

**TEACHER RELATED FACTORS INFLUENCING TEACHING OF
AGRICULTURE PRACTICALS IN PUBLIC SECONDARY SCHOOL
IN KONOIN SUB-COUNTY, BOMET COUNTY, KENYA**



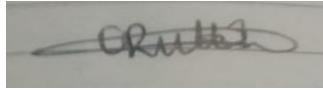
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the Award of Degree of Master of Education in Curriculum Studies**

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DECLARATION**

This research project is my original work and has never been presented for the award of a degree in any other university.



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This research project has been submitted with our approval as university supervisors.



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DEDICATION

I dedicate this project to my family.

ACKNOWLEDGEMENT

I sincerely thank God for helping me to work on this project till the end. I would like to express my special gratitude to my husband, Mr Langat, for his tireless support in my academic achievement. May the Lord bless you. Special thanks also go to my daughter Faith and other children; Steve, Immanuel, Joy and Valiant who gave me golden opportunity to do this project. You are great inspiration to me.

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LIST OF ABBREVIATIONS AND ACRONYMS

GoK : Government of Kenya

KCSE : Kenya certificate of secondary education

KNEC : Kenya National Examination Council

NACOSTI: National Commission of Science Technology and Innovation

ROK : Republic of Kenya

SDGs : Sustainable Development Goals

UK : United Kingdom

UNESCO : United Nations Education, Scientific and Cultural Organization

ABSTRACT

The purpose of the study was to investigate how teacher related factors influenced teaching of agriculture practicals in Konoin Sub-County, Bomet. Four main objectives formed the cornerstones in the research. They included establishing influence of; teacher qualifications on teaching of agriculture practicals, teacher workload on teaching of agriculture practicals, teacher skill enhancement on teaching of agriculture practicals, and teacher formative experience on the teaching of agriculture practicals. The target population was 27 secondary schools. This comprised of 27 principals, 27 deputy principals or directors of studies where applicable, 27 agriculture teachers, and 1,350 form four agriculture students. Selection of schools was done using stratified sampling and purposive sampling for selecting respondents. A sample size of 165 respondents was selected. The study employed descriptive research design. Data were collected using questionnaires. Quantitative data was analysed by descriptive statistics such as frequencies, percentages and means, while thematic technique was used to analyse qualitative data. Research findings showed that respondents strongly agreed that teacher qualifications had positive impact on the teaching of agriculture practicals, heavy workload reduced effectiveness of teaching of agriculture practicals hence reducing the performance of students, skill enhancement services directly impact teaching and learning of agriculture. The analysis concluded that teacher related factors affected the teaching of agriculture practicals in secondary schools in Konoin Sub-county, Bomet. From the research several recommendations were made including; provision of skills enhancement services, workshops and seminars that relate to agriculture should be attended by agriculture teachers consistently. Headteachers, deputy headteachers and directors of studies should attend workshops and seminars that address the importance and appropriate techniques of handling teachers' workload. Qualified professional teachers of agriculture should be employed to ensure that teaching processes in institutions are enhanced. Provision of in-service training sessions should be implemented in order for the teachers of agriculture to further develop their skills and knowledge and enable them cope with current technological progression. The researcher suggested further research on the influence of parents and learners related factors in the teaching of agriculture practicals. There is also a need to carry out further studies on the effects of these factors in other parts of the country.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Globally, agriculture plays a crucial role in promoting social, economic, and cultural development (Temu, 2003). Teaching and learning agriculture education in secondary school seems to be growing because many governments are seeking to implement the subject (Laugo, 2009). However, the quality of agricultural knowledge and skills acquired by the learners depends on the quality of teachers since teachers are pillars in curriculum implementation (Mwiria, 2002). Teacher related factors directly influence teaching of Agriculture practicals in secondary schools.

Kenyan mostly depend on agriculture for their living hence it is crucial that secondary schools teach the subject effectively (Mwangi & Mwai, 2002). The objectives of syllabus for Agriculture education in Kenya secondary schools states the following: Develop the skills necessary for carrying out agricultural practices, give schools the opportunity to actively participate in national development through agricultural activities, and help people appreciate the value of agriculture to both the family and the country. Increase your capacity for independence, ingenuity and problem-solving in agriculture, expand your career prospects in this industry and encourage agricultural practices that will help the environment (KIE 2002).

The agriculture objectives have the educational, social, and economic dimensions and the achievements of the objectives drive the country towards realization of Vision 2030 (Republic of Kenya, 2007). To realize the stipulated Secondary Education Agriculture objectives, past studies have indicated that qualified agriculture teachers are required to appropriately interpret the syllabus and determine the concepts to be taught and skills to be acquired by the learners (Sindale & Dlamini, 2013). Also, agriculture as a practical subject is effectively implemented through a participatory approach that promotes innovation and creativity which leads to the acquisition of skills for life (King & Martin, 2000).

In Kenya, the expected outcomes of teaching agriculture in secondary schools is to make a positive contribution to sustainable development through the integration of relevant agricultural activities in the curriculum. However, the implementation of the agriculture curriculum has fallen short of these expectations (Kyule, Konyango & Nkuruma, 2018).

The World (2004) emphasizes that agricultural education aims to give students the knowledge and skills they need to increase agricultural productivity and secure a sustainable way of life, similar to what is done in Mozambique. However, Mozambique is one of the poorest nations in Africa, with the majority of its citizens earning less than \$1 per day and living below the poverty line, showing that the country's agricultural goals have not yet been met.

The America Act of 1994 mandated that teachers use appropriate teaching strategies to impart to students' activities and disciplines that would prepare them for work, of which practical education in agriculture was a significant component. However, rote learning is the major method used to teach agriculture in the United States (Darling, 2008).

The staffing and teacher placement for agriculture were consistent when Kenya introduced the 8.4.4 educational system in 1985, and the subject was taught by technically and professionally educated teachers of agriculture, but the results revealed a gap between theory and practice (Ochieng, Odero, et al, 2015). Additionally, Ngugi (2002) found that because schools are unable to help teachers in visiting agricultural information centers where they are updated on the state of agricultural knowledge, instructors are cut off from the practical implications of farming.

Several governments, both in rich and developing nations, devote a large portion of their budgets to education (UNESCO, 2005). Kenya is not an exception to this trend of increased funding for education. The agriculture sector is one of the implementers of skilled labour, as evidenced by the high education and training since independence and the number of committees appointed to review manpower development policies. This is according to the Kenyan government's 2006 policy on human resources (Onyango & Owiti, 2008).

Despite Government allocating many resources to education, Sifuna (2012), revealed that much secondary school performance in agriculture was challenged by factors including inadequate learning resources, improper teaching approaches, poor mastery of content, and overloading of teachers. Thus, the researcher focused on teacher related factors and the influence of teaching Agriculture practicals based on the learners' Kenya certificate secondary education performance.

The performance of the candidates in agriculture is generally below average in all of the Sub counties in Bomet. According to Bomet County's review of the KCSE agriculture results for the years 2017 through 2019. The performance in Konoin, remained subpar for the time period under consideration, despite the data showing increased performance from 2017 to 2019. The county's mean score was 4.37 in 2019, with Chepalungu leading with a score of 4.60, followed by Bomet East with 3.99, Bomet Central with 3.87, and Konoin with 3.59. With a county mean score of 3.77 in 2018, the results showed subpar performance, with Konoin lagging all other sub-counties with a mean score of 3.33. The same scenario is reflected in the performance for 2017 where the county mean was 2.98 with Konoin trailing at 2.88 which is below the county mean. These results show that agriculture is poorly performed in Bomet County with Konoin trailing with a mean score below the county mean in the three years under review. The above scenario is summarized in Table 1.1.

Table 1.1: Bomet County KCSE Agriculture performance from 2017 – 2019

Sub County	Paper	2019	2018	2017
Chepalungu		4.6	3.51	3.5
Sotik		4.43	3.50	3.06
Bomet East		3.99	3.27	2.86
Bomet Central		3.87	4.1	2.6
Konoin		3.59	3.30	2.88
County		4.37	3.77	2.98

Average

Source: Bomet County Education Office, 2021

Though the mean score over the three years under consideration was below average, the data indicated that agriculture performance in Bomet County schools was on the rise. In the nation, candidates' performance in agriculture has been rising. The overall standard deviation climbed from 27.36 in 2018 to 28.83 in 2019, the overall mean score grew from 60.57 to 64.82 in 2019, and the agriculture papers effectively distinguished between candidates with various talents (KNEC KCSE Report, 2019). Bomet's low KCSE score can be linked to a number of things, including instructor issues.

Consequently, this research will investigate the effects of a few teacher-related variables on the teaching of agriculture practicals in public secondary schools in Konoin Sub-County, Bomet County, including teacher training, workload, skill development, and formative experience.

1.2 Statement of the Problem

Thru the availability of qualified teachers, the government aids in the implementation of the secondary school agriculture curriculum (1999).

Additionally, ROK (2012) pointed out that students leaving secondary schools have little skills and capacities to enter the labour market, pursue a trade, or enrol in institutions at the middle and tertiary levels. Since teachers are responsible for implementing the curriculum, they play a crucial role in achieving the goals of education. Therefore, the research determine the impact of teacher-related elements on the teaching of agriculture practicals.

Furthermore, research on teacher preparation on Agriculture curriculum implementation has also been advised by scholars studying the challenges of effective implementation. (Kabugi, 2013; Kyule, Konyango & Nkuruma, 2018). Moreover, results of Agriculture KCSE reveal lacklustre performance from 2017 through 2019 notwithstanding the government support.

This study looked into a few teacher-related factors that may have an impact on how agriculture practicals is taught in public secondary schools in order to improve the general performance of the subject.

1.3 Purpose of the Study

The purpose of the study was to investigate teacher-related factors that influence the teaching agriculture practicals in public secondary schools in Konoin sub-county Bomet.

1.4 Objectives of the Study

The study was guided by the following objectives:

- i. To establish the influence of teachers' qualifications on the teaching of agriculture practicals in public secondary schools in Konoin sub-county.
- ii. To determine the influence of teacher workload on the teaching of agriculture practicals in public secondary schools in Konoin sub-county.
- iii. To establish the influence of teachers' skill enhancement on the teaching of agriculture practicals in public secondary schools in Konoin sub-county.
- iv. To determine the influence of teachers' formative experience on the teaching of agriculture practicals in public secondary schools Konoin sub-county.

1.5 Research Questions

The research was guided by the following questions:

- i. What is the influence of teacher qualifications on teaching agriculture practicals in secondary schools at Konoin Sub- County?
- ii. To what extent does the teacher workload influence the teaching of agriculture practicals in secondary schools at Konoin Sub- County?
- iii. How does teacher skill enhancement influence the teaching of agriculture in secondary schools at Konoin Sub- County?
- iv. How does the teacher formative experience influence the teaching of agriculture in secondary schools at Konoin Sub- County?

1.6 Significance of the Study

The findings of the study will be useful in the following ways: Teachers of agriculture will use the findings to develop new strategies on how to employ various learning methods in teaching of agriculture practicals. The findings may also guide the curriculum developers to develop teacher professional development programmes promoting the acquisition of technical know-how on all the agricultural practices.

1.7 Limitations of the Study

A limitation of the study refers to the constraints or drawbacks both theoretical and practical that the researcher may find and on which he or she has little or no control over (Orodho, 2004). The study might be limited because data was only collected from Konoin Sub- County and would require to be corroborated by similar studies in other regions. The researcher used descriptive survey which might be limited due to the dependence on the co-operation of respondents. The researcher encouraged the respondents to cooperate by making aware of their rights and the confidentiality of the responses given.

1.8 Delimitations of the Study

The study focused on the effect of teacher related factors on the teaching of agriculture practicals in secondary schools in Konoin Sub – County due to convenience and general low performance in KCSE in the subcounty. Four teacher related factors were studied to determine their influence on teaching of agriculture practicals. Further the targeted population was restricted only to

public secondary schools offering agriculture in Konoin Sub-County. Also, the target category of learners was limited to Form Four Agriculture students since they were more experienced than the lower forms.

1.9 Assumptions of the Study

The following were basic assumptions of the study:

- i. The respondent participated freely without fear and biases.
- ii. The responses provided were accurate
- iii. There was a relationship between the independent and dependent variable
- iv. All the institutions had the required equipment, tools, apparatus and facilities for the teaching of agriculture practicals

1.10 Definitions of Significant Terms

The following keys terms in the study are defined as follows;

Academic performance refers to grades achieved by students in examinations.

Agriculture refers to the art and science of growing crops and the rearing of livestock which comprises of both theoretical an experimental learning.

Implementation of Curriculum refers to putting into practice the prescribed course of study or syllabus of subjects.

Curriculum refers to an interactive system of instruction and learning with specific goals, content, measurement, and resources (citation)

Instruction refers to teaching an engaging students with content.

Practical method refers to a learning method in which students are engaged in hands on activities.

Skill enhancement refers to services offered to continuously develop or improve the expertise, abilities, and overall competencies of a teacher in order to boost their confidence and performance.

Skill refers to the ability to do something well

Strategy refers to a plan of action designed to achieve a particular goal.

Syllabus refers to a document that provides course content, goals, and learning experiences.

Teachers' formative experience refers to exposure that a teacher encounters through interaction, familiarity, and socio-cultural acquaintance which affect their teaching know-how and approach.

Teachers' qualifications refer to academic and professional degrees that enables a person to become a teacher.

Teachers' workload refers to the amount of work to be done by a teacher.

Teaching approaches relate to a collection of principles, convictions, or notions that are applied to the classroom regarding the nature of learning.

Teaching method refers to technique used to help students achieve learning outcomes..

1.11 Organisation of the Study

The study is divided into five chapters. Chapter one comprises of background to the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, limitations of the study, delimitations of the study, assumptions of the study, and definitions of the

significant terms. Chapter two presents review of literature related based on the concepts of teacher-related factors and teaching of agriculture practicals, teacher qualifications and teaching of agriculture practicals, teachers' workload and teaching of agriculture practicals, teacher skills enhancement services and teaching of agriculture practicals and teacher formative experience and teaching of agriculture practicals, summary of literature review, theoretical framework and conceptual framework. Chapter three covers the research methodology comprising of research design, target population, sampling techniques and sample size, research instruments, instrument validity, reliability of the instruments, data collection procedure, data analysis and ethical considerations. Chapter four is the presentation, interpretation, and discussions of findings. Chapter five gives the conclusions, recommendation of the study, and suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines the literature related to the study. The chapter examines literature under the following subheadings, the influence of teacher qualifications, teacher workload, and teacher skill enhancement and teacher formative experiences in relation to the teaching of agriculture practicals. A summary of literature review, theoretical framework and conceptual framework illustrating the relation between study variables are also included in the chapter.

2.2 The Concepts of Teacher-Related Factors and Teaching of Agriculture Practical

Teaching agriculture practicals aims at ensuring that the learner in schools is exposed to and taught the basic principles that are important to agricultural production in the country and exposing and involving learners in various practical and projects that will help them develop the necessary skills and abilities required in agricultural production. Practical classes are always organized to ensure that practical skills are imparted to students to enable them become self-reliant, resourceful and useful to the society.

However, Ssekamwa (2009), pointed out that the real approach to the teaching of agriculture practicals was discouraging. Agricultural as a subject is taught theoretically and has failed to make an impression on society. Olaitan (2016) noted that many students from farming homes come to school with farming problems like weed control, which crops to grow and what fertilizers to apply. He advised that such problems can only be solved when students are exposed to these situations practically. Learners learn better when they hear, see and feel or touch, which is the principle of “learning by doing”. This principle is best achieved by engaging oneself in practical activities (Osinem, 2008). Practical activities in the school farm promote students’ interest to enter production and marketing of crops and livestock in the society after graduation.

According to Awuku, Baiden, Brese and Ofofu (2011), the performance of the students in agriculture practicals should match student’s interest and practice of the subject. They further stated that lack of instructional materials, educational qualification of teachers, poor funding of practical agriculture, intellectual ability of the teachers are some of the factors that influence the outcome of the teaching–learning process.

Coonery (2012) opined that students do not understand agricultural science when it is taught by an ineffective teacher. Izumi and Evess (2002) buttressed this by saying that teacher quality is the most important among other critical factors like quality curricula, funding, small class size and learning situation. George (2004) attributed poor achievement of students in agricultural science to teacher qualification, inadequate instructional materials as well as administrative factors.

2.3 Teacher Qualifications and Teaching of Agriculture Practicals

Sustainable Development Goal (SDG) 4 asks for an increase in the availability of skilled instructors on a global scale. A qualified teacher is a benefit to the organization since they are skilled at addressing student differences in a classroom setting and ensuring that successful learning occurs (Onguti, 1987). Academic credentials of teachers reveal a significant but nuanced relationship to student achievement. Teachers with strong academic credentials educate students more than those with inadequate credentials (Wellington, 2006).

Teachers who are qualified perform better than least qualified (Solomon et al. 2018). The research findings found that professional agriculture teachers graduates were estimated 50%, whereas another study revealed that 29% of agriculture teachers had certificates and below and this explains why agriculture teachers only make use of school farms and rarely use learners based practical instructional methods. (Ngeza, 2006; Mwiria, 2005). In addition, Fisher, (2006) observed that teachers with little or no training tend to use authoritarian and inefficient methods that make students see school as repressive places with little to enjoy.

According to Wakili and Usman (2009), teaching is a methodical, logical, and structured process of disseminating knowledge, abilities, and attitudes in accordance with professional norms. Agriculture teachers need to have a solid foundation in their careers as professionals and topic experts. The Kenya Basic

Education Act of 2013 and the Teacher Service Commission Act of 2012 stress that secondary school teachers should indeed be certified in addition to providing high quality instruction to pupils in secondary schools. For the purpose of instructing pupils, teachers must be knowledgeable and proficient in the subject matter in their area of specialization (RoK, 2013; RoK, 2012).

Bishop (1986) pointed out that a teacher must have been educated in order to be able to educate others. Following pre-service, a teacher's education must continue, and it must do so once they graduate and begin working as teachers (Chemutai, 2010).

The in-service programme enables practicing teachers to update their content knowledge and teaching skills to adjust to the introduction of new knowledge on teaching and learning to address the needs of the learners (Kimani, Kara & Njagi, 2013).

However, research findings indicated that in-service teacher training is inactive and no structured program for agriculture as for maths and science (Ngeza, 2006).

Professional and experienced teachers are intended to contribute significantly to the achievement of successful teaching of practical agriculture, however, this is not the case in the modern era (Mama & Olaitan, 2004).

The government's pledge to ensure that all schools have trained instructors is in contradiction with the fact that unqualified teachers are implementing the curriculum (Ministry of Education, Science, and Technology, 2012) impairs

the implementation process since the effectiveness of those implementing the curriculum determines the standard and applicability of agriculture (Ochieng-Konyango & Asienyo, 2015). Agriculture plays a crucial role in a country's economic development, and experts stress the importance of educated agriculture teachers for the industry's development (Mlangeri et al., 2015).

2.4 Teachers' Workload and Teaching of Agriculture Practicals

Heavy teachers' workloads can negatively affect the psychological well-being of employees (Thompson, 2015). The report by Daily mail magazine of the US says half of the professional teachers leave their work due to excessive teachers' workload.

A 2003 New Zealand research by the National Survey of Secondary Schools indicated that teachers and principals both had heavy workloads. It was discovered that the principal worked 67 more hours a week on average outside of scheduled classes. The majority of principals and educators favoured less paperwork. The majority of the teachers wanted to work from home, and they were pushing for revisions to the curriculum.(Ingverson et al 2005).

Okono et al. (2015) found that a teacher's daily readiness for each class and in between them depends on how many lessons they manage. Compared to their colleagues who have fewer lessons, teachers with so much more lessons complete lesser practicals in Due to a shortage of preparation time for the practicals, numerous lessons use the lecture form of instruction. The strategies

and techniques utilized in teaching are determined by the workload (Kabugi, 2013).

Teachers who are overworked and disheartened cannot be innovative or productive in the classroom. These professors turn to the lecture technique of instruction since it is simpler to plan than the practical method (citation).

The current government suggests enforcing a rule mandating that no class have more than 45 students, according to the Task Report on Secondary Schools' Fees (2014). Additionally, it suggests that there should only be three streams allowed per class in each institution. However, the team recommended that secondary school instructors should manage a minimum of 32 lessons (Rose, & Sika, 2019).

2.5 Teacher Skills Enhancement Services and Teaching of Agriculture Practicals

Building teacher capacity entails making investments in human resources to help instructors provide effective lessons (Kasten & McDavis, 2005). While the United Kingdom engaged in research to develop teacher framework to increase the quality of student learning, the United States of America was at the forefront of establishing educational standards and tactics for boosting successful teaching. Collaboration, team meetings, and experience sharing are necessary skills? for an effective teacher to raise student achievement (Wei, et al, 2009; McBer, 2000).

Africa has also consistently implemented policies to support and enable good teaching in order to raise student achievement (Grosser, 2007; Pretorius, 2012). Sanyal (2013), who explained that Africa has adequate policies, mechanisms, and processes for ensuring the high quality of teacher education, echoes this evidence and emphasizes the need to enlarge and scale up the incremental improvements of teacher quality.

Previous research have demonstrated that teachers' capacity to implement the curriculum is significantly impacted by the lack of ongoing knowledge and skill development (Olajide, Odoma, Okechukwu, Iyare & Okhaimoh, 2015). The inability of the agriculture teachers to continually foster knowledge and skill enhancement could account for the agriculture curriculum's failure to address the agricultural activities in the classroom (Kyule, Konyango & Nkuruma, 2018). Nevertheless, the Centre for Public Education (2013) research claims that by structuring and realigning professional development to meet the demands of the present wave of educational reform, teachers will be better able to realize effective student learning (Centre for Public Education, 2013).

Teachers' ought to be encouraged to promote the value of agriculture to society, be permitted to participate in agricultural training to stay current on industry developments, and be given access to sufficient learning resources (Kristada, 2012). Workshops for professional development of teachers are seen as short-term, minimal, and misdirected activities (Cole, 2012). However, workshops and conferences allow participants to discover new methods of

doing things, provide value, adopt best practices, trends, and technology, and develop networks, according to IR Global Rankings News Bulletin (2013).

Short-term training in the specialized field is required for teachers in order for them to stay up to date with their jobs and use the most recent teaching practices. Brigars (2000) however, research revealed that 65.5% of agricultural teachers received support for skill building, but none of the support specifically targeted the application of the agriculture curriculum (Kyule, Konyango & Nkrumah 2018). According to empirical literature, instructors who participate in seminars, workshops, and conferences obtain experiences that help them enhance their teaching abilities and the ways they approach instruction in the classroom.

It is inevitable that technology will empower agriculture teachers in schools as it has in all other industries. It aids educators in modifying agriculture curriculum implementation techniques to keep up with technological advancements and stay current.

2.6 Teacher Formative Experience and Teaching of Agriculture Practicals

The formative experiences of teachers are both past and present (Goliath, 2008). Teachers' professional performance and development as educators are likely to be influenced by their upbringing in both high and poor socioeconomic communities and by attending more prestigious or attractive schools after they are hired (Goliath, 2018).

In addition to other factors, academic and pedagogical courses, field experience, technology use, volunteering, and the attitudes and skills develop might influence how teachers design lessons and learning experiences with their learners (Goliath, 2008).

All research of teacher productivity, according to Harris and Sass (2011), take into account some aspect of the teacher's experience. Teaching experience helps teachers develop qualities including promptness, adaptability, efficiency, and the capacity to address the class with conviction. Thus, competence and effectiveness in curriculum implementation are determined by instructors' experience (Matura, 2001)

Teachers' attitudes about a curriculum have a big impact on how it is executed, which makes a difference between what was planned and what was really taught (Owoeye & Yara, 2011). Government of Kenya (1999) recognized the value of teaching experience and suggested that teachers be promoted based on their demonstrable experience. Relative to inexperienced teachers who may not have grasped all instructional methods, experienced teachers have more effective teaching methods (Okunut et al., 2005).

The traits of instructors include those that are seen as personal, like mental prowess, age, sexuality, accreditation status, educational background, and prior teaching experience (Ashton, 1996).

2.7 Summary of Literature Review

The study's literature evaluation established that teachers have an impact on how agricultural practical lessons are taught. Aneke (2015) observed that although agriculture teachers still instruct using traditional methods, they have not yet incorporated new technologies into their lessons.

According to Ngau (1987), the quality of teachers' credentials, including their level of in-service training and the kind of professional recognition they receive, may be a significant factor in determining the standard of Kenyan schools. Feng & Sass (2010) discovered that instructors' capacity to boost student achievement improvements is not significantly impacted by in-service professional development. As a result, a study by Aaronson, Barrow, and Sander (2007) indicated that instructors in the Chicago Public School system with various undergraduate majors had little to no variation in their efficacy as teachers.

Studies have revealed that teacher quality is a central factor in learners' academic performance (Elliot & Crosswell, 2002). Thus, this study will focus on teacher factors and teaching of Agriculture practical.

2.8 Theoretical Framework

The functionalist theory of French sociologist Emile Durkheim (Haralambos, 1980) serves as the foundation for the study. The theory views schooling as a means to transfer society's norms, values, and skills this broadly relates to the general objectives of teaching agriculture in secondary schools in Kenya

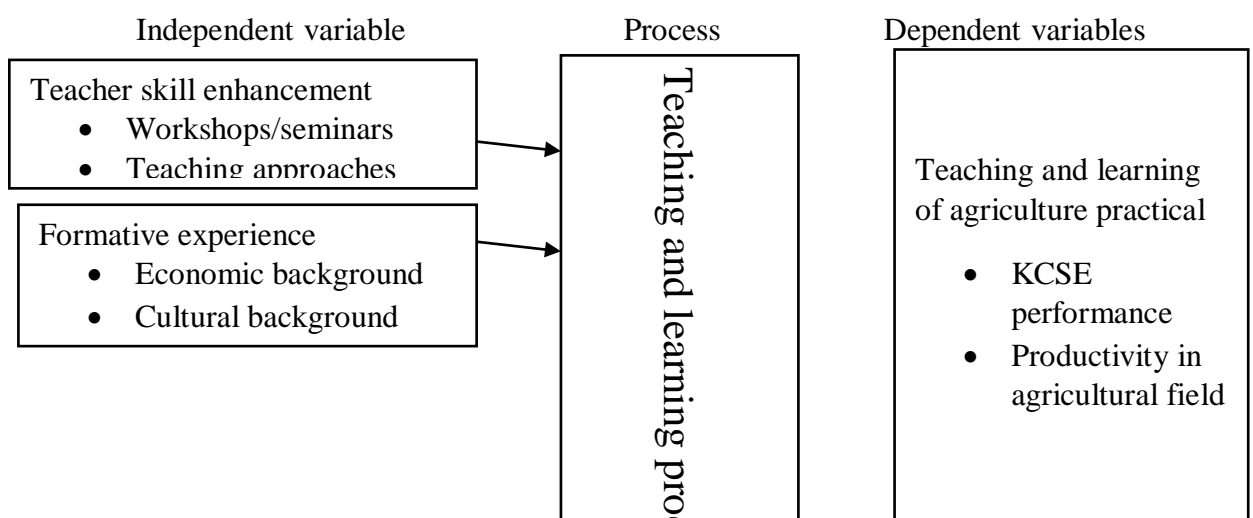
which includes importance to family and nation, promote agriculture as an industry among others (KICD 2002). Accordingly, the teaching of agriculture in secondary schools should promote interest in agriculture as a practice and encourage the use of practical teaching approaches. The norms and ideals call for students in school including those learning agriculture to become competent in practical knowledge, scientific skills, and values (Kyuleet al, 2018)

John Dewey's educational philosophy of pragmatism emphasized a practical approach to learning (Dewey 1938). His theory emphasized the need for teaching practicals in learning subjects and is relevant to practical education in agriculture. Subsequently it implies the need for curriculum delivery modification with a focus on experiential teaching in agriculture practicals.

By utilizing effective teaching strategies, which are stressed in the two theories, the primary goals of secondary agriculture education will be accomplished.

2.9 Conceptual Framework

The conceptual framework of this study shows the interaction between the dependent and independent variables influencing the teaching and learning of practicals agriculture. Conceptual Framework of this study is shown in Figure 2.1 below.



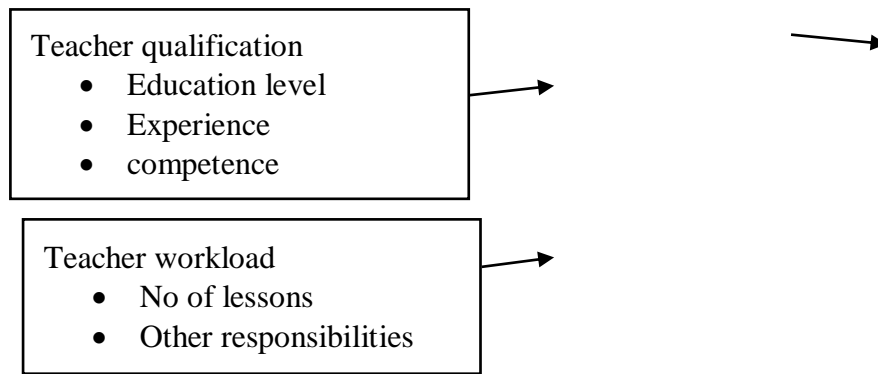


Figure 2.1: Conceptual Framework

From the framework, teacher-related factors such as teacher skill enhancement, formative experience, qualification and workload are independent variables while practical agriculture is the dependent variable.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction.

This chapter describes the methodology that was used in the study and is presented under the following sub-headings; research design, target population, sample size and sampling techniques, research instruments, the validity of research instruments, reliability of research instruments as well as data collection procedures and ... analysis techniques.

3.2 Research Design

This study used descriptive survey design. The design enabled the researcher to find out the relationship between variables, and accurately and systematically describe the population. Orodho (2009) states that a survey is a method of collecting information by interviewing or administering questionnaires to a sample of individuals. The design was appropriate for the study as it ensured that a large volume of data that can be analysed for frequencies, averages, and patterns were collected.

3.3 Target Population

The study targeted 27 public secondary schools in Konoin sub-county Bomet. The targeted population consisted of 27 principals, 27 deputy principals or Director of studies where applicable, 27 agriculture teachers and a total of 1,350 Form Four agriculture students(source?) .

3.4 Sample Size and Sampling Procedure

Sampling procedures are a process of selecting some individuals to represent the large group from which they were selected (Ogula, 2005). The researcher used stratified sampling to select schools for study based on the type of the school as per gender. Further each category of the stratified sample were randomly sampled to select to schools for the study. As a result the researcher sample two girls' schools, two boys' schools and six mixed schools separately for the study.

Purposive sampling was used to sample the respondents where, 10 principals, 10 directors of studies and 10 teachers of agriculture. The 135 form four students were selected using systematic random sampling in order to enhance equal chance for the targeted respondents. The principals were selected because they are administrators and supervises of curriculum implementation. The Deputy Principal /Director of studies were sampled because they assist the principal to coordinate teaching and learning in school. The agriculture teacher is the agriculture curriculum implementer. Form four students were sampled since they were the most experienced with the agriculture curriculum. The table below shows the sampling frame for the study.

Table 3.1

Sample Frame

Category of respondents	Target Population	Sample Size	Percentage
Principal	27	10	37.03
Agriculture teachers/DOS	27	10	37.03
Student	1350	135	10.0

3.5 Research Instruments

The data was collected using questionnaires. The questionnaires had both open and closed-ended questions and were used to collect primary data. The principals, director of studies and agriculture teachers were issued with questionnaires that were divided into two sections. The first section sought to collect information on the respondents' background and the second part sought information on teacher related factors and the influence of teaching agriculture practicals while form four students respondents were issued with questionnaires which sought information on teacher related factors that influenced teaching Agriculture practicals.

3.6 Validity of Research Instruments

Validity is the extent to which outcomes from data analysis represent the phenomenon being researched (Mugenda and Mugenda, 2003). Through piloting, the researcher analyzed the validity and reliability. Piloting was conducted a month before study began.

According to Connelly (2008), extant literature that a pilot study sample should be 10% of the projected for the larger parent study. Therefore, purposive sampling was used to select two schools neighbouring Konoin Sub-County and the respondents included; two principals, two directors of studies, two teachers of agriculture and eighteen form four students. The researcher administered the research instruments to the respondents and guided them on

how to fill the questionnaires then collect when ready. The data collected was analysed to measure face and content validity of the instruments.

3.7 Reliability of Research Instruments

According to Kombo (2006) reliability is a measure of the degree to which research instruments will yield constant results repeated trials. It is achieved when an instrument yield consistent results every time conducted on the same respondents in same environment. The researcher conducted test-retest reliability by administering them twice at an interval of two weeks to the same group of respondents not included in the main study.

According to Kothara(20110), a reliability coefficient of above 0.70 was to be considered ideal in social research. This study obtained 0.74 reliability coefficient thus proofed study instrument to be ideal for research. to establish the reliability of the research . The results obtained from the two tests were scored and analysed to give the reliability coefficient.

3.8 Data Collection Procedure

The researcher obtained clearance from the university to carry research after the departmental defence. The researcher also obtained a research permit from NACOSTI. The researcher contacted the county education officer where the research is done, to offer a letter of authorization to conduct the research. Upon the authorization, the researcher contacted the principals of selected schools seeking permission for data collection and setting appropriate dates and time. The research instruments was administered to the selected schools

one by one by the researcher and gave the respondents a good time to respond to the instruments thereafter collected them.

3.9 Data Analysis Techniques

The data collected was both qualitative and quantitative. The collected data was edited, summarized and coded for analysis. The quantitative data was analysed using descriptive statistics such as percentage, variation and frequency. The thematic technique was used to analyse qualitative data collected using open-ended questionnaires. The analysed data were presented in the form of tables, pie charts, and bar graphs where applicable.

3.10 Ethical Consideration

Ethical considerations are morals to be adhered to while conducting research which includes, consent, confidentiality, privacy, and plagiarism. The researcher sought consent from the respondents before they participated in the study and explained the purpose of the study

To maintain the privacy of the respondents, no name was written on the research instruments and participants were free to ask questions concerning the research study. The researcher acknowledged other people's work to avoid plagiarism and worked honestly ensuring participant's confidentiality and anonymity were kept in line with research ethics.

CHAPTER FOUR
DATA PRESENTATION, PRESENTATIONS AND
INTERPRETATIONS

4.1 Introduction

This chapter presents data analysis and discuss the research findings collected from public secondary schools in Konoin Sub-County in Bomet County. The study focused on examining the teacher related factors that influence teaching agriculture practicals in secondary schools in the sub-county. The factors under study were teachers' qualification, workload, formative experience, and skills enhancement services.

The responses from the respondents were the basis of the study's findings. The organization of the chapter is therefore sectioned into questionnaire return rate, general overview of respondents and lastly the research findings based on study questions and objectives.

4.2 Questionnaire Return Rate

Response rate present the statistical power of any research, admitted to be stronger when higher percentage of respondents is realized. Researcher collected filled questionnaires from the respondents as follows; a total of 9 head teachers (90%), 8 directors of studies (80%), 8 agriculture teachers (8%), and 110 form four agriculture students (81.5%).

Table 4.1

Questionnaire Return Rate

Category	Sample Size	Number of questionnaires returned	Percentage of return rate (%)
Head teachers	10	9	90.0
Director of studies	10	8	80.0
Agriculture teachers	10	8	80.0
Form four agriculture students	135	110	81.5

As indicated in Table 4.1, the response rate was good. The administered questionnaires were filled ... and returned by 90% of the head teachers. The same percentage of agriculture teachers and director of studies, 80%, returned administered questionnaires. Likewise, administered questionnaires were filled and returned by 81.5% of form four students. Mugenda and Mugenda (2003) articulate that 60% response rate is good and 70% response rate is excellent. The return rate conforms to the above articulation; it was therefore sufficiently suitable for data analysis.

4.3 General Overview of Respondents' Demography

The demographic attributes of the respondents, that is, head teachers; director of studies, agriculture teachers, and form four agriculture students was the main objective of this section. The respondents in the study were required to indicate their gender, age, highest level of education, and their duration of

teaching service. This aspect was particularly incorporated in order to fully comprehend the background information of all the participating respondents in the study.

4.3.1 Gender Distribution

The study investigated how gender distribution was spread to determine the equitability in academics in order to fully capture the role gender plays pertaining to the teaching of agriculture practicals in secondary school. The gender distribution of researcher's participants in Konoin Sub-County was as represented in the following tables:

Table 4.2

Headteachers Distribution by Gender

Gender	Frequency	Percentage %
Male	6	66.7
Female	3	33.3
Total	9	100.0

The results from the Table 4.2 depicted a higher proportion of the school principals were male at 66.7% while female was 33.3%. This shows that there are more head teachers than females. Issue of equality between men and women in management in the world still remains a challenge since there is no country in the world that has yet attained it (Hausmann, 2017).

Table 4.3 Director of studies gender distribution

Gender	Frequency	Percentage
Male	6	75.0
Female	2	25.0
Total	8	100.0

Just like the head teachers, there were more male directors of studies at 75% compared to female at 25%. This shows that there is a high gender disparity among the directors of studies in the sub-county.

Table 4.4 Agriculture Teacher Gender Distribution

Gender	Frequency	Percentage
Male	2	25
Female	6	75
Total	8	100.0

According to the data results from the Table 4.4, there are many female teachers in the sub-county at (75%) as compared to 25% for their male counterparts. Makori (2019) found that majority of students disagreed that the gender of teachers influenced their choice of agriculture subject.

Table 4.5 Form Four Students Gender Distribution

Gender	Frequency	Percentage
Male	30	37.5
Female	80	62.5
Total	110	100.0

The Table 4.5 presents a higher percentage of female students taking agriculture in secondary school (62.5%) than male students (37.5). Thus, more female students in the sub-county are attracted to learning agriculture in school than their male counterparts. Makori (2019) found that gender did not influence the choice of agriculture in Kisii and Nayamira counties.

4.3.2 Age distribution

The study obtained the age distribution of the respondents, and the results were as per Table 4.6.

Table 4.6: Distribution of Participants by Age

Age in years	Directors of studies		Agriculture teachers	
	Frequency	Percentage %	Frequency	Percentage %
20-29			1	12.5
30-39	2	25	3	37.5
40-49	5	62.5	4	50
Above 50	1	12.5		
Total	8	100.0	8	100.0

From the results in Table 4.6,,50% of the respondents are mature and experienced based on their age while and the remaining 50% comprises of less mature and experienced teachers.

4.3.3 Highest Level of Qualification

Capturing the highest level of education of the participants is crucial since this is the integral aspect of understanding it as a factor that influences the teaching of agriculture practicals in secondary school.

Table 4.7: Qualification level

This section provides results of the respondents' academic qualification levels.

Professional qualification	Head teacher		Director of studies		Agriculture teacher	
	Frequency	Percentage %	Frequency	Percentage %	Frequency	Percentage %
Diploma					1	12.5
Bachelor's degree	6	66.7	7	87.5	7	87.5
Master's degree	3	33.3	1	12.5		
Total	9	100.0	8	100.0	8	100.0

The data as presented in the Table 4.7 indicates that 67.7% of the head teachers had bachelor's degree while 33.3% had a master's degree. 87.5% of

the directors of studies had bachelor's degree, 12.5 % had master's degree. Among the agriculture teachers, only 12.5% had diploma while 87.5% have bachelor's degree. From these perspectives, it is clearly noted that most of the education implementers had the qualifications to teach and manage the secondary schools.

4.3.4 Duration of Service

The study sought to find out the length of time at which the respondents have been in service. The results are presented in the Table 4.8.

Table 4.8; Duration of service of agriculture teachers

Duration of service (Years)	Agriculture Teacher	
	Frequency	Percentage %
Less than 1	2	25
2-5	3	37.5
6-10	2	25
Above 10	1	12.5
Total	8	100.0

Based on the responses,62.5% of Agriculture teachers had been in service for less than 5 years while37.5% had been in service for more than 6 years This shows that majority of the teachers has less duration of service.

4.3.5 Agriculture Students: Reason for choosing agriculture

This part of the study sought to establish the main reasons why the agriculture students decided to choose agriculture as their subject of study. The results are therefore presented in Table 4.9.

Table 4.9: Reasons for choosing agriculture

Reason for choosing agriculture	Frequency	Percentage
Personal interest	49	44.5
School policy	10	9.1
Parents and teachers influence	30	27.3
Performance in agriculture	21	19.1
Total	110	100.0

The results in Table 4.9 shows that majority 44.5% of the students chose agriculture on the basis of personal interest, 10% claimed that the school policy made them choose agriculture, 27.3% of the students were influenced by parents and teachers while 19.1% were influence by performance in agriculture.

4.3.6 Sample School KCSE Agriculture Mean Scores

The sampled schools achieved the mean scores in KCSE Agriculture displayed in Table 4.10.

Table 4.10 Sample KCSE Results

School	KCSE Mean Score					Average
	2015	2016	2017	2018	2019	performance
1.	-	-	2.17	1.89	2.27	2.09
2.	1.79	1.73	1.99	2.17	3.32	2.20
3.	-	-	-	-	2.88	2.88
4.	2.35	3.29	2.38	3.24	3.33	2.92
5.	1.88	1.74	1.90	2.23	2.88	2.13
6.	2.79	2.74	2.99	2.97	3.63	3.02
7.	-	-	-	2.67	2.19	2.43
8.	2.67	3.10	3.26	2.99	3.56	3.12
Sub County	-	-	2.88	3.30	3.59	3.26
Bomet	-	-	2.98	3.77	4.37	
County						3.71

The results presented in Table 4.10 above indicate that the average Agriculture performance of the sampled schools was below average during the period under study. Similarly compared to the sub-county and county Agriculture mean scores the performance in the sampled schools was poor. In 2017 the sub county mean was 2.88 which only 2 of the sampled schools performed above with a positive deviation of 0.10 and 0.38 for schools 6 and 8 respectively. However, only school 8 performed above the county mean with a positive deviation of 0.28. 2018 (3.30), 2019 (3.59). They are generally low and below average.

4.4 Influence of Teacher Qualification on Teaching Agriculture

This section sought to establish from the participants the effect of teachers' qualification on teaching agriculture practicals. The principals, director of studies and Agriculture teachers were asked whether the qualification of the teacher directly affected the teaching of agriculture practicals Table 4.11 presents the responses concerning the qualifications of the teacher and its effects on teaching agriculture practicals on a 5-point Likert Scale from Strongly Agree (SA), Agree (AG), Undecided (UD), and Disagree (D) to Strongly Disagree (SD).

Table 4.11 Teachers' Qualifications and Teaching of Agriculture Practical

Statement	SA		AG		UD		D		SD	
	F	%	F	%	F	%	F	%	F	%
Higher teacher qualification is required to be able to teach agriculture in a secondary school	10	40	10	40	0	0	5	20	0	0
Agriculture teachers with higher qualifications perform better than low qualified teachers.	5	20	15	60	0	0	5	20	0	0
There is a relationship between Agriculture teacher academic qualifications and student outcomes	4	16	16	64	0	0	3	12	2	8
Agriculture Teacher qualifications do not count when it comes to performance and effectiveness of teacher in the classroom.	0	0	5	20	0	0	0	0	20	80
Agriculture Teacher with high qualifications use better pedagogical approaches in teaching and learning.	10	40	10	40	0	0	0	0	5	20

N = 25

Table 4.11 shows that (4%) respondents strongly agreed that higher teacher qualifications are required to be able to teach Agriculture in a secondary

school. This implies that a teacher of agriculture must have higher qualifications in order to teach. Majority of respondents agreed that there is a relationship between teacher academic qualifications and teaching agriculture practicals. Many respondents (40 percent) strongly agreed that teachers with high qualifications use better pedagogical approaches in teaching. In addition, 80% of the respondents agreed that teachers with higher qualification perform better than less qualified. “Teachers who are qualified perform better than least qualified” (Solomon et al., 2018).

Table 4.12 summarizes the responses of all the three categories of respondents; head teachers, directors of studies, and agriculture teachers.

Table 4.12: Teachers’ qualifications

This table presents results from open ended questionnaires.

Qualified teachers perform better	Frequency	Percentage
Yes	20	80
No	5	20
Total	25	100.0

From the results of the study 80% of the respondents agreed that the qualifications of teachers influence the teaching of agriculture practicals in secondary schools, with an even distribution of 40% strongly agreeing and agreeing. On the other hand, 20% of the respondents either strongly disagreed or disagreed with the statement that teacher qualification affects the teaching of agriculture practicals in secondary schools. It is well recognized, that the teaching of agriculture practicals is directly impacted by the professional qualification that the teacher possesses. Kiadese (2011) on the performance of

agriculture found out that problems such as lack of qualified teachers affect the teaching of pre-vocational subjects like agriculture.

4.5 Influence of Teacher Workload on the Teaching of Agriculture

This part of the research sought to establish, from the participants, the influence of teachers' workload on the teaching of agriculture practicals. Heavy workload reduces the effectiveness of the teacher during class lessons because it is considered to be psychologically torturing the well-being of the teachers (Thompson, 2015). Therefore, overworking destabilizes teachers' mental disposition to deliver services to their best. The responses seem to support this findings as per the responses in Table 4.13.

Table 4.13: Teacher workload

Heavy workloads minimize teaching effectiveness	Frequency	Percentage %
Yes	18	72
No	7	28
Total	25	100.0

According to the results in Table 4.13, 72% of the respondents agreed with the statement that heavy workloads minimize the effectiveness of a teacher while 22% disagreed with the statement. Okono et al (2015) found that the number of lessons that a teacher handle affects their preparedness for each class and between classes daily.

4.6 Influence of Teacher Skill Enhancement Services on the Teaching of Agriculture Practicals

Currently in society, progressive enhancement of knowledge and skills is very crucial to fostering updated teaching services in school. Teachers are supposed to be exposed to various programmes, trainings, and other supportive seminars in order to develop them professionally. These skill enhancement services are important since they positively influence the teaching and learning of agriculture in school. This section of the study therefore captured information from the four sampled respondents in order to establish a clear picture of how skill enhancement services affect teaching of agriculture practicals in Konoin secondary schools. The results are presented in the Table 4.14.

Table 4.14: Skill enhancement services organized for agriculture teachers

Statement	VI		I		MI		SI		NI	
	F	%	F	%	F	%	F	%	F	%
Teacher capacity building improve teaching of agriculture practicals effectively	18	72	3	12	0	0	0	0	4	16
Teacher professional development courses improve teaching approaches	21	84	0	0	0	0	0	0	4	16
Skill enhancement	16	64	5	20	0	0	0	0	4	16

services such as
 seminars, field trips,
 ASK shows has
 positive impact on
 teaching and
 learning

Teachers'	20	80	1	4	0	0	0	0	4	16
continuous knowledge and skills enhancement improve curriculum implementation										

N = 25

The results in Table 4.14 indicates that majority of respondents (72 percent) agree that teacher capacity building improve teaching and learning effectively. Kasten and McDavis (2005) found that building teacher capacity enable teachers teach effectively. (84 percent of the respondents agreed with the statement that the skill enhancement services organized for the teachers of agriculture were important in the teaching and learning of agriculture in secondary schools. It is very important that a secondary school teacher should be academically knowledgeable in his area of specialization because lack of the skills to impart knowledge may cause students to make wrong subject choices that might lead to failure in their (Kabugi, 2013). According to the respondents, the school offers the agriculture teachers with support while accessing the skill enhancement services as well as in project management. On

the other hand, 16 percent of the participants were of a contrary opinion with the statement, pointing out that the skills enhancement services are not important in the teaching and learning of agriculture in secondary schools.

The study sought to establish the influence of teacher skill enhancement services on the teaching of agriculture practicals. The results were presented in pie chart as shown in Figure 4.1.

Figure 4.1: Influence of Teacher Skill Enhancement Services on The Teaching of Agriculture

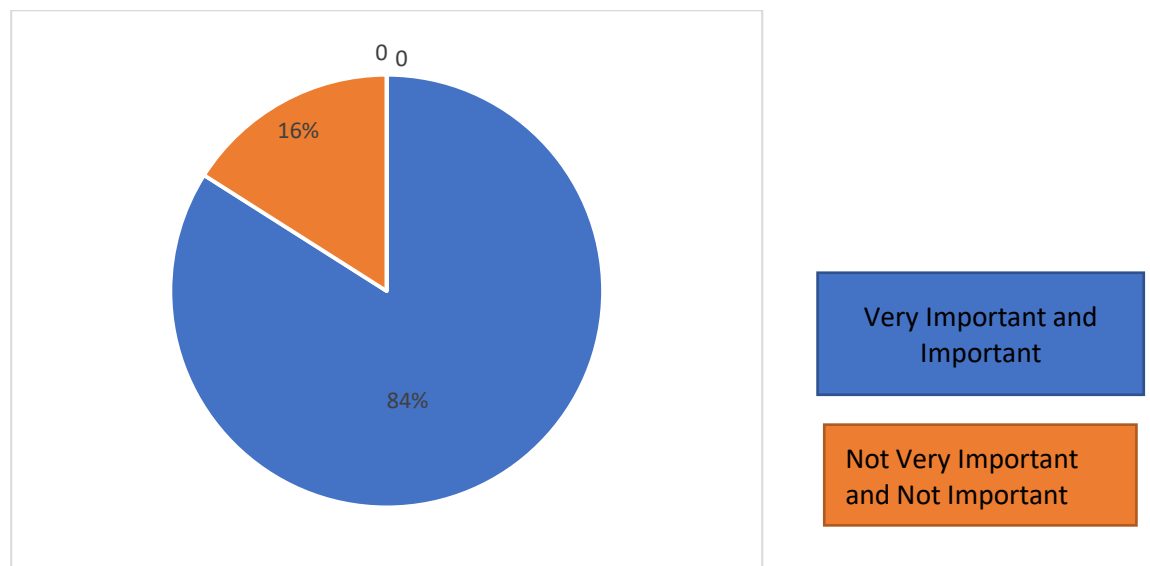


Figure 4.1 shows that 84% of the respondents strongly agreed and agreed that the skill enhancement services have a positive impact on teaching teaching of agriculture practicals in school. The participants highlighted that these skill enhancement services allow the teachers to acquire relevant skills and technology needed to enhance teaching and learning of agriculture in secondary school. Olajide, Odoma, Okechukwu, Iyare and Okhaimoh (2015) found that the absence of continuous knowledge and skill enhancement for

teachers' impacts negatively on their potential to implement the curriculum. Competent knowledge acquired through seminars and professional development programmes equips the teachers with advanced and up-to-date approaches in delivery of practical sessions in school. On the contrary 16% of the participants disagreed or strongly disagreed hence do not recognize any positive impact of the skill enhancement services.

4.7 Influence of Teachers' Formative Experience on the Teaching of Agriculture Practicals

Agriculture teachers were asked to give their thoughts on whether their teaching was influenced by the teaching experience they had. The researcher investigated challenges experienced by Agriculture teachers in the teaching services in relation to experience. The response from the Agriculture teachers were recorded and presented in the Table 4.15.

Table 4.15: Teacher's formative experience and teaching of agriculture

Statement	SA		AG		UD		D		SD	
	F	%	F	%	F	%	F	%	F	%
Teachers with long teaching experience perform better than with little or no experience.	1	4	20	80	0	0	2	8	2	8
Teaching a particular subject for years improves teachers' effectiveness.	0	0	21	84	0	0	3	12	1	4
Learners perform better	2	8	19	76	0	0	4	16	0	0

when taught by										
experienced teachers.										
Teachers' background	0	0	5	20	15	60	5	20	0	0
influences teaching and										
learning of agriculture.										
Teachers from different	0	0	5	20	15	60	4	16	1	4
institutions use different										
teaching approaches.										
There is a relationship	2	8	19	76	0	0	3	12	1	4
between teacher formative										
experience and student's										
performance.										

N = 25

Table 4.15 shows that majority of respondents (80 percent) agreed that teachers with long teaching experience perform better than with little or no experience. Olopot et al (2005) found that experienced teachers have improved teaching approaches compared to an inexperienced one who has not mastered all teaching methodologies. Majority of respondents (84 percent) also agree that teaching a particular subject for years improves teachers' effectiveness. 76 percent of respondents agree that learners perform better when taught by experienced teachers. Majority of respondents (60 percent) were undecided on influence of teachers' background on teaching and learning of agriculture and that teachers from different institutions use different teaching approaches. Teachers' physical characteristics, depositions, and

cultural and ethnic background has been thought to influence life in classrooms (Ashton, 2006). The study found that majority of respondents (76 percent) agreed that there was a relationship between teacher formative experience and student's performance.

The study sought to establish influence of teacher formative experience on the teaching of Agriculture. The data results from the are analysed and presented in the following Figure 4.2.

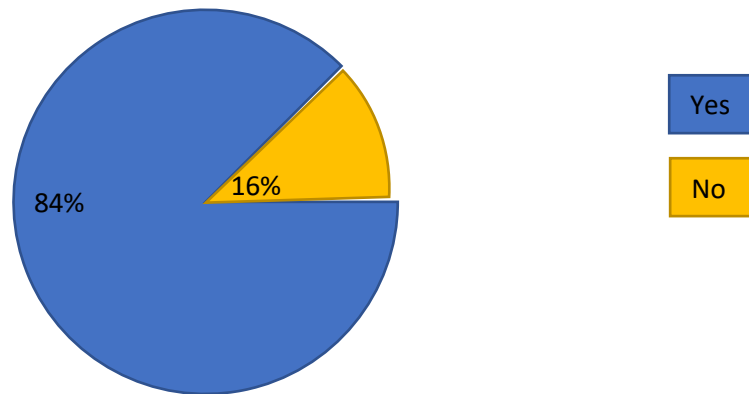


Figure 4.2 influence of teaching experience on teaching and learning of agriculture

Figure 4.2 shows 84% of the respondents supported the statement claiming that the teaching of agriculture practicals in school is influenced by the formative experience of the teachers, while 16% opposed. The higher percentage thought that it is the experience of the teachers that has more weight on the successful delivery of teaching and learning services. On the other hand, those who opposed stated that the successful delivery of teaching services is more about mastery and delivery of knowledge than experience.

4.8 Students' response on teacher-related factors influencing teaching and learning of agriculture

The researcher sought to use the responses of the form four students in order to establish a comprehensive conclusion on how teaching and learning is conducted in school by the agriculture teachers. The study's findings are presented in the Table 4.16.

Table 4.16: Form four students' responses

Statement	SA		A		UD		D		SD	
	F	%	F	%	F	%	F	%	F	%
Teacher uses lesson notes while teaching.	44	40	44	40	0	0	22	20	0	0
Teacher uses practical method of teaching during double lesson.	11	10	22	20	11	10	33	30	33	30
Teacher checks and marks learner's notes on time.	11	10	33	30	0	0	44	40	22	20
Teacher administers exams and produces results on time.	0	0	22	20	0	0	0	0	88	80
Teacher completes syllabus on time	9	8.2	10	9.1	0	0	65	59.1	26	23.6

Teacher uses a variety of teaching methods.	8	7.3	33	30	3	2.7	44	40	22	20
Teachers from different backgrounds teach differently.	0	0	50	45.5	31	28.2	29	26.4	0	0
Teacher encourages students to form young farmers club in school.	27	24.5	39	35.5	0	0	24	21.8	20	18.2
Teacher organizes students to participate in community development and ASK shows.	22	20	22	20	11	10	40	36.4	15	13.6

N = ?

From the Table 4.16, majority of students (82.7%) disagreed with the statement that teacher's complete syllabus on time based on their previous years. Also, 80% of the students opposed the statement that the teachers administer the exams and produce results on time. Also, despite some students (40%) gave positive feedback on teachers organizing students to participate in

community development and Agriculture Society of Kenya shows, a good number of them (60%) opposed the statement. Also, some students (40%) disagreed with the statement that the teacher encourages students to form young farmers club in school

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study on four objectives namely; to establish the influence of; teacher qualifications on teaching of agriculture practicals, teacher workload on teaching of agriculture practicals, teacher skill enhancement on teaching of agriculture practicals, and teacher formative experience on the teaching of agriculture practicals. This chapter summarizes the study findings, draw conclusions and make recommendations from study including suggestions necessary for further studies or research.

5.2 Summary of the study

The purpose of the study was to investigate teacher-related factors which influence the teaching and learning of agriculture practicals in a public secondary school in Konoin sub-county Bomet. The objectives study were to; establish influence of teacher qualification, teacher workload, teacher skill enhancement and teacher formative experience on the teaching and learning of agriculture.

The first objective focused on establishing the influence of teacher qualification on the teaching and learning of agriculture in secondary schools. The study established that teacher qualification affects the teaching and learning of agriculture in secondary schools in Konoin. The respondents unanimously agreed that higher qualification is required for effective teaching and learning of agriculture leading to higher performance in the subject. The

respondents further strongly disagreed with the suggestions that qualification does not affect teaching and learning of agriculture, but affirmed that higher qualifications count in performance and teacher effectiveness in class because teachers with higher qualifications apply better pedagogical approaches.

The second objective of the study was to determine the effect of teacher workload on the teaching of agriculture practicals in secondary schools. The study determined that there is a strong relationship between the teaching of agriculture practicals with the teacher workload. The respondents affirmed that teachers with manageable workload engage students on practical sessions, check and mark learners' workbooks, administer exams and produce results in time, use various teaching and learning methods, and organizes students to participate in experiential learning activities in clubs and community.

The third objective focused on establishing the influence of teacher skill enhancement services on the teaching and learning of agriculture in secondary schools. According to the findings the study established that indeed skills enhancement services like seminars, professional development courses, field trips, as well as continuous knowledge and skill enhancement services improves teaching and learning of agriculture. The respondents further articulated that these services strengthen teaching and learning of agriculture through practical training in test setting and formation of subject panels. Other skills enhancement services that the teachers were exposed to be computer and examiners training which enhances integration of ICT in teaching as well boost teachers' testing skills and overall performance competence. However, a

third of the respondents though affirming the importance of skills enhancement services noted that their schools have not organized them, nor have they accessed such services.

Finally, the fourth objective of the study was to determine the influence of teacher formative experience on the teaching and learning of agriculture. The responses established that a teachers' experience affects the teaching and learning of agriculture in secondary schools in Konoin sub county. The respondents affirmed that long teaching experience, subject mastery over a long period and teachers' background greatly affects the teaching and learning of agriculture in secondary schools. Performance employs under-qualified teachers. It was overwhelmingly agreed by the respondents that the qualifications of teacher influence the teaching and learning in school.

5.3 Conclusions of the Study

From the research objectives and questions, and findings, the following conclusions were therefore drawn. The study indicated that teacher qualification influences the teaching of agriculture practicals in secondary schools. Hence schools should hire qualified teachers to teach agriculture in their schools.

Secondly the study determined that teacher workload affected the teaching of agriculture practicals. Hence there is need to ensure teacher is optimized for better teaching of agriculture practicals in secondary schools.

Thirdly the study established a strong relationship between teacher skill enhancement services and teaching of agriculture practicals in secondary

schools. Therefore provision of skill enhancement services will help promote the teaching of agriculture practicals in secondary schools.

The findings also established a clear relationship between the teacher formative experience and the teaching of agriculture practicals. of the teachers. This therefore means teacher experience and continuous professional development is very critical in strengthening the teaching of agriculture practicals in secondary schools.

Therefore, based on the study findings, the major conclusion was that teacher related factor influences the teaching of agriculture in secondary schools, hence schools should put in place measures that promotes positive teacher related factors.

5.4 Recommendations

In consideration to the findings of the researcher's study, below were the recommendations made.

- i. Skills enhancement services, workshops and seminars that relates to agriculture should be organized regularly
- ii. The sub-county Education Officers should arrange sensitization programs through seminars in order to enlighten the agriculture teachers on ways and importance of getting students fully involved in the teaching of agriculture practicals.
- iii. Head teachers and director of studies should ensure optimum teacher workload as way enhancing the teaching of agriculture practicals.

- iv. Highly qualified, fully trained and professional teachers of agriculture should be employed by the government to ensure that teaching and learning processes in institutions are enhanced.

5.5 Suggestions for further studies

On the basis of the current study, the following suggestions for further study have been made by the researcher.

- i) There is a need to carry out further studies in the other parts of the country without limiting the research to Konoin sub-county.
- ii) Further research should be conducted to establish the influence of both student and parent-related factors. This study only concentrated the attention on teacher-related factors.

REFERENCE

- Aneke C. U. (2015). *Assessment of Instructional Methods adopted by Teachers of Agricultural science in Secondary Schools for enhanced skill acquisition for self-reliance in Enugu State, Nigeria*. Department of Technology and Vocational Education Enugu State University of Science and Technology Vol.3, No.11, pp.97-206
- Bartilol S.J & Ngeno J.K. (2016) *influence of selected teacher factors on pupil's academic performance in public primary schools in Keiyo south sub-county, Kenya*.
- Bird, A. (2002). *Skills and jobs for Young People: Presentation at FET Colleges Responsiveness Conference, Four ways (Gauteng)*. Human Sciences Research Council and Joint Trust
- Briggs, T. (2000). *Improving instruction through supervision*. New York: The Macmillan Company.
- Chukwudun, P.O. (1983), *How not to lose more teachers*. The Nigeria Observer, April 23, p. 5
- Crosnoe, R, Johnson, M.K, & Elder, G.H. (2004) *school size and the interpersonal side of education and examination of race/ ethnicity and organization context*. *Social Sciences Quarterly* 85(5), 1259-1279
- Day, C., Elliott, B., & Kington, A. (2005). *Reform, standards and teacher identity: Challenges of sustaining commitment*. *Teaching and Teacher Education*, 21, 563–577.
- Dewey, J. (1938). *Experience and education*. New York: The Macmillan Company

- Dunkin M.J. & Biddle, B. J (1974). *The Study of Teaching*, Washington D.C Holt, Published by European Centre for Research Training and Development UK (www.eajournals.org) 97 ISSN 2055-0219(Print), ISSN 2055-0227(online)
- Elliott, B., & Crosswell, L. (2002). *Teacher commitment and engagement, the dimensions of ideology and practice associated with teacher commitment and engagement within an Australian perspective*. Paper presented to the Australian Educational Research Association Conference, Brisbane.
- Goliath, K. (2008). *Adding Value to Public School. Investigating Teacher Education Teaching and Pupil Learning*. Journal of Teacher Education.

- Haralambos, M. &Heald, R. (1980). *Sociology: Themes and perspectives*. Slough: University Tutorial Press in the Implementation of Secondary School Agriculture Curriculum in Kenya ' S Arid and Semi-Arid Counties: the Student ' S Perspective. *International Journal of Innovation and Applied Studies*, 15(4), 768–778.
- Kabugi, S. W., (2013). *Challenges to teaching and learning of agriculture in secondary schools in Kakuyuni Division, Kangundo District, Machakos County, Kenya*. A thesis submitted for the degree of Masters in Education (Curriculum Studies) Kenyatta University
- Kimani, G., Kara, A.M. & Njagi, L.W. (2013). Teacher factors influencing students' academic achievement in secondary schools in Nyandarua County, Kenya. *International Journal of Education and Research*, 1(3), 1-14.
- King, K. J. & Martin, C. (2002). The vocational school fallacy Revisited: Education, Aspiration, and Work in Ghana 1959-2000. *International Journal of Educational Development*. 22, (2002)5-26.

- Kombo, D.K. and Tromp, D.L.A (2006). *Proposal Writing and Thesis Proposal; An introduction*. Nairobi Kenya; Pauline's Publications Africa
- Kothari CR, (2010) *Research methodology. Methods and techniques*. New international Publishers Jaipur India
- Kritsada, P. (2012). *Factors Influencing Enrolment in Agriculture Courses*. Thailand: Los Babus, Laguna Press.
- Modebelu, M, N and Duvie, A.N, (2012) *Innovative methods and strategies for effective teaching and learning*, Mediterranean journal of social sciences, 3[13], 145- 154
- Mugenda O.M. & A. G. (2003), *Mugenda, Research methods: Qualitative and quantitative Approaches*. ACT Press, Nairobi.
- Mwiria, K. (2005). *Vocationalisation of Secondary Education*. Nairobi-Kenya: Kenya Literature Bureau Press.
- Ndirangu, M. (2004). *An analysis of factors hindering the achievement of curriculum goals in Kenyan schools*. *Journal of Education and Human Resources*, 2(2), 89.

Ngau, G.M. (1987). *Impact of Free Education Since Presidential Decree Department*

Ngesa F U, (2006). *Demand profiles and supply responses for agricultural education and Training (AET) at the post-primary level: Case of Kenya*. Final report prepared for World Agroforestry Centre (ICRAF), Nairobi.

Ochieng- Konyango, J. ., & Asienyo, B. O. (2015). *Secondary school agriculture: Participatory approaches to the implementation of secondary school agriculture curriculum in Kenya between 1959 and 2012*. International Journal of Scientific Research and Innovation Technology, 2(1), 1–11.

Okoli, T. O (2011). *Analysis of Training needs of rural women for effective participation in agricultural development in Anambra State*. Unpublished Ph.D. Thesis. Department of Technology and Vocational Education Enugu State University of Science and Technology.

Olajide, K., Odoma, M. O., Okechukwu, F., Iyare, R., & Okhaimoh, K. I. (2015). *Problems of teaching agricultural practical in secondary schools in Delta State, Nigeria*. International Journal of Innovative Education Research, 3 (2), 7-19.

- Onguti, W. (1987). *An Examination of the Performance of Harambee Secondary School of Lwandeti Sub-location, Kakamega District; A Case Study of MutuHarambee Secondary School*, University of Nairobi (UON) Unpublished Med Thesis.
- Orodho, A.J. (2009). *Element of Education & Social Science ResearchMethods*. Kanezja Publisher, Maseno Kenya.
- Owoeye, J. S., & Yara, P. O. (2011). *School facilities and academic achievement of secondary school agricultural science in Ekiti State, Nigeria*. *Asian Social Science*, 7 (7), 64-74. Doi: 10.5539/ass.v7n7p64
- Sindale, B. N., & Dlamini, B. M. (2013). *Curriculum reforms and competence level of high school agriculture teachers in Swaziland*. *Journal of International Agricultural Extension Education*, 20 (3), 33-44
- Temu, A. (2003). *Improving Agriculture and Natural Resources Education in Africa: A Stitch in Time*. Nairobi: World Agro-Forestry Centre. (ICRAF)

Twoli, W. N. (1986). *Sex Difference in Science Achievement among Secondary Students in Kenya*. South Australia: Unpublished Ph.D. Thesis, Flinder University.

Vandenbosch, T. (2006). *Post –Primary Education & Training in sub-Saharan Africa; principal Research work commissioned by the World Bank on Agricultural Education and Training in Sub-Saharan Africa*. World Agroforestry Centre, Nairobi.

Waliki, L.M. & Usman, M. (2009). *Achieving the millennium development goals – MDGs by 2015 through Effective Teaching of Agricultural Science of Nigeria*. *The Voice of Teachers*, 1(1), 32 – 36.

World Bank (2005) *Expanding opportunities and Building competencies for young people*.

World Bank. (2000). *Can Africa Claim the 21st Century?* Washington, D.C. The World Bank.

APPENDICES

Appendix A: Letter of Introduction

UNIVERSITY OF NAIROBI,
DEPARTMENT OF EDUCATION ADMINISTRATION
AND PLANNING,
P.O BOX 92,
KIKUYU

Dear sir/ madam

RE: TRANSMITTAL LETTER FOR RESEARCH AND INTRODUCTION

I am a master's student at the University of Nairobi researching the influence of teacher-related factors on the teaching of Agriculture practicals at Konoin sub-county Bomet.

Your school has been selected for participation in the study. It is my humble request that you assist me by filling the questionnaires as accurately as possible. The answers and opinions will only be used for academic purposes.

Thank you in advance for your cooperation

Yours faithfully,

Hellen C Rutoh

E55/12396/2018

APPENDIX B
HEADTEACHERS' QUESTIONNAIRE

Introduction

This questionnaire is designed to study teacher-related factors influencing teaching and learning of Agriculture in secondary school. Kindly answer the questions accurately by putting a tick (✓) against the appropriate statement. Fill the required information in the spaces provided. The information provided shall be treated with confidentiality and be used for academic purposes.

PART A: BACKGROUND INFORMATION

1. Indicate your gender?

Male ()

Female

2. What is your highest level of qualification?

Masters degrees ()

Bachelor's degree ()

Diploma

others specify ()

3. How long have you been the principal?

Less than 1year ()

2 to 5 ()

5 to 10 ()

above 10 ()

PART B: TEACHER QUALIFICATIONS

4. Indicate how far you agree or disagree with the statement below by ticking (✓) against the given codes in the table below, where;

Strongly agree – SA, Agree- AG, Disagree- D, Undecided – UN, strongly disagree- SD

Statements	SA	AG	UD	D	SD
Higher teacher qualifications are required to be able to teach agriculture practicals at secondary schools.					
Agriculture teachers with higher qualifications perform better than low qualified teachers.					
There is a relationship between teacher academic qualifications and student outcomes					
Teacher qualification do not count when it comes to the performance and effectiveness of teacher in the classroom					
Teachers with high qualification use better pedagogical approaches in teaching and learning					

4. Do the school management support teachers to attend professional development courses?

Yes () No ()

If yes, how often?

5. In your opinion, do you believe that teacher qualification influence teaching and learning of agriculture?

PART C: TEACHERS' WORKLOAD.

7. Rate the following statements as agriculture teacher uses in teaching and learning of Agriculture in your school using the following phrases;

Always – A, very often- VO, sometimes – S, Rarely - R, Never

Statements	A	VO	S	R	N
<p>Teachers engage students on practicals activities during double lessons</p> <p>Teachers check and mark learner's notebook.</p> <p>Teacher prepare notes for effective teaching</p> <p>Teacher administer exams and release results on time</p> <p>Teacher use variety of methods in teaching and learning</p> <p>Teacher organises learners to participate in young farmers club and community development</p>					

8 Do agriculture teachers have some other responsibilities apart from teaching?

Yes ()

No ()

If yes, how do you rate efficiency in terms of his or her performance?

Very efficient () moderate () not efficient ()

9 In your opinion does teacher workload influences the teaching of agriculture practicals in your school?

PART D. TEACHER SKILL ENHANCEMENT SERVICES.

10. Rate the importance of skill enhancement services on agriculture teacher and its influence on teaching and learning of agriculture in your school using the following phrases;

Very important – VI, important –I, moderately important –MI, slightly important - SI, not important - NI

Statement	VI	I	MI	SI	NI

<p>Teacher capacity building improve teaching and learning effectively</p> <p>Teacher professional development courses improve teaching approaches.</p> <p>Skill enhancement services such as seminars, field trips, ASK shows has positive impact on teaching and learning of agriculture</p> <p>Teachers' continuous knowledge and skill enhancement improve curriculum implementation.</p>					
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	--	--	--

11 Do teachers access internal staff development opportunities in your school?

Yes ()

NO ()

In your opinion do Agriculture teachers possess adequate modern skill for practical oriented teaching in your school?

Yes ()

No ()

Give reason for your answer

PART E: TEACHER FORMATIVE EXPERIENCE

13. Indicate the level of agreement with the statement on teacher formative experience and influence on teaching and learning of agriculture in your school, using the scale provided; Strongly agree – SA, Agree – A, Undecided –UD, Disagree –D and Strongly disagree – SD

Statement	SA	A	UD	D	SD
<p>Teachers with long teaching experience perform better with little or no experience</p> <p>Teaching a particular subject for years improve teachers effectiveness</p> <p>Learners perform better when taught by experienced teachers</p> <p>Teacher’s background influences the teaching and learning of agriculture</p> <p>Teachers from different institution use different teaching approaches</p> <p>There is a relationship between teacher formative experience and students’ performance</p>					

12. Have you noticed any challenges in the teaching and learning Agriculture related to teachers' formative experience?

Yes ()

No ()

If yes state the challenges?

13. Among the Agriculture teachers, are there some who like teaching practicals than others? Yes () No ().Give a reason.

APPENDIX C

QUESTIONNAIRE FOR THE DIRECTOR OF STUDIES/ DEPUTY PRINCIPAL

This questionnaire is designed to study teacher-related factors influencing teaching and learning of Agriculture in secondary school.

Kindly answer the questions accurately by putting a tick [] against the appropriate statement to fill the required information in the spaces provided.

The information provided shall be treated with confidentiality and be used for academic purposes.

PART A: BACKGROUND INFORMATION

1. What is your gender?

Male ()

Female ()

2. What is your age?

Below 30 ()

30- 45 ()

46 -50 ()

above 50 ()

3. What is your highest level of qualification?

Masters degrees ()

Bachelor's degree ()

Diploma

others specify ()

4. How long have you been teaching?

Less than 1year ()

2 to 5 ()

5 to 10 ()

above 10 ()

PART B: TEACHER QUALIFICATION

5 Give your opinions towards the following statements on teacher qualification and influence on teaching and learning of agriculture in your school using the following phrases;

Strongly agree – SA, agree – AG, disagree –D, Undecided – UD, Strongly disagree - SD

Statements	SA	AG	UN	D	SD
Higher teacher qualification is required to be able to teach in secondary school.					
Agriculture teachers with higher qualifications perform better than low qualified teachers.					
There is a relationship between teacher academic qualifications and student outcomes					
Teacher qualification do not count when it comes to the performance and effectiveness of teacher in the classroom					
Teachers with high qualification use better pedagogical approaches in teaching and learning					

5. Do school management support teachers to attend professional development courses?

Yes () No ()

If yes, how often.

PART C: TEACHER WORKLOAD

6. Rate the following statements as Agriculture teacher uses in the teaching and learning Agriculture in your school using the following phrases;

Always – A, very often – VO, sometimes – S, rarely –R, never – N

Statements	A	VO	S	R	N
Teachers engage students on practicals during double lessons					
Teachers check and mark learners notebook					
Teacher prepare notes for effective teaching					
Teachers administer exams and produce results on time					
Teachers use varied methods in teaching and learning					
Teachers organise learners to participate in young farmers club and community development					

7. Is the class time table flexible to allow all the required Agriculture practicals to be conducted per week?

Yes ()

No ()

8. In your opinion, does teacher workload influences the teaching and learning of agriculture

PART D. TEACHER SKILL ENHANCEMENT SERVICES

9. Rate the importance of skill enhancement services on agriculture teacher and its influence on teaching agriculture practicals in your school using the following phrases;

Very important – VI, important –I, moderately important- MI, slightly important – SI, not important –NI

Statement	VI	I	MI	SI	NI
Teachers’ capacity building improve teaching and learning effectively					
Teacher professional development courses improve teaching approaches					
Skill enhancement services such as seminars, field trips, ASK shows has positive impact on teaching and learning					
Teachers’ continuous knowledge and skill enhancement improve curriculum implementation.					

10. Are there workshops /seminars organized within or outside the school for agriculture teachers?

Yes ()

No ()

If yes list the courses offered

11. How does the school support agriculture teachers in project management in your school?

12. What is the school KCSE mean score for Agriculture from 2015-2019?

PART E. TEACHER FORMATIVE EXPERIENCE.

13. Indicate the level of agreement with the statement on teacher formative experience and influence on teaching and learning agriculture in your school ,using the scale provided ;

Strongly agree- SA, Agree – A, Undecided – UD, Disagree – D, Strongly disagree - SD

Statement	SA	A	UD	D	SD
Teachers with long teaching experience perform better with little or no experience					
Teaching a particular subject for years improve teachers effectiveness					
Learners perform better when taught by experienced teachers					
Teachers background influences the teaching and learning of agriculture					
Teachers from different institution use different teaching approaches					
There is a relationship between teacher formative experience and students performance					

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14. Have you noticed any challenge in the teaching and learning Agriculture related to teachers' formative experience?

Yes ()

No ()

If yes state the challenge?

15. Among the Agriculture teachers, are there some who like teaching practicals than others? Yes () No ().Give a reason.

APPENDIX D

QUESTIONNAIRES FOR THE AGRICULTURE TEACHER

This questionnaire is designed to study teacher-related factors influencing teaching and learning of agriculture in secondary school. Kindly answer the questions accurately by putting a tick [] against the appropriate answer. Fill the required information in the spaces provided. The information provided shall be treated with confidentiality and be used for academic purpose

PART A: BACKGROUND INFORMATION

1. What is your gender?

Male ()

Female ()

2. What is your age

Below 30 ()

30- 45 ()

46 -50 ()

Above 50 ()

3. What is your highest level of qualification?

Masters degrees ()

Bachelor's degree ()

Diploma ()

others specify ()

4. How long have you been in the teaching service?

Less than 1year ()

2-5 years ()

6-10years ()

above 11 years ()

PART B: TEACHER QUALIFICATION

5 Give your opinions towards the following statements on teacher

qualification on the influence of teaching and learning of agriculture in your

school using the scale provided ; Strongly agree – SA, Agree- A, Disagree –

D, Undecided- UD, Strongly disagree- SD

Statements	SA	AG	UN	D	SD
Higher teacher qualification is required to be able to teach a secondary school.					
Agriculture teachers with higher qualifications perform better than low qualified teachers.					
There is a relationship between teacher academic qualifications and student outcomes					
Teacher qualification do not count when it comes to the performance and effectiveness of teacher in the classroom					
Teachers with high qualification use better pedagogical approach in teaching and learning					

6 Does the school management support the professional development courses of agriculture teachers?

Yes ()

No ()

If yes how often,

Termly ()

Yearly ()

7 How many professional development courses related to Agriculture have you attended since you were employed?

One () more than one () none ()

Give a reason for your answer?

.....

PART D: TEACHER WORKLOAD

5. Rate the following statements as Agriculture teacher uses in the teaching and learning agriculture in your school using the following phrases;

Always – A, Very often – VO, Sometimes – S, Rarely – R, Never - N

Statements	A	VO	S	R	N
I engage students on practicals during double lesson					
I check and mark learners notebook					
Teacher prepare notes for effective teaching					
Teachers administer exams and produce results on time					
Teachers use varied methods in teaching and learning					
Teachers organises learners to participate in young farmers club and community development					

7 How many agriculture teachers does the school have? (number)

8 How many lessons do agriculture teachers have in a week?

Less than 10 () 11-20 () 27-30 ()

Above 30 ()

9 Which is your other teaching subject?

Biology () Chemistry ()

10 Which is your favourite teaching subject?

Agriculture () Biology () Chemistry ()

Give a reason?

11 Does teacher workload determine the selection of the teaching method?

Yes () No ()

Specify the methods often used in teaching agriculture in your school?

Lecture method () Practical method () Group discussion ()

Give a reason

PART D. TEACHER SKILL ENHANCEMENT SERVICES

14. Rate the importance of skill enhancement services on agriculture teacher and its influence on teaching and learning agriculture in your school using the following phrases.

Very important – VI, important – I, moderately important – MI, slightly important – SI, not important- NI

Statement	VI	I	MI	SI	NI
Teacher capacity building improve teaching and learning effectively					
Teacher professional development courses improve teaching approaches					
Skill enhancement services such as seminars, field trips, ASK shows has positive impact on teaching and learning					
Teachers continuous knowledge and skill					

enhancement improve curriculum implementation					
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10. Are there workshops /seminars organized within or outside the school for agriculture teachers?

Yes ()

No ()

If yes list the courses offered

11. Does the school support students in agricultural activities such as community development, ASK shows, young farmers clubs, students initiated projects?

Yes ()

No ()

12. Which of these short courses have you attended as an Agriculture teacher?

- i. Computer training ()
- ii. Examiners training ()
- iii. Project management ()

PART E: INFLUENCE OF TEACHERS FORMATIVE EXPERIENCE ON TEACHING AGRICULTURAL PRACTICALS.

13. Indicate the level of agreement with the statement on teacher formative experience and influence on teaching and learning agriculture in your school ,using the following phrases ;

Strongly agree – SA, Agree –A, Undecided –UD, Disagree – D, Strongly disagree - SD

Statement	SA	A	UD	D	SD
Teachers with long teaching experience perform better with little or no experience					
Teaching a particular subject for years improve teachers effectiveness					
Learners perform better when taught by experienced teachers					
Teachers background influences the teaching and learning of agriculture					
Teachers from different institution use different teaching approaches					
There is a relationship between teacher formative experience and students performance					

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14. In your opinion does the teacher's formative experience influence teaching of agriculture practicals in your school?

Yes ()

No ()

15. Have you noticed any challenges in the teaching of practicals agriculture related to teachers' formative experience?

Yes ()

No ()

If yes state the challenge

16. Are there some topics in agriculture that you handle well due to your formative experience?

Yes ()

No ()

Explain your response?

APPENDIX E

QUESTIONNAIRES FOR FORM FOUR STUDENTS

This questionnaire is designed to study teacher-related factors influencing agricultural practicals in secondary schools. Kindly answer the questions accurately by putting a tick (✓) against the appropriate statement. Fill the required information in the spaces provided. The information provided shall be treated with confidentiality and be used for academic purposes.

PART A: DEMOGRAPHIC INFORMATION

1. What is your gender?

Male ()

Female ()

2. Why did you choose agriculture as your examinable subject?

Personal interest ()

School policy () Parents and

teachers influence ()

Performance in Agriculture ()

3. Rate the following statements as the way Agriculture teacher uses in teaching and learning agriculture in your school using the scale provided;

Strongly agree – SA, Agree – A, Undecided – UD, Disagree – D, Strongly disagree –SD

Statements	SA	A	UD	D	SD
Teacher uses lesson notes while teaching					
Teacher uses practical method of teaching during double lesson					
Teachers check and mark learners notes on time					

Teacher administer exams and produces results on time					
Teachers complete syllabus on time					
Teacher use variety of teaching methods e.g.; lectures discussion, practical, field trips etc.					
Teachers from different background teach differently e.g.; social, cultural, economic, geographical etc.					
Teachers encourage students to form young farmers club in school					
Teachers organizes students to participate in community development and ASK shows					

4 Indicate the level of agreement with the following statements on the teaching and learning of agriculture in your school.

a. Agriculture students taught by different teachers perform differently.

Agree [] undecided [] disagree []

b. Agriculture students taught by long serving teacher perform better than those taught by newly employed teachers.

Agree [] undecided [] disagree []

5 What are the benefits of learning agriculture to you as a student and after school

APPENDIX F: RESEARCH PERMIT

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 764404	Date of Issue: 15/May/2021
RESEARCH LICENSE	
	
This is to Certify that Ms. HELLEN CHEPNGENO LANGAT of University of Nairobi, has been licensed to conduct research in Bomet on the topic: TEACHER RELATED FACTORS INFLUENCING TEACHING OF AGRICULTURE PRACTICALS IN PUBLIC SECONDARY SCHOOL IN KONONIN SUB-COUNTY, BOMET COUNTY, KENYA. for the period ending : 15/May/2022.	
License No: NACOSTI/P/21/10520	
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**UNIVERSITY OF NAIROBI
COLLEGE OF EDUCATION AND EXTERNAL STUDIES
SCHOOL OF EDUCATION
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND PLANNING**

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P.O. Box 30197-00100,
OR P.O. Box 92-00902 KIKUYU

Our Ref: E55/712396/2018

Date: 30th April, 2021

TO WHOM IT MAY CONCERN

HELLEN C.RUTO – E55/712396/2018

This is to certify that the above named is a Master of Education student in the Department of Educational Administration and Planning at the University of Nairobi. Ms. Hellen C. Ruto has completed her course work and is in the process of writing her research proposal entitled "Teacher Related Factors Influencing Teaching of Agriculture Practical's in Public Secondary School in Konoin Sub – County Bomet, Kenya".

Any assistance accorded to her will be highly appreciated



JEREMIAH M. KALAL, PhD
CHAIRMAN
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND PLANNING
JMK/lao

APPENDIX G: UNIVERSITY AUTHORIZATION LETTER