ISSN 2705-2559
E-ISSN 2705-2567

ESTABLISHMENT OF SCHOOL ORNAMENTAL HORTICULTURE: AN INQUIRY INTO ITS NEEDS AND OBJECTIVES

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Abstract
This paper is a report of the study that examined the establishment of school ornamental horticulture programme in the Kwara State secondary schools. The instrument used was the scale of Educational administrators and teachers "views about the establishment of ornamental horticulture programme, the instrument consists of 16 items clustered into five broad sections and one free response question administered on 200 respondents made up of Kwara State ministry of education officials and secondary school principals on one hand and teachers of secondary schools on the other hand. A five point Likert scale technique was employed. The results showed a high level of awareness on the need for ornamental horticulture establishment and high degree of the respondents' favourable views. Kwara State Government especially the ministry of education should as a matter of urgency set up a committee for the inclusion of ornamental horticulture as part of school curriculum and that will facilitate the establishment of the programme in the state secondary school.
Keywords: Secondary school, Horticulture, Educational administrators and Teachers

Introduction

The necessity of providing ornamental horticulture programmes for secondary school students in Nigeria is very important. According to Benjamin Franklin, a Pennsylvanian was one of the Americans to suggest formal education in horticulture. Americans then and now have recognized the truth and wisdom in such thinking and have incorporated agricultural courses (ornamental horticulture) into the curriculum of their country's best school systems, which is a good example for the Nigerians Educational Administrators. Horticulture include the growing of fruits (especially tree fruits) known as Pomology, production of vegetable crops, called Olericulture, production of flowers, termed Floriculture, and Ornamental Horticulture, known also as landscape gardening, which includes the maintenance and design of home grounds, public gardens and parks, private estates, botanical gardens, and recreational area such as golf courses, football fields and baseball diamonds (Pickett, 2008).

Ornamental horticulture evolved originally as a hobby pursued by the rich and influential persons who were accredited with early horticultural discoveries were often physicians, lawyers or political figures. These individuals collected interesting and rare plants for display in their gardens. The love of new and rare plants is not restricted to modern society. It is interesting to note that the first recorded plant hunting expedition was organized more than 3000 years ago (about 1570 B.C) by queen Hatshepset of Egypt. Like other rulers since those early days of history, unusual plants were used to decorate the Royal gardens and were added to collections to demonstrate wealth and power (Carpenter *et al.*, 1990). Religion has also influenced the development of ornamental horticulture since the early history of mankind. Flowers and plants have been used since the first record of history for decorating tables at feasts or other religious festivities. The greatest influence was evolved from the monk of marks living in monestaries of Medieval Europe. These monks collected the many wild plants known at the time to select those which were most useful for medicinal purposes. When the art of printing was developed, these monks recorded the descriptions of the various plants types known at the period. They also documented the then-common methods for plant culture. If it had not been for these early records, which knowledge concerning the ancient plants and plant culture would be last to modern society (Carpenter *et al.*, 1990).

The related fields of ornamental horticulture are part of a rapidly expanding industry. This relatively recent growth in popularity has come about from the aesthetic and recreational interest of the Nigerian Public. As our rural areas are becoming more urbanized, fewer people have a part in the traditional role of farming. This rapid growth of cities, suburbs and small towns has created a great demand on the horticultural Industries for goods and services. Nigerian government spent millions of naira annually on such sports as tennis, golf, football, and other athletic events. An example is the just concluded all West African Universities Games, Ilorin (2012) which are to some extent dependent upon ornamental horticulturist for

ISSN 2705-2559
E-ISSN 2705-2567

their design and maintenance. A number of other reasons further justify the need for ornamental horticulture programmers in Nigerian Secondary School Curriculum. The need for aesthetic beautification of our school environment, our high ways, public buildings, universities, campuses and recreational parks has to prompt the developments of highly trained ornamental Horticulturists by various Federal, State and Local Schools.

The students of ornamental horticulture may look forward to a challenging and rewarding career in Horticulture Industries. A high school graduate having some training in ornamental horticulture may enter one of these career areas in various ways. Most of the practical education which is beneficial to the beginning horticulturist will be obtained through a combination of classroom education and practical work experience. Similarly, a number of studies carried out in Nigeria have shown that many students know very little about themselves, their education and the world of work. Among Nigerian Authors who have called attention to the existence of the need are (Achebe, 1986; Makinde and Alao, 1987). This is important because anyone familiar with the development of human personality and career opportunity will understand the need for ornamental horticulture in Secondary Schools since many traits related to good vocational ability academic and social progress development prior to university where formal degree in ornamental horticulture is available. Therefore, advising young people to pursue the right type of vocational education like ornamental horticulture" is which there is no over production of the other aspects of the manpower need, is a sure process of building a more prosperous and advanced country, in my view, about ornamental horticulture particularly at the secondary school level, will play an important role in the education, career, and vocational growth of the individual in planting plan design and landscaping (Alabi, 2021).

Research Objectives

Kwara State which is the focus of this study, has not given it a concern and no record of it in the State secondary schools. It is against this general background that this study was conceived to investigate the need for the establishment of ornamental horticulture in our school curriculum. In the pursuit of the research problems and to realize the objective of this study, the following hypothesis were raised and tested.

1. There is no significant difference between the views of educational administrators and teachers in respect of the need for the establishment of ornamental horticulture programme.
2. There is no significant difference between the views of educational administrators and teachers in respect of what they consider to be the objectives of school ornamental horticulture programme

Methodology

A descriptive survey method was employed in carrying out this study. This is to enable information to be obtained from a representative population to describe a situation. Sax (1968) observed that the descriptive aspect of the study "involved the collection of data for the purpose of describing conditions as they exist". The questionnaire method was used in order to gather relevant information for the study. There were two types of questionnaires: closed and open ended questionnaires. The two types of questionnaires were titled "scale of Educational Administrators and Teachers: views about the Establishment of ornamental horticulture".

1. For the closed-ended questionnaire, the items on the instrument will be constructed by the researcher. On the whole, the questionnaire for the main study will contained 30 items. For each statement in the questionnaire, the respondents will indicate the degree of agreement or disagreement with respect to how the statement applied to them by putting a tick (√) in the space provided in front of each item. A five point Likert scale technique was employed.
2. On the other hand, the open ended question will consist of only one item. Meant to seek respondents' views or comments about the idea of establishing school ornamental horticulture programme in the state. The closed ended questionnaire is good for obtaining information on the research questions raised in the study. It will facilitate the process of tabulation analysis and scientific generalization where necessary.

Table 1: Research Instrument

Sections	Number of Items	Numbering
Needs for the establishment of ornamental horticulture.	9	1-9

ISSN 2705-2559
E-ISSN 2705-2567

Objective and concept of school ornamental horticulture.	7	10-16

Distribution of the samples by the needs and objectives of the school ornamental horticulture

The subjects who participated in the study consisted of two major groups:

1. Educational Administrators who include
a. The Ministry of Education Officials
b. The Principals
2. The Teachers.

Table 2: Research Instrument

Respondents	Male	Female	Total
Educational Administrators	40	10	50
Teachers	100	50	150
Total	140	60	200

Distribution of samples by sex, educational administrators and the teachers

The questionnaires were administered to the subjects by the researcher personally. The researcher's personal involvement was deemed necessary because it had the advantage of establishing rapport and of explaining the items that may not be clear. The questionnaire was left with the respondents in the ministry of education and institutions concerned for a period for 2 days after which they will be collected. In order to explain the purpose of the study as well as what will be expected of the respondents, a covering letter was attached to each questionnaire. For the closed ended questionnaire, all statements responded to were scored as follows:

Table 3: Scale Value

Scale		Scale Value
Strongly Agree	(SA)	5
Agree	(A)	4
Undecided	(U)	3
Disagree	(D)	2
Strongly Disagree	(SD)	1

Thus the above table shows that each item was scored on a 5 to 1 scale, with the high score indicating high degree of the respondent's view(s) about the establishment of school ornamental horticulture programme in Kwara State. For the purpose of statistical analysis, the data collected were organized in tables. The frequency responses to each item on the five sections of the questionnaire were tabulated, converted to percentages and ranked progressively downward from top most to least considered response by the respondents to each item section will also be found. The t-test procedure was used to compare the means of the groups of respondents, using 5% level of significance, which is ($P < .05$), for the acceptance or rejection of the hypothesis. All the views expressed freely by the respondents in the open ended question were grouped according to their similarity. The list was then added to the ones got from the closed ended questionnaire. The comprehensive lists then form the views of Kwara State educational administrators and secondary teachers on the establishment of school ornamental horticulture programme in the state.

Results

Needs for the Establishment of Ornamental Horticulture

The result is concerned with the presentation of the tables in a way which makes the research questions answered and the stated hypotheses testable. Thus, for the research questions one, the frequency responses to each items on the five sections of the questionnaire were tabulated, converted to percentages and then ranked. In this way the item in each section of the questionnaire with the highest frequency responses was given top most rank of number 1 (Table 4 and 5). To answer research question one, respondents responses in terms of percentage frequency and rank order is presented in Table 4.0, "school ornamental horticulture services, will help students in their choice of vocational and career opportunity in ornamental horticulture at colleges and university for professional studies", was considered by the two groups of respondents as the most important need for the establishment of school ornamental horticulture programme. From their responses, more than 60% of the educational administrators and teachers in this study agreed that all the other needs except "initiating school ornamental horticulture programme will contribute immensely to the vocational education process of the state", were needs for the establishment of school ornamental horticulture programme. This may be an indication that the respondences cannot relate how school ornamental horticulture programme can contribute to the educational process of the state. Hence it was

ISSN 2705-2559
E-ISSN 2705-2567

considered the least need for the establishment of school ornamental horticulture programme. Interestingly enough however, more of the teachers (99%) in this study than the educational administrators (95%) as shown on table 4.0 state that school ornamental horticulture programme services will help students in their choice of vocational and career opportunity.

Table 4: Rank Order and Percentage Frequency Responses by Educational Administrators and Teachers in Respect of the Need for the Establishment of School Ornamental Horticulture

Needs for the Establishment of Ornamental Horticulture	% Educational Administrators n = 50	% Teachers n = 150	Rank Order
School ornamental horticulture services, will help students in their choice of vocational and career opportunity.	95	99	1
Ornamental horticulture will help students in their social and psychological adjustment to modern and rapid changing society	93.5	98.3	2
Ornamental horticulture will assist in solving problem of vocational training and unemployment after graduating from school	73.0	98.0	3
Ornamental horticulture services will lead students to know their skill, talent and develop their interest in landscape development and environmental beautification / protection	72.4	87.1	4
Ornamental horticulture will help students to learn about job opportunity in the near future as per self-employment	71.4	86.0	5
School guidance programme will offer students opportunities to discover themselves in the field of ornamental horticulture profession	70.1	84.2	6
School ornamental horticulture if included in National policy on Education will help in placing students to academic, vocational and professional educational career choice.	69.9	81.1	7
Initiating school ornamental horticulture programme will contribute immensely to the vocational education process of the state	63.9	68.7	8
Initiating school ornamental horticulture programme will contribute immensely to the vocational education process of the state	63.9	68.7	8
ornamental horticulture programme in school is significant in bringing about the school planning, construction and classroom environmental beautification	43.5	46.6	9

Objective and Concept of School Ornamental Horticulture

Table 5 showed that "school ornamental horticulture will lead to smooth vocational education in the school for the students" was considered by the respondents as the member one objective of the programme. "Ornamental horticulture programme can help in channeling. Students into responsible and practical ways of life" was considered the least objective of the school ornamental horticulture programme. However, more than 65% of the two groups of respondents in this research study agreed that all the other objectives were objectives of school ornamental horticulture programme. This may be an indication that well over 50% of the educational administrators and teachers who participated in this study understand what school ornamental horticulture programme is capable of achieving.

Table 5: Rank Order and Percentage Frequency Responses by Educational Administrators and Teachers in Respect of the Kind of Ornamental Programme Objective to the School

Objective of School Ornamental Horticulture Programme	EA % n = 50	T % n = 150	Rank Order
A good ornamental horticulture will lead to smooth vocational education	91.1	92.2	1

ISSN 2705-2559
E-ISSN 2705-2567

Ornamental horticulture will ensure realistic assessment of individual characteristics and professional skills	90.5	90	2
Ornamental horticulture services will help increase principal's ability to solve school classroom planning, ornamental plants arrangement and other environmental problems.	86.1	89.3	3
School ornamental horticulture can help in effective school games and sport planning and reduce organizational disruptions of outdoor recreational activities among the school students.	85.1	80.3	4
School ornamental horticulture will assist ornamental teachers develops professional skills in performing their duties efficiently.	67.0	79.0	5
Ornamental horticulture will help in channeling students into responsible and practical ways of life.	65.2	70.4	6
Ornamental horticulture programme can help to make individual and community derive the full benefit of environmental protection and beautification through school ornamental horticulture.	48.3	48.1	7

Relationship of Responses

The results are presented as they relate to the hypotheses.

Table 6: Mean Scores and Standard Deviation of the Groups of Respondents by the Sections of the Questionnaires (Educational Administrator (EA) and Teachers).

	EA			TEACHERS		
Questionnaires	**N**	**Mean(X)**	**S.D**	**N**	**Mean(X)**	**S.D**
Needs for the Establishment of Ornamental Horticulture	50	39.23	2.97	150	39.46	3.44
Objectives of Ornamental Horticulture Programmes	50	29.27	3.52	150	29.25	3.80
TOTAL	**50**	**68.50**	**6.49**	**150**	**68.71**	**7.24**

As revealed on table 6 above, the 150 teachers who participated in the study had high mean score of 68.71 while the 50 educational administrators had mean score of 68.50

Responses in respect of the hypothesis 1

Table 7: result of test comparing the views of Educational Administrators and Teachers in Respect of the needs for the establishment of school ornamental horticulture programme

Respondents	N	Mean(X)	S.D	t-value	t-tab	Remark
Educational Administrator	50	39.23	2.97	- . 47	1.96	N.S
Teachers	150	39.46	3.44			

Not significant at P < .05

This state that there is no significant difference between the views of educational administrators and teachers in respect of the needs for the establishment of school ornamental horticulture programmes". For this hypothesis, the calculated t-value was- 47 and the critical t-value was 1.96 for the educational administrators and teachers. This is not significant at .05 percent level. The null hypothesis of no significant difference between the two groups of study respondents with respect to their views on the needs for the establishment of ornamental horticulture programme in Kwara State secondary schools. This means that both groups of respondents used for this study felt the same way in respect of the needs for the establishment of school ornamental horticulture programme.

Responses in respect of the hypothesis 2

Table 8: Results of t-test comparing the views of Educational Administrators and Teachers in Respect of what they considered to the objectives of school ornamental horticulture programme

Respondents	N	Mean(X)	S.D	t-value	t-tab	Remark
Educational Administrator	50	29.27	3.52	0.3	1.96	N.S
Teachers	150	29.25	3.80			

Not Significant at P<.05

ISSN 2705-2559
E-ISSN 2705-2567

This hypothesis state that there is no significant difference between the views of educational administrators and teachers in respect of what they considered to be the objectives of school ornamental horticulture programme" as indicated on Table 8, the calculated t-value was .03 and the critical t-value was 1.96 for both group of respondents. This is insignificant at .05 percent level; hence the hypothesis was confirmed because, "There is no significant difference between the views of educational administrators and teachers in respect of what they considered to be the objectives of school ornamental horticulture programme. This is an indication that both group of respondents used for this study agreed on what the objectives of school ornamental horticulture programme should be

Discussion

Setting up a programme of ornamental horticulture in a school calls for an approach which is logical and sequential in nature. Firstly, it cannot be imposed upon a school but must become a process of gradual growth and became an integral part of the school programme. That mean we have to make a thorough feasibility study of the intended programme, plan for the area of programme that would be wholly supported, and be patient to see the project succeed. Thus planning for the initiation of a school ornamental horticulture programme can begin with getting the principal and members of the staff convinced of the usefulness of the programme in achievement of the school's educational objectives. Ogunlade (1987) called this procedure "initiation of action". Securing support and co-operation of the principal is important because the principal is in charge of all school's programme and no programme can be expected to succeed without his or her knowledge, support and cooperation. Indeed individual staff conferences would have preceded small group conferences laying groundwork for the programme planning workshop which would follow. When it is clear that most people concerned appreciate the need for the programme, a planning committee can then be constituted. According to Ogunlade (1987), planning committee can be formed with interest or volunteer staff as members and some parents and other professionals' representatives. The duties of the committee include that of arrangements for the establishment of the school ornamental horticulture programme, to formulate rationale for the programme, conduct a need assessment survey and define the goals and objectives for the programme.

The study showed that the respondents were in favor of the establishment of ornamental horticulture programme in Kwara State secondary schools. This general comment also showed the favourable views they all have for the programme. What is more interesting is that the important of ornamental horticulture in our urban areas has also been recognized by our top government functionaries and made public pronouncements for actions. For example, the Green and Clean project embarked upon by the Government of Kwara State. Among needs and objectives of ornamental horticulture according to (Bankole, 2000) are that, ornamental horticulture programme would help both the Nation and students in general. They are unquantifiable in economic terms, but they include: Beautification of school environment for effective learning and understanding, beautification of our cities, civic pride, and conservation of wide life, creation of restful avenues for the students, opportunities for recreational pursuits for promotion of tourism and of safe and healthy living environment for the people of the society.

Furthermore, the educational administrators and teachers of secondary schools in Kwara State might be among the people that I will describe as "Pace Setters" who received ornamental horticulture programme with full support. Thus, as shown by the overall results of the study, the views of these officials in the state ministry of education, secondary school principals and teachers were generally very encouraging on the establishment of ornamental horticulture programme in Kwara State secondary school. In the same view, the educational administrators' favourable views on the establishment of ornamental horticulture programme in secondary school agree with the view expressed by the teachers. This is because they see the program as promising, full of future prospects and capable of help to alleviate their administrative and environmental problems that confront them. This experiment will determine the challenges that are faced by the ornamental horticulture programmes. Secondary school agriculture programs will be able to generate an income with their program so that they can offer students more opportunities to learn by saving their ornamental horticulture units. Also, by having an ornamental horticulture program, students will be able to interact with the community through community titivation projects and plant marketing to further enrich the school's agricultural program. This study will be of use to others in the agriculture education field since it will discuss why ornamental horticulture teachers are having difficulties with their programs. According to Alabi (2021), ornamental horticulture pathway prepares students for careers in landscaping and floral industries. Topics include plant taxonomy, plant physiology, soil science, breeding, nursery

ISSN 2705-2559
E-ISSN 2705-2567

making, and floriculture as well as environmental design, installation and maintenance. When a teacher teaches the students about the different aspects of horticulture they are greatly aiding the students for career preparation in the landscape industry and career areas such as: landscape personnel, nursery and garden centre personnel, ground maintenance supervisor, golf course and open space management personnel.

Conclusion

With these therefore, it could be inferred that respondents have reasons for suggesting the establishment of the school ornamental horticulture programme. It was clear that given the chance, ornamental horticulture programme would successfully take off and succeed in the state secondary schools. Seminars, workshop and conference could be arranged for interested agricultural science teachers by the ministry of education as a short term measure before more ornamental horticulturist could be trained or employed. There is need for support and co-operation from principal and teachers because the success of every programme depends on the blessing and co-operation of principals and teachers in the school. Kwara State Government especially the ministry of education should as a matter of urgency set up a committee for the inclusion of ornamental horticulture as part of school curriculum and that will facilitate the establishment of the programme in the state secondary school.

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