Full Length Research Paper

Influence of Environmental Roles on Students academic Performance in Agricultural Science in Secondary Schools in Emohua LGA of Rivers State, Nigeria

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The purpose of this study is to examine the influence of environmental roles on students' academic performance in agricultural science in secondary schools in Emohua Local Government Area of Rivers State, Nigeria. Methods and techniques of data collection were through the use of structured questionnaires. Descriptive survey research design was used in which data from 300 students respondents were collected. The information collected were analyzed using frequency, t-test, likert scale and ANOVA. Analysis of data revealed that 90.67% of the students fathers were educated and about 85.67% of the mothers were also educated. The Pearson correlation analysis results showed that the estimated correlation coefficient ® was 0.7727 for fathers' education level significant at 5% and 0.6104 for mothers' education level, meaning that parents' education levels significantly influenced students' academic performance in agricultural science in secondary schools in Emohua LGA. Also, the coefficient of correlation for fathers' occupational background was significant at 1% with R = 0.9671 and 0.8413 for mothers' occupational background significant at 5%, i.e. that occupation of the parents positively influenced the academic performance of students in agricultural science. The results from the ANOVA showed that environmental roles were statistically significant at 5% level with the students' academic performance. Conclusively, there is positive family and parental influence on students' academic performance in agricultural science. Therefore, family background, parents and peer group played vital roles in students' academic performance.

Keywords: Environment, family background; students' academic performance, agricultural science, secondary schools, Emohua LGA, Rivers State Nigeria

INTRODUCTION

Environment plays a major role in the life of every individual, whether students or non-students'. Environment can be defined as a system within which living organisms interacts with the physical elements, it can also be seen as aggregate of all the external condition and influence affecting the life and development of an organization while educational environment is a learning place where the learner learn and interact with learning facilities in order to be socialized and face the challenges in the society.

Byoung-Suk, (2012) stated that children need safe, healthy and stimulating environment in which they grow and learn. During the school year, students can spend 6-8 hours at the school with their peers where the environment plays a significant role in child development. The environment of the students which involve the school, the family, peer group are of paramount importance in shaping and reshaping the academic

ability of the students.

The influence of the environment remains an important area that should be studied and well managed in the secondary schools to enhance students' academic performance. A school is an environment where knowledge is acquired at various levels. The environment where this knowledge is acquired is as important as the knowledge itself.

With the increase in the population of Nigeria there is need in infrastructure, social amenities, housing, schools, jobs etc. to cater for the growing population. The educational sector is one of the sectors in economic development of a nation and has evidently felt a lot of pressure in ensuring that education for all secondary schools being an intermediate institution as point of emphasis have increased overtime from the past and presently we have more than 11,000 secondary schools (Federal Ministry of Education, 2014). Overtime research has explored the maintenance of the facilities within the school buildings like classrooms, libraries, laboratories, workshops, assembly halls, toilets, sickbay etc. and how their deterioration affect the students and have identified problems such as inadequate funding, inadequate facilities, low staff morals, poor supervision of schools, frequent change in policies environment etc. as a major factor that affects students' performance in secondary schools (Timilehin, 2010; Matthew, 2013).

In a bid to meet the education needs of the people most school buildings are not really designed to institutional standard and often times residential buildings are converted to schools as is the practice in Emohua Local Government Area. The situation is that such buildings clearly lack some of the basic facilities needed for proper learning which affects the performance of the students. In schools it is clear that the greater percentage of users is the students but scarcely is their opinion sought on matters to help improve their performance etc. Family is the first social environment the child finds itself. Family environment can increase or decrease the intellectual achievement of the child. Akubue and Okalo, (2008) defined family as a small kinship structural group with the key function of natural socialization of the new born family background which refers to all the conditions and circumstances in the family which influence the child physically, intellectually and emotionally (Muola, 2010). Children coming from different family background are affected differently by such family conditions. Some children have good (rich) family background while some have poor background.

The environment affects the students' academic performance in agricultural science; hence there is the need to list out the influence of environmental factors on secondary schools in Emohua LGA of Rivers State. The influences need to be properly understudied to increase students' academic performance in agricultural science in the secondary schools in area under study. The significance of this study anchors on the fact that it leads

to increase in the amount of researchers on environmental factors affecting students' academic performance in agricultural science in secondary schools worldwide. Main beneficiaries are scholars in educational research, social and economic studies, government policy makers on education, students, parents and others. A research by Owoeye and Yara, (2011) showed that there is a significant difference between the academic achievement of students in rural and urban secondary schools as measured by senior school certificate examinations. The study showed that the geographical location of schools had a significant influence on the academic achievement of students. Arul and Vimala, (2012) conducted a research on the school environment and academic achievement of standard six students. The results showed that school environment enriched with modern facilities makes the students feel comfortable in their studies that result to high academic performance. Orlu, (2013) conducted a research among six hundred teachers and students with the aim to find out environmental influence on the academic performance of secondary school students, in Port Harcourt Local Government Area of River State. The result of this research indicated that the school environment has a significant influence on academic performance. Anita et al. (2013) conducted a research in Nandi District, Kenya, aimed to establish the relationship between teachers' characteristics and students' academic achievement. The findings revealed that students' academic achievement (in 2007, 2008 and 2009) was below average for 45% of the schools, 30% of the schools performance was average while 25% of schools had high student academic achievement. Daniel and Felix, (2014) examined the impact of the school environment and peer influence on the students' academic performance. The study assessed school environment factors and peer influence in term of the level of psychological impact they have on learners.

Design principles for school building are consideration, fundamental sources and basis that guide the conceptual design and construction of school building in such a way that the building achieves the following criteria, Mohammed, (2010) supports the users in terms of indoor/outdoor environmental comfort and ease use of the facility fits into the environment and supports the environment and finally promote economic growth in the intended vicinity. Peter, Yufan, Fay and Lucinda (2015) proffered three principles to be considered in the design of school building; they are naturalness, individualization and level of stimulation. Naturalness is associated with factors that affect the health, emotions and mood, visual, acoustic and thermal comfort of people within a space. Individualization involves factors that affect students' safety, privacy, free space, ease use of spaces and satisfaction with their learning environment. Level of stimulation encompasses the factors that affect how the school environment supports its users by the security

balance fitness, beauty and information it gives.

The decline in the academic performance of secondary school students is on the increase (Arong and Ogbadu, 2010). A lot has been put in research wise, on tackling the provision of good teachers, maintenance of provided facilities but so little has been put into enquires on the availability of the facilities and how its absence affects the performance of students. Research in Nigeria is gaining a lot of recognition but it is quiet disturbing that students especially secondary school students are scarcely involved in the research process, when it is done eventually, their grades and general level of performance suffer (Moradeyo and Adeyemi, 2011).

Motivation can be defined as the driving force behind all the actions of an individual's needs and desires both have a strong impact on the direction of their behavior. Motivation is based on your emotions and achievement related goals. The behavioral field of psychology has much to say about education and teaching, and a lot of it echoes what is presented in motivation theory. Although behavioral psychology is more often used in educational environment in problematic and disruptive behaviors, much success has been made applying behavioral methods to strengthen positive academic behaviors both with normal and mentally disabled students has been gaining support in physical training and education (Martin and Pear, 2003). The primary agent for this type of motivation is perception or perceived ability many theories still cannot agree whether achievement is based on mastering one's skills or striving to promote a better self image (Brustein and Maier, 2005).

Egunsola, (2014) used ex-post facto and correlation survey to investigate the influence of home environment on academic performance of senior secondary students in Adamawa State. Inferential statistics-test and correlation analysis were used to analyze and interpret the data. The results showed that parental educational qualification (r = 0.73), occupation (r = 0.71) and home location (r = 0.73) were highly correlated with students' academic performance while parental economic status (income and affluence) have moderate correlation (r = 0.60) but all the independent variables have significant influence on students' performances in agricultural science at the secondary school. It was recommended that parents and other significant persons should make students' homes conducive and stimulatory to learning not only the school subjects but education in general.

Henrietta and Odozi, (2014) observed that parental educational qualification and health status of the students have statistical significant effect on the academic performance of the students. The two variables that indicated significant influence do reflect nature of the student home environment and played notable role in the academic achievement of the respondents. Government could intervene to raise level of academic achievement among students in rural area.

Anyanwu et al. (2014) examined determinants of academic success in agricultural science among senior secondary school students in Oru L.G.A. of Imo State, Nigeria. Results of the analysis showed that likeness or interest in agricultural science subject by the students, occupation of the parents of the students, type of accommodation which symbolized environmental influence on the students, the level of teaching experience possessed by the teachers, level of class attendance by the students, togetherness of the parents and the educational level of the parents of these students were statistically significant determinants of academic success in agricultural science subject among senior secondary school 1 and 2 students in the State.

It is therefore recommended that the Government should boost and sustain the interests of these students through the provision of the requisite instructional materials. The recruitment of qualified and well experienced teachers was also advocated in order to sustain the interests in agricultural science subject.

Abdullahi *et al.* (2015) in their study of the determinants of student's academic achievement in agricultural science: a case study of secondary schools in Katsina State, Nigeria opined that education is viewed as a tool for change. The F statistic was reliably fit and statistically significant at p≤ 0.001 confidence level. Of the nineteen variables, nine were statistically significant and show effect on students' academic achievement. The significant variables that were positively related to academic achievement are: parent education, parent occupation, family feeding, provision of resource materials, visits to schools, provision of pocket money, and residential type. Family type and age category of parents had negative effects on students' academic achievement.

Researches exist in the literature on the influence of environmental roles on students' academic performance in agricultural science in secondary schools such as Arul and Vimala, (2012), Orlu, (2013), Daniel and Felix, (2014) Egusola, (2014), and Henrietta and Odozi (2014). However, none of these studies had work on study area. Therefore there is the need to carry out this study in details.

Objectives of the study

This study sought to investigate the influence of environmental roles on students' academic performance in agricultural science in secondary schools in Emohua Local Government Area, Rivers State. Specifically the objectives are to:

(i) Identify the environmental factors that influence students' academic performance in agricultural science in secondary schools in Emohua Local Government Area of Rivers State.

(ii) Ascertain the influence of educational level of parents on students' academic performance in agricultural science

in secondary schools in Emohua Local Government Area.
(iii) Examine the influence of parents' occupational background on students' academic performance in agricultural performance in secondary schools in Emohua Local Government Area of Rivers State.
(iv) Evaluate the influence of peer group and motivation on students' academic performance in agricultural science in secondary schools in Emohua Local Government Area.

Research questions

(i) How do environmental factors influence students' academic performance in agricultural science in secondary schools in Emohua LGA of Rivers State?
(ii) To what extent does educational level of parents influence students' academic performance in agricultural science in secondary schools in Emohua LGA?
(iii) To what extent does parent occupational background affect students' academic performance in agricultural science in secondary schools in Emohua LGA?
(iv) How does peer group and motivation influence students' academic performance in agricultural science in secondary schools in Emohua LGA?

Research hypotheses

Ho_1: There is no significant relationship between environmental factors and students' academic performance in agricultural science in secondary schools in Emohua LGA of Rivers State.
Ho_2: There is no significant relationship between educational level of parents and students' academic performance in agricultural science in secondary schools in Emohua LGA of Rivers State.
Ho_3: There is no significant relationship between parent occupational background and students' academic performance in agricultural science in secondary schools in Emohua LGA of Rivers State.
Ho_4: There is no significant relationship between peer group and motivation and students' academic performance in agricultural science in secondary schools in Emohua LGA of Rivers State.

METHODOLOGY

Area of study

This study was carried out in Emohua Local Government Area of Rivers State of Nigeria. Emohua Local Government Area has its longitude 4°53 '0' North and latitude 6°52 '0' East located in the tropical rainforest belt of Nigeria. According to the National population

commission (2006), Emuoha has a population of about 201,057 people. Emuoha is currently make up of eight sub-village which includes Oduoha, Elibrada, Isiodu, Rumuakunde, Mbu-eto, Rumuonia, Mbu, Tamuro. Emuoha Local Government Area of Rivers State covers a total of 831 square kilometer. It is predominantly covered with a well-drained, sandy, loam soil and farming constitutes one of the major occupations of residences of Emuoha Local Government Area of Rivers State. There are 27 registered sec-schools in Emuoha Local Government Area of Rivers State (Department of Statistics, Rivers State Ministry of Education, 2010). Agriculture (farming) is the major occupation of the people of Emohua.

Population of the study

The population of the study consisted mainly of students in the secondary schools that offer agricultural science in Emohua Local Government Area of Rivers State.

Data collection

Information for this study was gathered through the use of structured questionnaire and interview. This tool enabled the researcher gather primary data related to the research topic such as family background, parents' educational level and occupation, peer group and motivational influences.

Sample and sampling techniques

The sample for this study was drawn through the use of multistage sampling technique. The list of secondary schools offering agricultural sciences was obtained from the Local Government Authority. From the list, 10 schools were selected and 30 students randomly sampled from the schools who were offering agricultural science. This technique enabled the researchers' select 300 respondents, from public and private schools within Emohua Local Government Area of Rivers State.

Validation of instrument

The instrument was validated by experts in educational management and tests of measurement from the Faculty of Vocational and Technical Education, Ignatius Ajuru University of Education, Port Harcourt. The instrument was a trial tested using 30 teachers from secondary schools that were not part of the sampled population.

Data analysis

Data for this study were analyzed using descriptive and inferential statistics such as 4. Likert scale, analysis of

variance (ANOVA) and correlation analysis using Pearson t-test correlation method.

RESULTS AND DISCUSSION

Students' academic performance

The results of students' academic performance in agricultural science in secondary schools in Emohua LGA are given in (Table 1). Table 1 reveals that 8(2.67%) of the students performed excellently in agricultural science, 23 (7.66%) students had very high scores, 52 (17.33%) had similarly high scores.

Table 1. Students responses to their academic performance (scores) in agricultural Science in secondary schools in Emohua LGA of Rivers State.

Range of Scores	Frequency	Percentage
Excellent (90-100%)	8	2.67
Very high (80-89%)	23	7.66
High (70-79%)	52	17.33
Above Average (60-69%)	95	31.67
Average (50-59%)	89	29.67%
Below Average (40-49%)	15	5.00%
Low (0-39%)	18	6.00%
Total	300	100

Source: Field Survey, 2015.

The students whose scores were above average were 95 (31.67%) which was the largest academic performance group. Those whose scores were within average were 89 (29.67%). The students that score below average were 15(5.00%) while 18 (6.00%) had a very low performance in agricultural science. From the results it indicated that about 89% of the students performed averagely well. Students' responses to their parents' educational level in Emohua Local Government Area were presented in (Table 2). Based on fathers' education, 28 (9.33%) were illiterates, 67 (22.33%) had primary school certificate, 65 (21.67%) had secondary school certificate, 57 (19.00%) had NCE/ OND certificates, 55 (18.33%) had Bachelor Degrees/HND, 20 (6.66%) had Masters' Degree while 8 (2.67%) had PhD respectively. From (Table 2), it is observed that 90.67% of the fathers were literate.

As regards mother's education, 43 (14.33%) were illiterates, 70(23.33%) had primary school certificates, 68(22.67%) had secondary school certificates, 53 (17.67%) had NCE/OND certificates, 50 (16.67%) had Bachelor Degree/HND degrees respectively. These results showed evidently that 85.67% of the students' mothers were educated.

The study formulated and tested H_0 hypothesis that there is no significant relationship between students' parents' educational levels and students' academic performance in agricultural science in secondary schools in Emohua LGA of Rivers State, Nigeria. These hypotheses were tested using Pearson correlation analysis. Table 3 shows the results of the Pearson correlation tests. Table 3 results showed that the calculated correlation coefficient (R) was 0.7727 (i.e. 77.27%) had a positive sign for fathers educational level indicating that there was a strong positive correlation between students' academic performance in agricultural science and fathers' level of education attained in the area of study. The coefficient of determination (R^2) estimated was 0.5971 (i.e. 59.71% relationship existed). The Pearson correlation t-test estimated was 2.722 which were statistically significant at 5% level using two-tailed t-test. Therefore, the null (H_0) hypothesis was rejected meaning there was significant positive relationship between fathers' level of education and students' academic performance. Hence, the fathers' educational level influenced the students' performance in agricultural science in secondary school at Emohua Local Government Area. The correlation analysis results conformed the descriptive result analysis of (Table 2) earlier observed. This correlation signified that father's educational level accounted for 77.2% improvement on students' academic performance in agricultural science in Emohua Local Government Area of Rivers State, Nigeria. In relation to mothers' educational level, the Pearson correlation analysis results showed that the correlation coefficient (R) was 0.6104 and coefficient of determination (R^2) estimated was 0.3726, which was significant at 10% using Pearson correlation t-test at one-tailed test. For its 10% significant the null (H_0) hypotheses was also rejected revealing that mothers educational status has a positive relationship that was significant to the students' academic performance in agricultural science in secondary school in Emohua LGA. Therefore parents' educational level significantly influenced the students' academic performance especially in agricultural science in secondary schools in the area of the study. The results of this study are similar to the results of Egunsola, (2014), Henrietta and Odozi, (2014), Anyanwu et al. (2014), Abdullahi et al. (2015). The similarity is more in Egunsola, (2014) results where parental qualification was r = 0.73 and this study obtained a results of R = 0.6104 to 0.7727 for father and mother level of education respectively. This study results where however higher than the results of Muola, (2010), with r being below 0.40. Students' responses to parents' occupational background in Emohua Local Government Area was presented in (Table 4). From (Table 4), 42 (14.00%) of the respondents in fathers' occupation group were farmers, 28(9.33%) were fishermen, 56 (18.67%) were engaged in trading/business, 98 (32.67%) were teachers, 56 (18.67%) were civil servants, 10 (3.33%) were company workers while 10(3.33%) were contractors. Based on the mother's occupation group, 105 (35.00%) of the respondents were farmers, 16 (5.33%) were fishermen, 42(14.00%) were traders/

Table 2. Students responses to parent's educational level in Emohua LGA.

Level of Education	Respondents		Percentage	
	Father's Education	Mother's Education	Father's Education	Mother's Education
Illiterates	28	43	9.33	14.33
Primary School Certificate	67	70	22.33	23.33
Secondary School Certificate	65	68	21.67	22.67
NCE/OND Certificate	57	53	19.00	17.67
Bachelor Degrees/HND	55	50	18.33	16.67
Master's Degree	20	14	6.67	4.67
PhD	8	2	2.67	0.66
Total	300	300	100	100

Source: Field Survey, 2015.

Table 3. Results of Pearson correlation analysis of parents' educational level influence on students' academic performance.

Variables correlated	Number (N)	Mean $(\overline{X})$	Correlation Coefficient (R)	Coefficient of determination (R^2)	Estimated t-value (t_c)	Tabular t-value (t_a)
(a) Fathers' educational level and students' academic performance in agricultural science using students grade scores	300	42.857	0.7727	0.5971	2.722**	2.57 Sig (2tailed test).
(b) Mothers' educational level and students' academic performance in agricultural science using students grade scores	300	42.857	0.6104	0.3726	1.723*	1.48 Sig (One - tailed test).

Source: Estimates from Field Survey data, 2015. ** = significant at 5% level (using 2 tailed test); * = significant at 10% level (using one-tailed t-test). Cohen, (1988) graded the Pearson correlation strength of relationship as: (a) small effect, R = ± 0.1 to 0.29 (10% - 29%); (b) medium effect, R = ± 0.30 to 0.49 (30% - 49%); (c) large effect, R = ± 0.50 to 1.0 (50% - 100%).

Table 4. Students responses to parent's occupational background in Emohua LGA.

Parent Occupational Background	Respondents		Percentage	
	Father's Occupation	Mother's Occupation	Father's Occupation	Mother's occupation
Farming	42	105	14.00	35.00
Fishing	28	16	9.33	5.33
Trading/Business	56	42	18.67	14.00
Teacher	98	93	32.67	31.00
Civil Servant	56	39	18.67	13.00
Company Worker	10	3	3.33	1.00
Contractor	10	2	3.33	0.67
Total	300	300	100	100

Source: Field Survey, 2015.

business men and women 93 (31.00%) were teachers, 39 (13.00%) were civil servants, 3(1.00%) were company workers and 2 (0.67%) were contractors. It can be deduced from (Table 4) that teachers (32.67%) dominated the occupation of most fathers while in mothers occupation farming had the highest number of respondents with 35.00%.

This study formulated a second H_0 hypothesis that there is no significant relationship between parents' occupational background and students' academic performance in agricultural science in secondary schools in Emohua LGA. The hypotheses were tested with Pearson correlation analysis and the results of the test are shown on (Table 5). The results showed that fathers' occupational background was significant a 1% level (8.512) for t_c and 4.03 for t_a using a 2-tailed t-test. The estimated R (correlation coefficient) was 0.9671, showing a strong correlation of 96.71%, while the coefficient of determination (R^2) was 0.9353 (93.53%). These results showed very strong positive relationships and had large effects on students' academic performance. Based on the findings we, reject the null hypothesis at the p<0.01 level

Table 5. Results of Pearson correlation analysis of parents occupational background on students' academic performance.

Variables correlated	Number (N)	Mean (X)	Correlation Coefficient (R)	Coefficient of determination (R^2)	Estimated t-value (t_c)	Tabular t-value (t_a)
(a) Fathers' occupational background and students' academic performance in agricultural science using students grade scores	300	42.9	0.9671	0.9353	8.512***	4.03 Sig (2tailed test).
(b) Mothers' occupational background and students' academic performance in agricultural science using students grade scores	300	42.9	0.8413	0.7078	3.477**	2.57 Sig (2tailed test).

Source: Estimated from Field Survey data 2015. Sig (2 - tailed test) = figure significant at 2-tailed test. *** = Significant at 1% level; ** = significant at 5% level. Cohen, (1988) graded the Pearson correlation strength of relationship as: (a) small effect, R = ± 0.1 to 0.29 (10%% - 29%); (b) medium strength, R = ± 0.30 to 0.49 (30% - 49%); (c) large effect, R = ± 0.50 to 1.00 (50% - 100%).

Table 6. Students responses to environmental influences on the academic performance in agricultural science in secondary schools in Emohua LGA.

Environmental Factors	Excellent (4)	Good (3)	Average (2)	Low (1)	Mean X	Decision Making H_o
How does the urban/ rural environment of your school affect you academic performance?	142	30	66	62	2.84	Reject
Does the parents' involvement in their children education affect their academic performance?	123	150	27	-	3.32	Reject
Does peer group influence your academic performance?	120	57	32	91	2.68	Reject
How does your family back-ground affect your academic performance?	120	150	30	-	3.30	Reject
Does motivation from friends, teachers, parents/guardians influence your academic performance?	207	93	-	-	3.69	Reject

Source: Field Survey, 2015

of significance, being 99% sure that in the population from which the sample was drawn, the correlation coefficient is different from zero and conclude that environmental roles has a significant influence on students' academic performance in agricultural science in secondary schools in Emohua LGA in Rivers State, Nigeria. The reason for this type of result from fathers' occupation could be in the area of settling school fees, being able to provide for the needs of the students and making studies more efficient and easier for the students by adequate provisions of their school demands. The influence of mothers' occupational background was also correlated with students' academic performance in agricultural science and the results showed that the R = 0.8413 showing 84.13% positive correlation, while the coefficient of determination (R^2) was 0.7078, indicating a large effect of 70.78%. These figures were significant at 5% level using a two-tailed t-test, meaning their relationship was significant. Based on these findings the

null hypothesis was rejected at the $p<0.05$ level of significance, being 95% confident that in the population from which the sample was drawn, the correlation coefficient is different from zero and therefore the study concluded that environmental roles has a significant influence on students' academic performance. Therefore, both the fathers and mothers occupations influenced the students' academic performance in agricultural science in Emohua LGA. Egunsola, (2014), had very similar results of r = 0.71 for parents occupation. Anywanwu et al., (2014) Henrietta & Odozi, (2014), and Abdullahi et al., (2015) are authors whose results are similar to the current studies results Muola, (2010), had significant result for parents occupation background though the results were also low.

The third hypothesis was set to investigate that there is no significant relationship between the environmental variables in (Table 6) and students' academic performance in agricultural science. From (Table 6), the

Table 7. Results of analysis of variance (ANOVA) showing student's responses to environmental influences on the academic performance in agricultural science in secondary schools in Emohua Local Government Area of Rivers State.

Sources of Variation	Sum of Squares	Degree of Freedom (d.f)	Variance	Fc	$F_{0.95}$
Between columns	44,455.6	4	6,729.6	3.75	3.06
Random Error	26,918.4	15	1,794.56		
Total	71,374	19			

Source**:** Estimated from Table 6. Fc = calculated F-test = 3.75. $F_{0.95}$ = tabular value of f-test at 95% = 3.06, for V_1= 4, V_2 = 15.

mean cut-off point was 2.50 for decision making. The results of (Table 6) showed students' responses to environmental influences on their academic performance in agricultural science. From the analysis the results showed that the urban/rural environment of the school affected the academic performance with a mean score of 2.84. The results therefore rejected the null hypothesis that there is no significant relationship between the variables and students performance. This also shows that urban and rural environment affected significantly the students' academic performance in agricultural science in Emohua LGA using the Likert scale evaluation of the factor. Other significant variables were motivation from friends, teachers, parents, guidance (3.69); parents' involvement in children education (3.32); family background (3.30); and pear group influence (2.68). That is to say that these variables significantly affected the students' performance in agricultural science in a secondary schools in Emohua LGA using the likert scale analysis.

The fourth hypothesis was formulated to show if there is any significant relationship between environmental factors and academic performance in agricultural science in secondary schools in Emohua LGA. Since Fc of 3.75 is greater than $F_{0.95}$ of 3.06, we concluded that there is significance difference among student responses to environmental influences on the academic performance in agricultural science in secondary schools in Emohua Local Government Area of Rivers State, Nigeria. The analysis of results in (Table 7) (ANOVA) showed that environmental roles were statistically significant at 5% level, with the students' academic performance, meaning that the F calculated figures were greater than the F tabulated. It indicated that at 5% level of significance there is enough evidence that there is a significant relationship between the environmental roles and students' academic performance in agricultural science in secondary schools in Emohua Local Government Area of Rivers State, Nigeria. Several researchers' results supported this study's results as follows: Arul and Vimala, (2012); Daniel and Felix, (2014); Orlu, (2013); Owoeye and Yara, (2011); Anita et al. (2013).

Conclusion

It is of great important to note that, the findings of this research indicated that there is great influence of environment (family background of the students, parents educational level and occupation, peer group and motivation from the students' environment, all have positive effect on students' academic performance in agricultural science in secondary schools in Emohua Local Government of Rivers State. As observed from the various results, students performed averagely as a result of the parents' involvement in their academic pursuit. The study concludes that an intensified public enlightenment and awareness campaign on family planning and child spacing as well as dilution of family resources to counter the effect of family type being a risk factor.

Recommendations

The following recommendations were therefore made.
(i) Parents should be involved actively in their children's academic pursuit to enable them understand the progress or otherwise of their children.
(ii) Academic institutions should have prior knowledge of the individual students family background to enable them interact with them properly.
(iii) Future researcher should try to conduct more researches on the factors affecting academic performance of other levels of education.

Authors' declaration

We declared that this study is an original research by our research team and we agree to publish it in the journal.

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