

IMPLEMENTATION OF AGRICULTURAL SCIENCE CURRICULUM IN SENIOR SECONDARY SCHOOLS THROUGH TEACHERS' MOTIVATION IN ENUGU STATE

NWOSU P.I., Ph.D.¹

phindave@gmail.com

&

Ugwuede, A.A.²

anikeadora@gmail.com

^{1,2}Department of Technology and Vocational Education

Enugu State University of Science and Technology, Enugu

Abstract

The study focused on implementation of Agricultural Science Curriculum in Senior Secondary School through Teachers Motivation. The major purpose of the study is to determine the extent to which teachers of agricultural science in senior secondary schools in Enugu State are motivated for curriculum implementation in the subject. The study was carried out in Enugu State Nigeria using a descriptive survey research method. Two research questions guided the study to achieve the purpose of the study. The population of the study consisted of 268 respondents. There was no sampling because the entire population was manageable. Structured questionnaire were used for data collection made up of 26 items. The instrument was validated by three experts and Cronbach Alpha Statistics was used to determine the internal consistency of the instrument and a coefficient of 0.81 was obtained. A total of 268 questionnaire were distributed and retrieved. It was analysed using weighted mean to answer the research questions. The findings of the study revealed among others that teachers of agricultural science need motivational factors such as improved animals/seeds, opportunity for sponsored excursions and fieldtrips, provision of instructional materials, provision of laboratories, regular promotions, sponsored conferences, for implementation of agricultural science curriculum in senior secondary schools in Enugu state. Based on these findings, it was recommended that the government should promptly pay allowances, adequate instructional materials and equipment should be provided in schools and agricultural science teachers should be encouraged to seek professional development courses and workshops in agricultural science.

Key words: motivation, curriculum, curriculum implementation, agricultural science.

Introduction

The term motivation is derived from the word motive. Hornby (2010) defined motive as a reason for doing something. In the view of Webster (2017) motive is defined as inner state of our mind that activates and directs our behaviour. This implies that when a person is moved or directed to do something that person is motivated and for a person to live up to expectation such a person must be motivated. In the context of this study, this person is a teacher of agricultural science who is expected to implement agricultural science curriculum in senior secondary school.

Curriculum according to Tanner and Tanner in Ajewole, Nzewi and Aganga (2009) is defined as a planned and guided learning experience and intended learning outcome formulated through systematic reconstruction of knowledge and experience under the auspices of the school, for the learners continuous and wilful growth in personal and social competence. Iloputaife, Onoh and Nnadi (2010) saw it as planned and explicit teaching that occurs in schools and is usually reflected in a weekly time table of subjects to be learned. Hornby (2010) added that curriculum are subjects that are included in a course of study or taught in a school, college, etc. Based on these definitions of curriculum, to ensure the learners continuous and wilful growth in personal and social competence, the curriculum must be implemented.

Curriculum implementation is the task of translating the curriculum document into the operating curriculum by the combined efforts of the students and teachers. The relevance of a curriculum can only be determined if it is implemented in the classroom. This is where the teacher comes in because it is actually at the classroom level that the detailed implementation of the curriculum is done (Mkpa 1987 in Ugwu 2004). Ugwu maintained that for the teacher to live up to these expectations, the teacher needs to be motivated. Thus, Ugwu opined that teachers deserve more than what is given to them as monthly salary and itemized some other ways of motivating teachers thus:

- Provision of teaching aids
- Provision of conducive staff room
- Promotion of teachers as an when due
- Provision of laboratory for the teaching of science subjects (agricultural science inclusive)
- Provision of material such as diary, grade-books, attendance register, etc.
- Provision of opportunity for in service training and
- Provision of materials and finance for excursions and field trips.

Education world (2017) in supporting Ugwu (2004) added

- Encouraging teachers to seek out professional development courses or workshops
- Provision of lunches and
- Organizing trips to movies

Provision of the above motivational factors may ensure that teachers

- Show greater commitment to their work
- Use modern teaching aids in teaching their lessons
- Provide the materials that would facilitate their works and

- Have the psychological balance which would enable them ensure that the curriculum is implemented in agricultural science.

Agricultural science education according to Alawa, Abanyam and Okerie (2010), is a programme of instruction systematically organised for learners to acquire knowledge, skills and attitudes in various aspects of agriculture. Nwosu and Ugwuode (2017) stated that it is the teachers of agricultural science that are charged with the responsibility of imparting agricultural knowledge, skills and attitudes to students of agriculture in the senior secondary schools. They further opined that a teacher of agricultural science is one trained in both knowledge and skill as well as methodology of imparting these skills to the students in agricultural science. This implies that if these teachers are adequately motivated, agricultural science curriculum for senior secondary school will be well implemented. This will further help to equip the students with the necessary skills to fit into the world of worked after graduation from school. In the context of this study, senior secondary agricultural science students are people who are very interested in studying agricultural science at the senior secondary school level and an enrolled in agricultural science. These group of students have passed the Basic Certificate Examination (BCE) in junior secondary school and are offering agricultural science as a vocational subject in the senior secondary school.

In Enugu State which is the study area, the state government has recognised the need for workers motivation. This was why the state governor in December 2017 approved 13th month salary for civil servants in the state as Christmas bonus in order to motivate them. The governor has also ordered the Accountant General of the State to pay public service workers their monthly salaries on the 23rd of each month in an effort to further boost morale and commitment (Amoke and Nwafor, 2017). This is in line with Chand (2017) which stated that one of the causes of labour efficiency is motivation. It may therefore be deduced that motivation of teachers will lead to curriculum implementation in agricultural science. If the teachers are not adequately motivated it may lead to mass exodus of qualified agricultural science teachers from the field while retaining low quality teachers who will not be able to implement the curriculum. This will in turn affect the students as little or no teaching will be going on in the schools causing the students to be half baked. When these students do not acquire the needed skills it will lead to production of graduates who will not be saleable or fit into the world of work. As a result, there will be massive unemployment, restiveness, armed robbery and other bad vices among the youths. It is therefore necessary to find out whether teachers of agricultural science are adequately motivated to implement agricultural science curriculum in senior secondary schools in Enugu State.

The major purpose of the study is to determine the extent to which teachers of agricultural science in senior secondary schools in Enugu State are motivated for curriculum implementation in the subject.

Research Questions

The following research questions guided the study.

1. What are the motivational factors that could influence agricultural science teachers towards implementation of the subject curriculum in senior secondary school in Enugu State?
2. Which of the identified motivational factors has been provided for the agricultural science teachers in senior secondary school for curriculum implementation in Enugu State?

Method

The descriptive survey research was used to carry out this study. This design is that in which generalizations are made over the entire population from an ample of a sample population (Uzoagulu, 2011). The design was used because the researcher made use of questionnaire to collect data from teachers with degree teaching agricultural science in senior secondary school on factors that could motivate teachers towards implementation of agricultural science curriculum in senior secondary schools in Enugu State.

The study was carried out in Enugu State. Enugu State is made up of six educational zones namely: Agbani, Enugu, Agwu, Nsukka, Obollo-Afor and Udi. In Enugu State, every community has at least one secondary school, funded and run by the state government (Wikipedia, 2017).

The population of the study comprised 268 teachers of agricultural science with degree in senior secondary schools in Enugu State (source: Statistics Unit, Post Primary Schools Management Board, Enugu 2017). The entire population was used for the study because the population size was manageable, therefore no sampling was made.

A self-structured questionnaire item was used as instrument for data collection. The questionnaire contained 26 structured motivational factors generated from an extensive review of literature and information from other professions. Each motivator item had a four point response scale of Strongly Agree (SA) – 4, Agree (A) = 3, Disagree (DA) – 2 and Strongly Disagree (SD) – 1 to which the respondents indicated their levels of agreement or disagreement to motivational factors.

The instrument was subjected to face validation by three experts from the Department of Technology and Vocational Education, Enugu State University of Science and Technology (ESUT) Agbani. They

validated the instrument to ensure the appropriateness of the measuring instrument and that the instrument was structured to address the purpose of the study (Uzoagulu, 2011). The comments of the validators were used to modify the final instrument used for data collection.

The reliability of the instrument was determined by using Cronbach Alpha reliability method to determine the internal consistency of the instrument. The cluster yielded a reliability coefficient of 0.72.

A total of 268 copies of the questionnaire was distributed to the respondents with the help of three research assistants. These assistants were given orientation to assist the respondents in administering the instrument to the researcher. A total of two hundred and sixty-eight (268) copies properly filled and returned was used for data analysis.

The data was analysed using weighted mean to answer the research questions. The decision was based using real limits of the mean thus:

Strongly Agree	(SA)	–	3.50 – 4.00
Agree	(A)	–	2.50 – 3.49
Disagree	(DA)	–	1.50 – 2.49
Strongly Disagree	(SD)	–	1.00 – 1.49

RESULTS

The results obtained from the data analysed are presented in tables below according to the research question that guided the study.

Research Question 1

What are the motivational factors that could influence agricultural science teachers with degree towards implementation of the subject's curriculum in senior secondary school in Enugu State?

To answer this research question, the results are presented in table one below.

Table 1

Mean ratings of agricultural science teachers with degree on motivational factors that could influence implementation of the subject's curriculum in senior secondary school in Enugu State?

No. of teachers = 268

S/N	Motivational factors	No	SA	A	D	SD	Total	X	D
1.	Prompt payment of salaries	268	188	69	9	2	949	3.54	SA
2.	Prompt payment of allowance	268	176	87	5		975	3.63	SA
3.	Provision of instrumental material	268	190	60	18		875	3.64	SA
4.	Provision of adequate office accommodation	268	170	82	12	4	954	3.56	SA
5.	Opportunity for sponsored excursion and field trips.	268	189	70	6	3	981	3.66	SA
6.	Availability of well-equipped laboratory	268	173	88	7		970	3.61	SA
7.	Availability of staff quarter.	268	183	78	7		980	3.65	SA
8.	Regular promotions	268	200	56	11	1	991	3.69	SA
9.	Annual leave backed with leave allowance	268	195	50	13	1	957	3.57	SA
10.	Improved animals/seeds	268	171	73	24		951	3.54	SA
11.	Opportunity for in-service training and workshops	268	178	64	22	4	948	3.53	SA
12.	Farm/garden sties for practicals	268	203	52	12	1	993	3.70	SA
13.	Opportunity for conferences	268	188	69	6	4	981	3.66	SA
Grand cluster value								3.61	SA

Note: Strongly Agree (SA), Agree (A), Disagree (DA), Strongly Disagree (SD), x = mean.

Table 1 shows that mean ratings of 3.54 to 3.70 were obtained for all the thirteen items on the factors of motivation. With a grand cluster value of 3.61, it shows that the respondents strongly agreed that all these are motivational factors that could inspire them into implementing the curriculum in agricultural science in senior secondary schools in Enugu State. A grand mean of 3.61 was obtained for the 13 items which is indicative of the fact that all the respondents strongly agreed that all the items listed are motivational factors.

Research Question 2

Which of the identified motivational factors has been provided for the agricultural science teachers in senior secondary schools for curriculum implementation in Enugu State. The table showing the analysis of this research question is presented in table two below.

Table 2

Mean ratings of agricultural science teachers with degree regarding the provision of identified motivational factors for curriculum implementation in senior secondary school in Enugu State?

No. of teachers = 268									
S/N	Motivational factors provided	No.	SA	A	D	SD	Total	X	D
1.	Prompt payment of salaries	268	247	21			1051	3.92	SA
2.	Prompt payment of allowances	268		16	83	167	480	1.79	D
3.	Provision of instructional materials	268	4	20	100	144	420	1.57	D
4.	Provision of adequate office accommodation	268	2	8	102	156	392	1.465	SD
5.	Opportunity for sponsored excursion and field trips	268	1	2	185	60	440	1.64	D
6.	Availability of well-equipped laboratory	268		27	87	154	407	1.51	D
7.	Availability of staff quarters	268			154	114	422	1.57	D
8.	Regular promotions	268	2	19	116	131	428	1.59	D
9.	Annual leave backed with allowances	268	2	35	144	87	488	1.82	D
10.	Improved animals/seeds	268		4	244	100	600	2.23	D
11.	Opportunity for in-service training.	268			195	76	466	1.73	D
12.	Farm/garden sites for practical	268	160	79	29		935	3.48	A
13.	Opportunity for sponsored conferences	268		10	190	48	458	1.70	D
Grand cluster value								1.98	SD

Note: Strongly Agree (SA), Agree (A), Disagree (DA), Strongly Disagree (SD), x = mean.

Table 2 shows mean ratings of 1.46 for provision of adequate office accommodation to 2.23 for provision of improved animals/seeds. These values are all below the cut-off point of 2.50 showing that all these motivational factors were not provided. Two items had a mean of 3.92 for prompt payment of salaries and 3.48 for provision of farm/garden sites for practical. Showing that it is only these two motivational factors that were provided.

A grand mean of 1.98 was obtained for 13 items showing that generally the identified motivational factors were not provided for agricultural science teachers with degree in senior secondary school for the subject's curriculum implementation.

Discussion of Findings

The result of the findings revealed that all the thirteen motivational factors need to be provided for teachers with degree for curriculum implementation in agricultural science. They had a grand mean of 3.61. The result of the study agreed with Horby (2010) that defined motivation as a reason for a person to do something. Webster (2017) added that it is an act or process of giving someone a reason for doing something; a force or influence that causes someone to do something. This implies that there is need to provide teachers with motivational factors which will influence them to implement agricultural science curriculum. If teachers are adequately motivated, they will be ready not only to go extra miles in an attempt to see that they satisfy their employers but also do justice to the job for which they are paid especially in curriculum implementation.

Apart from payment of salaries which had a mean of 3.92, a teacher whose allowance remain unpaid for whatever reasons will not have the desire to put in his/her best in the job. Neither will the teacher who has remained on the same grade level for upward of ten to fifteen years be blamed for rendering skeletal services in curriculum implementation in form of classroom teaching. This is line with Chand (2017) which is of the opinion that motivation which is an aspect of reinforcement is a reward for excellence, a sign of encouragement, an assurance from the supervisor to his subordinate of support. Therefore, one may say that it will not be a crime if the authorities provide agricultural science teachers with degree with houses they could call their own just as they do for those in the civil services, good cars even if on hire purchase, wardrobe allowances as is obtainable in some other professionals, opportunities for overseas trips to interact with professional colleagues from other parts of the world where they discuss issues relevant to professional growth. This will motivate the teachers and make them to be more productive and quality conscious.

Furthermore, the result of the study revealed that apart from the motivational factors which could best be described as being personal to the teachers and that were not provided, there are other motivators that the teachers of agricultural science ought to be provided in his place of work to make the job attractive which was not provided. Prominent among these are the provision of instructional materials, availability of well-equipped laboratory and opportunity for sponsored excursion and field trips. With all the known advantages of instructional materials, providing the teacher of agricultural science with both quantitative and qualitative materials will motivate the teacher into doing a better job of his

teaching. Akinsola (2009) supported this by opining that learning materials are vital to effective and meaningful teaching and learning in any educational programme.

Agricultural science is a “doing science”, providing the teacher with a well-equipped laboratory as well as sponsored excursion and field trips will change the teachers initiative and productivity and thus motivate him into more action. Uzoagulu (1997) agreed to this when the writer emphasized the importance of the use of tools and equipment’s in institutions where students are trained and opined that equipment must be used in order to give training and the required skills to people.

In supporting Uzoagulu, Webster (2017) has it that people must be given a reason for doing something. This implies that when adequate laboratories are provided for schools, the teachers are likely to implement the curriculum.

Enugu State government should bear this in mind to make enough provision for adequate laboratories, sponsor excursions and field trips if they want the curriculum to be fully implemented. The government should know that curriculum in agricultural science covers both classroom teaching and practical work which the students will cover before their graduation from school for skill acquisition and to fit into the world of work after graduation from schools.

Education is a lifelong process. The society and the curriculum are both dynamic and unless the teacher who is expected to implement this dynamic curriculum for a dynamic society is dynamic himself he is bound to fail. He can only become dynamic when that opportunity is provided for him through motivating him to attend seminars, workshops and conferences and sponsoring him out rightly to such occasions severally. This will enable him teach his subjects the new way he has learnt.

The result of the findings revealed that items 1 and 12 which are payment of salaries and provision of farm/garden site for practicals respectively were provided for the teachers. This shows that the only thing the government perceive as motivational factors are payment of salaries and provision of farm/garden sites. Most often teachers do not even make use of these farm/garden sites because they are not provided with improved animals and seeds as revealed by the study.

Hence without adequately motivating the teachers, proper curriculum implementation especially in a practical oriented subject like agricultural science cannot be achieved. If the government appreciates the invaluable contributions of teachers towards the development of the nation, it would look for ways of ensuring corresponding reward for teachers. This will help in labour efficiency and enhance implementation of curriculum in agricultural science in senior secondary schools in Enugu State.

Conclusion

Motivation is the reason for people's actions, desires and needs. People must be given a reason to do something. Motivating teachers with degree by providing them with the identified motivational factors will force or influence them to implement agricultural science curriculum which will equip the senior secondary agricultural science students with the needed skills to fit into the world of work or become self-reliant after graduation from school.

Recommendation

This study has therefore made the following recommendations:

1. The government should provide teachers with adequate teaching aids to make their teaching more concrete.
2. The government should encourage teachers to seek out professional development courses or workshops.
3. Adequate facilities and equipment for practical activities should be provided to schools by the government.
4. Allowances should be promptly paid to teachers.

REFERENCES

- Ajewole, G.A., Uchenna, N. and Agunga, A.B. (2009). Curriculum Enrichment of Science, Technology and Mathematics Education as a basis for developing entrepreneurship skills. *Journal of Science Teachers Association of Nigeria. 50th Annual Conference*, HEBN Plc.
- Akinsola, O.S. (2009). Utilization of Learning Materials for Developing Entrepreneurial Skills in Classrooms: Perception of Science and Mathematics Teachers. *Journal of Science Teachers Association of Nigeria. 50th Annual Conference*, page 57.
- Alawa, D.A., Abanyam, V.A. & Okeme, I. (2010) Competency Improvement Needs of Teachers of Agriculture in Afforestation for Effective Teaching in Secondary Schools in Cross River State Nigeria. *Journal of the Nigeria Vocational Association*, 15(1), 96 – 104.
- Amoke, L. & Nwafor (2017). 13th Month Salary: Gov. Uguwanyi's Christmas bonus for workers. Retrieved from <https://www.vanguardngr.com/news> on 22/3/17.
- Chand, S. (2017). www.yourarticle.com/motivation. Retrieved 19/3/17.
- Education World (2017). 25 ways to motivate teachers. Retrieved from www.educationworld.com on 3/4/17.
- Hornby, A.S. (2010). *Oxford Advanced Learner's Dictionary of Current English*, Eight Edition. Ibadan: Oxford University Press.
- Iloputaife, E.C., Onoh, C.E.C, Nnadi, F. (2010). Refocusing School Curriculum on Entrepreneurship Education for Sustainable Youth Empowerment. *ESUT Journal of Education (ESUTJE)*.
- Nwosu, P.I. & Ugwuode, A.A. (2017). Entrepreneurial Skills Needed in Harvesting and Marketing of Cassava Roots for Self-Reliance by Senior Secondary Agricultural Science Students in Enugu State. *International Technology Research Journal*. Vol. 5(1).
- Post Primary Schools Managements Board (2017). Statistics on the Number of Agricultural Science Teachers with First Degree in Enugu State.
- Ugwu, O.I. (2004). *Teacher motivation: A Challenge in Secondary School*. Unpublished Lecture Note. Department of Technology and Vocational Education. Enugu State University of Science and Technology, Enugu.
- Uzoagulu, A.E. (1997). Technology Exploration Youth: A Diversionary Strategy for Conflict Resolution in the Home. *Nigerian Education Journal*, 11:2015.
- Uzoagulu, A.E. (2011). Practical Guide to Writing Research Project Report in Tertiary Institutions. Enugu: John Jacobs Classic.
- Webster, M. (2017). Motivational/Definition. Retrieved from <https://www.merriam-webster.com/motivation> on 19/3/17.
- Wikipedia (2017). Enugu State en.m.wikipedia.org/wiki/enugustate. Retrieved 27/12/17.