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Attitudinal Disposition of Senior Secondary School Students Towards Agriculture in Maiduguri Metropolitan Borno State

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Abstract: This study examined the attitude of senior Secondary School Students (SSII) towards agricultural science as a subject and as a profession in Maiduguri, Borno State. The research evaluated respondent's attitudes towards agricultural science by gender, school type and interest in pursuing agriculture as a profession after leaving secondary school. The sample size was purposively selected from 4 secondary schools in the study area. Two of the schools was co-educational while two were single six schools. Eighty boys and 80 girls were randomly selected from those who have been learning agricultural science for the past two years. The total number of respondents who were administered questionnaires was 160. The instrument used was the Fennema and Sherman attitude inventory, which has positive and negative attitude statements. Responses were analyzed using frequency, percentage and chi-square. The result of chi-square analysis depicted that attitude towards agricultural science was not significantly different between males and females (Cal. $X^2 = 1.02$, Tab $X^2 = 3.84$, $p = 0.05$). Most (90%) of the respondents indicated positive attitude towards agriculture as a profession after leaving school. Based on the result, the study recommended the following: posting of trained teachers to maintain interest of the subject among students; agricultural science be offered in schools irrespective of gender and need for career counseling and guidance to stimulate further interest in agriculture among students.

Key words: Attitudinal disposition, senior secondry school, agricultural, guidance, gender

INTRODUCTION

Agriculture is very important in any nation's economic and social development. This is because agriculture is the mainstay of every nation. It contributes to about 68% labour force in Nigeria, contributes tremendously to the Gross Domestic Product (GDP) markets for industrial products, capital for investment, improve balance of payment situation, improve standard of living of the people, guarantee food security, constitute major development of Nigerians' exports, foreign exchange earner and income generation (Stephen, 1979). The importance of agriculture gave rise to its inclusion in the science education curriculum to train young men and women in the art through the study of agricultural science. The study of appropriateness of science curriculum in Nigeria according to Grant and Lind (1970) for Nigerians scientific manpower needs shows that although the main areas of needs in Nigeria lie in agriculture, engineering and other scientific profession; only 2% of the students showed interest in agriculture, 18% in engineering, 85% had no interest in forestry, 78% had no interest in physics. Grant concluded that the lack of scientific manpower in Nigeria is probably due to lack of interest in science. Agricultural science as a discipline has been given a place in the admission policy of science as 60% of admission is allotted to science and science based areas (F.M.E, 1981). Over the years the trend of low enrolment in science areas because of negative attitude has changed as science based courses like agriculture, engineering, physics, students irrespective of gender venture into chemistry, biology, etc. Gardner (1975) observed a widespread concern about the low number of females studying science and even smaller numbers pursuing careers in science. In Nigeria, it is indeed of a great concern as female students have been trained to perceive their roles to be those of house wives only. In Nigerian universities, only a few women enroll in science courses, particularly mathematics, physics, engineering and agricultural science. In general, girls' attitude towards science shows that they have more negative attitudes towards physical science than boys (Banu, 1984).

The type of school attended by both males and females influence their choice of subjects. Onmerod *et al.* (1979) reported that females in single sex schools were significantly more likely to choose physical science,

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agriculture and mathematic than their co-educational counterparts. On the other hand, male students in co-educational schools tend to prefer physical science more than they are in single schools. Taiwo found that among Nigerian student's, gender is an important factor in the degree of positiveness of students' attitude towards science including agriculture.

Stein-Kamp (1982) reported that student's attitude towards science and science related areas are due to exogenous factors (i.e., outside indicators influencing educational process e.g. of students, sex, family background, cultural factors etc) and endogenous factors which are under the control of educational process as its agents specifically teachers, schools administrators, etc.

Allport (1935) defines attitude as a mental and neutral state of readiness organized through experiences exerting a directive or dynamic influence upon the individuals' response to all objects and situations with which it is related. In the context of this study, attitude is conceptualized as the feeling and experience that students have towards agricultural science, whether it is simple or difficult, whether it is only for a particular sex or school type, whether there is any benefit in studying it at all in the school or a need for it after leaving school.

The problem this study examined was the attitudes of secondary schools students in Maiduguri towards agricultural science. It was carried out to find out if there were differences among sexes, school type (single-sex or co-educational) on students' attitude towards agricultural science as a subject at the secondary school level as well as agriculture as a career after leaving school.

Objectives of the study: The objectives of this study, were as follows:

- To determine the attitude of SSII students towards agricultural science subject in Maiduguri.
- To identify gender difference in attitude towards agricultural science among SSII students in the study area.
- To ascertain the attitude of students in pursuing agriculture as a profession after leaving school.

MATERIALS AND METHODS

This study was undertaken in Maiduguri, the Borno state capital. Borno state is located in north-eastern part of Nigeria. Two major sources were used to compile data for this research. They were the primary and secondary sources. The primary source of information was the questionnaire administered to the respondents through the agricultural science teachers. The secondary sources were journals, magazines, books and internet.

The sample size consists of students of four secondary schools in Maiduguri Metropolitan Area. There were 160 respondents made up of SSII students. Two of the schools were co-educational (i.e. Federal Government College and Himma Private Secondary Schools) and the other two were single sex schools for boys (Government College, Maiduguri) and girls (Government Girl's Secondary School), respectively. The schools were purposively selected to reflect the diversity of information needed for the research in terms of gender, school type and offer of agriculture as a subject.

The sample was made of 80 boys and girls with age range of 16 and 19 years. In the co-education schools, 40 boys and girls each and in the single sex schools 40 boys and girls each were selected using systematic sampling approaches.

The data collected were analyzed using descriptive statistics like frequency and percentages. Inferential statistics in form of chi-square was used to determine difference between male and female attitudes towards agricultural science as a subject.

RESULTS AND DISCUSSION

Attitude of SS11 students towards agricultural science: Table 1 presents respondents' response on the attitude of senior secondary school students towards agricultural science in the study area.

In Table 1, item number 1 shows 98% of the respondents agreed to the statement that they like agricultural science while only 1% of respondents did not like agricultural science. Item 2 specified that agricultural science was interesting as a subject. To this, 94% of the respondents agreed with the statement, while 2% of the respondents disagreed with this statement. According to item 3 'I am sure that I can learn agricultural science' most (91%) of the sampled students agreed while only a small proportion (4%) of them disagreed with the statement. With respect to the statement that agricultural science was hard for them (item 4), 82% of the respondents disagree with the statement and only 9% of the respondents agreed. On item 5, only 18% of the respondents agreed that agricultural science is their worst subject while 75% disagreed with the statement. Item 6 state that agricultural science is not important to the life of the students. Only 8% of the respondents agree to this statement while 83% of the respondents disagree. Item 7 state that 'I am good at agricultural science'. In respondent to this statement, only 6% of the respondents agreed that they were not good in this subject while 86% disagreed with the statement. From the responses above, it can be concluded that agricultural science is an acceptable subject, easy to learn and perceived as important in the life of the respondents.

Table 1: Attitude of SSII Students towards agricultural science in Maiduguri metropolitan

Item no.	Attitude statement	Agree	(%)	Disagree	(%)
1	I like agricultural science	157	98	2	1
2	Agricultural science is very interesting to me	151	94	3	2
3	I am sure that I can learn agricultural science	145	91	6	4
4	Agricultural science is hard for me	15	9	131	82
5	Agricultural Science has been my worst subject	28	18	100	75
6	Agricultural science is not important for my life.	13	8	132	83
7	I am not good in agricultural science	10	6	137	86

Table 2: Attitudinal differences between male and female senior secondary school students towards agricultural science in the study area

		Male				Female			
Item no.	Attitude statement	Agree	(%)	Disagree	(%)	Agree	(%)	Disagree	(%)
1	Males are not naturally better than females in Agric. science	27	34	44	55	09	6	67	84
2	Girls can do just as boys in Agric. science	41	64	20	25	73	91	05	6
3	I will have more faith in the answer for Agric. science problems solved by a man than a woman.	51	64	20	25	22	29	41	51
4	I am not the type that does well in Agric. science	09	12	62	78	08	0	62	83
5	Females are as good as males in Agric. sciences	59	74	06	8	72	90	03	04
6	I cannot get good grades in Agric. science	53	70	16	20	62	78	15	19
7	I would trust a woman just as much as I will trust a man to solve important Agric. science problems	49	61	18	30	68	85	04	5

Across the schools sampled over 90% of respondents indicated that agricultural science as a subject is liked, very interesting and can be learned. This indicates that the student in the schools in Maiduguri like and have interest in learning Agricultural science. Furthermore, the students' response indicated that the students do not consider agricultural science as a hard subject.

Attitudinal differences between SS11 male and female towards agricultural science: Table 2 shows the attitudinal differences by gender among the senior secondary school students towards agricultural science in the study area.

On the first statement (Item 1) only 34% male students and 6% female students agree that males are not naturally better than females in agricultural science while 55% male students and 84% female students disagree with the statement. Items, item 2, 64% male students and 91% female students agree that performance of girls and boys are the same while 25% male students and 6% female students disagree. Item number 3, states that 'I will have more faith in men solving agricultural problems than women' In response to this, 64% male students and 28% female student agree that they have more faith in men solving agricultural problems than women while 25% male students and 51% of female students disagree.

With reference to item number 4, only 12% male students agreed that they are not the type that does well in agricultural science. Item 5, 74% male students and 90% female are of the opinion that females are as good as male students whilst only 8% male students and 4% female students disagreed. Item 6 states that 'I can not get good grades in agricultural science'. In response to this, 79% male students and 78% female students agree to the statement, while 20% male students and 19% female students disagreed With respect to item 7 which states that women could be trusted as men would, in solving important agricultural problems. In response to this, 61% male students and 85% female students agree to the statement whilst only 30% male students and 5% female students disagreed.

Chi-square analysis of attitudinal difference between male and female students towards agriculture as a subject: The relationship between the attitudinal disposition of male and female students towards agricultural science as a subject in the surveyed schools was determined by means of chi-square analysis. The result is presented in Table 3.

The results indicates that calculated chi-square (1.02) is less than the table value (3.84), it is therefore, apparent that there is no significant difference between male and female attitude towards agricultural science subject in the study area. The implication of this result is that interest and performance in the subject does not necessarily depend on gender as both male and female are both favourably disposed to the subject.

Interest of ssii students towards agriculture as a profession: Table 4 shows the interest of senior secondary school students towards agricultural as a profession in the study area. Data in the table with reference to Item 1, revealed that 90% of the respondents are of the opinion that knowing agricultural science will help in earning a living while 5% of the respondents disagree will the statement.

On item 2, only 10% of the respondents agreed that agricultural science would not be important to them in

Table 3: Summary of chi-square analysis of difference between male and female attitudes towards agriculture as a subject in the study area

Chi-square	D.F	p. value	Result
Cal. $X^2 = 1.02$, Tab $X^2 = 3.84$,	1	p = 0.05	N.S

N.S=Not Significant. D.F= Degree of Freedom

Table 4: Interest of SSII students towards Agricultural science as a profession after leaving school

Item no.	Attitude statement	Agree	(%)	Disagree	(%)
1	Knowing agric. science will help me earn a living	144	90	08	5
2	Agric. science will not be important to me in my life's work.	16	10	58	36
3	I will need agric. science for my future work	11	69	18	11
4	I do not expect much from agric science when I leave school	42	26	71	50.6
5	Taking agric science is a waste of time	7	12	141	88
6	I will use agric science in many ways as an adult	131	82	9	6
7	Most subjects I can handle o.k. but I just cannot do a good job with agric science	39	24	98	61
8	I will need a good understanding of agric science for my future work	130	81	9	6
9	Studying agric science is just as good for women as for men	130	81	21	13
10	Doing well in agric science is not important for my future	16	10	128	80
11	Agric. science is not important for my life	13	8	132	83
12	I study agric science because I know how important it is	146	91	9	6

their life's work while 36% of respondents disagree. Item 3 states that 'I will need agricultural science for my future work''. In response to this statement, 69% of the respondents agree to this statement while 11% disagree. On item 4, 26% of the respondents agree that they don't expect much from agricultural science when they leave school while 51% of the respondents disagreed with this assertion.. On the opinion of respondents to the statement that 'taking agricultural science is a waste of time ((item 5) only 12% of the respondents agreed to the statement whilst 88% of the respondents disagreed. On item 6, 82 of the respondents agreed to the fact that they will use agricultural science in many ways as an adult while only 6% of the disagreed with the statement. Item 7 states that most subjects I can handle o.k. but I just cannot do a good job with agricultural science. In response to this statement, only 24% of the respondents agreed with 61% agreeing. The next statement (Item 8) solicited the opinion of the students as to whether they will need a good understanding of agricultural science for their future work. In response 81% agreed while only 6% disagreed with the statement implying that majority considered the subject necessary for their future research. Item 9 states that studying agricultural science is just as good for women as for men. In response to this statement, 81% of the respondents agreed while only 13% of the respondent disagreed. On item 10, only 10% of the respondents are of the opinion that doing well in agricultural science is not important for their future while 80% of the respondent disagreed. Item 11 state that agriculture is not important for my life. In response to the statement, only 8% of the respondents agreed to the statement while 83% of the respondents disagreed. On item 12, 91% of the respondents agree that they study agricultural science because they know how useful it is whilst only 6% disagreed with the statement.

The interest of SSII students pursuing agriculture as a profession when they leave school was clearly observed. It was observed to be a profession that could be used as a source of employment in later life. That was why response was 81% for the need of a good understanding of the subject recorded under number 8. Both sexes confirmed under item number 9 that it was a subject that is important for life and future. It was also observed that agricultural was a useful subject (item no.12) that is worth pursuing.

CONCLUSION AND RECOMMENDATIONS

In conclusion, the study discovered 90% of the students across the schools in Maiduguri showed interest in learning agricultural science and indicated that it was a good subject and important in their lives. Gender difference had no effect on interest in learning, performance and acceptance of the subject. In solving problems of agricultural science, however, males are better from the response observed. Agriculture as a profession after leaving school was observed to be important in life. It is never a waste of time learning the subject. It was accepted by the students to be a profession that could bring good things, as it is an avenue for employment after leaving school and in adulthood. Overall the analysis indicated a positive attitude agricultural science both as a subject and a career after school. Such positive attitude can be harnessed as a motivating factor for developing the interest of the youth in agriculture.

Based on the findings of this study, the following recommendations are proffered.

- The attitude demonstrated by the students in learning agricultural science can be maintained by posting trained teachers to the schools in the study area.

- Agricultural science can be offered as a subject irrespective of gender, therefore both male and female students should be given equal opportunity and encouragement to learn the subject at the secondary school level.
- Being an important subject and aspect of life agriculture should be made a compulsory subject at the primary and secondary school.

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