

1 **Influence of Selected Factors on the Choice of Agriculture Subject among Secondary**
2 **School Students in Kisii and Nyamira Counties**

3
4 **ABSTRACT**
5

6 The purpose of the study was to determine the influence of selected factors on the choice of
7 agriculture subject among secondary school students in Kisii and Nyamira Counties. With the
8 objective of determining the influence of teachers on the choice of agriculture subject among
9 students, to determine the influence of gender on the choice of agriculture subject among
10 students, to explore the extent to which students attitude influence the choice of agriculture
11 subject and finally to determine whether school finance influence the choice of agriculture
12 subject among students in secondary schools. A survey methodology was employed to collect
13 data from students and teachers with the help of a Questionnaire as the instrument for data
14 collection. The study targeted form four agriculture students and agriculture teachers. A
15 sample size of 352 respondents was used. Simple random sampling method was used to
16 sample 330 agriculture students and 18 agriculture teachers while stratified sampling was
17 used to sample 22 schools. Data from the students and teachers was analysed using
18 qualitative and quantitative methods. Descriptive statistics including frequencies, means, as
19 well as, standard deviation was used while inferential statistics which includes Pearson
20 correlation and t-test was used to test the hypothesis, with levels of significance set at
21 0.05. Statistical package for social sciences software version 20 was used for data analysis.
22 The findings of this study show that agriculture teachers have got an influence to student's
23 choice of agriculture subject. The study revealed further that gender of the student does not
24 influence choice of agriculture as a subject neither does the gender of a teacher influence
25 student's choice of agriculture. Additionally, the positive attitude exhibited by the students by
26 studying agriculture often and quest to know more has an influence to choice of agriculture as
27 a subject. Lastly resources do not influence the choice of agriculture as a subject. The
28 findings of the study might be useful to parents, teachers and the ministry of education. The
29 study recommended that principals of schools to monitor syllabus delivery to ensure that the
30 right content is taught, that career and guidance to be strengthened in schools for this will
31 create awareness on career opportunities in the job market and finally ministry of education
32 through the government to provide enough funds to schoolsto enable purchase of teaching
33 learning resources

34

35

36 **INTRODUCTION**

37

38 Agriculture is the backbone of the Kenyan nation and contributes a lot to its economic
39 development. The sector contributes about 24 per cent Gross Domestic Product (GDP) and
40 about 19 percent formal wage employment and guarantees food security to the nation. It
41 contributes over 60% of exports and provides 80% of all industrial raw materials (KIPPRA,
42 2009; GOK, 2007).

43

44 In Kenya agriculture was introduced in 1985 into the curriculum (KICD 2006). The purpose
45 of offering agriculture to secondary school students was to counter the apparent negative
46 attitude to farming by many students by providing them with knowledge and skills that will
47 enable them secure existing opportunities in agriculture hence change their attitude towards
48 agriculture. In the secondary school curriculum, the subject is grouped with other technical
49 subjects in group four (KICD 2006).Subjects in this group including agriculture are not
50 compulsory and students are given a chance to choose the subject they are comfortable with.
51 On the other hand, students face many challenges on the selection of these elective subjects.

52

53

54 Hence a need to have many people enter into agriculture related careers to increase
55 productivity. Several studies have been done on students' perception, performance of
56 agriculture subject, gender, and attitude towards agriculture subject on performance. Some of
57 them include that of Muchiri, (2013) which deduced that, boys did not significantly differ
58 from girls in their perception of agriculture as a subject of study. Kibett (2014) deduced that
59 poor teaching methods are attributed to poor performance. Another study by Chambers *et al*

60 (2004) also concluded that gender does not influence academic performance. (Constantino
 61 Pedzisai, 2014; Castejon and Perez 200) also in their study deduced that, student's negative
 62 attitude towards a particular subject depends on the method of teaching. The table below
 63 shows KCSE candidature enrolment over the last eight years.

64 **Table 1.KCSE Candidate's enrolment nationally, 2004-2012.**

65 Year	Total KCSE	Agriculture	Percentage.
66 Candidature.	Enrolment.		
67 2004	222676	98760	44
68 2005	263665	106169	40
69 2006	243453	107068	44
70 2007	276239	121193	44
71 2009	337404	137217	41
72 2010	357488	140237	39
73 2011	411783	167709	41
74 2012	436349	178484	41

75 **Source: KNEC reports, 2004-2012.**

76 According to KNEC reports (2004-2012) the number of students taking the subject has
 77 increased but at a very low percentage which means that the subject has not yet gained
 78 popularity. The literature available is inconclusive on the major factors influencing choice of
 79 agriculture as a subject of study. It was therefore upon this background that the study sought
 80 to investigate the factors which affect the choice of agriculture as a subject among secondary

81 school students in both Kisii and Nyamira counties with emphasis on teachers, gender,
82 student's attitude and school finance.

83

84 **LITERATURE REVIEW**

85 The influence of teachers on students' choice of subject in any institution is paramount since
86 students relay on teachers advice on subject choice. This means that, teachers should be good
87 role models at all times since students imitate them in all that they do. Education is one of the
88 most effective development investment a country can make since it is recognized globally. It
89 is one of the critical pathways to promote social and economic development World Bank
90 (2007). It enables development of better life and world by raising the economy, reducing
91 fertility rate, infant and maternal mortality, improves livelihood of families, and better
92 education for children Gachukia (1999).

93 According to the Chief Examiner's Report in 2010 on Agriculture Science, it showed that
94 students have ignored fundamentals of agriculture and knowledge of practical agriculture
95 (West Africa Examination Council [WAEC], 2010).It further indicated that most students
96 were unable to perform simple experiments.

97

98

99 Shiundu and Omulando (1992) revealed that technical and vocational education has been
100 receiving a negative attitude by a large section of the Kenyan community yet JICA (2008)
101 reports that, technical and vocational Education Training (TVET) is considered as a strong
102 vehicle for social and economic development in most countries.A study by Gross et al (1971)
103 indicated that when teachers have a positive attitude towards an innovation they will spend
104 more time and efforts to ensure that it is fully implemented. The research is useful to this

105 study to determine whether teachers have influence on choice of agriculture subject among
106 students.

107
108 Onwuka, (1981) argues that, the role of a teacher is very important when it comes to
109 imparting knowledge and skills to learners. The method of teaching he/she uses to present the
110 subject matter is very vital since it may make the learner like or dislike a subject. Therefore it
111 is very important that a secondary school teacher should be academically knowledgeable in
112 his area of specialization because lack of the skills to impart knowledge may cause students
113 to make wrong subject choices that might lead to failure in their exams.

114 Despite the importance of agriculture in Kenya's economy, academic achievement of
115 secondary school students in agriculture is generally poor. According to Kenya National
116 Examinations Council (2013), the students mean scores in the subject were less than 50 per
117 cent for the years 2007-2012 as shown in **Table 2.**

118

119 **Table 2. KCSE Agriculture subject Analysis**

Year	No of candidates	Mean score (%)
2007	121,193	48.52
2008	134,039	37.27
2009	137,217	43.15
2010	140,237	37.76
2012	167,709	41.29
2013	178,419	38.87

120 **Source: KNEC, 2013.**

121 Good teaching methods should provide the learners with information to be used now or in
122 the future as well as guide learners to tackle problems Kibett (2014). Poor performance is

123 attributed to poor teaching methods but this study will determine whether teachers attitude
124 towards agriculture subject has influence on choice of the subject by students.

125 Gender differences have become on the hotlist of critical issues around the world. Hausmann
126 et al (2009) argues that the issue of equality between men and women in the world still
127 remains a challenge since there is no country in the world that has yet attained it in terms of
128 economic participation or education.

129
130 World Bank, (2005) reports that gender issue is still prevalent in all aspects of life and this is
131 seen in textbooks and teachers' attitudes when assigning roles to students whereby boys and
132 girls are assigned different roles according to their ability as perceived by the teachers.

133
134
135 Student's personal characteristics have a big role to play when it comes to subject choice
136 under group four which are technical oriented. This calls in for proper guidance from teachers
137 on career choice and future career prospective on the subject area.

138
139 According to Jegede (2001) in his study on student's attitude and how it affects academic
140 performance found out that, there is a positive relationship between students' attitude and
141 their performance in academics. This then clearly indicates that student's attitude towards a
142 certain subject whether positive or negative, determines the academic outcome. This study
143 will investigate the extent to which student attitude influence the choice of agriculture
144 subject.

145
146 **METHODOLOGY.**

147 **Population of study**

148 The population of study consisted of 9380 students. The target population of the study was
149 1100 form four agriculture students and 74 agriculture teachers.

150 **Sample and sampling procedures.**

151 Mugenda and Mugenda (2003) assert that a representative sample is one which is between
152 10% and 30% of the target population for the descriptive survey studies. Hence this study
153 adopted 30% of the target population as a sample size. The sample size was 330 form four
154 students of agriculture and 22 teachers of agriculture. Simple random sampling was used to
155 identify 5 sub counties out of 9 within Kisii County and 2 out of 5 within Nyamira County.
156 Stratified random sampling was used to identify 4 schools per Sub County in Kisii County
157 that gave a total of 20 schools and 2 schools from 1 Sub County in Nyamira giving a total of
158 22 schools. Stratified random sampling was again used to identify students from each
159 category as National, extra county, county, and sub county schools who were categorized
160 into three groups as, very bright (5) bright, (5) and not very bright (5) making a total of 15
161 students.

162 **Table 3: Sample size determination.**

Nature of school	No. of students	No. of teachers	Total
Kisii and Nyamira	15 per school		
National 4 schools	60	4	64
Extra county 5 schools	75	5	80
County 6 schools	90	6	96
Sub county 7 schools	105	7	112
Total = 22 schools	330	22	352

163

164

165

166 4.0 RESULTS AND DISCUSSION

167

168 Number of Student Taking Agriculture in Form Four

169 The study sought to find out number of students taking agriculture in form four. The results
170 are presented in **Table 4**.

171 **Table 4** Students taking agriculture in form four

Number	Frequency	Percentage
20-30	8	44.4
30-40	3	16.7
Above 40	7	38.7
Total	18	100

172

173 The study realized that most (44.4%) student taking agriculture is 20-30 in number while
174 38.7% are above 40 in number. Only 16.7% are 30-40 in number. The findings are as a result
175 of most counties and sub county schools have few numbers of schools enrolled as opposed to
176 national and extra county schools were numbers are relatively high. The findings again are in
177 agreement with KNEC 2004-2012 on low enrolment of students in agriculture subject which
178 can be attributed to negative attitude.

179 Influence of Teachers on the Choice of Agriculture Subject among Students in 180 Secondary Schools

181 **Table 5: Student** response on teacher's influence on choice of Agriculture

Attributes	Responses										Mean	SD
	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree			
	F	%	f	%	f	%	f	%	F	%		
The teacher influenced my choice of subjects	66	32.6	80	39.8	19	9.6	16	8	20	10	2.22	1.36
Lesson attendance by the teachers influence subject choice	103	51.8	57	28.6	13	6.5	14	7	12	5.9	1.87	1.18
Teachers gender influence subject choice	32	15.8	38	18.7	5	2.5	56	27.6	72	35.5	3.48	1.513
Teacher who teaches well influences subject choice	90	43.49	75	39.9	12	6.4	8	4.3	3	1.6	1.67	1.2

182

183 Data contained in **Table 5** revealed that 72.4% of the students agreed that teachers influenced

184 their choice of agriculture subject, 9.6% were neutral, and 18% disagreed. This is an

185 indication that most students follow what their teachers do in choosing a subject with a mean

186 of 2.22 and standard deviation 1.36

187 Another influencing factor shown by the data was that regular and timely attendance to

188 lessons by teachers influence choice of subject shown by (80.4%). This is clearly indicated

189 with a mean of 1.87 that shows strong agreement, a standard deviation 1.18 shows there is

190 little differences in responses from the responses to mean value of strong agreement. The
 191 implication of this is that, majority of the respondents are influenced by regular attendance of
 192 lessons by the teacher. The significance of this information for this study is that regular
 193 attendance of lessons by a teacher influences students when it comes to decision making on
 194 choice of subjects. A (63.3%) majority of students disagreed that gender of teachers
 195 influenced their choice of subject. This is further adduced by the mean rejection of 3.48 with
 196 standard deviation of 1.5. Only 34.5 agreed that gender of the teacher influenced their choice
 197 of agriculture. A good number of students 83.4% students agreed that they were influenced
 198 to do Agriculture because their agriculture teachers taught well. This was further evidenced
 199 by the mean response of 1.6 with standard deviation of 1.2. 5.95 did not agree with it.

200 **4.11: Relationship between Student and Agriculture Teacher**

Response	Frequency	Percentage
Very good	106	52.7
Good	71	35.3
Neutral	14	7.0
Satisfactory	4	2.0
Very poor	6	3.0
Total	204	100

201
 202 From the table above majority 88% of the students have a good relationship with their
 203 teachers. The good relationship is key to enhancing curriculum delivery and teaching.

204
 205 **Table 6: Teachers response on Influence of Career Guidance on Choice of Agriculture**

Response	Frequency	Percentage
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Very great extent	7	38.9
Great extent	10	55.6
Moderate	1	5.6
Total	18	100

206
 207 From table 6 above, Most (94.4%) teachers agreed that career guidance influences choice of
 208 agriculture as a subject in most secondary schools to a great extent. It opens up students to
 209 future opportunities and aspirations that makes students to be more focused in building their
 210 future aspirations and ambitions.

211
 212
 213 **Table 7: Teachers response to factors that have led to students taking Agriculture in**
 214 **secondary schools in Nyamira and Kisii counties**

Statements on student choice.	Rating						Total
	SD	D	N	A	SA		
Those good in Biology.	f 0	0	0	9	5	14	
	% 0	0	0	64.3	35.7	100	
Previous performance in Agriculture is good	f 0	0	3	9	3	15	
	% 0	0	20	60	20	100	
Those who have been guided on different careers	f 0	0	1	6	7	14	
	% 0	0	7.1	43.9	50	100	
Those with general good performance.	f 0	0	2	4	9	15	

% 0 0 13. 26.7 60 100

3

216 **Key:** SD=Strongly Agree, D=Disagree, N=Neutral, A =Agree, SA=Strongly Agree

217

218 Data captured in **Table 7 indicated** that (100%) of teachers agreed that those students who do
 219 well in Biology have chosen Agriculture as their technical subject. This was further
 220 elaborated by majority (80%) of teachers who indicated that students whose previous
 221 performance in agriculture was good chose the subject. Further, it was established that 93.9%
 222 of students chose Agriculture because they were guided well on career choices. Lastly, 82.7%
 223 agreed that students with general good performance have taken agriculture to boost their
 224 scores.

225 **4.14: Teachers response to factors that have led to students choice of Agriculture in**
 226 **secondary schools in Nyamira and Kisii counties**

227 The study sought to establish the teachers response on the factors that have led to students
 228 choice of agriculture subject. Their views were shown in the **Table 8.**

229

230 **Table 8: Teachers response on teacher influence on choice of agriculture**

231

Teaching Methodsj	Rating						Total
	SD	D	N	A	SA		
Lecture.	f	4	2	0	6	1	13
	%	30.8	15.4	0	46.2	7.6	100
Field trips.	f	1	0	0	10	3	14
	%	7.1	0	0	71.4	21.4	100
Demonstrations.	f	0	0	0	7	10	17

	%	0	0	0	41.2	58.8	100
Discussions.	f	0	0	0	1	13	14
	%	0	0	0	7.1	92.9	100
Group work.	f	0	0	0	5	9	14
	%	0	0	0	35.7	64.3	100
Drilling using past papers.	f	6	2	0	6	0	14
	%	42.9	14.4	0	42.9	0	100
Projects.	f	0	2	0	8	4	14
	%	0	14.3	0	57.1	28.6	100

232

233 **Table 8** indicates that the method used by the teachers to teach influences choice of
 234 Agriculture subject. It was realized that most teachers use discussions (100%), group work
 235 (100%), demonstrations (100%) and field trips(100%) to influence student to do agriculture.
 236 Other methods which are used include: lecture (53.2%), projects (85.1%) and drilling of past
 237 examinations (42.9%). Most teachers indicated that the friendly teaching methods they
 238 employ makes students get attracted to choose Agriculture subject for study.

239 **4.4 Influence of Gender on the Choice of Agriculture Subject among Students in** 240 **Secondary Schools.**

241 In this part of analysis gender's influence was measured by several factors and its influence
 242 on choice of Agriculture as a subject. A five point Likert type scale ranging from Strongly
 243 Agree = 1 that indicates very high, Agree = 2 that indicates high, Neutral = 3 that indicates
 244 moderate, Disagree = 4 that indicates low, and Strongly Disagree = 5 indicates very low. The
 245 tables below depict the frequency distribution of teachers influence:

246

247 **Table 9: influence of gender on choice of subject**

248

Response	Frequency	Percentage
Yes	64	31.4
No	140	68.6
Total	204	100

249

250 Most of the students who were interviewed, 68.6% said taking agriculture as a subject was
 251 not influenced by their gender. While 31.4% indicated that their gender influenced them to
 252 take agriculture

253

254

255

Table 10: Gender * influence of gender on choice of subjects Crosstabulation

		Did your gender influence choice of subjects		Total
		Yes	No	
Gender Male	Count	31	84	115
	% within Gender	27.0%	73.0%	100.0%
	% within Did your gender influence choice of subjects	48.4%	60.4%	56.7%
	% of Total	15.3%	41.4%	56.7%
Female	Count	33	55	88
	% within Gender	37.5%	62.5%	100.0%

	% within Did your gender influence choice of subjects	51.6%	39.6%	43.3%
	% of Total	16.3%	27.1%	43.3%
Total	Count	64	139	203
	% within Gender	31.5%	68.5%	100.0%
	% within Did your gender influence choice of subjects	100.0%	100.0%	100.0%
	% of Total	31.5%	68.5%	100.0%

256

257

258 Majority of the students' interviewed (41.4%) and 27.1 % of males and females respectively
 259 indicated they did not choose agriculture because of their gender. Only 15.35% of males and
 260 16.3% of females chose agriculture because of their gender. This is contrary to Werunga et al
 261 (2013) in a study on factors influencing choice of technical subjects among the secondary
 262 school graduates in Kenya found out that gender influenced choice of subject.

263

264

Table 11 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.567 ^a	1	.109		
Continuity Correction ^b	2.102	1	.147		
Likelihood Ratio	2.556	1	.110		
Fisher's Exact Test				.128	.074

Linear-by-Linear Association	2.554	1	.110	
N of Valid Cases	203			

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 27.74.

b. Computed only for a 2x2 table

265 According to Chi-square table above gender did not influence the choice of agriculture
 266 subject .Pearson chi-square=0.109, continuity correction =0.147, likelihood ratio=0.110 and
 267 linear-by-linear association=0.110, these values are greater than0.05 indicating clearly that
 268 gender did not influence agriculture choice among students in Kisii and Nyamira counties.

269 Most students who objected gender influenced their choice of agriculture indicated that
 270 agriculture is the best alternative in the career world and is meant for all students

271

272 **4.5 The influence of Students attitude towards the choice of agriculture subject in**
 273 **secondary schools.**

274 The third research question was to investigate whether student’s attitude influenced the
 275 choice of agriculture subject in secondary schools in Nyamira and Kisii Counties. **Table 11**
 276 summarizes the responses of students on factors that influenced their choice of agriculture

277

278 **Table 12: Factors that Influenced the Choice of Agriculture**

Item	Frequency	Percentage
The subject is interesting	45	22
Good previous performance	15	7.3
Career goals require agriculture	130	63.4

My friend chose agriculture	3	1.5
My agriculture teacher was inspiring in form 1 and 2	10	4.9
Total	204	100

279
 280 Agriculture students who were interviewed (63.4%) indicated that career goals that require
 281 agriculture made them to choose the subject, (22%) indicated that agriculture is an interesting
 282 subject, 7.3% said the good previous performance made them choose agriculture, 4.9%
 283 indicated their agriculture teachers were inspiring in form one and two prior to subject
 284 selection in form three. Lastly, 1.5% chose agriculture because their friends had decided to do
 285 agriculture. This clearly shows that career opportunities require relevant skills for one to be
 286 able to compete favorably in the job market today.

287 **The students were asked to indicate why they did not enjoy agriculture subject in the**
 288 **school. Table 13 shows the responses**

Table 13. Reason for not enjoying agriculture lessons

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Teacher does not explain well	10	4.9	50.0	50.0
Teacher is too slow	1	.5	5.0	55.0
Teacher dictates very fast	8	3.9	40.0	95.0
Teacher is harsh	1	.5	5.0	100.0
Total	20	9.8	100.0	

289 Most students indicated that they do not enjoy agriculture because the agriculture teacher
 290 does not explain agriculture concepts well (50%).This concurs with Egbule (2004) in his
 291 study that, every agriculture teacher must be effective in teaching, be professional, focused,
 292 innovative, and be concern about the student’s welfare. This will make learners like the
 293 subject and choose it for study.

294 Teacher dictates agriculture notes very fast (40%), teacher is very harsh (5%) and the teacher
295 is very slow(5%).This could also lead to poor academic performance of the subject.

296 **Table 14: Level of language Used during Agriculture lessons**

Response	Frequency	Percentage
Very Simple	49	24
Simple	84	41.2
Moderate	66	32.4
Difficult	1	0.5
Confusing	4	2
Total	204	100

297
298 Most of the students who were interviewed, 65.2% indicated that the language used in
299 teaching agriculture is simple for one to comprehend the content delivered by the teacher in
300 class. This agrees with Curran and Rosen (2003) that students prefer subjects that are taught
301 by teachers who are enthusiastic, well spoken, knowledgeable, caring, and helpful as opposed
302 to instructors who are dry, inflexible, and unclear for they do not encourage students to take
303 the subject for study.

304 32.4% said the language is moderate and 2.5% said it is difficult and confusing. Agriculture
305 is one of the technical subjects taught in secondary schools, hence the simple language used
306 by teachers makes it easier for the students to comprehend and understand the subject and
307 pass.

308

309

310

Table 15: Teachers response on Student attitude towards agriculture

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very great extent	10	55.6	55.6	55.6
a great extent	8	44.4	44.4	100.0
Total	18	100.0	100.0	

Comment [a1]: values are the same. one should be removed

311
312 Most teachers agreed that student attitude influences choice of Agriculture as a subject.
313 55.6% of the teachers agreed that attitude affects choice of agriculture to a very great extent
314 while 44.4% indicated it is to a great extent. This agrees with Ozioma C.A.zubuike (2011)
315 and Ordhoet *al* (2013) concluded that student attitude towards the subject affects academic
316 performance. The significance of this information for this study is that student's attitude plays
317 a major role in the learning process more especially when it is positive the results are good
318 compared to negative attitude that leads to poor results. Hence should be positive always

Table 16: Teachers Perception on how Students perceive Agriculture

Response	Frequency	Percentage
Very ease	4	26.7
Ease	6	40.0
Moderate	5	33.3
Total	15	100

320

321

322 Majority of the students who were interviewed, 66.7% perceives agriculture as an easy
 323 subject hence chose it for study while only 33.3% take it as a moderate subject. This concurs
 324 with Chemjor J.Esther (2016) in a study on factors influencing choice of agriculture subject
 325 by students in Kajiado County that students chose the subject because they have a positive
 326 attitude towards it. Agriculture is considered as an easy subject because much of the content
 327 involves practical work that enables students to comprehend concepts faster and excel in
 328 examinations.

329

330 **Table 17: Teachers' Response on the Reasons Why Most Student are Doing Agriculture**
 331 **in Secondary Schools in Nyamira and Kisii Counties**

Statements on taking Agriculture.		Rating					
		SD	D	N	A	SA	Total
Previous academic achievement.	f	0	0	0	5	4	9
	%	0	0	0	55.6	44.4	100
Student individual interest.	f	0	0	0	6	5	11
	%	0	0	0	54.5	45.6	100
Career prospects.	f	0	0	1	6	2	9
	%	0	0	11	66.7	22.2	100
Peer group influence.	f	91	70	26	44	29	260
	%	35	27	10	17	11	100
Study habits.	f	19	38	57	29	67	260
	%	7	15	22	11	26	100
Dedicate most time in studying Agriculture.	f	36	31	42	65	86	260
	%	14	12	16	25	33	100
Lack concentration.	f	31	26	36	75	91	260

	%	12	10	14	29	35	100
Student only study during examinations.	f	86	91	31	18	34	260
	%	33	35	12	7	13	100

332

333 Most students have taken agriculture because of the previous academic achievement (100%),
 334 their interest are catered in agriculture (100%), This indicates that students have a positive
 335 attitude towards the subject and chose it for study which concurs with Jegede (2001) in his
 336 study on student's attitude and how it affects academic performance and concluded that, there
 337 is a positive relationship between students' attitude and their performance in academics. This
 338 then clearly indicates that student's attitude towards a certain subject whether positive or
 339 negative, determines the academic outcome. Career prospects(89%), peer group influence
 340 (28%), study habits(37%), most students dedicate most of their time studying agriculture
 341 (58%) while most teachers disagreed that most students study only during examinations
 342 (68%).

343 **4.6 Influence of School finance on the Choice of Agriculture Subject among Students in**
 344 **Secondary Schools**

345 The fourth research question was to investigate whether School finance influenced the choice
 346 of agriculture subject among students in secondary schools in Nyamira and Kisii County.
 347 Table below show the responses of students on school finance on the influence of their choice
 348 of agriculture subject.

349

Table 18: Students Response Whether Enough or lack of school finance to purchase learning materials influence subject choice

Response	Frequency	Percent
Strongly Agree	42	21.1
Agree	69	34.7
Neutral	25	12.6
Disagree	41	20.6
Strongly Disagree	22	11.1
Total	204	100

351

352 55.8% of the students agreed that the resources allocated to purchase of teaching learning
 353 materials were fairly inadequate. This is an implication that topics that require
 354 demonstrations become abstract to students during teaching. This is in line with Waliki *et al*
 355 (2009) in his study on factors that affect performance among students and concluded that
 356 inadequate physical facilities affect performance. This clearly shows that resources are not
 357 adequate to purchase learning materials. 12.6% remained neutral and 31.7% disagreed.

358

359 **Table 19:** Student response on whether enough classrooms in school influence choice of
 360 Agriculture as a subject

Response	Frequency	Percentage
Strongly Agree	15	7.5
Agree	35	17.5
Neutral	13	6.5
Disagree	77	38.5
Strongly Disagree	59	29.5
Total	204	100

361 Most of the students with 68% disagreed that they chose agriculture because there were
362 enough classrooms in schools to cater for all students. This agrees with Waliki *et al* (2009) in
363 his study on factors that affect performance among students concluded that inadequate
364 physical facilities, lack of instructional materials, and resources affected performance. This
365 is again contrary to Olutola (1982) that availability of enough infrastructures in schools
366 contributes to good academic performance as they enhance effective teaching-learning
367 activities. 6.5% were neutral while 25% agreed that the classrooms are adequate to cater for
368 their learning. Classrooms are important since they facilitate teaching and learning in schools.
369 This means that students are encouraged to learn when there are enough rooms for use

Table 20: Student Response on the Extent in which Enough Support Staff in School Influenced their Choice of Agriculture as a Subject

Response	Frequency	Percentage
To a very great extent	43	40.2
Great extent	33	30.8
Moderate Extent	24	22.4
Little extent	2	2.0
No extent	5	4.6
Total	107	100

370 Out of one hundred and seven respondents 71% indicated that the subordinate staff to a great
371 extent influenced their choice of agriculture subject, 22.4% were moderately influenced while
372 2% were little influenced and 4% were not influenced. Subordinate staff like laboratory
373 technician who assists by providing them with learning materials when needed. The clerk and
374 store keeper also assist students on their day-to –day operations at the school hence their
375 influence to the choice of agriculture subject.

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384 **Table 21: Teacher level of Agreement on the Influence of Financial Resources on the**
 385 **Choice of Agriculture by Students in Secondary Schools in Kisii and Nyamira Counties**

Statements on financial Resources.	Rating						Total
	SD	D	N	A	SA		
Agricultural laboratory.	F	2	2	0	4	3	11
	%	18.1	18.1	0	36.4	27.4	100
School Farm.	F	1	2	0	6	3	12
	%	8.3	16.7	0	50	25	100
Insufficient fund to purchase agricultural equipment	F	0	1	0	7	2	10
	%	0	10	0	70	20	100

386
 387 Most of the teachers who were interviewed 90% indicated that there are insufficient funds to
 388 purchase agricultural equipment which affects choice of Agriculture by students. This
 389 concurs with Kiadese (2011) on performance of agriculture found out that problems such as
 390 poor school infrastructure, lack of qualified teachers, poorly equipped workshops and
 391 laboratories as well as parents' attitudes affect the teaching of prevocational subjects like
 392 Agriculture. Those who said that school farm influence choice of the subject were (75%). This
 393 agrees with Kabugi (2013) that school farm influences choice of the subject. Further, most
 394 teachers disagreed that agricultural laboratory influences choice of Agriculture by students
 395 hence did not have any effect on choice of subject. This is due to the fact that most schools do
 396 not have agricultural laboratories where students carry out practical lessons from. Hence does
 397 not influence their choice of subject.

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403 **CONCLUSION AND RECOMMENDATIONS**

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405 Teachers influence on choice of agriculture subject, the study concluded that teachers have a
406 great influence to student's choice of agriculture as a subject in schools. This is through
407 regular and timely attendance to lessons by teachers which influence choice of subject. On
408 the other hand, teachers' detailed explanation of the content makes learners grasp concepts
409 faster and this influence subject choice. On the other hand teachers who are friendly in
410 guiding them on career opportunities available also influence students on subject choice.
411 Further the study revealed that students perceive agriculture as an easy subject and appealing
412 to most students and this influences them to choose the subject for study.

413 Based on the findings of objective two, on gender influence on choice of agriculture, it was
414 concluded that gender of the student does not influence choice of agriculture as a subject.
415 Neither does the gender of a teacher influence students' choice of agriculture. This was clear
416 in the study that students do not choose agriculture because of their gender or that of the
417 teacher. But they had positive attitude towards the subject.

418 Based on the findings of objective three, on students' attitude on choice of agriculture, the
419 study concluded that individual interest of students towards the subject was positive and this
420 was exhibited by regular studies that students do, and quest to know more has an influence to
421 choice of agriculture as a subject.

422 Lastly, based on the findings of objective four, on the influence of school resources on choice
423 of agriculture subject, the study revealed that resources do not influence the choice of
424 agriculture as a subject as most schools do not have adequate financial resources that support
425 agriculture.

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Comment [a2]: should be reviewed again according to the spelling rules of the journal.

REFERENCES

- 427
- 428 Castejon, J. a. (1998). Casual -explicative model. *Psycho-Social variables in academic*
429 *performance*, 50 (2), 171-185.
- 430 Chambers, E. S., & J.B. (2004). Girls' academic achievement varying associations of extra
431 curricular activities. *Gender and education*, 16 (3), 327-346.
- 432 Chandran, E. (2004). Research methods: A quantitative Technique:.
- 433 Clark, H. (2002). Clark, Building Education: The role of the physical environment in
434 enhancing teaching and research, institute of Education. 30-34.
- 435 Cooney, T. (1990). Learning to Teach. *McGraw, Hill, c.o* .
- 436 Deemer, S. (2004). Classroom goal orientation in high school classrooms: Revealing links
437 between teacher beliefs and classroom environments, *Educational Research*, 46 (1), 73-90.
- 438 Dorsey, B. (1996). Academic women at the university of zimbabwe. *Career prospects,*
439 *aspirations and family role constraints*, 13 (8), 10-18.
- 440 Earthman, G. (2004). Prioritization of 31 criteria for school Building Adequacy.
- 441 Egbule, P. (2004). Fundamentals and practice of agricultural education.
- 442 Egunsola, A. (2014). Influence of Home environment on Academic performance of
443 Agricultural science in Adamawa state Nigeria. *Journal of Research and Methods*, 4 (4), 46-
444 53.
- 445 Eshiwani, G. (2001). *Enhancing female participation and performance in mathematics,*
446 *science and information technology in University education in Kenya: Intervention*
447 *strategies*.
- 448 Federal Republic of Nigeria, F. (1994). Blueprint on family support programme. Lagos.
- 449 Felder, R. a. (1994). Gender differences in student performance and attitudes. A longitudinal
450 study of Engineering student performance and retention. North Carolina University, Report
451 NO.NCSU-94A.(ED368553).
- 452 Fisher, K. (2001). Better outcomes: The impact of school infrastructure on student outcomes
453 and behaviour, Department of Education, Training and Youth Affairs (Australia).
- 454 Gachukia, E. (1999). Accelerating the Education of Girls and women in sub-saharan Africa.
455 *FAW New magazine*, 7 (2), 5-11.
- 456 Gazi, T. (2008). *Education in Bangladesh*.
- 457 Gliem, J. G. (2003). Interpreting and Reporting Cronbach's Alpha Reliability Coefficient for
458 Likert-Type Scales. Research to practice conference in Adult continuing and community
459 education.

460 Good, T. B. (1995). *Contemporary educational psychology* (5 ed.). New York; Longman.

461 Gordon, R. (1995). Educational policy and gender in zimbabwe journal of Educational
462 Research. *13* (8), 10-18.

463 Government of kenya. (2009). *Economic Survey*. Nairobi: Government printer.

464 Government of Kenya. (2009). kisii south development plan 2008-2012. *Economic Survey* .

465 Government of Kenya, (GOK,2009). (n.d.). Ministry of agriculture farm management
466 guidelines for kisii south ditrict. Nairobi: Government printer.

467 Gross, e. (1971). *Implementing organisational innovation.Sociological Analysis of planned*
468 *education change*. New York: Basic Books .

469 Gump, P. (1987). *School and classroom environments, in D stockol and I Altman (eds),*
470 *Handbook of environmental psychology*.

471 Harman, D. (2004). Improving test performance among culturally diverse gifted students.

472 Hausmann, R. T. (2009). The global gender gap report.

473 Hurley, T., & Pitamber, S. (2009). Gender socialization in the Home and its impact on Boys'
474 Achievement in primary and secondary schools. seychellen:African Development Bank.

475 Husen, T. a. (1994). *The international Encyclopedia of Education.Pergamoni Press*.

476

477 Mhundu, T. (2007). Mitigating gender typed occupational preferences of Zimbabwean
478 primary school children. *The use of biographical sketches and portrayals of female role*
479 *modes,sex roles* , 639-649.

480 Njoroge, D., Mwangi, P. J., & Udoto, D. M. (2014). Influence Of Young Farmers' Club Of
481 Kenya Activities On Secondary School Students' Performance In Kenya Certificate Of
482 Secondary Education Agriculture in Rongai Sub-County Of Nakuru County, Kenya. *IOSR*
483 *Journal of Research & Method in Education (IOSR-JRME)*, 4 (6), 15-35.

484 Njoroge, K. T., & Orodho, J. A. (2014). Secondary school student's perception towards
485 agriculture subject in public secondary schools in nairobi county,kenya. *19* (7), 30-36.

486 Nyagura L, R. A. (1994). What causes differences in achievement in Zimbabwean
487 secondary school? *policy research and external affairs* .

488 Nyangi, M. (2012). Factors that influence the trend of students enrolment in home science in
489 Nairobi secondary schools.

490 Nyangi, M. (n.d.). Factors that influence the trend of students enrolment in home science in
491 Nairobi secondary schools.

492 Nziramasanga, C. (1999). *Presidential commission of inquiry into Education and training*.
 493 Harare: Government printer.

494 Ogunlade, I. (n.d.). Utilizing school farm for rapid agricultural recovery. *Amultisectional*
 495 *participation paper* .

496 Ogweno, P. O., Nephath, J., & Obara, J. (2014). Influence of family characteristics on
 497 academic performance of students in secondary agriculture in Rachuonyo North sub county,
 498 kenya.

499 Olutola, A. (1982). School planning and maintenance introduction to educational planning.

500 Omaren, A. (1998). Characteristics of High School Learners. *Education journal*, 1 (4), 112-
 501 117.

502 Ongang'a, P. A., & J.J.O, K. (2014). Influence of selected factors on the choice of agriculture
 503 subject among secondary school students in uriri sub-county, kenya. *Humanities And Social*
 504 *Science.*, 19 (7), 30-36.

505 Ongeti, K. (1986). Attitudes of teachers on standard eight pupils towards prevocational
 506 subjects:Acomparative study of Nairobi and Tangaren division (Bungoma).

507 Onwuka, U. (1981). Curriculum development for Africa. 1 (1), 32-36.

508 Orodho, J., Waweru, P., & Ndichu, M. N. (2013). Basic Education in kenya.Focus on
 509 strategies applied to cope with challenges inhibiting effective implementation of curriculum
 510 international journal of Education Research. 1 (11), 1-20.

511 Orstein, L. A.-H., & Pajak.E. (2003). Contemporary issues in curriculum.

512 Owoyele, J., & O.M.Toyobo. (2008). Parental wills,peer pressure,academic ability and school
 513 subject selection by students in senior secondary school.

514 P., K. (2012). *Factors influencing enrolment in agriculture course.Highland: Laguna press*.

515 Pedzisai, C., Chiwara, A., Dondo, B., Tsvere, M., & Munika, S. (2014). Addressing poor
 516 performance in the advanced level agriculture syllabus(9159) in the midlands
 517 province,zimbabwe. *journal of humanities and social science*, 19 (2).

518 Phillips, M. (1998). Family background,parenting practices and the black-white test score
 519 gap. Washington.

520 Raimi, S., & Adeoye, F. (2002). *Gender Differences among college students as determinant*
 521 *of performance in integrated science*. Nairobi: Longhorn.

522 Region, M. E. (Ed.). (2009, 5 27). *World bank*. Retrieved from
 523 [htt://siteresources.worldbank.org](http://siteresources.worldbank.org).

524 Republic of kenya. (2009). Building a globally competitive economy.

- 525 Republic of Kenya. (2007). *The Kenya vision 2030*. Nairobi: Government printer.
- 526 Riddeels, S., S. &. (2000). *Gender policy and education shifting agenda in the UK and*
527 *Europe, London, Routledge.*
- 528 Saina, E., Kathuri, N., P.K, R., M.J, K., & Sulot., &. (2012). Food security in Kenya: The
529 impact of Building Rural Farmers' capacity through Agricultural Education in secondary
530 school. *Journal of Emerging Trends in Educational Research and policy studies*. 3 (3), 338-
531 345.
- 532 Saiti, M.B. (1999). Implementation of the 8-4-4 primary school music curriculum. A case
533 study of Getembe and Wanjare Divisions of Kisii District. Unpublished MED thesis: Moi
534 University Eldoret, Kenya. .
- 535 Saylor, J. a. (1973). *Planning curriculum for schools*.
- 536 Schneider, M. (2002). Do school facilities affect academic outcomes? *National clearinghouse*
537 *for educational facilities* .
- 538 Sheffied, J. J. (1976). *Agriculture in secondary schools case studies of Botswana, Kenya and*
539 *Tanzania*.
- 540 Shiundu, J. O. (19192). *Curriculum theory and practice in Kenya*. Nairobi: Oxford
541 University Press.
- 542 Sifuna, D. (1990). *Development of Education in Africa. The Kenyan Experience*.
- 543 Soboyejo, A. (2007). Academic discipline and gender difference in secondary school
544 students' knowledge and practice on communicable diseases. *50th Annual Proceeding of*
545 *Science Teachers* , 196-203.
- 546 Syeda, W.K. (2010). *Vocational and skills development: A case of Pakistan*.
- 547 Taba, H. (1962). *Curriculum Development: Theory into practice*.
- 548 Talbert, B., Vaughn, R. C., & Lee, J.S. (2007). *Foundations of agricultural education* (2nd
549 Edition ed.). Danville, U.S.A: Professional educators.
- 550 Tayeb, A, B. E. (2003). *Experimental analysis of student course selection. British journal of*
551 *education psychology*.
- 552 Thaw, R. (2010, Feb 3). Southjern cape school Rocked by Teacher-pupil sex problem.
553 *Eyewitness News* , 4-6.
- 554 The World Bank. (2005). *The economic advancement of women in Jordan. A country gender*
555 *assessment, social and economic development group middle east and north africa region* .
- 556 Toh, K. (1993). Gender and practical tasks. *Science Education Research* , 225-265.

557 UNESCO. (2005). *Education for All. THE QUALITY IMPERATIVE: EFA Global monitoring*
558 *Report*. Paris: UNESCO.

559 UNESCO. (1999). World Education Report.

560 Wagfield, Battle, Keller, & Eccles, &. (2002). Sex differences in motivation, self
561 concept, career aspirations and career choice.

562 Waithe, K. S. (2013, November). Challenges to teaching and learning of agriculture in
563 secondary schools in Kakuyuni division, Kangundo district, Machakos county, Kenya.

564 Waliki L.M. & Usman, M. (2009). Achieving the millennium development goals. *Effective*
565 *teaching of agricultural science of Nigeria*, 1 (1), 32-36.

566 Weinstein, C. (1979). The physical environment of the school I. *Review of Educational*
567 *Research*, 49 (4), 577-610.

568 Wootyitidde, J. (2010). The effect of funding on practical teaching of Agriculture in selected
569 senior secondary schools in Rakai District, Uganda. *Unpublished*
570 *Dissertation, Makerere University*.

571 Yong, P., C. L. (2011). *Factors that influence Branelan students not to enroll in secondary*
572 *school Agriculture subject. Darassalam Brunei*.

573 Young, D. T. (1994). Gender differences in science achievement, Do schools effects make a
574 difference? *Research in science teaching*, 857-871.

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