) Please respond honestly and accurately to the items given below

b) Please **tick** (✓)where applicable

County……Name of school…….

1. Gender Male [ ] Female [ ]

2. School category? National [ ] Extra county [ ] County [ ] Private [ ]

3. Status of the school? Boys school [ ] Girls school [ ] Boys and girls [ ]

4. Highest academic qualification: Master's Degree [ ] Degree [ ] Diploma [ ]

Others please specify

…….....…

5. Professional qualification and training, tick where applicable

Master in Agriculture education	
Bachelor of Science in Agriculture education & extension	
Diploma in Agriculture education & extension	
Any other specify …….	

6. Please indicate the teaching experience as Agriculture teacher in secondary school:

Less than 1 year	
1-3 year	
4-6 years	
7-9 years	
More than 10 years	

7. How many form three students take Agriculture this year [2017]? [ ]

8. Indicate the ratio of boys and girls who take agriculture subjects BOYS [ ] : GIRLS [ ]

9. How many TSC Agriculture teachers are there in the school? [ ]

SECTION B: VALUE OF THE SUBJECT/STUDENT PERCEPTION TOWARDS AGRICULTURE SUBJECT

8. What is your perception about students not taking Agriculture as a subject in your school? Please tick the option which best explains why according to the statements given below: **5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree**

Reason	5	4	3	2	1
There are no teachers to teach the subject					
There are other options like business studies, computer and home science					
There are no textbooks for agriculture					
Agriculture involves a lot of farming					
Agriculture jobs have low pay					
Student who take agriculture have no career future					

9. On a likert- scale ranging from 1-5, can you please rate the competitiveness of Agriculture subject in the job market.

- Quite competitive
- Fairly competitive
- Competitive
- Not competitive
- Poorly competitive

10. In case you have identified a career path that you intend to achieve/attain in life? select among the following choices:

- Teaching
- Physician/Doctor/Dentist
- Agronomist/Agriculturalist
- Social scientist
- Accountant/Banker
- Engineering
- Lawyer

SECTION C: INFLUENCE OF THE SUBJECT TEACHER ON CHOICE OF SUBJECT

11. Using the table below, using the likert scale rate the various ways through which the teacher may influence the choice of subject.

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Content delivery					
Through career talks					
Through subject resource persons on the basis of previous performance of students / progress report					
Teaching style					
School curriculum design					
Identification of learner's strength and weaknesses by the teacher					

SECTION D: INFLUENCE OF GENDER ATTITUDES ON CHOICE OF SUBJECT

12. In your own opinion, rate the influence of gender on the choice of learning subject by students in your school.

	Strongly	Agree	Neutral	Disagree	Strongly Disagree
There are more female students than male students taking agriculture					
Female students enjoy gardening practices while male tends to livestock related activities					
Females are introduced to farming activities at earlier ages than males					
Most girls develop biasness towards maths, science and engineering careers					

13. In your agriculture class what is the ratio between boys and girls students taking agriculture?

SECTION E: ROLE OF PARENTS ON CHOICE OF SUBJECT

14. Using the likert scale below, give your opinion on the role of parents on their children's subject choice or future careers.

	Strongly	Agree	Neutral	Disagree	Strongly Disagree
Some parents decide the subjects /course/ careers for their children					
Some students whose parents are literate tend to follow careers similar to their parents					
Parents at times consult with teachers about career choices					
Most parents motivate their children to pursue career which they feel they can excel					
Parents normally give advice on subject career choice					

Thank you for your time filling this questionnaire. God bless you!

APPENDIX III: QUESTIONNAIRE FOR STUDENTS

SECTION A: BIOGRAPHICAL DATA

a) Please respond honestly and accurately to the items given below
b) Please **tick** (✓)where applicable

County……Name of school…….

15. Gender Male [ ] Female [ ]

16. Age of the respondent Below 14 [ ] yrs 15-18 [ ]yrs Above 19 [ ]yrs

17. School category? National [ ] Extra county [ ] County [ ] Private [ ]

18. Status of the school? Boys school [ ] Girls school [ ] Boys and girls [ ]

SECTION B: VALUE OF THE SUBJECT/STUDENT PERCEPTION TOWARDS AGRICULTURE SUBJECT

19. If you do not take agriculture, Please tick the option which best explains why according to the statements given below: **5= strongly Agree, 4= Agree, 3= neither, 2= Disagree, 1= strongly Disagree**

Reason	**5**	**4**	**3**	**2**	**1**
There are no teachers to teach the subject					
There are other options like business studies, computer and home science					
There are no textbooks for agriculture					
Agriculture involves a lot of farming					
Agriculture jobs have low pay					
Student who take agriculture have no career future					

20. On a likert- scale ranging from 1-5, can you please rate the competitiveness of Agriculture subject in the job market.

- Quite competitive
- Fairly competitive
- Competitive
- Not competitive
- Poorly competitive

21. In case you have identified a career path that you intend to achieve/attain in life? select among the following choices:

- Teaching
- Physician/Doctor/Dentist
- Agronomist/Agriculturalist
- Social scientist
- Accountant/Banker
- Engineering
- Lawyer

SECTION C: INFLUENCE OF THE SUBJECT TEACHER ON CHOICE OF SUBJECT

22. Using the table below, using the likert scale rate the various ways through which the teacher may influence your choice of subject.

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Content delivery					
Through career talks					
Through subject resource persons on the basis of previous performance of students / progress report					
Teaching style					
School curriculum design					
Identification of learner's strength and weaknesses by the teacher					

SECTION D: INFLUENCE OF GENDER ATTITUDES ON CHOICE OF SUBJECT

23. In your own opinion, use the likert scale below to rate the influence of gender on your choice of learning subject.

	Strongly	Agree	Neutral	Disagree	Strongly Disagree
There are more female students than male students taking agriculture					
Female students enjoy gardening practices while male tends to livestock related activities					
Females are introduced to farming activities at earlier ages than males					
Most girls develop biasness towards maths, science and engineering careers					

SECTION E: ROLE OF PARENTS ON ON CHOICE OF SUBJECT

24. Using the likert scale below, give your opinion on the role of parents on their children's subject choice or future careers.

	Strongly	Agree	Neutral	Disagree	Strongly Disagree
Some parents decide the subjects /course/ careers for their children					
Some students whose parents are literate tend to follow careers similar to their parents					
Parents at times consult with teachers about career choices					
Most parents motivate their children to pursue career which they feel they can excel					
Parents normally give advice on subject career choice					

Thank you for your time filling this questionnaire. God bless you!

ANALYZED DATA

Principals' Analyzed Data

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PB1	108	1	5	2.47	1.397
PB2	108	1	5	3.42	1.492
PB3	108	1	5	2.69	1.586
PB5	108	1	5	2.56	1.493
PB4	108	1	5	3.14	1.404
PB6	108	1	5	2.47	1.384
Valid N (listwise)	108				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
pg1	108	1	5	2.85	1.317
pg2	108	1	5	2.81	1.336
pg3	108	1	5	2.72	1.366
pg4	108	1	5	2.55	1.456
pg5	108	1	5	2.66	1.548
Valid N (listwise)	108				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
pp1	108	1	5	2.77	1.280
pp2	108	1	5	2.84	1.375
pp3	108	1	5	2.30	1.170
pp4	108	1	5	2.17	1.227
pp5	108	1	5	2.25	1.347
Valid N (listwise)	108				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
pt1	108	1	5	2.62	1.365
pt2	108	1	5	2.64	1.411
pt3	108	1	5	2.59	1.119
pt4	108	1	5	2.69	1.315
pt5	108	1	5	2.69	1.315
pt6	108	1	5	1.91	1.098
Valid N (listwise)	108				

Teachers' Analyzed Data

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
tb1	108	1	5	2.42	1.624
tb2	108	1	5	3.47	1.475
tb3	108	1	5	2.90	1.680
tb4	108	1	5	2.79	1.361
tb5	108	1	5	2.17	1.329
tb6	108	1	5	2.16	1.320
Valid N (listwise)	108				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
tg1	108	1	5	2.77	1.280

tg2	108	1	5	2.84	1.375
tg3	108	1	5	2.30	1.170
tg4	108	1	5	2.17	1.227
tg5	108	1	5	2.25	1.347
Valid N (listwise)	108				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
tp1	108	1	5	2.32	1.433
tp2	108	1	5	2.21	1.312
tp3	108	1	5	2.49	1.196
tp4	108	1	5	2.27	1.141
tp5	108	1	5	2.73	1.392
Valid N (listwise)	108				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
tt1	107	1	5	2.42	1.332
tt2	108	1	5	2.29	1.312
tt3	108	1	5	2.90	1.594
tt4	108	1	5	3.37	1.538
tt5	108	1	5	2.38	1.372
Valid N (listwise)	107				

Students' Analyzed Data

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
sb1	320	1	5	2.81	1.327
sb2	320	1	5	2.87	1.271
sb3	320	1	5	2.05	1.378
sb4	320	1	5	2.87	1.472
sb5	320	1	5	2.09	1.327
sb6	320	1	5	1.79	1.035
Valid N (listwise)	320				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
sg1	320	1	5	2.88	1.110
sg2	320	1	5	3.28	1.393
sg3	320	1	5	3.57	1.511
sg4	320	1	5	3.63	1.290
sg5	320	1	5	2.18	1.123
Valid N (listwise)	320				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
sp1	320	1	5	2.67	1.245
sp2	320	1	5	2.43	1.260
sp3	320	1	5	2.26	1.259
sp4	320	1	5	2.21	1.483
sp5	320	1	5	2.14	1.374
Valid N (listwise)	320				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
st1	320	1	5	2.04	1.144
st3	320	1	5	2.30	1.052
st2	320	1	5	2.07	1.248
st4	320	1	5	2.10	.979
st5	320	1	5	2.46	1.336
st6	320	1	5	2.19	1.237
Valid N (listwise)	320				