

Problems of Teachers of Agricultural Science in Secondary Schools: A Case Study of Oranmiyan Local Government Area Oyo State.

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Abstract

This study examined problems of beginning and experienced teachers of agricultural science in secondary schools in Oranmiyan Local Government area of Oyo State. In order to determine the relationships between the administrative problems and the teaching of agricultural science, responses were obtained from 21 teachers of agricultural science and twenty-one principals of secondary schools in Oranmiyan Local Government area of Oyo State in January, 1979. The list of names of these 21 secondary schools was obtained from the Local Inspectorate of Education office for Oranmiyan Local Government area in Ile-Ife.

Using simple correlation analysis, data showed significant relationship at .05 level between the teaching of agricultural science and the teaching of other science subjects by the same teacher. In other words, teachers of pure science such as biology, chemistry, etc. were being used to teach agricultural science instead of professionally prepared agriculture teachers.

However, the correlation coefficient (r) of .028 which measures the relationship between the number of periods taught per week and the number of agricultural science teachers did not show any evidence of strong relationship.

Introduction

In Nigeria today, there is a growing emphasis on the need for rapid development of our agricultural sector in order to break the vicious cycle of poverty that is prevalent in the rural areas. However, it is most unfortunate to note that only a little progress has been achieved since the inception of various programmes like "Operation Feed the Nation", National Accelerated Food Production Programme (NAFPP) as part of Federal Government efforts in Agricultural development programme. Our National Development Plans have always been full of laudable objectives the implementation of which are very difficult to accomplish. Consequently, our agricultural system has been plagued by a number of problems including:

- (i) Poor storage and transport facilities for agricultural produce;
- (ii) Poor marketing system in which the farmers receive poor prices for their produce;

- (iii) Lack of effective credit facilities for the farmers;
- (iv) Lack of education for young ones who would later become future producers of Nigeria's food crops.
- (v) Lack of the right type of training for teachers of agricultural science who would instruct the prospective farmers.

In 1964, Kebret conducted a study on the contribution of agricultural education to the agricultural and rural development of Ethiopia. A jury involved in his study favoured the introduction of agricultural education to orient and to educate the primary and secondary school children, to train the young and adult farmers and to educate especially the young prospective farmers.

In a study of the development of an adult farmer education programme for the Philippines, Habito (1977) reported that a tremendous technological lag has hampered the efforts to enhance the development of Philippines agriculture. As a means to rectify the situation, Habito recommended among other things:

- (1) A reorientation of the philosophy, objectives, and guiding principles of agricultural education programme with a view to giving a heavy emphasis to the agriculture education of young boys.
- (2) A continuous in-service of agricultural teacher towards effective instruction of students in high schools as a joint undertaking of the Ministry of Education and agricultural colleges.
- (3) The use of advisory council built around chiefs, teachers, civic leaders and University representatives in organizing, conducting, and evaluation of agriculture instruction in the community.

Evidence gathered by Hudli (1967) concerning a programme of agricultural education in India indicated that satisfactory rural construction was possible only through adequate emphasis on education and agriculture. Accepting the principle that education is a continuous process, he called for phases of agriculture education such as young and adult farmer, secondary schools, and teacher programmes.

In his study in Beitz (1961) found that students of agricultural science ranked instructional methods as follows:

- (1) Instruction and discussion for the first one-half of the period with questions during the remaining time.
- (2) Informal discussion.
- (3) Tours and field trips

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- (4) Use of films
- (5) Use of demonstrations
- (6) Shop work
- (7) Member participation in activities such as livestock judging
- (8) Speakers other than the instructor, and
- (9) Panel discussion.

Cain (1974) in his contribution on organisation of agricultural programmes in schools said that it is most important that all concerned with the operation of schools' programmes at any level should sit down and work out a plan for articulation of agricultural science courses into school organisation and this includes – teachers, principals, inspectors of education, parents and students thereby preventing many problems arising.

Owing to the financial position in which most school principals find themselves, Turnerman (1974) said that it becomes quite necessary that they (Principals) try and execute efficient planning and development of programmes based on budgeting quite ahead of time. Such advance plans should include learners' based objectives especially for agricultural science schools with learners' based objectives (Turnerman) further explained, often have established programme in improving and aiding the students, especially agricultural science students. These learners' based objectives always include extra curriculum, recreational amenities, field trips and excursion and agriculture related youth programmes. The admission of students into various subject groupings should be handled by an established Guidance and Counselling body of the school consisting of the subject teacher as a member.

Lawrence (1974) supports Turnerman for his contribution on school administration, he (Lawrence) said that any school administration which involves her teachers in the drawing-up of the syllabus, scheme of work and Time-table (at least on consultation platform) will not have problems of establishing topics too broad or too narrow, check the mistakes of either including or introducing obsolete skill, knowledge and attitudes in the agriculture curriculum.

In executing plans to improve agricultural production, all efforts must be geared to the knowledge of modern acceptable agricultural practices. And this can be achieved through the correct teaching methods of agricultural science in secondary schools. Therefore, the teaching methods, administration and the correct inspiration given to the groups of aspiring young agriculturalists in schools, advantages and importance of agricultural science, principles and practices if well represented then the solution to the teaching problems is underway.

This study intends to identify problems of teachers of agriculture as perceived by beginning teachers, experienced teachers and principals, and

to evaluate suggestions for minimizing or eliminating the problems identified.

Methodology

Teachers of Agricultural Science and Principals in 21 selected Oranmiyan Local Government Secondary Schools, Oyo State were surveyed to make lists of problems that existed in their schools in the area of agricultural science. The list of problems were summarised in form of a questionnaire which was later used by the researcher and administered to the following categories of respondents: the beginning teachers of agricultural science, the experienced teachers of agricultural science and the principals of these selected schools in Oranmiyan Local Government area, Oyo State.

The data from these three groups of respondents were collected using a combination of closed-ended and open-ended questions. Personal visits were made by the researcher as this was considered the best data gathering device for this type of study. The questionnaire itself contained no means of identifying the respondent or his school. One teacher was selected in each of the 21 schools included in the study.

The personal appearance of the researcher provided an opportunity for an explanation of the project. This improved the response rate since it increased the cooperation of those involved.

The selected problems of the teachers of agricultural science as perceived by the Principals, experienced and beginning teachers were measured with the help of a five-point rating scale. The five points of the rating scale with their scores given in parentheses were: Greatest problem (5) greater problem (4) great problem (3) little problem (2) no problem (1).

The mean score for each area of training was calculated for each category of respondents respectively. The areas of problem were ranked in order of degree of seriousness. As the scores on the five-point rating scale ranged from 1 to 5, an average score of above 4.5, 3.5–4.5, 2.5–3.5, 1.5–2.5 and less than 1.5 indicated the degree of the seriousness of the problems, "greatest problem," "greater problem," "great problem," "little problem" and "no problem" respectively. The Kendall coefficient of concordance (W) was calculated in order to test agreement in ranking the selected eight common problems among the three categories of people directly involved in the teaching of agricultural science in Oranmiyan Local Government area in Oyo State. The Spearman rank correlation coefficient (rs) was computed to test the degree of agreement in ranking the eight selected areas of problems by both the principals and the beginning teachers of agricultural science.

Results and Discussion Problems of Teaching Loads

As it appears in table 1, it can be concluded that the more teachers of agricultural science are available in the schools, the more classes of agricultural science students could be taught. The correlation coefficient, r of 0.941 showed a significant at .05 level relationship between the two variables.

The r value of 0.628 showing relationship between other science teachers and number of agricultural science teachers was similarly significant at 0.05 level.

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However, the correlation coefficient r of .028 which measures the relationship between the number of periods taught per week and the number of agricultural science teachers did not show any evidence of strong relationship. Actually, the coefficient of determination for the two variables is 0.08 percent. This implies that less than 1 percent (0.08%) of the variation in one of these two variables (2 and 3) is explained by its linear association with the other. This level of explanation of variability is low compared to the

TABLE 1: CORRELATION BETWEEN NUMBER OF CLASSES OFFERING AGRICULTURAL SCIENCE, TEACHERS OF OTHER SCIENCE COURSES, NUMBER OF PERIODS TAUGHT PER WEEK AND TEACHER OF AGRICULTURAL SCIENCE.

<u>Variables</u>	<u>Correlation coefficient</u>	<u>Decision</u>
1. Number of classes offering agricultural science	0.941	Significant at 0.05 level
2. No. of teachers of other science courses	0.629	Significant at 0.05 level
3. No. of periods taught per week	0.028	Not significant at 0.05 level

coefficient of determination for number of classes offering agricultural science variable (1) and number of teachers of agricultural science, variable (2) is about .89 percent. It can therefore be concluded that there is no relationship statistically, between the number of periods taught per week and number of teachers of agricultural science.

The data in table 2 show the problems of teaching of agriculture as perceived by the teachers and the principals. The principals of the selected secondary schools did not perceive any of the problems as 'the greatest', as the mean scores for all the items of problems were less than 4.50. Lack of understanding by principals as to what constitutes a good agricultural science programme, time table problems, lack of time, extra duties, limited facilities, lack of funds, lack of arrangement for field trips, lack of other teachers' cooperation were perceived as 'greater' by them in descending order.

The experienced teachers of agricultural science perceived, lack of understanding by the principals as to what constitutes a good agricultural science programme and time table problems as the two 'greatest' problems in descending order as the mean scores for these two areas of problems were above 4.50. The areas of problems perceived as 'greater' by them in descending order were: lack of time, extra duties, limited facilities, lack of funds and lack of arrangement for field trip (3.46) and lack of other teachers' cooperation (3.29) were perceived as 'great problem'.

The beginning teachers perceived the time table problems, lack of

TABLE 2: SUMMARY OF PROBLEMS OF AGRICULTURAL SCIENCE AS PERCEIVED BY THE PRINCIPALS AND TEACHERS OF AGRICULTURAL SCIENCE

List of problems of Teaching Agric. Science	Principals		Experienced Agric. Sec. Teachers		Beginning Teachers of Agric. Sc.		Pooled Analysis	
	Mean Score	Mean	Mean Score	Mean	Mean Score	Rank	Mean Score	Rank
Lack of Understanding of Agric. Science Programme	4.34	(1)	4.54	(1)	4.68	(1)	4.52	(1)
Time table problems	4.08	(3)	4.51	(2)	4.69	(1)	4.43	(2)
Lack of time	4.18	(2)	4.42	(3)	4.58	(3)	4.39	(3)
Extra duties	3.96	(4)	4.14	(4)	4.29	(6)	4.13	(4)
Limited facilities	3.62	(8)	3.78	(5)	4.50	(5)	3.97	(6)
Lack of funds	3.88	(5)	3.62	(6)	4.53	(4)	4.01	(5)
Lack of arrangement for field trips	3.77	(6)	3.46	(7)	3.02	(8)	3.42	(8)
Lack of other teachers' cooperation	3.66	(7)	3.29	(8)	3.87	(7)	3.61	(7)

$W = 0.78^{**}$

(** Significant at .01 level of probability)

Source: Field survey.

understanding among principals as to what constitutes a good agricultural science programme, lack of time and lack of funds as the 'greatest problems' in descending order. The other areas of problems perceived as the 'greater' by them in descending order were: limited facilities, extra duties and lack of other teachers' cooperation. the remaining area of problem was perceived as 'the great' by them.

The analysis of ranks assigned to all of the problems, there is an agreement among the three categories of respondent in ranking items 1 to 3 on table 2 as the greatest problems and items 7 and 8 were perceived as the least important problems.

The computed W value of (0.78) was significant at 0.01 level of probability. Thus, the inference could be drawn that there was highly significant agreement among the three categories of respondents in assigning ranks to the different areas of problems.

According to pooled judgment, lack of understanding among principals as to what constitutes a good agricultural science programme was perceived as 'the greatest problem' by the respondents.

Conclusions

1. Before making conclusions, it is very important to sound a word of caution in applying the findings of this study. the study is limited in scope. It was seriously designed to cover only the scope of problems encountered by the principals and teachers of agricultural science in Oranmiyan Local Government area, Oyo state. This does not mean that other teachers don't have problems or that agricultural science teachers do not have problems of their own in other states. Therefore, the problems encountered by teachers in Oranmiyan Local Government area in Oyo state are not in any way representative of that of the nation.
2. Lack of understanding of what actually constitutes a good agricultural science programme as revealed in this study was probably due to other problems such as lack of arrangement for field trip and lack of other teachers' cooperation. The school administration should always plan field trips with the cooperation of other teachers, since field trips develop students' interest, provide opportunities for gaining new experiences and most importantly, help to develop understandings of total agricultural programme.
3. The problem of 'time' as indexed as time table problems, lack of time and extra duties needs to be re-examined alongside the regulation of minimum and maximum teaching loads for teachers. General time table planning of the school should be done with consultation of all teachers as this will surely enhance cooperation among teachers.
4. As to the problem of adequate funding, agricultural science should be given a high priority since this will help the future agricultural development in the area studied. By this approach, more financial support should be

provided by the administrative authorities, the public and the students.

5. Since many of the problems cited were due to lack of understanding, it is recommended that the teachers try to acquaint the principals more fully with agricultural science programme and that the principals make a greater attempt to understand the programme. It is further recommended that teachers should do all in their power to operate a sound programme that fits into the total school programme and that both the teachers and the principals should recognize that certain problems are inevitable and must be handled with considerations by both parties.

6. Finally, it may be concluded that further studies could focus on other problems of teaching of agricultural science which were not included in this study. Some of these problems are: administrative problems and the problems of using West African Examination Council syllabus. Focusing further studies on these two problems should present better understanding of the problems of teaching agricultural science and better understanding of what actually constitutes a good agricultural science education.

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