



Socio-economic factors influencing the choice of agriculture subject among girls in post-primary education in gusii counties, Kenya

Joash Omwenga Mayenga¹, Judith Odhiambo², Martha Nyang'au¹

¹ Department of Agricultural Education and Extension, Kisii University, Kisii, Kenya

² Department of Crops and Soil Sciences, Kisii University, Kisii, Kenya

Abstract

Kenya's economy is based on agriculture; hence even though it is optional, the learning area has been incorporated into secondary school curricula to instill skills and knowledge. This is a significant challenge for a nation that is working to achieve food security and provide employment for thousands of high school and college graduates. The study's main goal was to assess the extent to which socio-economic factors influence the choice of agriculture subject among girls in post-primary education in Gusii counties, Kenya. Specific objectives of the study were to assess the effects of the level of education, family income, guidance by parents/guardians and parents/guardians' occupation in agriculture sector on the decision of girls enrolled in post-primary education in Gusii counties, to pursue agriculture. The research used a descriptive survey approach. The study focused on 9,000 form three girls who take agriculture in 470 post-primary institutions with both mixed and pure girl student populations. 368 girls from form three classes who were studying agriculture made up the sample. Simple random and purposeful sample approaches were used to do the sampling. Data from form three girls enrolled in agriculture was gathered using questionnaires. Pilot testing was used to determine the instruments' validity and reliability. SPSS version 21 was used to analyze the data while graphs, means, frequencies and standard deviations were used to present the results. Data analysis was done using the Pearson's correlation coefficient with a 0.05 level of confidence. The Pearson's correlation indicate that parental guidance contributed the most to the choice of agriculture as a subject by $r=.297$; $p<.05$ followed by parents working in agriculture sector by $r=.217$; $p<.05$ then family income $r=.257$; $p<.05$ and lastly parents' academic level $r=.196$; $p<.05$. In order to encourage girls to choose agriculture as an examinable subject, the study suggests that the career masters provide guidance to girls on their career choices so that they are adequately informed about their subject of choice. This research's findings will aid in the creation of girl-targeted agricultural policies by the Ministry of Education. Additionally, it will assist the Ministry of Education in comprehending the obstacles preventing more girls from choosing agriculture as a learning area.

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

Introduction

According to the Kenya Institute of Public Policy Research and Analysis (KIPPRA), 2009, the agricultural industry in Kenya produces between 70 and 80 percent of the country's gross domestic product (GDP), more than 60 percent of its exports, and 19 percent of all formal jobs. Additionally, the sector provides raw materials for industry, ensures food security and generates foreign exchange. It is imperative to note that women manage the majority of small-scale agriculture, which is the sector of the agriculture industry that fuels Kenya's economy. The improvement of the agriculture sector, according to the Government of Kenya (2007) ^[5], strongly correlates with the growth of the nation's economy. Kenya must improve its citizen's general knowledge and abilities in agricultural production if it is to meet its targets for agricultural growth. Consequently, it is necessary to teach agriculture. As a result, agriculture has to be taught at all levels of education with a focus on women's participation (Kamau & Orodho, 2014) ^[13].

Since women are the mainstay of the economy and make up the majority of small-scale farmers in many developing countries, it is crucial that girls learn about agriculture in secondary schools (Verveer, 2011) ^[37]. In many nations, women play a crucial role in the agricultural and rural economies (International Fund for Agricultural Development [IFAD], 2011). Women are significantly involved in all facets of a nation's agricultural economy, from crop cultivation to livestock husbandry, in addition to

their daily home duties including cooking, cleaning, and caring for children (Jamali, 2009) ^[10]. In addition to taking on their primary role as housekeepers and homemakers, women continue to make up a sizeable share of the family's income and dominate the food processing industry, backyard cattle, and vegetable cultivation (Satyavathi, Bharadwaji, & Brahmanand, 2010) ^[33].

Secondary school agriculture's goals are to encourage students' interest in agriculture, raise awareness of career prospects in the field, show how profitable farming operations can be, and ensure that schools play a proactive part in rural development (Saina *et al.*, 2012) ^[31]. Post-primary agriculture broadens farmers' capabilities, enhancing their productivity, independence, resourcefulness and ability to solve farming issues. According to Kamau and Orodho (2014) ^[13], school agriculture aims to instill in students the values, attitudes, and knowledge necessary to increase agricultural output. Additionally, it enables students to understand the value of agriculture in contributing to economic growth (Ngugi *et al.*, 2002) ^[26]. The accomplishment of these goals is in line with Kenya's vision 2030, the Big 4 agenda and MDG 1 of poverty eradication (Government of Kenya, 2017) ^[6]. Although school agriculture is not a mandatory topic in Kenya's secondary education curriculum, it was nevertheless seen as a significant part of this education.

Sereno (2004) ^[34] discovered a similar effect of inadequate parental income, family structure, and constrained

government financing on students' academic achievement. Due to difficulties in accessing educational resources, Eamon (2005) [2] found a negative correlation between parental socioeconomic position and pupils' achievement. In his study, Jing-Lin (2009) [11] found that students' social communication with their countrymen and the perceived importance of learning achievement to a family were significant determinants of academic performance in agriculture.

Verveer (2011) [37] contends that agriculture plays a vital role in economic growth when women are taught the most effective methods for cultivating and growing wholesome food that they can use to feed their families and resell in the marketplaces. However, this is only feasible if girls have a good education in agriculture. In light of this, it is crucial that girls enroll in large numbers in Post-primary agriculture. Due to the low enrolment of Post-primary girls in agriculture, an investigation of the state of agriculture in secondary schools is now necessary. Understanding how girls view the subject can assist secondary schools better implement their agriculture curriculum.

General objective

The general objective of this study was to assess the influence of socio-economic factors influencing the girl child in choosing of agriculture subject in post-primary education in Gusii counties, Kenya.

Specific Objectives

- i. To assess the influence of level of education of parents/guardians on the choice of agriculture subject among girls in post-primary education in Gusii counties.
- ii. To establish the influence of family income on the choice of agriculture subject among girls in post-primary education in Gusii counties.
- iii. To determine the influence of guidance by parents/guardians on the choice of agriculture subject among girls in post-primary education in Gusii counties.
- iv. To assess the influence of parents/guardians working in agriculture sector on the choice of agriculture subject among girls in post-primary education in Gusii counties.

Hypotheses

The null hypotheses were:

H0₁: There is no significant relationship between level of education of parents/guardians and choice of agriculture subject among girls in post-primary education in Gusii counties.

H0₂: There is no significant relationship between family income and the choice of agriculture subject among girls in post-primary education in Gusii counties.

H0₃: Guidance by parents/guardians has no significant relationship on choice of agriculture subject among girls in post-primary education in Gusii counties.

H0₄: There is no significant relationship between the influence of parents/guardians working in agriculture sector on the choice of agriculture subject among girls in post-primary education in Gusii counties.

Theoretical framework

Donald super's self-concept theory

The self-concept theory is grounded on the idea that a person's self-concept is a major factor in his professional decisions. According to these thinkers, adolescents are when people first begin to develop a self-concept for their careers. Although theorists contend that self-concept evolves with age, people typically select careers that align with their self-perception or that highlight their interests, values, and talents (Santrock, 2001) [32]. These thinkers proposed that the five stages of career development-growth, exploration, establishing, maintenance, and declining could serve as the foundation for occupational attitude and behavior. As a result, choosing a profession entails matching one's self-perception, which forms the basis of one's self-concept, with the real requirements of the employment under consideration. This study was found to be helpful in identifying a few variables impacting females in Kenya's Gusii counties' decision to major in agriculture.

Conceptual framework

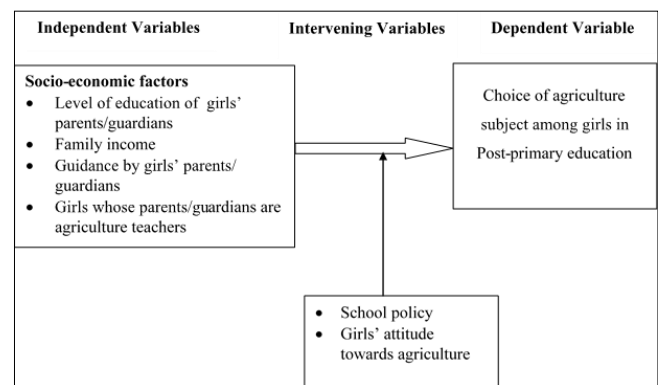


Fig 1: Conceptual framework on selected factors influencing the choice of agriculture subject among girls in post-primary education.

Literature review

Parents' socio-economic characteristics significantly influence a students' choice of technical subjects (Okeke, 2000) [28]. Through their social contacts with them, parents have a bigger impact on the advancement and future decision-making of their children (Mabunda, 2002) [20]. It is believed that the family environment affects the curriculum and how efficiently schools operate. It is made feasible by the fact that the family is represented in school organizations and that they can influence the curriculum and practices through recommendations and financial support. Additionally, the socio-economic status of the family influences the social environment in which the girls first and foremost engage before selecting their occupational specialties. According to Merlin & Dack (2019) [22], some parents raise their kids with a specific set of values in mind. Such a force encourages students to select disciplines they can successfully complete in order to live up to family expectations. According to Mohd *et al.* (2010) [24], family members can either directly or indirectly supply advice and information to impact a young person's profession decision. Girls' professional options and strong belief in the greatest vocations are influenced by the career choices of their family members quickly when great entrepreneurial role models are present.

Parents have a significant impact on the elective topics that females choose in secondary school. Most parents would lead their girls in this route because they want their daughters to pursue careers that they themselves aspired but never reached. The parents also urge their daughters to seek more advanced fields in business and the job market since they are aware of the outside world. Most parents reportedly discourage their children from choosing agriculture because they believe it won't help them grow in other job sectors or have a better future, according to Chee and Leong-Yong (2011) ^[1]. Parents that have high expectations for their children may have an impact on whether or not they choose to study agriculture as a subject that will probably have an impact on their future career.

In Gusii counties, parents are believed to have some influence over their kids' decision to study agriculture in high school. According to Young (1985) ^[38], children see their parents as role models, and parental acceptance or disapproval influences their choice of disciplines, including agriculture. In Gusii counties, this study aims to better understand how parental influence influences girls' decision to pursue agriculture. Children of farmers would be encouraged to pursue careers outside of agriculture by their parents. The advantages and early exposure in the field may influence students to pursue agriculture. The majority of males decide for agriculture to advance their parents' domestic agricultural pursuits. Due to the agricultural nature of Gusii counties, commercial agriculture is a very important endeavor, even for young people, so parental assistance in subject selection is crucial.

According to Sue (1990) ^[35], parents' careers are strongly correlated with the professional choices of their children, which means that most parents want their children to major in topics that will prepare them for the careers they are engaged in. Parental success in fields connected to agriculture inspires their kids to pursue such fields as well, potentially persuading them to select agriculture, as in the case of a successful family farm. According to Kariuki (2006) ^[14], some students opt to leave disciplines that they are good at in order to appease their parents, who have pressured them to pursue particular vocations. Occupation of the parents has a strong influence on career choice in ladies as compared to boys, who always try to look for challenges for development and advancement of their family's financial status. Parents act as career role models. As the young child tends to relate to parental occupations she ends up taking the career of the parents. If the parents were in unskilled occupations, their children will tend to be more interested in more realistic occupations. It is often believed that the family, through its economic interests, affiliations and values, determines the careers of family members (Swanepoel, 2003) ^[36].

Since most parents work in agriculture, they discourage their kids from going into agriculture by encouraging them to pursue better-paying professions instead. Malgwi *et al.* (2005) ^[21] made the additional claim that parents are more likely to have an impact on students' topic decisions than other stakeholders like instructors, guidance counselors, and teachers. It also applies to parents who choose agriculture as their children's career since they have other plans for them. Tenenbaum & Callanan (2008) claim that parents want their kids to select classes that will help them succeed. It is the responsibility of parents to get their kids ready for school. Mabunda (2002) ^[20] asserted that parents have a bigger

impact on their children's growth and future professional decisions in their task of career guiding. Because of this, Ozioma (2011) ^[30] noted that students' levels of interest and parents' social status occasionally influenced students' interest in studying vocational topics, which this current study relates to parents choosing certain subjects for their children.

Jordan, Orozco and Averett in Odiriamatari (2001) ^[12] research postulated that a family's capacity to foster a learning-friendly environment at home, express high expectations for the child's accomplishments and future career, and be actively involved in the child's education both at home and at school is a predictor of the child's success in school and in the future. The study defines parental participation in education as various actions parents take at home and at school to improve their children's overall educational experiences. The study's objective was to ascertain how socioeconomic factors affected the decision of female secondary school students in Gusii counties to pursue a career in agriculture.

Research methodology

Research design

The research used a descriptive survey approach. The design is useful when gathering data to address inquiries about the present state of a phenomena. Orodho (2009) ^[29] defines descriptive survey design as a method of collecting data by conducting interviews with or distributing questionnaires to a predetermined sample of people.

Description of the study area

The study was conducted in Gusii counties of Kenya. The geographic location of the Gusii counties is between latitudes 0° 35' and 1° 88' south and 34° 038' and 35° 051' east. According to the 2019 KNBS, Gusii counties occupy an area estimated to be 2214.3 Km² and a population of about 1,879,800 people. The poverty rate for this group is approximately 67% (GoK, 2019). Within the boundaries of the two counties, there are fifteen educational sub-counties: Kisii South, Kisii Central, Gucha, Gucha South, Marani, Masaba South, Kenyanya, Etago, Nyamache, Sameta, Manga, Masaba North, Borabu, Nyamira North and Nyamira South. The fifteen administrative sub-counties in Gusii counties have a total of 534 secondary schools. According to Ministry of Education (2022) data, there are roughly 150,000 secondary school students enrolled in the counties. According to estimates from GoK (2019), enrolment rates for boys and females were 89 percent and 93 percent, respectively, while dropout rates were 15 and 20 percent. There is a need for additional investment in agriculture because more than 75% of the residents relies on agriculture for their livelihood. Tea, coffee, maize farming, dairy farming and brick manufacturing are some of the region's primary economic activities.

Target population

A population is an entire collection of unique cases that may be distinguished from other cases by specific features (Mugenda & Mugenda, 2003) ^[25]. The 470 pure girls and mixed post-primary schools in the Gusii region were the study's target population. The schools had a total of 9,000 form three females who were studying agriculture, this made up the target population of this study (MoE, 2018).

Sample and sampling technique

Sample size

The sampled respondents were distributed as shown in Table 1.

Table 1: Sample of form three girls from different categories of schools

School category	Sampled schools	Sampled form three girls
National	2	32
Extra county	7	67
County	11	105
Sub-county	27	164
Total	47	368

The recommended sample size (n) for girls was calculated using Kathuri and Pals (1993) [15] formula. The study used 9,000 form three girls enrolled in agriculture in the chosen post-primary institutions as the population. On the presumption that the researcher was aware of the population's size (N).

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

In the formula, n is the sample size, P is the population proportion and N is the supplied population size of form three females enrolled in agriculture in Gusii counties (9,000). The sample size is shown by the degree of accuracy, which is .05, and the chi-square table value for the degree of freedom, which is 3.841. As a result, when the aforementioned figures were added to the equation, 368 respondents were obtained.

$$n = \frac{3.841 \times 9000 \times 0.5(1-0.5)}{0.05^2(9000-1) + 3.841 \times 0.5(1-0.5)}$$

$$n = 368 \text{ girls}$$

The 368 females were distributed among the chosen secondary schools in the Gusii counties proportionate to their size.

Sampling procedure

The sampling techniques applied in this investigation were simple random sampling and purposeful sampling. Using purposive sampling technique, the girls' national schools in the sub-counties of Kisii Central and Nyamira South were selected. Simple random sampling technique was used to choose girls from extra county, county and sub-county schools in Kisii county (Gucha South, Kisii Central, Marani, Masaba South, Gucha, and Kenyena sub-counties) and Nyamira county (Borabu, Masaba North and Nyamira South sub-counties) in order to facilitate data collection and representation. These schools were chosen based on their category, how well they performed on the national test in agriculture, how long they have given agriculture as a subject and how many females take it. The straight forward random sample method made, guaranteed that all respondents had an equal chance of being chosen while reducing categorization error. Additionally, the strategy only required frame-level information about the population, which made data interpretation extremely simple.

Instrumentation

In the study, questionnaires were employed to collect factual data as regards to the variables influencing girls' decision to study agriculture. Using a five-point Likert scale, respondents checked in the brackets their extent of agreement or disagreement with the statements given. (1 'Strongly Agree', 2 'Agree', 3 'Neutral', 4 'Disagree', and 5 'Strongly Disagree'). The questionnaires had two parts: part A dealt with the respondents' personal details, and part B concentrated on a few factors and how they affected girls' decisions to study agriculture.

Statistical data analysis

The process of giving structure, organization and meaning to the vast amounts of information gathered is known as data analysis. Kombo & Tromp (2006) [18] claim that this entails analyzing and organizing the data that has been gathered in order to draw conclusions. Descriptive and inferential statistics were used for the study of quantitative data, which was coded and entered into SPSS version 21. Using a five-point Likert scale of strongly agree, agree, neutral, disagree and strongly disagree, the completed surveys were scored and the results calculated. Data were presented statistically by means of percentages, means, graphs as well as frequencies.

The researcher was able to view the results, spot trends and show the connections between the results thanks to the frequency and percentage tables (Gay, 2009) [4]. To test the specific hypothesis using inferential statistics, the study employed Pearson's correlation coefficient at the alpha level of 0.05.

Results and discussion

Response rate of the questionnaires

The study got a response of 350 form three girls, representing a response rate of 95.1%. According to Mugenda & Mugenda (1999), a response rate of 70% or more is outstanding. For data processing and reporting, the study's response rate was remarkable.

Demographic information of the respondents

Form three girls' age and parents'/guardians' demographic data, which included their academic level and occupation were obtained.

Age groups of form three girls taking agriculture subject in post-primary education of gusii counties

The age bracket of form three girls taking agriculture subject in post-primary education of Gusii counties was sought by the researcher. The responses are presented in figure 2. This was to find out whether the girls of this age group are able to make informed decisions on subject choice.

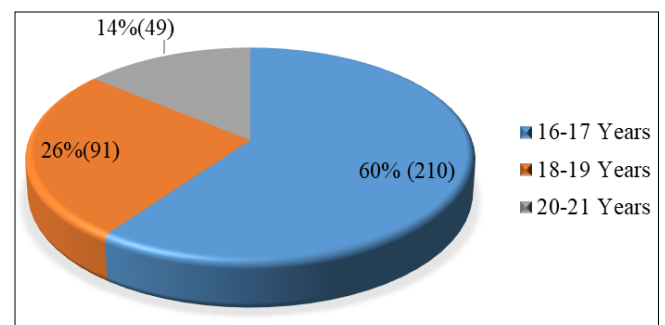


Fig 2: Age groups of form three girls taking agriculture subject in Gusii counties

About 60% of the girls were between the ages of 16 and 17, while 26% were between the ages of 18 and 19. Additionally, it is revealed that 14% of the girls were between the ages of 20 and 21. The study submits that the bulk of girls who chose agriculture as a learning area were able to decide on careers in agriculture after doing their research. The study supports the findings of Nyabengi (2014)^[27], who discovered that girls at this age were capable of making independent judgments about the vocation they wanted to pursue and the subjects that were prerequisite for that career.

Level of education of the parents/guardians of the form three girls

The goal of the survey was to determine the parents' or guardians' greatest degree of education. Table 2 displays the outcome.

Table 2: Education level of the parents/guardians of the form three girls

Level of education	Frequency	Percentage (%)
Primary	101	28.86
Secondary	163	46.57
Tertiary	59	16.86
University	27	7.71
Totals	350	100

Table 2 indicate that majority of the girls (46.57%), had parents who had attained secondary education, followed by 28.86% who indicated that their parents had primary education. In comparison, 16.86% of the girls indicated that their parents had tertiary education, while 7.71% indicated that their parents had university education. The implication is that all the parents accessed formal education and were literate hence able to guide their daughters on subject selection. The results concur with those of Farooq *et al.* (2011)^[3], who established that parents of high academic achievers frequently get more interested in their kids' academics, which results in better subject choices. Students whose parents had higher academic achievements were more likely to mentor their kids and give them the information they need to make wise subject selection judgments.

Occupation of parents/guardians of the form three girls taking agriculture

The study sought to establish the occupation of the girls' parents/guardians in Gusii counties; Table 3 provides the information.

Table 3: Occupation of parents/guardians of the form three girls taking agriculture

Parents' occupation	Frequency	Percentage (%)
Agriculture teacher	49	14.00
Extension officer	9	2.57
Businessman/woman	107	30.57
Farmer	127	36.29
Police officer	25	7.14
Clinical officer	33	9.43
Totals	350	100

Majority of the girls (36.29%) indicated that their parents/guardians were farmers, another 30.57% of the parents/guardians were traders, 14% were teachers, while 9.43% indicated that their parents/guardians were medical officers and 7.14% were police officers. While, 2.57% of the girls indicated that their parents were extension officers. According to the findings, each of the parents engaged in economic activity that served as a source of income, as indicated in Table 3. The aim of the study was to establish whether the girls' subject choices were influenced by their parents' or guardians' careers. According to Handre *et al.* (2009), parents typically want their children to choose majors that will lead to the careers in which they are engaged. This is because parents' careers are directly related to the jobs that their children choose to follow. Parental success in agro-related industries encourages and inspires children to pursue goals that are similar, which leads them to choose agriculture, such as a prosperous family farm business.

Pearson's correlation of girls on the influence of socio-economic factors on girls' choice of agriculture subject in post-primary education

The study sought to determine the hypothesis, which stated that: Socio-economic factors have no significant relationship on the choice of agriculture subject among girls in public secondary schools in Kisii and Nyamira counties. The analysis was done at a .05 significance level, using Pearson's correlation. The girls' responses produced a statistically significant relationship of $p = .000$. Since $(p=.000 \leq p=.05)$, the null hypothesis is thus rejected and the alternative upheld: socio-economic factors influence the choice of agriculture subject among girls in public secondary schools in Kisii and Nyamira counties. The results were as presented in Table 5.

Table 4: Pearson's Correlation of Girls on Socio-Economic Factors on Girls' Choice of Agriculture Subject in Post-primary Education

		Choice of agriculture subject	Socio-economic status
Choice of agriculture subject	Pearson Correlation	1	.250**
	Sig. (2-tailed)		.000
	N	350	350
Socio-economic status	Pearson Correlation	.250**	1
	Sig. (2-tailed)	.000	
	N	350	350

** . Correlation is significant at the 0.05 level (2-tailed).

According to Table 4, there is a statistically significant correlation between socio-economic characteristics and girls in Post-primary education in Gusii counties choosing to study agriculture ($p=.000 - p=.05$). According to the study, females' decision to pursue agriculture is influenced by their

socio-economic status. In support of these findings, Kritsada (2012)^[19] revealed that one of the most significant factors influencing demand for primary, secondary and tertiary institutions' enrolment rates in developing nations, is the amount of family income.

Pearson’s correlation of girls on influence of each socio-economic factor on girls’ choice of agriculture subject in post-primary education

Using Pearson's correlation, it was determined how each socioeconomic category affected girls' choice of agriculture in Post-primary education. Table 5, has the results.

Table 5: Pearson’s Correlation of Girls on Influence of Each Socio-Economic Factor on Girls’ Choice of Agriculture Subject in Post-primary Education

Choice of agriculture subject		
Choice of agriculture subject	Pearson Correlation	1
	Sig. (2-tailed)	
	N	350
Girl's parents'/guardian's academic level	Pearson Correlation	.169**
	Sig. (2-tailed)	.002
	N	350
Family income	Pearson Correlation	.212**
	Sig. (2-tailed)	.000
	N	350
Parental/guardian's guidance	Pearson Correlation	.297**
	Sig. (2-tailed)	.000
	N	350
Parents’ career of teaching agriculture subject	Pearson Correlation	.217**
	Sig. (2-tailed)	.000
	N	350

** . Correlation is significant at the 0.05 level (2-tailed).

Table 5, indicates that girl's parents’ academic level (p=.002), family income, parental/guardian's guidance, and parents' careers teaching of agriculture subject (p=.000) were significant. The Pearson Correlation (.169) indicates very weak positive correlation that girl's parents'/guardian's academic level contributed to the choice of agriculture as a learning area by 16.9%, family income by 21.2% (.212), parental/guardian's guidance 29.7% (.297), and parents careers teaching of agriculture subject 21.7% (.217).

The girls felt 'parental/guardian's guidance' contributed the most to their choice of agriculture as a learning area, followed by 'parents working in agriculture sector, family income and finally 'girl's parents'/guardian's academic level. According to Merlin & Dack (2019) [22], some parents raise their children with a certain set of guiding ideologies in mind, which might steer and influence students' subject choices in order to live up to their expectations. Family members can advise and guide a young person about their job options, either directly or indirectly, according to Mohd *et al.* (2010) [24]. Girls' professional options and strong belief in the greatest vocations are influenced by the career choices of their family members.

Chee and Leong-Yong (2011) [1] claim that most parents discourage their kids from choosing agriculture because they think it won't help them advance in other careers or have a better future. However, the instructors in this study believed that "parents' working in agriculture sector" had the most influence on the girls' decision to pursue agriculture, followed by "parental/guardian's guidance, ""girl's parents'/guardian's academic level," and "family income". Kariuki (2006) [14], who concurs with the study, claims that females make subject decisions based on their parents' pressure to pursue particular vocations. Furthermore, it was said by Malgwi *et al.* (2005) [21] that parents are likely to have an impact on subject choices made by girls. Parents anticipate that their children will select courses that will help them succeed, according to Tenenbaum & Callanan (2008).

Conclusions and recommendations

Conclusions

The study concluded that socio-economic factors influenced girls’ choice of agriculture subject in post-primary education. Parental/guardians’ career guidance contributed most to the girls’ choice of agriculture subject, followed by ‘parents working in agriculture sector’, family income and finally 'girl's parents’/guardians’ academic level.'

Recommendations

The study recommended that parents need to make a follow up in order to establish whether their girls select subjects they had been aspiring to pursue. Parents should also motivate their girls to choose agriculture subject because of its importance to the country.

References

1. Chee S, Leong Yong P. Factors that influence Branelan students not to enroll in Secondary School Agriculture subject: Darassalam Brunei, 2011.
2. Eamon MK. Social demographic, school, neighborhood and parenting influences on academic achievement of Latino young adolescents. *Journal of Youth and Adolescence*,2005:34(2):163-175.
3. Farooq MS, Chaudhry AH, Shafiq M, Berhanu G. Factors affecting student quality of academic performance: a case of school level. *Journal of quality and technology management*,2011:7(2):1-14.
4. Gay R. *Educational Research competence for analysis and application* 4th ed. New York: McMillian publishers, 2009.
5. Government of Kenya. Vision 2030-2007. Retrieved www.planning.go.ke/index.php?=com (Accessed on 12thMay, 2015).
6. Government of Kenya. *The big Four-Immediate priorities and actions*. Government Printer, 2017.
7. Government of Kenya. *Economic Survey*. Government Printer: Nairobi, 2019.

- http://www.ibe.unesco.org/National_Reports/ICE_2018/Kenya_NR08.pdf.
8. Hardré P, Sullivan D, Crowson H. Student Characteristics and Motivation in Rural High Schools. *Journal of Research in Rural Education*, 2009, 24(16). Retrieved from <http://jrre.psu.edu/articles/24-16.pdf>
 9. International Fund for Agricultural Development: Womens' Empowerment and Microfinance, An Asian perspective study, 2011, 68-112. Available at: arc.gov.in/./ARC_9th_report.htm.
 10. Jamali K. The role of rural women in agriculture and its allied fields: A Case Study of Pakistan. *European Journal of Social Sciences*, 2009, 7(3). Retrieved on 20th June 2012 from www.state.gov/s/gwi/rls/rem/2011/167899.htm.
 11. Jing-Lin D. "Determinants of International Students' Academic Performance: A Comparison between Chinese and Other International Students," *Journal of Studies in International Education*, 2009.
 12. Jordan C, Orozco E, Averett A. Emerging issues in School, Family & Community Connections. Annual Synthesis, 2001. Southwest Educational Development Laboratory, 211 East Seventh Street, Austin, TX, 2001:78701:2002.
 13. Kamau TN Orodho JA. Secondary School Student's Perception towards Agriculture Subject in Secondary Schools in Nairobi County, Kenya. *Journal of Humanities and Social Science*, 2014;19(7):30-36.
 14. Kariuki BN. Determinants of poverty in Kenya case study of Trans Mara district, Rift valley province, Unpublished thesis University of Nairobi, 2006.
 15. Kathuri NJ, Pals DA. Introduction to Research, Kenya. Educational Media Centre, Egerton University, 1993.
 16. Kenya National Bureau of Statistic Kenya Population and Housing Census: Population by County and Sub-County, 2019, 1.
 17. Kenya Institute of Public Policy Research and Analysis (KIPPRA). Kenya Economic Report. Building a globally competitive economy, 2009.
 18. Kombo KD, Tromp LAD. Proposal and thesis writing: An Introduction. Nairobi: Pauline Publications Africa, 2006.
 19. Kritsada P. Factors influencing enrolment in agriculture courses. Thailand: Los Babus, Laguna Press, 2012.
 20. Mabunda NP. The role of the school in preparing school leavers for self-employment (Unpublished Doctoral Dissertation). Pretoria: University of South Africa, 2002.
 21. Malgwi CA, Howe MA, Burnaby PA. Influences on students' choice of college major. *Journal of Education for Business*, 2005;80(5):275-282.
 22. Merlin K, Dack H. Improving classroom guidance curriculum with understanding by design. *The professional Counsellor*, 2019;9(2):80-90.
 23. Ministry of Education of People's Republic of China. Guidance in instruction reform of vocational educational in 21st century Chinese vocational education, No. 1 Beijing China, 2018.
 24. 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.
 25. Mugenda OM, Mugenda AG. *Research Methods: Quantitative approach*. Nairobi: ACT Press, 2003.
 26. Ngugi DA, Isinka A, Temu, Kitalyi A. *Agricultural Education in Kenya and Tanzania (1968-1988)*. Technical Report number 25. Regional Land Management Unit. Nairobi: Kenya, 2002.
 27. Nyabengi N J. *School Factors Influencing Enrolment of Female Students in Physics in Public Secondary Schools in Kisumu District, Kenya*, 2014.
 28. Okeke AN. The impact of school subjects on the choice of careers and profession. *West African Journal of Education*, 2000;17(1):5-11.
 29. Orodho AJ. *Element of education & Social science research methods*. Kazezja Publishers, Maseno; Kenya, 2009.
 30. 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.
 31. Saina EK, Kathuri NJ, Rono PK, Kipsat MJ, Sulot. Food Security in Kenya: The Impact of Building Rural Farmers' Capacity through Agricultural Education in Secondary School. *Journal of Emerging Trends in Educational Research and Policy Studies*, 2012;3(3):338-345.
 32. Santrock JW. *Adolescence*. 8th Edition, McGraw-Hill, New York, 2001.
 33. Satyavathi TC, Bharadwaji C, Brahmanand PS. Role of farm women in agriculture: Lessons learned. *Gender, Technology and Development*, 2010;14(3):441-449. DOI: 10.1177/097185241001400308
 34. Sereno F. *Challenges facing higher agricultural education*, Belize: Guatamala press, 2004.
 35. Sue DW. Culture-specific strategies in counseling: A conceptual framework. *Professional Psychology: Research and Practice*, 1990;21(6):424-433.
 36. Swanepoel B. *South African human resource management: theory and practice (3rd ed.)*. Lansdown: Juta & Co, 2003.
 37. Verveer M. The vital role of women in agriculture and rural development. Food and Agriculture Organization (F.A.O.), Rome, Italy, 2011.
 38. Young PM. The influence of parents on the Education and occupation Decision, making of Their Children. Reducing Sex Role Stereotyping in Vocational Education. Eric Document Reproduction, 1985.