

Impacts of Supervision on Agricultural Science Teachers in Senior Secondary Schools in Port Harcourt Local Government Area, Rivers State

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Abstract

This study examined the impacts of supervision on Agricultural Science Teachers in Senior Secondary Schools in Port Harcourt Local Government Area, Rivers State. The sample size used for the study was 26 (13 males & 13 females) randomly selected Agricultural Science Teachers in the study area. A structured questionnaire was used to gather data from the respondents. To ascertain the reliability of the instrument, Cronbach Alpha Reliability Coefficient method was used to measure the internal consistency of the instrument, which yielded a reliability coefficient of 0.83. Data were analyzed with the use of mean and standard deviations, while t-test statistical tool was used to test the hypotheses at 0.05 level of significance. The findings revealed that guidance and counseling of agricultural students, keeping farm records, preparation of budget for demonstration farm are some of the roles expected of Agricultural science teachers. The findings also revealed that supervision helps to stimulate good teaching practice, motivate the teacher for effective use of instructional material among others are the impacts of supervision on agricultural science teachers. Based on the findings, it was recommended that periodic supervision should be carried out in secondary schools, government/funding agencies should respond quickly to Supervisors' report and supervisors should be regularly trained for effectiveness.

Keywords: *impact, supervision, agricultural science, education, Secondary Schools, Port Harcourt Local Government Area*

Introduction

The challenge of economic meltdown and the drop in oil price has put Nigeria government on their toes on how to divert the economy to agriculture that was hitherto abandoned. According to Anyanwu, Anyanwu and Anyanwu (2003) described agricultural science as the cultivation of the land for the purposes of producing food, for man, feed for animals and fiber or raw materials for industries. Also, Iwena (2012) described agricultural science as the art and science (or management) that deals with the cultivation of crops and the rearing of animals for man's use. Agricultural science could therefore be regarded as the science that deals with the cultivation of land for the growth of animals and for man's use for feeding and industry.

Iwena (2013) opined that agriculture plays an important role in the development of all nations. Furthermore, Iwena (2013) stated that agriculture contributes to national development through the provision of food, materials for shelter, materials for clothing, employment for the working population, generation of income for farmers, provision of facilities for recreation and tourism, serves as sources of foreign exchange and generation of revenue. In consonance with this, Anyanwu *et al* (2003) asserted that agriculture provides

food for the growing population of the world, feed for animals, and fiber for industries, employment and foreign exchange. Therefore, Agricultural science could be regarded as a vehicle for national development.

Basically, agricultural skills ought to be transmitted from one generation to the other through the educational system. Accordingly, the transfer of these skills and competencies to students rest on the Agricultural Science Teachers. Unfortunately, these responsibilities are scarcely achieved due to observable lapses. Affianmagbon (2007) observed that most Agricultural Science Teachers need to show positive dedication in teaching agricultural science. Some stay on the job to seek for a better job outside the profession. Adetula (2005) argued that school teachers put up a totally unwholesome and non-professional behavior, such as absenteeism, lateness, malingering, trading, and general low level of commitment to duties which can invariably affect the achievement of educational goals. Therefore the serious need for supervision cannot be overemphasized.

Supervision is a complex service involving the provision of guidance, the coordination of workers and resources towards achieving set goals. It serves as a retrospective mechanism in management and is an integral part of the educational system. Ukeje (1992) asserted that supervision is the element of administrative process, which is concerned with effort to guide the day to day activities of the work group by stimulating, directing and coordinating the workers and their efforts cultivating good working personal relationship so that they all work towards means of achieving targets. Gordon and Ross-Gordon (2001) describe supervision as a service activity that exists to help teachers do their job effectively. Supervision according to Modebelu (2008) is a process of assisting, directing, stimulating and motivating teachers to enhance teaching and learning process in educational institution. Supervision is a crucial part of reflective practice and an integral part of educational system. Firz in Ikegbusi et al (2016) identified two types of supervision as internal and external supervision. Internal supervision he said is carried out by the school administrators (headmaster/assistant headmaster or principal/vice principal), while government and delegated agents conduct the external supervision. Supervision according to Glickman et al, (2004) is perceived as an act of controlling teachers' instructional behaviour

Evidently, supervision serves a number of benefits to agricultural science teachers for their efficient functioning. The overall purpose of instructional supervision is to help teachers improve on what the teachers know the improvement of teaching skills, as well as teacher's ability to make more informed professional decisions Sergiovanni & Starratt, (2007). It is also seen as an organizational function that seeks the growth of teachers and improvement in teaching performance and greater student learning (Tesfaw & Hoffman, 2012). Enaigbe (2009) indicated that the benefit of supervision in an organization includes:

- To formulate plans and policies and methods of doing the work in an organization.
- To motivate workers for higher productivity and better quality
- Enforces discipline among the workers
- To work as liaison between the management and the workers
- To handle grievances effectively
- To provides proper working condition to the workers in an organization
- To report about the performance and progress of the organization
- To ensure the continuity of work operation
- To ensure elimination of waste and to reduce cost

- To guarantee the proper functioning of the work units
- To secure prosperity of both the employer and employees
- To help teachers use the right instructional materials.

Despite the valuable contribution of supervision to education system, there are some constraints that affect supervision process in teaching and learning of agriculture. Ekundayo and Ojerinde (2013) identified some of the constraints as poor incentives, limited educational resources, administrative issues, lack of pre-professional training for supervisors, political instability among others. Hence, the study focused on the impacts of supervision on agricultural science teachers in senior secondary schools in Port Harcourt Local Government Area, Rivers State.

Purpose of the study

This study examines the impact of Supervision on Agricultural Science Teachers in Port Harcourt Local Government Area of Rivers State. Specifically, the study sought to;

1. Identify the roles of agricultural science teachers in senior secondary schools in PHALGA, Rivers State.
2. Ascertain the impact of supervision on agricultural science teachers in senior secondary schools in PHALGA, Rivers State.
3. Examine the challenges confronting the supervision of agricultural science teachers in senior secondary schools in PHALGA, Rivers State.

Research Questions

1. What are the roles of Agricultural Science Teachers in Senior Secondary Schools in PHALGA, Rivers State?
2. What are the impacts of supervision on Agricultural Science Teachers in Senior Secondary Schools in PHALGA, Rivers State?
3. What are the challenges confronting the supervision of Agricultural Science Teachers in Senior Secondary Schools in PHALGA, Rivers State?

Hypothesis

H₀₁: There is no significant difference between the mean response of male and female teachers on the impact of supervision on Agricultural Science Teachers in Senior Secondary Schools in PHALGA, Rivers State.

Methodology

The research adopted descriptive survey research design to seek the opinion of the respondents on the impacts of supervision on Agricultural Science Teachers. The population of the study comprised all the Agricultural Science Teachers in Senior Secondary Schools in Port Harcourt local government area, Rivers State. The sample size for the study was 26 Agricultural Science Teachers (male and female). The study used simple random sampling to select 2 agricultural science teachers (male and female) from each of the 13 secondary schools in Rivers State, making a total of 26 Agricultural Science Teachers. The instrument used for the study was a structured questionnaire tagged "Effects of Supervision on Agricultural Science Teachers (ESAST). The instrument for data collection was partitioned into four sections (A, B, C & D). The instrument was structured in the pattern of 4 point rating scale of Strongly Agree (SA-4), Agree (A-3), Disagree (D-2) and Strongly Disagree (SD-1). The instrument was face validated by two experts in the Department of Vocational and Technology Education in Rivers State University, Port-Harcourt. The reliability of the instrument was established using Cronbach Alpha reliability coefficient for a measure of

internal consistency of the instrument. In order to achieve the reliability of the study, 6 Agricultural Science Teachers were simple randomly sampled from Ogba/Egbema/Ndoni Local Government Area and their responses were used in testing the reliability of this study. The reliability coefficients achieved was 0.83. Copies of the instrument were administered and retrieved by the researchers at the spot. Mean and Standard Deviation were used to answer the research questions while t-test statistical tool was used to test the hypotheses at 0.05 level of significance for two tailed test. Mean scores < 2.50 were rejected while mean scores \geq 2.50 were accepted.

Results and discussions

Research question 1: What are the roles of agricultural science teachers in senior secondary schools?

Table 1: Respondents opinion on the role of agricultural science teachers in senior secondary schools

Roles of agricultural science teachers	Male Agricultural Science Teachers (n=13)			Female Agricultural Science Teachers (n=13)		
	Mean	SD	Decision	Mean	SD	Decision
Evaluation of agricultural students	3.38	.96	Agreed	3.31	.95	Agreed
Classroom instruction delivery	3.31	.95	Agreed	3.15	.99	Agreed
Supervision of students during classroom delivery	3.46	.97	Agreed	3.08	.95	Agreed
Guidance and counseling of agricultural students	3.23	.93	Agreed	3.15	.90	Agreed
Keeping farm records	3.31	.95	Agreed	2.85	.99	Agreed
Preparation of budget for demonstration farm	3.08	1.12	Agreed	3.15	.90	Agreed
Planning agricultural processes at the farm	3.38	.96	Agreed	3.00	.91	Agreed
Supervision of students at the demonstration farm	3.23	.93	Agreed	3.00	1.08	Agreed
Keeping of farm implements	3.15	.90	Agreed	3.08	.86	Agreed
Motivation of agricultural students	3.38	.96	Agreed	3.00	1.08	Agreed

Source: Field survey data, 2018

Table 1 on the role of agricultural science teachers showed that male teachers agreed that evaluation of agricultural students (3.38), classroom instruction delivery (3.31), supervision of students during classroom delivery (3.46), guidance and counseling of agricultural students (3.23), keeping farm records (3.31), preparation of budget for demonstration farm (3.08), planning agricultural processes at the farm (3.38), supervision of students at the demonstration farm (3.23), keeping of farm implements (3.15) and motivation of agricultural students (3.38) are the roles of agricultural science teachers in Secondary Schools in PHALGA, Rivers State. On the other hand, female teachers agreed that evaluation of agricultural students (3.31), classroom instruction delivery (3.15), supervision of students during classroom delivery (3.08), guidance and counseling of agricultural students (3.15), keeping farm records (2.85), preparation of budget for demonstration farm (3.15), planning agricultural processes at the farm (3.00), supervision of students at the demonstration farm

(3.00), keeping of farm implements (3.08) and motivation of agricultural students (3.00) are the roles of agricultural science teachers in senior secondary schools in PHALGA, Rivers State. Martin and Odubiya (1991) noted that primary role of agricultural teachers involves helping student to learn knowledge and skills in agriculture

Research Question 2: what are the impacts of supervision on agricultural science teachers?

Table 2: Respondents opinion on the impacts of supervision on agricultural science teachers in senior secondary schools in PHALGA, Rivers State

Items	Male Agricultural Science Teacher (n=13)			Female Agricultural Science Teacher (n=13)		
	Mean	SD	Decision	Mean	SD	Decision
Supervision stimulates good teaching practice.	3.46	.97	Agreed	3.38	.96	Agreed
Supervision aids agricultural science teachers in content knowledge presentation to meet the diverse needs of all students	3.31	.95	Agreed	3.23	.93	Agreed
Supervision helps to improve the incompetency of agricultural science teachers.	3.00	.91	Agreed	3.08	.95	Agreed
Supervision enlightens and stimulate teachers on the objectives of the agricultural programmes	3.08	.86	Agreed	3.31	.95	Agreed
Motivate agricultural teachers to function effectively in agricultural farm.	3.08	.95	Agreed	3.00	.91	Agreed
Supervision helps to enhance government and funding agencies' intervention to agricultural teachers' need.	3.08	1.12	Agreed	3.00	1.08	Agreed
Supervision ascertains the effectiveness of classroom management by agricultural science teachers.	3.15	.90	Agreed	2.92	1.04	Agreed
Supervision motivates agricultural teacher to make effective use of instructional materials.	3.38	.96	Agreed	3.31	.95	Agreed
Supervision assist teachers to carry out all necessary activities stated in the curriculum content.	3.46	.97	Agreed	3.15	.90	Agreed
Total	3.22	1.05	Agreed	3.16	.96	Agreed

Source: Field survey data, 2018

Table 2 on the impacts of supervision on agricultural science teachers in senior secondary schools in PHALGA, Rivers State showed that male teachers agreed that supervision

stimulates good teaching practice (3.46), supervision aids agricultural science teachers in content knowledge presentation to meet the diverse needs of all students (3.31), supervision helps to improve the incompetency of agricultural science teachers, (3.00), supervision enlightens and stimulate teachers on the objectives of the agricultural programs (3.08), motivate agricultural teachers to function effectively in agricultural farm (3.08), supervision helps to enhance government and funding agencies' intervention to agricultural teachers' need (3.08), supervision ascertain the effectiveness of classroom management by agricultural science teachers (3.15), supervision motivates agricultural teacher to make effective use of instructional materials (3.38) and Supervision assist teachers to carry out all necessary activities stated in the curriculum content (3.46) are the impacts of supervision on agricultural science teachers in secondary schools in PHALGA, Rivers State. Also, the female teachers agreed that supervision stimulates good teaching practice (3.38), supervision aids agricultural science teachers in content knowledge presentation to meet the diverse needs of all students (3.23), supervision helps to improve the incompetency of agricultural science teachers, (3.08), supervision enlightens and stimulate teachers on the objectives of the agricultural programs (3.31), motivate agricultural teachers to function effectively in agricultural farm (3.00), supervision helps to enhance government and funding agencies' intervention to agricultural teachers' need (3.00), supervision ascertain the effectiveness of classroom management by agricultural science teachers (2.92), supervision motivates agricultural teacher to make effective use of instructional materials (3.31) and Supervision assist teachers to carry out all necessary activities stated in the curriculum content (3.15) are the impacts of supervision on agricultural science teachers in senior secondary schools in PHALGA, Rivers State. In conformity with this finding, Sergiovanni and Starratt (2007) assert that the overall purpose of instructional supervision is to help teachers improve, and this could be on what teachers know, the improvement of teaching skills, as well as teacher's ability to make more informed professional decisions

Research question 3: What are the challenges confronting the supervision of agricultural science teachers in senior secondary schools in PHALGA, Rivers State?

Table 3: Respondents opinion on challenges confronting the supervision of agricultural science teachers in senior secondary schools in PHALGA, Rivers State

Challenges of supervision for science teachers	Male Agricultural Science Teacher (n=13)			Female Agricultural Science Teacher (n=13)		
	Mean	SD	Decision	Mean	SD	Decision
Non implementation of recommendation made by supervisors.	3.15	.99	Agreed	3.00	1.08	Agreed
Inadequate Instructional Materials	3.08	1.19	Agreed	3.23	.93	Agreed
Curriculum Interpretation.	3.46	.97	Agreed	3.38	1.04	Agreed
Lack of School Farm for Experimental Learning.	3.31	.95	Agreed	3.23	.93	Agreed
Unspecified time for instructional supervision	3.00	1.08	Agreed	3.31	.95	Agreed
Inadequate funding for agricultural science farm practices	3.38	.96	Agreed	3.15	.90	Agreed
Insecurity	3.00	.91	Agreed	2.92	.86	Agreed

Source: Field survey data, 2018

Table 3 on the challenges confronting the supervision of agricultural science teachers in senior secondary schools in PHALGA, Rivers State showed that male teachers agreed that non implementation of recommendation made by supervisors (3.15), inadequate Instructional Materials (3.08), curriculum Interpretation (3.46), lack of School Farm for Experimental Learning (3.31), unspecified time for instructional supervision (3.00), Inadequate funding for agricultural science farm practices (3.38) and insecurity (3.00) are challenges confronting the supervision of agricultural science teachers in secondary schools in PHALGA, Rivers State. Also, female teachers agreed that non implementation of recommendation made by supervisors (3.00), inadequate Instructional Materials (3.23), curriculum Interpretation (3.38), lack of School Farm for Experimental Learning (3.23), unspecified time for instructional supervision (3.31), Inadequate funding for agricultural science farm practices (3.15) and insecurity (2.92) are challenges confronting the supervision of agricultural science teachers in senior secondary schools in PHALGA, Rivers State. This finding is in line with the findings of Ekundayo, Ojerinde and Kolawole (2013) that identified some of the constraints to supervision as poor incentives, limited educational resources, administrative issues, lack of pre-professional training for supervisors, political instability among others.

Hypothesis 1

There is no significant difference between the mean response of male and female teachers on the impact of supervision on Agricultural Science Teachers in Senior Secondary Schools in PHALGA, Rivers State.

Table 4: t-Test for Responses on the impact of supervision on agricultural science teachers

Categories	M	SD	N	DF	t-cal	t-crit	Decision
Male teachers	3.22	1.05	13	24	0.15	2.06	Accept
Female teachers	3.16	0.96	13				

t-cal (t-test calculated), t-crit (t-test critical)

Table 4 shows that male teachers mean and standard deviation scores were 3.22 and 1.05 respectively, while female teachers mean and standard deviation scores were 3.16 and .96 respectively. The t-cal value was .15, while the t-crit was 2.06 at 0.05 level of significance for two tailed test. This result shows that t-cal was less than t-crit, which means that the null hypothesis was accepted. Thus, there is no significant difference between the mean response of male and female teachers on the impact of supervision on agricultural science teachers in senior secondary schools in PHALGA, Rivers State.

Conclusion

Conclusively, it was deduced that agricultural science teachers carry out several roles, such as; classroom instruction delivery, supervision of students during classroom delivery, guidance and counseling of agricultural science students, keeping farm records, preparation of budget for demonstration farm, among others. More so, supervision stimulates good teaching practice, aids agricultural science teachers in content knowledge presentation to meet the diverse needs of all students, helps to improve the incompetency of agricultural science teachers, enlightens and stimulate teachers on the objectives of the agricultural programs, motivate agricultural science teachers to function effectively in agricultural farm and helps to enhance government and funding agencies' intervention to agricultural science teachers' need. However, non-implementation of recommendation made by supervisors, inadequate Instructional Materials, curriculum Interpretation, lack of School Farm for

Experimental Learning, unspecified time for instructional supervision and Inadequate funding for agricultural science farm practices and insecurity were found to be the challenges confronting the supervision of Agricultural Science Teachers in Senior Secondary Schools in PHALGA, Rivers State.

Recommendations

The following recommendations were made.

- Periodic supervision should be carried out in secondary schools to enable them agricultural science teachers to function effectively in terms of classroom instruction delivery and in the demonstration farms.
- Educational ministries should be properly funded to enable them cater for the needs of supervisors. This will enhance the performance of supervisors which will in turn improve the quality of instruction delivery of agricultural science teachers in Rivers State.
- Supervisors should be trained from time to time for them to be abreast with the recent development in the educational system. The reason for this is to ensure that every innovation in the educational sector is fully implemented for the benefit of the agricultural science teachers in Rivers State.

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