

The Impact of Students' Peer Influence on Choice of Agriculture Subject among Boys and Girls in Public Secondary Schools in Kajiado County, Kenya

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Abstract: *The main purpose of this study was to investigate factors influencing the choice of agriculture subject among boys and girls in public secondary schools in Kajiado County, Kenya. This paper's objective was to establish how students' peers influenced the choice of agriculture subject among boys and girls in public secondary schools in Kajiado County, Kenya. The study reviewed related literature which highlighted an overview of agriculture education in secondary schools. Findings from previous studies on the factors influencing choice of agriculture subject among boys and girls in public secondary schools were reviewed. The study employed descriptive survey design. Additionally, the study embraced purposive sampling technique in selecting the sample size of agriculture students, principals and agriculture teachers in public schools in Kajiado County. The study mainly used questionnaire to collect data. Data was analyzed descriptively by use of descriptive statistics using the Statistical Package for Social Sciences (SPSS) programme. Data collected was presented using frequency distribution tables and percentages. From the findings of the study, it established that students' peers greatly influence they way they choose optional subjects in secondary schools. Most of them followed the guidance of their peers in the choice of agriculture subject. The desire to acquire skills relevant for job market and self employment was a driving force in the students' choice of agriculture subject among boys and girls in public secondary schools in Kajiado County. The study therefore recommended that agriculture subject should equip learners with the skill necessary to shape their future career and self reliance. In view of the findings of this study, agriculture subject should be made compulsory in primary and secondary levels of education so as to enable the learners to get adequate agricultural skills that would enable them to engage in agribusiness for self-reliance and self-employment.*

Keywords: Peer Influence, Agriculture Subject, Career Aspirations, Boys, Girls, Public secondary schools, Career Choice, Impact

1. Introduction

Agriculture plays a key role in promotion of social and cultural development (Temu, 2003). According to Macalla, (2000) agriculture education is worth studying in all levels of education to enhance food stability and economic growth in a country where population increases rapidly. Agriculture in Kenya is the backbone of the country's economy as ascertained by the report of the cabinet secretary for agriculture during a summit at state house on August 15th 2016, that agriculture contributes 23 percent of the country's gross domestic product (GDP); earning the country over eleven billion US dollars from export market. This was supported by the government records at the beginning of 2013.

Commercial agriculture is intended to create employment as well as making the country self – sufficient in food production. Moreover, agriculture education is aimed at increasing technological skills and professionalism in agriculture in order to achieve the country's vision 2030. Pearson, (1998), asserted that due to the frequent technological changes, there is need to equip learners with skills to enable them compete globally hence agriculture education is one area that can develop learners in the field of work. The Food and Agriculture Organization (FAO, 1997) emphasized that agricultural education should be designed to provide students with competences and awareness of the world of work. Agriculture subject should develop learners'

essential skills pertaining technical practical and ethical dimensions of the field. The need to enhance science and technology in Kenya led to diversification of the adoption of 8-4-4 system of education which offers a wide range of subjects comprising of 24 examinable subjects consisting of five clusters of subjects.

According to the 8-4-4 system of education curriculum Cluster I subjects comprise English, Kiswahili and mathematics, Cluster II subjects consist of Biology, physics, chemistry and general sciences, Cluster III subjects include History and Government, Geography, Christian Religious Education(CRE),Islamic Religious Education(IRE) and Hindu Religious Education(HRE), Cluster IV consist of Home science, Art and Design, Agriculture, Aviation Technology and Computer Studies and Cluster V French, German, Arabic, Music, Kenya sign language and Business Studies. From the above subject clusters, a learner is required to select a minimum of seven subjects which comprises all subjects in Cluster I, at least two subject in Cluster II, one subject in Clusters III, IV and V getting a minimum of seven or maximum of nine subjects for the national examination at the Kenya Certificate of Secondary Education (KCSE), (KNEC, 2014)

The choice of agriculture subject among boys and girls in public secondary schools among the many optional subjects make it challenging for learners to make the right decisions having come from the primary school background where

most of the subjects were not practical or were not even offered.

Agriculture subject in higher levels of education such as tertiary colleges and universities is highly embraced unlike in the primary and secondary level, hence there is need to equip the learners with agricultural skills at these levels so as to enable smooth continuity and change of perception as seen in agriculture policy (2006) which focused mainly on increasing productivity and income growth especially for small farm holders. It was meant to encourage food security and equity, emphasis on irrigation farming to stabilize agricultural output. The policy advocated for diversification of non-traditional agricultural commodities and value addition to reduce vulnerability and starvation as well as achievement of Millennium Development Goals (MDGs) and Post Millennium Development Goals (PMDGs)

According to Alabu, (2001), agriculture contributes to the balance of trade by increasing exports and improving agricultural production, this requires agricultural expertise to meet agricultural output. Agricultural education therefore equips Kenyan productive group to practice smart agriculture due to rapid climatic changes in different parts of the country as opposed to the traditional farming as proposed by David Njengere, a senior director of Kenya Institute of Curriculum Development (KICD, 2013). Claire, Andrew and Sarah (2006) argued that, participatory curriculum implementation innovation and creativity lead to acquisition of skills for life and encourages community development. In this view, agriculture opens avenues for new pattern of education through practical skills that enhances learner's responsibility to community needs for instance smart farming especially in dry parts of the country. The choice of agriculture as subject among boys and girls will motivate them to exploit the available resources in the country for both individual and national economic benefits. The positive change in perception towards agriculture subject as an opener towards self employment through acquisition of necessary skills for the job market is also enhanced.

Despite these motivations, results from KCSE 2012 to 2015 in Kajiado County showed that out of the 50 secondary schools consisting of over 2500 students only 625 of them chose agriculture boys 437 and 188 of them were girls, meaning there were more boys than girls who choose agriculture as one of their optional subjects at the secondary school level. This clearly indicate a low enrollment in agriculture classes by both boys and girls in the county. This revelation prompted the exploration of the factors influencing the choice of agriculture subject among boys and girls in public secondary schools in Kajiado County. The study therefore sought to investigate how students' peers influenced the choice of agriculture among boys and girls in public secondary school in Kajiado County.

1.1 Research Question

The study sought to answer the research question. How do students' peers influence the choice of agriculture subject among boys and girls in public secondary schools in Kajiado County, Kenya? Kenya being an agricultural economic

country requires informed and skilled manpower to serve in the job market so as to enable the county achieve her vision 2030. Acquisition of skills through teaching of agriculture should motivate individuals and groups of young people to drive towards self-employment and innovation especially in smart farming and adaptive agriculture; especially in the dry parts of the country like Kajiado. This study therefore sought to establish how students' peers influenced the choice of agriculture subject among boys and girls in public secondary schools in Kajiado County.

1.2 Research Objective

The study was guided by the following objective: To determine how students' peers influenced the choice of agriculture subject among boys and girls in public secondary schools in Kajiado County.

2. Reviewed Literature

Agriculture Education involves instructions on crop production, livestock management, soil and water conservation, irrigation farming among additional areas (Schutt and Wiekert, 2008). Agriculture education further involves food production that help farmers increase subsistence and commercial production leading to quality life of the population. Agriculture education in secondary schools in United States is meant to offer students with the individual academic and career experience vital for achievement in the fields of science, business and technology. Secondary school agriculture education programme involves three main elements which include classroom and laboratory, instructions, Supervised Agricultural Experience (SAE) and Future Farmers in America (FFA).

The classroom and laboratory instructions provide learners with foundational knowledge in the subject, prepare students for careers in food industries, fiber and natural resource industries among other areas that help to motivate students to enroll in agriculture. Supervised agricultural experiences gives the learners the chance to feel ownership of their agricultural enterprises or in field of work. The students' projects in this case would involve raising an animal or crops, the student may work on a farm or employment at an agriculture business dealing with agricultural machineries. This gives the learner the practical perspective of the subject in the real world. Supervised Agricultural Experience empowers the students to improve his/her skills in agriculture associated areas (Schutlz, Wiekert, Howard and Dickson, 2008). Future Farmers in America (FFA) are national organizations which improves students' potential for premier leadership, individual growth as well as career achievement. They do this through participation in competition, degree programmes, community service projects and national leadership agreements. The three components of agriculture education will bring up a graduate who is all rounded for the job market and well competent for the industry.

Also in the USA, due to improved farming activities, this has led to decline in individual involvement in agriculture from 38 percent to 28 percent Department of Agriculture

United States (2005). Before agriculture in secondary schools were dominated by production content to prepare them for future careers. According to Sereno (2004) in his study on challenges facing agriculture in USA pointed out that agricultural education in many developed countries face issues for instance enrolment, curriculum content and finance. He noted a reduction of the number of students choosing agriculture since 2001 to be declining to date, this indicated that though the subject contributes to the economy of the world, it is often chosen by few students. According to Broyles and Skelton (2002), in a study on problems facing beginning agriculture, teachers emphasized that shortage of qualified personnel affected the existing and future secondary agriculture programs hence the choice of subject among boys and girls.

Furthermore, a study by the American Association for Agriculture (AAAE) (2011 –2015), revealed that when the world population grows to an anticipated 9 billion by the year 2050, the population concern with non- agricultural should understand and be involved in sustaining a viable agriculture system. There should be emphasis for an informed citizen alongside policy decisions at all levels; to ensure a long-term sustainability of agriculture and quality life in the world. Technology and economic advancements have led to reduction in number of farms and rural community population threatening agriculture as explained by American Farm Bureau Federation (AFBF, 2002).

In China, agriculture schools had previously begun to take actions seriously and strengthened their vocational programs (Ministry of Education, 1998). In total there were about 360 agricultural schools across the autonomous regions, provinces, and municipalities in China. They were residential schools which enables learners pass standardized admission examination (Chen, 2000). The ministry of Agriculture took on the function of regulation and macro-management for all agricultural institutions. These economies have progressed as they have placed agriculture highly in their education curriculum.

In Cuba, education is highly placed in the development of the economy. Agriculture education is included in the curriculum from primary to the university education. Participatory education and practice is seen in all levels of learning where the children take part in agriculture practicals such as gardening in primary schools. The compulsory education in primary school curriculum includes 480 hours of “labour education” over six years, of a total of 5,680 hours to foster positive attitude towards work and one year of voluntary farming after completion of secondary education. The participatory education especially in agriculture has greatly improved the economy of Cuba which has good food security as well as management of the economy among the countries of Latin America.

In Africa, as Miller and Diamini (2007) established that agriculture education in the secondary curriculum has had different goals. For example, in Swaziland the aim of junior secondary agricultural education is to improve the learners’ gratitude and positive attitude concerning agriculture, while senior school aim is to organize interested youth to gain entry to join the college of agriculture at the University of

Swaziland. As Diamini and Ngwenya (2004) explained girls students in Swaziland chose to pursue agriculture in high school for economic, personal, educational, family and social reasons. In these countries agriculture is a very important subjects as it determines a future career of individuals and improves the economy of such countries.

According to Apori, Zinnah and Anor (2003), in regard to Ghana, a students’ choice of agriculture is predisposed by socio-economic background of individual learner, the agriculture colleges, parental influence and peer influence. Though the country is agriculturally potential for economic and subsistent purposes, agriculture is optional in the education curriculum hence low number of students in agriculture lessons. In most countries of sub-Saharan Africa, agriculture education has been very impassive to the rapid changing forms of demand for learners and fails to adjust to new realities, Tom, (2009) posited that curricular, syllabi, timetables in secondary school level were mostly overloaded with theory lessons at the expense of practical application. In essence agriculture is demanding making fewer students to choose it. Tom further argued that most topics related to agricultural production like agricultural entrepreneurship income generating undertakings and agricultural processing as well as marketing were ignored which would motivate learners to pursue careers related to agriculture.

In South Africa, agriculture education is compulsory in secondary school curriculum which has seen the country develop both economically and agricultural production, Diamini (2004). Egypt also puts a lot on irrigation farming, soil and water conservation. This has resulted in the country being self-sufficient on agricultural products even though it is found in a true desert. Agriculture education is emphasized to ensure gender balance and increase technological innovation which in turn improves industrial development in line with global development agenda.

In Kenya, like many other African countries which depend heavily on agriculture economically, agriculture education is optional in secondary school curriculum. The subject has a long history for instance in 1924 the Phelps Stokes commission observed that African natives were more dependent on agriculture, hence recommended vocational agriculture education to Africans. It was taught in primary school curriculum and primary teacher training colleges. The same was later enforced by Beecher and Binns reports of 1949 and 1952 respectively, Eshiwani (1993) explained post-independence perspective of agriculture education in secondary schools. Agriculture education was key to the economic development of the country and individual growth as it has room for improvement and unique innovation since it was very practical.

In 1985, Kenya introduced 8-4-4 system of education, as explained by Ngesa (2006) which attempted to vocationalize the curriculum. Agriculture was among the subjects that needed a lot of practicals but as Mburu (1996) noted with a lot of concern that practical teaching in secondary schools had been neglected hence the disparity in the KIE report of (2002), the theory and practical aspect of teaching were complementary and none should be neglected. In 2002, the government of Kenya further attempted to develop the

practical aspect of education by reviewing the curriculum where agriculture among the practical subject were scrapped from the primary school curriculum and left it as an optional subject in secondary schools. This made the subject have a poor background hence low enrolment among boys and girls in secondary schools. According to Ngesa (2006) secondary school agriculture consist of many topics ranging from crop production, soil and water conservation, livestock production, health, agro-forestry, farm machinery, agricultural economics just to name a few. These topics are very important but too wide to be adequately tackled within the time limit in secondary school resulting in differences in the choice of the subject by students.

Ngesa (2006) further argues that agricultural clubs in secondary schools like the young farmers club were critical ingredients for quality life in Kenya but few boys and girls engaged in such club activities other than the examination projects and agricultural shows. These views motivated this study to find out how this had affected the choice of the subject in secondary school. In tertiary colleges such as Bukura College of Agriculture and universities for instance Kabete school of Agriculture and veterinary science, Jomo Kenyatta University of Agriculture and Technology and Egerton University embrace serious teaching of agriculture and the practical aspect of it to produce skilled professionals for the job market. According to Mwiria (2005), the number of students selecting agriculture in high schools of Kenya had decreased from 70 percent in early 1990s to 40 percent today; this study sought to investigate the factors influencing the decrease basing on peer influence, parental influence, individual attitude and the career aspirations in the choice of agriculture among boys and girls in public secondary schools in Kajiado county.

Therefore, study reviewed the above related literature and others which showed how students' peers influenced the choice of agriculture subjects among boys and girls in public secondary schools. Camp W.G Broyles .T. & Skelton N.S (2004) asserted that students' interest in a subject depended on how majority of them perceived it. Learners from the rural setting find agriculture to be dirty as they tie it with former lifestyle; students from the urban setting have less information about it as most learners aspire to take up white collar jobs unlike blue collar jobs hence do not choose agriculture. Learners tend to encourage one another to choose other subjects other than agriculture. Additionally, students at this age are greatly affected by mob psychology that align them to be relevant to the group hence choosing subjects preferred by the peers.

Lesley, (2001) further stated that peer influence on choice of subjects affect the learners decision since they provide personal and academic support while working in groups. Students visualize what they want to be when they work together mostly based on their capabilities. Loko, (2005) also argued that peer group comprising students with high career expectation influence the group and inspire the members to choose certain subject such as agriculture, for future career alignment and for the job market. The reviewed literature revealed that peer influence determined the students' choice of agriculture subject among boys and girls in public secondary schools in Kajiado County.

3. Methodology

The study adopted descriptive survey research design. A sample population used included 10 public school consisting of boys, girls and mixed schools. From a population of over 1,000 form three students, out of whom 120 of them chose agriculture formed the study sample. The study also sampled 10 principals and 10 agriculture teachers. The study employed purposive sampling technique to choose the sample size (Mugenda and Mugenda, 1999). Data for the study was collected using mainly questionnaires.

The study pre-tested the tools for content reliability and subjected the instruments to analysis by experts in the area of study. The study employed split – half technique to determine the coefficient of reliability. Content validity was also used to validate the instruments before administering them to the respondents. Data collected was then analyzed descriptively by use of SPSS programme and presented in percentages and frequency distribution tables.

4. Study Findings

The study findings of this research were based on the responses of agriculture students, principals and agriculture teachers. Out of the 120 students' questionnaire distributed in the public schools only 100 were collected back making a return rate of 83.3 percent while the principals and teachers response was a 100 percent return rate. The findings were presented in order of students, principals and then teachers. But first, findings from students.

4.1 Students' responses on students' peer influence on the choice of agriculture subject

The study sought to establish how students' peers influenced the choice of agriculture subject among boys and girls in public secondary schools. The students' were asked to indicate how their peers influenced them in choice of agriculture. Their findings were as captured in Table 1.

Table 1: Students' views on students' peer influence on choice of agriculture subject, **n = 100**

		Very Influential		Influential		Not Influential		Totals
		F(n)	%	F(n)	%	F(n)	%	
		Most of my classmates chose it	B	34	34	3	3	
	G	27	27	3	3	16	16	46
My best friends chose Agriculture	B	18	18	9	9	27	27	54
	G	13	13	5	5	28	28	46
Teachers influenced me	B	26	26	8	8	20	20	54
	G	15	15	7	7	24	24	46
It will boost my points at national exam	B	32	32	7	7	15	15	54
	G	12	12	4	4	30	30	46
To be like others in my village	B	13	13	7	7	34	34	54
	G	6	6	8	8	32	32	46
It is convenient for boys than girls	B	19	19	7	7	28	28	54
	G	10	10	4	4	32	32	46
Agriculture is preferred for girls than boys	B	10	10	5	5	39	39	54
	G	15	15	5	5	26	26	46
I will be despised	B	13	13	9	9	32	32	54

by my friends if a choose agriculture	G	12	12	5	5	29	29	46
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The results in Table 1 revealed that about 37 percent of the boys and 30 percent of the girls were influenced by their classmates to choose agriculture subject, however 17 percent of the boys and 16 percent of the girls indicated that they did not choose agriculture subject because of their classmates. There seemed to be a consensus on this view among boys and girls. With regard to boosting their performance at national examination, 39 percent of the boys and 16 percent of the girls indicated that they chose the subject in order to boost their performance at national examinations, however, 15 percent of the boys and 30 percent of the girls indicated that boosting their performance at national examination did not influence their choice of agriculture as a subject. With regard to best friend influence, 27 percent of the boys and 18 percent of the girls indicated that their best friends did influence them to choose agriculture subject. Interestingly, 27 percent of the boys and 28 percent of the girls indicated that their best friends did not influence their choice of agriculture. In regard to the preference of being like their friends back at home 20 percent of the boys and 14 percent of the girls, stated this as a factor that influenced their choice of agriculture. On the contrary 34 percent of the boys and 32 percent of the girls stated that they did not want to be like their friends back at home as they made their choice of agriculture. The analysis further showed that 26 percent of

the boys and 14 percent of the girls perceived agriculture to be convenient for boys rather than girls as they made their choice of agriculture, while 28 percent of the boys and 32 percent of the girls indicated that agriculture was not convenient for the boys. Additionally, 15 percent of the boys and 20 percent of the girls stated that agriculture was more of a preference for girls rather than boys as they made their choice of agriculture subject. On the contrary, 39 percent of the boys and 26 percent of the girls felt this was not the case in choosing agriculture as a subject. The analysis further revealed that 32 percent of the boys and 29 of the girls indicated that they were not despised by their peer/friends for choosing agriculture as an optional subject, however, 22 percent of the boys and 17 percent of the girls indicated that they were despised by their peers/friends for choosing agriculture as their subject. Overall therefore that study concluded that the choice of agriculture as a subject among boys and girls in public secondary schools was greatly influenced by their peers in school and even back at home.

4.2 Principals responses on students’ peer influence on choice of agriculture subject

The study also sought to establish the principal’s views on the choice of agriculture subject among boys and girls in their schools. Their responses were as shown in Table 2.

Table 2: Principals’ views on students’ peer influence on choice of agriculture subject

Question Items	Yes		No		Total	%
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)		
Do peers influence each other in choosing subjects especially agriculture?	10	100	-	-	10	100
Is agriculture chosen by more students in form three than other subjects in the cluster?	5	50	5	50	10	100
Do the students encourage each other to choose agriculture as a subject?	8	80	2	20	10	100
Do the students encourage each other to choose the subject so as to pass examination?	7	70	3	30	10	100
n = 10						

Data contained in Table 2 indicated that 100 percent of the principals agreed that students’ peers generally influenced each other in choosing agriculture as an optional subject. With regard to whether students influenced each other in the choice of agriculture as a subject, 80 percent of principals concurred with is view, while only 20 percent did not concur. With regard to whether students influenced each other in choosing agriculture subject so as to pass national examinations, 70 percent of the principals indicated that, students choose agriculture to in order to pass national examination, while 30 percent of the principals did not think this was the reason for choosing agriculture subject among boys and girls. With regards to whether agriculture as a subject was chosen by more students in form three than other subjects in the cluster, 50 percent of the principals agreed that this was the case, while 50 percent indicated the

contrary. This was an interesting observation from principals with regard to choice of optional subjects in their schools. Overall therefore, the principals’ views concurred with those of students that students’ peer influence was a major factor determining choice of agriculture subject among boys and girls in public secondary school in Kajiado County.

4.3 Agriculture teachers’ responses on peer influence on choice of agriculture subject.

The study further sought to establish agriculture teachers’ views on students’ peer influence on choice of agriculture as a subject in their schools. Their response were as captured in Table 3.

Table 3: Teachers' views on students' peer influence on choice of agriculture

Reason for Influence	Yes		No		Total	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)	(n)	%
Influenced by class mates	9	90	1	10	10	100
Influenced by friends in form three	9	90	1	10	10	100
Agriculture is convenient for boys	6	60	4	40	10	100
Agriculture is preference for girls than boys	5	50	5	50	10	100
Agriculture as a booster subject	3	30	7	70	10	100
To avoid being despised by peers	7	70	3	30	10	100
Since others are choosing it	3	30	7	70	10	100

Information contained in Table 3 revealed, that 90 percent of the teacher indicated that students were influenced by their classmates in choosing agriculture as a subject, while only 10 percent of the teachers did not agree with this view. Another 90 percent of teachers also agreed that students were influenced by their friends in choosing agriculture as a subject, while 10 percent of the teachers did not concur with this view. With regard to whether agriculture was a preference for boys rather than girls, 60 percent of the teachers concurred with this view, while 40 percent did not concur that agriculture was more convenient for boys rather than girls. However, with regards as to whether agriculture as a subject was a preference for girls rather than boys, 50 percent of the teachers concurred while 50 percent did not agree that agriculture was a preference for girls rather than boys. With respect to choosing agriculture as a booster subject at national examinations, 30 percent of the teachers indicated that agriculture as a booster for learners' performance at national examinations, while 70 percent of the teachers disagreed on this view. Interestingly 70 percent of the teachers were of the view that both boys and girls choose agriculture subject so as to avoid being despised by their peers, while 30 percent of teachers did not concur with this view. With regard to whether boys and girls chose agriculture subject since other fellow students were choosing the subject, 70 percent of the teachers disagreed with this view, while 30 percent agreed. Overall therefore, teachers' views concurred with the views of the students and principals that in principle student's choice of agriculture was greatly influenced by their peers.

5. Conclusion and Recommendation

From the findings of the study, it was evident that school principals, teachers and students concurred that t students' peers did influence the choice of agriculture as subject among boys and girls in public secondary schools in Kajiado County Kenya. There was a general consensus among respondents that most students chose agriculture as a subject in secondary schools due to the envisaged economic benefits both individually and economically. This study therefore recommended that agriculture subject should be included and emphasized even in primary school curriculum in order to fully equip learners with pre-requisite agricultural skills for the job market and food security for the economy as well as self-employment. This will improve the learners' attitudes towards the subject at secondary schools as well as giving the learners a longer period of interaction with the subject and hence be able to develop their career aspirations in the agricultural sector. This will not only benefit the students alone, but also the economy at large.

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