



International Journal of Advanced Academic Studies

E-ISSN: 2706-8927

P-ISSN: 2706-8919

www.allstudyjournal.com

IJAAS 2021; 3(3): 201-211

Received: 16-05-2021

Accepted: 18-06-2021

Omwenga Mayenga Joash
Department of Agricultural
Education and Extension,
Kisii University, Kisii, Kenya

Judith Odhiambo
School of Agriculture and
Natural Resources, Kisii
University, Kisii, Kenya

Martha Nyang'au
Department of Agricultural
Education and Extension,
Kisii University, Kisii, Kenya

Corresponding Author:
Omwenga Mayenga Joash
Department of Agricultural
Education and Extension,
Kisii University, Kisii, Kenya

Assessment of the extent to which socio-economic factors influences choice of agriculture subject among girls in public secondary schools in Kisii and Nyamira counties

Omwenga Mayenga Joash, Judith Odhiambo and Martha Nyang'au

Abstract

Agriculture forms the backbone which drives the Kenyan economy and therefore, agriculture subject has been integrated in secondary school curriculum although it is made optional. This study aimed at establishing the impacts of selected factors on choice and performance of agriculture subject among girls in public secondary schools in Kisii and Nyamira counties, Kenya. The study sought to assess the extent to which socio-economic factors influences choice of Agriculture subject among girls in public secondary schools in Kisii and Nyamira Counties. The study employed descriptive survey design. The study targeted 470 public secondary schools comprising of mixed and girls' boarding schools, 8,000 form three girls who take agriculture, 470 principals, 545 teachers of Agriculture and 14 quality assurance and standard officers. The target population was 9,029 respondents. The sample included 367 form three girls who take agriculture, 47 principals, 109 teachers of Agriculture and 10 quality assurance and standard officers. Sampling was done using simple random and purposive sampling techniques. Questionnaires were used to collect data from students and teachers of Agriculture. Data from principals and education officers was collected using interview schedules. Data collected was subjected to Statistical Packages for Social Sciences version 21 for analysis and presented using frequency tables and percentages. The study established that socio-economic factors influenced choice of Agriculture subject among girls in public secondary schools in Kisii and Nyamira Counties. Therefore, the study recommends that girls should be well conversant about the importance of agriculture subject which may determine their future career endeavors. Stakeholders should understand challenges limiting girls' participation in selecting agriculture as a subject and thus develop policies towards promoting Agriculture subject among girls in secondary schools.

Keywords: socio-economic, choice, agriculture, parent, Kenya

1. Introductions

Agriculture is mostly thought to be just about the farm and as an ancient practice. However, it is no longer an ancient practice, but is now cutting-edge technology which is relatively a very wide field ^[9] Human population need agriculture in order to survive, students also can use the knowledge and skills acquired in the learning institutions to help the country with food production issues and educate the children of the future about sustainable agriculture ^[4]. ^[26] Observed that parents had a significant effect on students' choice of career and subjects. Parents' characteristics played a vital role in students' choice of technical subjects. Parents had a crucial task of preparing the child for education. In their task of socializing the child's parents had a greater influence on the child's development and future life choices ^[15]. It has been postulated that the family environment impinges on curriculum and influences the quality of school practices. This is possibly because the family is represented in school organizations and they influence the curriculum and practices through ideas and financial support.

Additionally, the family socio-economic background provides the social environment that the children first and closely interact with in a bid to make vocational subject choices. This is because seeing their parents only occasionally children benefit too little from their skills and knowledge on subject choice ^[17]. Asserts that some parents raise their children with certain principles in mind and such can influence and direct the learners on the choice of subjects they can undertake in order to meet the parental expectations. This assumption points to the fact that parents may not advice their children on subject choice due to their limited information and awareness ^[26].

Argues that parents and guardians want schools to satisfy the culture of real life interests and needs of children as well as to prepare them for success later in life. The students' decision on choice of subject is determined by such facts of their parents [3]. In her research on low student enrolment in the applied subjects found out that many secondary schools have been opting not to offer Home science as a subject due to the expenses associated with it. This is because many parents have found it difficult to contribute towards Home science expenses and only students who can afford opt for the subject, while others enroll in other optional subjects. This finding implies that choice for certain subjects is limited by the extra expense that is included in the subject. This implies that the aspect of home background becomes the course of unfulfilled potential and unequal changes in education. This condition is further supported by [12] in which he asserts that the level of the family income is one of the most powerful influences on demand on secondary and higher education and even primary school enrolment rates in developing countries.

The family background such as economic status, in the student's choice of the subject, also orientates the learner towards certain thinking that determines what the learner thinks of him/herself. According to schools [25], certain conditions within, the home or the family can expose children to experiences, which may render them more vulnerable to onset of learning and behavior problems socially. Disadvantaged children who grow up in large or single parent families and have low family incomes are predisposed to lower education chances [18]. Also affirms that family members can provide information and guidance, directly or indirectly to influence a young person's choice of career. Family members' career choices influence students' career decision and form a strong belief in what kinds of career are the best for the students.

[7] Observed that, there must be some credible role models in the community who imparted in the mind of individuals the benefits of self-employment as a career [8]. Also observed that, lack of role models was a limiting factor in the career choices of young people; and that business ownership emerges more readily in the presence of strong entrepreneurial role models.

The abundance of successful independent businesses acted as role models in the community and a contributing factor in students' choice of technical subjects in schools. According to Robin (2008) gender was probably the most important variable related to pupils' attitudes to science and technology subjects. Most studies, for instance [28], reported that males had more positive attitudes toward science and technology subjects than females.

Students whose parents were educated did not want to study vocational or technical subjects. The study observed that the family into which a child was born exerted a profound influence on the child's career [28]. Observed that shortage or absence of guidance counselors in some schools influenced the study of vocational subject in secondary schools. As a result most students, who were skilled and had the ability to study vocational or technical subjects, were not counseled to enroll in subjects that they would do better.

According to [14], most students are likely to undertake Economics and Business, and Home Science subjects if they came from lower socioeconomic status backgrounds. [16] Also affirms that family members can provide information and guidance, directly or indirectly to influence a young

person's choice of career. Family member's career choices influence student's career decision and form a strong belief in what kinds of career are the best for the students. This is additionally reinforced by [14] who stated that knowledge about engineering was correlated to having an engineer in the family.

2. Materials and Methods

2.1 Research Design

The study employed a descriptive survey design. A descriptive survey is a procedure of data collection in order to response to questions regarding the recent status of a phenomenon [27]. Asserted that descriptive survey is a technique of collecting information through interviewing or administering questionnaires to a given sample of individuals. Descriptive study design was appropriate for the study as it allows the researcher to find appropriate and precise information from respondents besides the fact that the method prevents biasness from the researcher.

2.2 Description of the Study Area

This study was conducted in Kisii and Nyamira Counties of Kenya. Kisii and Nyamira Counties lie between latitude 0° 351' and 1° 883' South and longitude 34° 038' and 35° 051' east. Kisii and Nyamira Counties covers total area of 2214.3 km² and a population of 1,879,839 inhabitants [11]. Over 67% of this population is lives under the poverty level [11]. There are fourteen educational sub-counties within the two counties namely: Manga, Masaba North, Borabu, Nyamira North, Nyamira South, Gucha, Gucha South, Kisii South, Kisii Central, Marani, Masaba South, Nyamache, Sameta and Kenyenyia. Kisii and Nyamira Counties have 534 secondary schools, distributed within the fourteen sub-counties. The counties have approximately 100,000 secondary school enrolments as per Ministry of Education annual reports. The enrolment rate is estimated at 94 percent and 105 percent while dropout rate stood at 15 and 20 percent for males and females respectively [11]. More than 70 percent of the population is involved in agriculture as a means of livelihood thus the need for more investment in agriculture. Main economic activities of the area include: maize farming, tea production, brick making and dairy farming.

2.3 Target Population

The target population comprised of 470 principals, 545 teachers of agriculture and 8,000 form three girls taking agriculture in public secondary schools as well as QASOs in Kisii and Nyamira Counties. Therefore, the target population was 9,029 respondents.

2.4 Sample and Sampling Technique

2.4.1 Sample Size

The study area comprised of National schools, Extra-county schools and county schools from where the sample size will be obtained as illustrated in Table 1.

Table 1: Categories of Schools Sampled

	National	Extra county		County		Sub-county	
		Girls	Mixed	Girls	Mixed	Girls	Mixed
Nyamira	1	1	0	7	14	9	131
Kisii	1	6	4	4	18	8	266
Total	2	7	4	11	32	17	397

In determining the recommended sample size (n) to be drawn from the available 8,000 form three girls taking agriculture as a subject in the selected secondary schools, this study adopted ^[10] formula. This was based on the notion that a population size N was known with certainty.

$$n = \frac{X^2 N P(1-P)}{d^2(N-1) + X^2 P(1-P)}$$

Where n is the required sample size, N is the given population size of form three girls taking agriculture in Nyamira County, which in this case are 8,000, P is the population proportion and is assumed to be 0.50 because sample size is known, d^2 is the degree of accuracy whose value is 0.05 and X^2 is the table value of chi-square for the degree of freedom, which is 3.841. Therefore, inserting the above values into our equation result in 367 respondents as shown below.

$$n = \frac{3.841 \times 8000 \times 0.5(1-0.5)}{0.05^2(8000-1) + 3.841 \times 0.5(1-0.5)}$$

n = 367 girls

The 367 girls was distributed proportionate to size amongst the selected secondary schools in Kisii and Nyamira Counties. Although studies have recommended a minimum of 100 respondents for a representative sample, 367 is therefore adequate to cater for attrition ^[10].

According to ^[19], in a large population, a minimum of 10% and maximum of 30% of the population is accepted for a study and therefore, for agriculture teachers; 20% of 545 generated a population sample of 109 teachers was used for the study. Equally, 47 Principals were chosen to participate in which is 10% of target population of principals. Proportionate technique was used to sample QASOs as per the counties. In this case, 7 for Kisii county and 3 for Nyamira county totalling to 10 QASOs. The sample size of the study comprised of 367 girls, 109 teachers of agriculture, 47 Principals and 10 QASOs in Kisii and Nyamira counties.

2.4.2 Sampling Procedure

Stratified sampling was used in selecting the schools (mixed and girls secondary schools). In the second stage, the 470 secondary schools were further stratified into fourteen major categories based on sub-counties in Kisii and Nyamira Counties which includes Manga, Masaba North, Borabu, Nyamira North, Nyamira South, Gucha, Gucha South, Kisii South, Kisii Central, Marani, Masaba South, Nyamache, Sameta and Kenyena for ease of data collection and representation. From these stratified zones, 4 secondary schools were picked per sub-county for interview. The selection of these schools was guided by their category, performance in agriculture at the national examination, number of years they have undertaken agriculture as a subject and number of students taking agriculture as a subject. In the third stage, a proportionate to size stratified sampling technique was used to distribute the 367 respondents between form three girls' students and thereafter, simple random sampling methodology was used to pick individual students and teachers of agriculture who participated in the study. The use of simple random

sampling technique helped in reducing classification error and therefore ensured respondents' equal chance of selection. Purposive sampling technique was used to select the QASOs and principals in the respective counties and secondary schools to participate in the study.

2.5 Data Collection

The researcher visited the sampled schools, obtained permission from the school principals before administering questionnaire to the students and teachers of agriculture. The study sought the help from teachers of agriculture to explain, sample and distribute the questionnaire to the students and to personally give the questionnaire to the principals. Visitation of sub-county education offices was done in order to request to interview the quality assurance and standards officers. In ensuring equal and fair participation, data was collected barely a week before students undertake their second term internal examinations. This was done using both primary and secondary data collection methods. Primary data sources included the use of both structured and open ended questionnaire to reduce question fatigue while diversifying responses.

2.6 Data Analysis

Quantitative data was coded and input into statistical packages for Social sciences (SPSS) version 21 and analysis was done using descriptive and inferential statistics. The completed questionnaires were scored and values tabulated using a 5- Likert scale of strongly agree, agree, disagree, strongly disagree and cannot answer. The responses of strongly agree and agree may be combined while strongly disagree and disagree also combined. Descriptive and inferential statistics were used in analyzing data and variables involved.

3. Results

3.1 Questionnaire Response Rate

The study got a response of 350 students which was 95.4 percent response rate, 47 principals which was 100 percent response rate, 90 teachers of agriculture a response rate of 82.6 percent and 10 Quality, Assurance and Standards Officers who had a 100 percent response rate. According to ^[19], 50 percent response rate is sufficient for analysis and reporting; 60 percent response rate is good and 70 percent response rate and above is remarkable, therefore the response rate of this study was outstanding for data analysis and reporting.

3.2 Demographic Information of the Respondents

The study sought to determine the demographic information of the respondents which included, category of the schools, age gender, teachers, principals, education officers' academic qualification, working experience of QASOs, Principals and teachers of Agriculture. This information was analyzed and presented in tables and graphs.

3.2.1 Age of the Girls Age of the Form Three Girls Taking Agriculture Subject in Kisii and Nyamira Counties

The study sought from the respondents their ages and their responses are in Table 2. Majority, 60% of the girls were of age between 16-17 years old while 26% of them were of age between 18-19 years. Further it is shown that 14% of the girls were of age between 20-21 years old. This implies that

majority of the girls that took Agriculture as a subject were capable of making informed choice on careers related to agriculture.

Table 2: Age of the Girls

Age (years)	Frequency	Percentage (%)
16-17	210	60.00
18-19	91	26.00
20-21	49	14.00
Total	350	100.00

3.2.2 Age of the Teachers of Agriculture, Principals and QASOs

The responses of teachers of agriculture, principals and QASOs showing their ages were presented in Table 3. It

was revealed that 13.33% of teachers of agriculture were of age between 26-30years, 8.89% of them were of age 31-35 years while 25.56% of them were of age 36-40 years. Further, the table shows that 28.89% of the teachers of agriculture, 10.64% of the principals and 50.00% of the QASOs were of age 41-45 years while 17.78% of the teachers of agriculture, 63.83% of the principals and 30.00% of QASOs were in the age bracket 46-50 years. Finally, Table 3 indicates that 5.56% of teachers of agriculture, 25.53% of principals and 20.00% of QASOs were of age between 50 years and above. This implies that most of the respondents are of the age bracket that enabled them to undertake tasks and possessed more physical vigour and could shoulder more work related tasks than the older ones in both the teaching and management force.

Table 3: Age of Teachers of Agriculture, Principals and QASOs

Age (years)	Teachers of Agriculture		Principals		QASOs	
	Freq.	Percentage (%)	Freq.	Percentage (%)	Freq.	Percentage (%)
26-30	12	13.33	-	-	-	-
31-35	8	8.89	-	-	-	-
36-40	23	25.56	-	-	-	-
41-45	26	28.89	5	10.64	5	50.00
46-50	16	17.78	30	63.83	3	30.00
Above 50	5	5.56	12	25.53	2	20.00
Totals	90	100.00	47	100.00	10	100.00

3.2.3 Classification of Schools

The study sought to establish the classifications and category of schools in Kisii and Nyamira Counties, students were asked to show the classification and categorisation of their schools and the responses were captured. Majority of the girls, 42.86% were from Sub-County schools, 29.43% from County schools, 19.14% from Extra County schools and only 8.57% were from National schools. These findings imply that the number of sub-county schools were the majority compared to other categories of the schools. However, there was an average distribution of the category of schools in the counties as illustrated in Table 4.

Table 4: Students' responses on classification of schools

School category	Frequency	Percentage (%)
National	30	8.57
Extra County	67	19.14
County	103	29.43
Sub-County	150	42.86
Totals	350	100

This data on students' responses on categories of schools sampled was illustrated as shown in Figure 1.



Fig 1: Categories of the sampled schools

3.2.4 Students' Parents' Level of Education

A large number of the girls 34.29% indicated that their parents had attained University education followed closely by 32.29% who indicated that their parents had tertiary education while 26.29% girls indicated that their parents had only secondary education. Only 7.14% indicated that their parents had primary level education which implied that all the parents accessed formal education and therefore were literate as illustrated in Table 5.

Table 5: Students' parent level of education

Level of education	Frequency	Percentage (%)
Primary	25	7.14
Secondary	92	26.29
Tertiary	113	32.29
University	120	34.29
Totals	350	100

These information on students' responses on their parents' level of education was illustrated as shown in Figure 2.

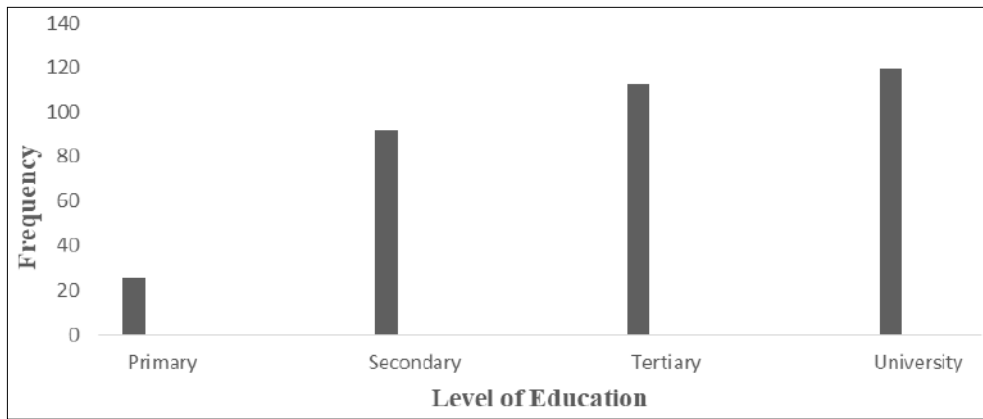


Fig 2: Parents' level of education

4.2.5 Whether Students' Parents Were Employed or Un-employed

The students were asked to indicate whether their parents were formally employed or not. Majority of the respondents 60.29% indicated that their parents were formally employed while 39.71% indicated that their parents had no formal employment. These findings implies that majority of the students' parents were self-employed as illustrated in Table 6.

Table 6: Whether students' parents are employed or unemployed

	Frequency	Percentage (%)
Employed	139	39.71
Not employed	211	60.29
Totals	350	100

These data on students' responses on whether their parents were employed on unemployed was illustrated as shown in Figure 3.



Fig 3: Frequency of employed and unemployed students' parents

3.2.6 Occupation of Students' Parents

A high number of the respondents 35.14% indicated that their parents were traders, 25.14% were farmers and 16% were teachers. Only 12.88% indicated that their parents were medical officers, 7.43% were police officers while

3.42% indicated that their parents were extension officers which implied that each of the parents had an economic activity they engaged in which formed a source of their income as shown in Table 7.

Table 7: Students' parent occupation

Occupation of parents	Frequency	Percentage (%)
Teacher	56	16.00
Extension officer	12	3.42
Trader/Businessmen/ women	123	35.14
Farmer	88	25.14
Police officer	26	7.43
Medical officer	45	12.88
Totals	350	100

4.2.7 Criteria for Girls' choice of Agriculture Subject

All the students indicated that Agriculture subject was being offered in their respective schools. The criteria for the choice of Agriculture subject indicated that majority of the students 60% chose Agriculture subject based on previous

performance, 25.71% were left free to choose the subject while 14.29%, teachers chose for them. These results implies that in most schools, at least there was a criteria followed by students in choosing Agriculture subject as illustrated in Table 8.

Table 8: Criteria for choosing Agriculture subject

Criteria	Frequency	Percentage (%)
Students left free to choose	90	25.71
Teachers choose for students	50	14.29
Following previous performance	210	60.00
Totals	350	100

3.2.8 Gender of the Respondents

This study sought to determine the respondents' gender and their responses were captured and recorded in Table 9.

Table 9: Gender of teachers of Agriculture, Principals and QASOs

Gender	Teachers of Agriculture		Principals		QASOs	
	Freq.	Percentage (%)	Freq.	Percentage (%)	Freq.	Percentage (%)
Male	54	60.00	27	57.45	6	60.00
Female	36	40.00	20	42.55	4	40.00
Totals	90	100.00	47	100.00	10	100.00

Data from Table 9 indicates that 60% of teachers of agriculture were males while 40% of them were females. It is further shown that, 57.45% of the Principals were male whereas 42.55% of them were females. Finally, 60% of QASOs were males while 40% were females. This implies that there is gender disparity in the teaching force and management in schools. Given that there are more males teaching the subject, it is likely to have a negative influence in the choice of the subject by girls as it may be deemed masculine. These findings are in line with those of [22] and [24] who found out that there was gender disparity in teaching and management of institutions. According to [23], there are varied reasons for this disparity in the teaching and

in school management. This may be attributed to the disproportional achievement of male and females where boys tend to outshine girls at primary and secondary school levels as evident in national examinations. This is also in line with the government findings on gender imbalances [29]. The government should strive implement the one-third gender rule in all teaching and management to enhance gender equity.

3.2.9 Academic Qualification of the Respondents

The study sought the academic qualification of the teachers of agriculture, principals and QASOs (Table 10).

Table 10: Academic qualification of teachers of Agriculture, Principals and QASOs

Academic qualification	Teachers of Agriculture		Principals		QASOs	
	Freq.	Percentage (%)	Freq.	Percentage (%)	Freq.	Percentage (%)
Diploma	20	22.22	3	6.38	-	-
Bachelor's Degree	50	55.56	35	74.47	3	30.00
Master's Degree	15	16.67	6	12.77	6	60.00
PhD	5	5.56	3	6.38	1	10.00
Totals	90	100.00	47	100.00	10	100.00

From Table 10, 22.22% of the teachers of agriculture and 6.38% of the principals had a Diploma as highest academic qualification while slightly more than half, 55.56% of teachers of agriculture, 74.47% of principals and 30.00% of QASOs had a Bachelor's degree in their highest academic qualifications. Further, 16.67% of teachers of agriculture, 12.77% of principals and 60.00% of QASOs had a Master's degree as highest academic qualification. Finally, Table 10 reveals that 5.56% of teachers of agriculture, 6.38% of principals and 10.00% of the QASOs had a PhD as their highest academic qualification. This implies that majority of the teachers of agriculture and the management of the institutions had minimum threshold to teach and manage the institutions. The academic qualification has a bearing in the inspiration and guidance of students in choice of the subject.

The level of education of the teachers of Agriculture and Principals might have had an influence on choice of Agriculture subject among the girls in public secondary schools although it implied that the Principals and teachers or Agriculture were well qualified to manage the schools and teach Agriculture subject effectively. However, these results disapprove those of [21] and [16], on teachers of Agriculture's qualification that less than 50 percent of them were less than graduates. This may have been attributed to the fact that in the recent past, teachers have frequently progressed themselves by pursuing further studies.

3.2.10 Working Experience of the Respondents

The study sought the working experience of teachers of agriculture, principals and QASOs. The responses are presented in Table 11.

Table 11: Working experiences of the respondents

Working experience (yrs)	Teachers of Agriculture		Principals		QASOs	
	Freq.	Percentage (%)	Freq.	Percentage (%)	Freq.	Percentage (%)
Less than 1	10	11.11	2	4.26	-	-
2-4	18	20.00	11	23.40	2	20.00
5-7	25	27.78	15	31.92	3	30.00
Above 8	37	41.11	19	40.43	5	50.00
Totals	90	100.00	47	100.00	10	100.00

A high number 41.11% of teachers of Agriculture had a teaching experience of above 8 years. It was established that, 27.78% of the teachers of Agriculture had a teaching experience of 5-7 years while 20% and 11.11% had 2-4 and less than 1 teaching experience respectively. Majority 40.43% of the Principals had a working experience of more than 8 years while 31.92%, 23.40% and 4.26% had 5-7, 2-4 and less than one working experience respectively. Fifty percent of the QASOs had worked for more than 8 years while 30% and 20% had worked for 5-7 and 2-4 years respectively.

This implies that most teachers of agriculture, principals and QASOs had a working experience of more than one year and hence were in the position to respond to the questionnaires and interview items concerning the factors influencing choice of agriculture subject by girls in secondary schools in Kisii and Nyamira Counties. This also implies that teachers of Agriculture with experience are able to guide and counsel girls in careers related to agriculture.

3.3 Prerequisite for Girls' Choice of Agriculture Subject

Data revealed that 32.22% of the girls used the previous performance as a prerequisite in the choosing of the agriculture subject whereas 20.00% of them used career aspirations as a prerequisite. Further, 11.11% of the girls chose agriculture as a subject due to teacher’s choice while 23.33% of them chose the subject due to availability of teachers of agriculture in the schools as illustrated in Table 12. Finally, 13.33% of the girls indicated that availability of the teaching/learning resources acted as a prerequisite for choice of subject. This implies that most girls chose agriculture subject due to previous performance, career aspiration as well as availability of the teachers and teaching/learning resources. To some extent the girls could choose the subject due to teacher’s choice. It is therefore imperative, for teachers of agriculture to market the subject right away as students report to school to enhance their performance. This may lead to the girls developing a positive attitude towards the subject and hence end up choosing it.

Table 12: Prerequisite for a student choosing Agriculture subject

Prerequisite	Frequency	Percentage (%)
Previous performance	29	32.22
Student’s career aspirations	18	20.00
Teacher’s choice	10	11.11
Availability of teachers of Agriculture	21	23.33
Availability of Teaching /Learning resources	12	13.33
Totals	90	100.00

3.7 Influence of Socio-economic Factors on Girls’ Choice of Agriculture Subject in Public Secondary Schools

3.7.1 Girls' Responses on Socio-economic Factors on Girls' Choice of Agriculture Subject

The statement that girls chose to pursue Agriculture subject since they came from an urban or rural set-up, 19.1% strongly agreed, 26.6% agreed, 29.1% disagreed and 15.4% strongly disagreed while 9.7% were not able to respond to the statement. Thirty three point three percent of the respondents indicated that they strongly disagreed that their parents/ guardian's academic level influenced their choice of Agriculture subject, 27.7% disagreed, 16.3% agreed, 12.9% strongly agreed while 8.6% were not able to respond to the statement. Majority 39.1% of the girls strongly agreed that family income influenced their choice of Agriculture

subject, 28.9% agreed, 19.1% disagreed while 12.9% strongly disagreed to the same statement. On the statement that parental/ guardian’s guidance influenced student’s choice of Agriculture subject, 41.4% strongly agreed, 38.0% agreed, 7.7% disagreed while 12.9% strongly disagreed to the statement. The statement that parents’ careers, teaching of agriculture subject influenced students’ choice of Agriculture subject, a high number of the respondents 55.1% indicated that they strongly agreed with the statement while only 44.9% agreed with the statement as shown in Table 13. In support of these findings, [13, 30] also established that the level of the family income is one of the most powerful influences on demand on secondary and higher education and even primary school enrolment rates in developing countries.

Table 13: Girls' Responses on Socio-economic Factors' Influence on their Choice of Agriculture Subject

Statement	Strongly Agree		Agree		Disagree		Strongly Disagree		Cannot Answer		Totals	
	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc
I choose to pursue Agriculture since I come from an urban or rural set up	67	19.1	93	26.6	102	29.1	54	15.4	34	9.7	350	100
My parents/ guardian's academic level influenced my choice of Agriculture subject	45	12.9	57	16.3	97	27.7	120	34.3	30	8.6	350	100
My family income influenced my choice of Agriculture	137	39.1	101	28.9	67	19.1	45	12.9	-	-	350	100

Parental/ guardian’s inclination influenced my choice of Agriculture	145	41.4	133	38.0	27	7.7	45	12.9	-	-	350	100
My Parents’ guardian’s career teaching of agriculture influenced my choice of Agriculture	193	55.1	157	44.9	-	-	-	-	-	-	350	100

A statistical significance ($p < 0.05$) was obtained concerning variables among girls’ responses on influence of socio-

economic factors on girls’ choice of agriculture subject (Table 14).

Table 14: Statistical Analysis on Girls' Responses on Socio-economic Factors on Girls' Choice of Agriculture Subject

	Paired differences										
	t	Df	Sig. (2-tailed)	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
							Lower	Upper			
Pair: Agree-Disagree	1.540	42	.0198	34.44000	50.00688	22.36376	-27.65174		96.53174		

3.7.2 Teachers' of Agriculture's Responses on Influence of Socio-economic Factors on Girls' Choice of Agriculture Subject in Public Secondary Schools

The statement that the girls chose to pursue Agriculture subject since they came from an urban or rural set-up, 16.7% of the respondents strongly agreed, 11.1% agreed, 36.7% disagreed while 35.6% disagreed with the statement. Only eight point nine percent of the respondents indicated that they strongly agreed with the statement that students’ parent/ guardian's academic level influenced girls’ choice of Agriculture subject, 12.2% agreed, 32.2% disagreed, 40% strongly disagreed while 6.7% were not able to respond to the same statement. Sixty two point two percent of the respondents indicated that they strongly agreed that family’s income influenced girl’s choice of Agriculture subject while 37.7% rather agreed with the statement. Twenty six point

seven percent of the respondents strongly agreed that parental/ guardian’s inclination influenced girl’s choice of Agriculture subject, 34.4% agreed, 14.4% disagreed while 24.4% strongly disagreed with the statement. Half, 50% of the girls indicated that they strongly agreed that parents’ careers, teaching of agriculture subject influenced girl’s choice of Agriculture subject, 23.3% agreed, 12.2% disagreed, 10.0% strongly disagreed while 4.4% were not able to respond to the statement as illustrated in Table 15. These findings are in agreement with those obtained by [1] who asserted that learners from the rural setting find agriculture to be dirty as they tie it with former lifestyle while 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.

Table 15: Teachers of Agricultures' Responses on Socio-economic Factors' Influence Girls' Choice of Agriculture Subject

Statement	Strongly Answer		Agree		Disagree		Strongly Disagree		Cannot Answer		Totals	
	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc
Girls chose to pursue agriculture since their homes were in urban or rural set-ups	15	16.7	10	11.1	33	36.7	32	35.6	-	-	90	100
Students’ parent/ guardian's academic level influenced Girls’ choice of Agriculture subject	8	8.9	11	12.2	29	32.2	36	40.0	6	6.7	90	100
Family income influenced Girl’s choice of Agriculture subject	56	62.2	34	37.7	-	-	-	-	-	-	90	100
Parental/ guardian’s inclination influenced student’s choice of Agriculture subject	24	26.7	31	34.4	13	14.4	22	24.4	-	-	90	100
Parents’ careers, teaching of agriculture subject influenced student’s choice of Agriculture subject	45	50.0	21	23.3	11	12.2	9	10.0	4	4.4	90	100

A statistical significance ($p < 0.05$) was obtained concerning variables among teachers of Agricultures’ responses on

influence of socio-economic factors on girls’ choice of agriculture subject (Table 16).

Table 16: Teachers' of Agriculture's Responses on Influence of Socio-economic Factors on Girls' Choice of Agriculture Subject in Public Secondary Schools

	Paired differences										
	t	Df	Sig. (2-tailed)	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
							Lower	Upper			
Pair: Agree-Disagree	.569	4	.04600	16.14000	63.48124	28.38967	-62.68237		94.96237		

3.7.3 Principals' Responses on Socio-economic Factors' Influence on Girls' Choice of Agriculture Subject

Only seventeen percent of the respondents indicated that they strongly agreed that the girls choose to pursue Agriculture subject because their homes were found in urban or rural areas, 6.3% agreed, 29.8% disagreed while 46.8% strongly disagreed to the statement. Twenty one

point three percent of the respondents strongly agreed that girls’ parents/ guardian's academic level influenced their choice of Agriculture subject, 14.9% agreed, 19.2% disagreed, 34% strongly disagreed while 10.6% were not able to respond to the statement. More than half, 61.4% of the respondents strongly agreed that family income influenced girls’ choice of Agriculture subject while 42.6%

agreed to the statement. The statement that parental/ guardian’s guidance influenced girl’s choice of Agriculture subject, 38.3% strongly agreed, 42.3% agreed, 8.5% disagreed while 10.6%) strongly disagreed with the statement. On the statement that parents’ careers, teaching of agriculture subject influenced girls’ choice of Agriculture

subject, 29.8% strongly agreed, 34% agreed, 8.5% disagreed, and 19.1% strongly disagreed while 14.9% were not able to respond to the statement as shown in Table 17. In line with these study results, [18] who established that family members can provide information and guidance, directly or indirectly to influence a young person's choice of career.

Table 17: Principals' Responses on Socio-economic Factors' Influence Girls' Choice of Agriculture Subject

Statement	Strongly Agree		Agree		Disagree		Strongly Disagree		Cannot Answer		Totals	
	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc
Girls choose to pursue agriculture subject since their homes were found in urban or rural areas	8	17.0	3	6.3	14	29.8	22	46.8	-	-	47	100
Girls’ parents/ guardian's academic level influenced their choice of Agriculture subject	10	21.3	7	14.9	9	19.2	16	34.0	5	10.6	47	100
Family income influenced girls’ choice of Agriculture subject	27	61.4	20	42.6	-	-	-	-	-	-	47	100
Parental/ guardian’s guidance influenced student’s choice of Agriculture subject	18	38.3	20	42.3	4	8.5	5	10.6	-	-	47	100
Parents’ careers, teaching of agriculture subject influenced students’ choice of Agriculture subject	14	29.8	16	34.0	4	8.5	9	19.1	7	14.9	47	100

A statistical significance ($p < 0.05$) was obtained concerning variables among Principals’ responses on influence of socio-

economic factors on girls’ choice of agriculture subject (Table 18).

Table 18: Principals' Responses on Socio-economic Factors' Influence on Girls' Choice of Agriculture Subject

	Paired differences							
	t	Df	Sig. (2-tailed)	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	
							Lower	Upper
Pair: Agree-Disagree	.931	4	.0404	25.48000	61.18911	27.36460	-50.49631	101.45631

3.7.4 Quality Assurance and Standard Officers' Responses on Socio-economic Factors' Influence Girls' Choice of Agriculture Subject

Almost half, 40% of the respondents indicated that they disagreed that the girls choose to pursue Agriculture subject since their homes were found in urban or rural areas, 30% agreed, 20% strongly agreed while only 10% was not able to respond to the statement. The statement that girls’ parent/ guardian's academic level influenced their choice of Agriculture subject, 10% of the respondents strongly agreed, 30% agreed, 50% disagreed while only 10% strongly disagreed with the statement. Half, 50% of the respondents strongly agreed that family income influenced girls’ choice of Agriculture subject, 40% agreed while only 10% was not able to respond to the statement. Majority of the respondents, 80% agreed that parental/ guardian’s guidance influenced girls’ choice of Agriculture subject while 20% strongly agreed to the statement. The statement that parents’

careers, teaching of agriculture subject influenced girls’ choice of Agriculture subject, 30% of the respondent indicated that they strongly agreed, 50% agreed while only 20% disagreed to the statement as illustrated in Table 19. Similarly, [18], also asserted that certain conditions within, the home or the family can expose children to experiences, which may render them more vulnerable to onset of learning and behaviour problems socially and therefore, disadvantaged children who grow up in large or single parent families and have low family incomes are pre-disposed to lower education chances. These findings concur with those of [5] who observed that parents had a crucial task of preparing the child for education and in their task of socializing, the child's parents had a greater influence on the child’s development and future life choices. In related studies, [2], also observes that parents discourage their children from choosing agriculture subject since they believe that their future will be bleak.

Table 19: QASOs' Responses on Socio-economic Factors' Influence Girls' Choice of Agriculture Subject

Statement	Strongly Agree		Agree		Disagree		Strongly Disagree		Cannot Answer		Totals	
	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc
Girls choose to pursue agriculture subject since their homes were found in urban or rural areas	2	20	3	30	4	40	1	10	-	-	10	100
Girls’ parent/ guardian's academic level influenced their choice of Agriculture subject	1	10	3	30	5	50	1	10	-	-	10	100
Family income influenced girls’ choice of Agriculture subject	5	50	4	40	-	-	-	-	1	10	10	100
Parental/ guardian’s guidance influenced girls’ choice of Agriculture subject	2	20	8	80	-	-	-	-	-	-	10	100
Parents’ careers, teaching of agriculture subject influenced girls’ choice of Agriculture subject	3	30	5	50	2	20	-	-	-	-	10	100

A statistical significance ($p < 0.05$) was obtained concerning variables among QASOs’ responses on influence of socio-

economic factors on girls’ choice of agriculture subject (Table 20).

Table 20: Quality Assurance and Standard Officers' Responses on Socio-economic Factors' Influence Girls' Choice of Agriculture Subject

	Paired differences							
	t	Df	Sig. (2-tailed)	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	
							Lower	Upper
Pair; Agree-Disagree	1.917	4	.0128	46.00000	53.66563	24.00000	-20.63468	112.63468

4. Conclusion

Socio-economic factors influenced girls' choice of Agriculture subject and therefore the null hypothesis is rejected. This is because, family income, parental/guardian's guidance influenced a child's choice of Agriculture subject and also the parents' careers, teaching of agriculture subject influenced a child's choice of Agriculture subject.

5. Recommendation

Principals and teachers should ensure that girls understand the importance of proper choice of subjects through involvement in deliberations on subject choices and involving motivational speakers in schools. The family, including the parents should be aware of their importance in the choices of subjects by their children.

6. Acknowledgements

Our sincere gratitude goes to the Ministry of Education through the National Commission for Science, Technology and Innovation for research authorization permits. Our appreciation also goes to the County Commissioners and the County Directors of Education in Kisii and Nyamira Counties, for allowing me to carry out this study in the two Counties. We wish to thank the quality assurance and standards officers, principals, teachers of agriculture and form three girls taking agriculture subject who participated in the study; their cooperation and willingness to participate in our project was of great importance to us.

7. Conflict of interest

The authors declare that there is no conflict of interest in the publication of this work.

8. References

1. Camp WG, Broyles T, Skelton NS. A national study of the supply and demand for teachers of agriculture education in 1999 – 2001. Blacksburg V.A Virginia Polytechnique Institute Press 2014.
2. Chee S, Leong Yong P. Factors that influence Branelan students not to enroll in secondary school Agriculture subject: Darassalam Brunei 2011.
3. Chemjor EJ, Gakunga DK, Musembi N. Factors influencing the choice of agriculture subject among boys and girls in public secondary schools in Kajiado County, Kenya 2016.
4. Food and Agriculture Organization. Youth and agriculture: Key challenges and concrete solutions. Rome: Food and Agriculture Organization of the United Nations 2014.
5. Gichohi L. Inadequate career guidance and counseling of secondary school students. Nairobi: The standard newspaper 2005.
6. Government of Kenya. Economic Survey. Government Printer: Nairobi 2019. http://www.ibe.UNESCO.org/National_Reports/ICE_2018/Kenya_NR08.pdf.

7. Hedjazi Y, Omidi K. Factors affecting the academic success of agricultural students at Tehran University, Iran. Journal of Agricultural Science Technology 2008;10:2006.
8. Kabugi SW, Okech JG, Bunyi G. Challenges to teaching and learning of Agriculture insecondary schools in Kakuyuni Division, Kangundo District, Machakos County, Kenya. Kenyatta University. Unpublished Med thesis 2013.
9. Kamau TN, Orodho JA. Secondary School Student's Perception towards Agriculture Subject in Public Secondary Schools in Nairobi County, Kenya. Journal of Humanities And Social Science 2014;19(7):30-36.
10. Kathuri NJ, Pals DA. Introduction to Research, Kenya. Educational Media Centre, Egerton University 1993.
11. Kenya National Bureau of Statistics. Kenya population and Housing Census. Nairobi: Kenya National Bureau of Statistics 2019.
12. Kochung E, Migunde Q. Factors influencing students' career choices among secondary school students in Kisumu Municipality, Kenya. Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS) 2011;2(2):82-85.
13. Kritsada P. Factors influencing enrollment in agriculture course. Highland: Laguna press 2012.
14. Langat AC, Itegi F, Magoma CM. Students' attitudes and their effects on learning and achievement in mathematics: A case study of public secondary schools in Kiambu county, Kenya 2014.
15. Mabunda NP. The role of the school in preparing school leavers for self-employment (Unpublished Doctoral Dissertation).Pretoria: University of South Africa 2002.
16. Malgwi CA, Howe MA, Burnaby PA. Influences on students' choice of college major. Journal of Education for Business 2013;80(5):275-282.
17. Merlin K. Subject Choice in Schools 2009.
18. Mohd F, Salleh AM, Mustapha R. The influence of contextual aspects on career decision making of Malaysian technical students. Procedia- Social and Behavioral Sciences 2010;7(7):369-375.
19. Mugenda OM, Mugenda AG. Research Methods: Quantitative approach. Nairobi: ACT Press 2003.
20. Mwiria K. Vocationalization of secondary education. Nairobi – Kenya: Kenya Literature Bureau Press 2005.
21. Ngesa FU. Demand profiles and supply. Reponses for agricultural education and training (AET) at the post primary level: Case study of Kenya. Final report prepared for world Agro Forestry Centre (ICRAF) Nairobi 2006.
22. Njoroge KT, Orodho JA. Secondary school student's perception towards agriculture subject in public secondary schools in nairobi county, Kenya 2014;19(7):30-36.
23. Nyagura LRA. What causes differences in achievement in Zimbabwewan secondary school? Policy research and external affairs 2014.

24. Nyangi M. Factors that influence the trend of students' enrolment in home science in Nairobi secondary schools 2012.
25. Oketch M, Somerset A. Free primary Education and after in Kenya: Enrolment impact, quality effects, and the transition to secondary school. Sussex, United Kindom: Centre for International Education, University of Sussex 2010.
26. Okeke AN. Agricultural experiences as correlates of secondary school students' achievement and career decisions in agricultural Science. An International multi-disciplinary Journal, Ethiopia 2010;10(3):21-38. Serial No.42, June, 2010. ISSN 1994-9057.
27. Orodho AJ. Element of education & Social science research methods Kazezja. Publishers, Maseno; Kenya 2009.
28. Ozioma CA. Influential factors affecting the attitude of students towards vocational subjects in secondary schools in south-eastern Nigeria. Journal of educational and social research 2011;1(2):49-56.
29. Republic of Kenya. The Kenya vision 2030. Nairobi: Government printer 2010.
30. Robin D. Teachers as role-model: Seven ways to make a positive impact 2008. Retrieved November 23, 2012, from <http://www.powerfulwords.wordpress.com/2008>.