

Identification of Job-Related Training Needs of Village Extension Agents in Kogi State Agricultural Development Project

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Abstract

A survey was conducted to identify the job-related training needs of Village Extension Agents (VEAs) in Kogi State Agricultural Development Project (KSADP). The target population for this study comprised 200 predominantly VEAs in KSADP located in three agro-development zones (Eastern =85VEAs, Central=54VEAs and Western=61 VEAs) from which a sample of 145VEAs was purposely chosen for the study. The data were collected from both primary and secondary sources. Primary data were derived from structured questionnaire, similar to the Likert- type scale developed by the researcher. Secondary data were obtained from official documents or records of the Ministry of Agriculture, Lokoja, Kogi State and KSADP. Weighted mean score and Ranking analysis revealed that out of 70competencies included in the study, 5 of them would require “high emphasis “indicating serious deficiency gap while the rest 65 competencies would need “average emphasis.” Therefore, it is evident that all competencies are needed. It is recommended that annual staff training programme as well as fortnight training (FNT) session should be made more productive to ensure that the training of VEAs becomes effective and efficient among others.

Keywords: Training needs, extension agents, agricultural development project, open and distance learning, competencies

Introduction

Until the advent of the World Bank-Assisted Agricultural Development Projects (ADP) as strategies for revamping the dismal state of food crop production in Nigeria, there had been hardly any systematic Open and Distance Learning (ODL) or in-service training process for staff in public service engaged in agriculture. According to Adeoye, Alao and Olukosi (2009), this has led to a gradual decline in the performance of staff and ineffective agricultural development programmes initiated by government. The starting point of a systematic training for staff members in any organisation is the assessment of their training needs.

Prior to the inception of the ADP system, the Ministry of Agriculture had given little or no attention to efforts in determining the training needs of staff in order to make the extension service more productive and efficient in its role of disseminating useful information on improved farming techniques to farmers. This constraint has been identified in developing countries but has not been very effective because such programmes were not geared towards the actual training needs of staff (Debisi, 2006). Often, in-service training has been a matter of chance based on campus training programmes advertised in brochures of training institutions and organisations or on pages of newspapers. In-house training programmes, which are designed to be more relevant to the specific training problems of the staff at any given time, were not actually included in the training plan.

Little effort was made to upgrade the knowledge and skills of the staff, especially the VEAs once they were employed into their service. These cadres of staff perform the most significant jobs in extension by educating farmers with a view to adopting new farm technologies. Therefore, success in extension work appears to be dependent on the ability of these grass root extension agents and such ability is a reflection of the adequacy of training (Olowu, 2007).

The training of Extension Agents (EAs) would necessarily focus attention on upgrading specific competencies which are deficient in but very important to the job activities being performed by them (Fabiya and Olaniyi, 2004). A detailed analysis of these activities would indicate the competencies which,

if not upgraded via training would reduce the effectiveness of the EAs in their job performance. Such identified competencies which are deficient in the staff would constitute their training needs which must be met through training. Mathias (2005) observed that programmes mounted without first ascertaining the specific training needs, have in fact proved wasteful of resources. Indeed, the needs assessment is fundamental to the whole training effort.

Some staff on the job already have qualifications and competencies through pre-service training necessary to perform their jobs. However, deficiencies still exist and it is the function of "training" to further develop such competencies through open and distance learning which train with the best quality inputs, flexible and innovative system of education or in-service training programmes. Such deficiencies in terms of knowledge, skills and attitudes must necessarily be defined and selected to plan an effective training of staff. It is through this process of defining training needs that training activities could be effectively planned, and directed on the competencies needed by staff or EAs for them to perform effectively and efficiently after training.

Apart from mobility problems, Sigman and Swanson (1984) found extension training as constituting the next most important problems while technical training problems ranked fifth among eight selected group of problems facing extension organisations in Africa and other developing countries. This situation is not different in Nigeria. It stands to reason therefore that extension personnel must be given adequate in-service training in order to reduce these constraints. This would necessitate the identification of the particular training areas of deficiencies as the first major step in the direction of ensuring that extension personnel become competent in their jobs.

The EAs as field level extension personnel undertake the professional role of educating farmers on practical skills and other information necessary for the adoption of well-proven farming techniques. Their credibility and trust worthiness on the job would depend immensely on their competencies. These competencies would be greatly enhanced by providing job-related knowledge, skills and attitudes which have immediate application in executing various activities on the job. Such competencies which are lacking

and which define the training needs must therefore be identified and then provided in the staff training programme. The question therefore is, what job-related training needs of Extension Agents (EAs) would enhance and create the basis for an effective staff training programme. The justification of the need of the study in KSADP is that it would bring improvement to the area of extension staff training and would specifically benefit both the extension agents and the farmers. Also, it would ensure better job performance on the part of the EAs just like any other staff and impact of this would reflect in the increase and the rate of farmers 'adoption of introduced well-proven farming techniques.

The specific objectives of the study were to:

- i. determine the extension agents' level of understanding of the competency areas
- ii. identify the competencies that need emphasis during staff training for extension agents
- iii. Imake recommendations necessary for policy implementation.

Materials and Methods

The target population for this study comprised two hundred(N=200) Extension Agents (EAs) in KSADP located in the agro development zones (Eastern, Central and Western Zones). Report of the agronomic survey of KSADP provided the list of Zones and farm families utilised as a sampling frame for the VEAs as follows: (East=85VEAs), Central=54 VEAs and (Western=61VEAs) were purposely selected from which 145VEAs were randomly sampled for the study. The sampling procedure gave every VEA an equal opportunity of being selected. The instrument for the study was a structured questionnaire, similar to the Likert- type scale, developed by the researcher. The data was collected from primary source. Primary data were obtained from the questionnaire administered by face-to-face interview to 1-45 VEAs in KSADP located in the study zones. The instrument for the study was subjected to pretest with 25 VEAs in the northern zone to find out the statements that were beyond the reasoning level of the respondents. Such statement were either restructured or deleted. The questionnaire was administered to the respondents during the fortnight training (FNT) sessions.

Also the validity of the instrument was conducted. Content validity was carried out to ascertain that the instrument measured what it was intended to measure. A Draft questionnaire was given to experts in the field-those dealing with the respondents, senior officials in the extension service and agricultural extension specialists. The items of the questionnaire were thus reviewed and selected to represent the universe of content of the study.

The indicator used for measuring the respondents' level of understanding of the competency areas was the degree of difficulty in understanding placed on a five-point scale. Emphasis to be given to each of the competencies under each competency area during training in order to upgrade the respondents' knowledge and skills was considered. Similarly, a five-point scale was utilised to determine the respondents' perception of the degree of emphasis of the competencies. Ranking here refers to the item with the highest added total score which is ranked the least while the item with the lowest added total score is ranked the highest number. The data were analyzed with the aid of the statistical package for social sciences (SPSS) software programme. Descriptive analytical tools such as the use of means and rankings were computed and utilised to summarise the results.

Results and Discussion

Objective one deals with the respondents' perception of their level of understanding of each of the thirteen competency areas. The respondents were asked to indicate their perception on a five-point scale of 1-5 representing relative degree of difficulty in understanding; 1 represents "little difficulty", 2 for "some difficulty", 3 for "difficult", 4 for "very difficult" and 5 for "extremely difficult." Therefore, a response of 3, 4 or 5 indicates difficulty in understanding, that is, low understanding; thus pointing to a training need.

The results showing added total scores, weighted means scores, and ranks for the competency areas in relation to level of understanding are presented and discussed in Table 1. A mean score of 3 and above suggests that the respondents have difficulty in understanding, indicative of a training need. However, a mean score above the mean score for the whole group of competency areas may also reveal a training need.

Table I: Respondents Level of Difficulty in Understanding the Competency Areas

Competency Areas	Added Total Score	Weighted Mean Score	Rank
Farm storage and processing	290	2.843	1
Soil fertility and conservation	284	2.784	2
Crop protection techniques	277	2.716	3
Rural social systems	273	2.676	4
Farm management techniques	268	2.627	5
Programme planning and execution	263	2.578	6
Extension organisation and administration	262	2.569	7
General administration	254	2.490	8
Extension teaching	244	2.392	9
Crop production techniques	242	2.373	10
Communication skills	239	2.343	11
Extension methods	234	2.294	12
Interpersonal relationships	197	1.931	13
Mean score: 2.470			

The results in Table 1 show that the respondents have “some difficulty in understanding twelve of the Competency Areas ($x = 2.294$ to 2.843) while for the remaining competency Area, “interpersonal relationships” the respondents have “little difficulty” in understanding it ($x = 1.931$).

However, in relation to the group mean score ($x = 2.470$), eight Competency Areas rank above it, which suggests that those competency Areas may be areas of need. The eight Competency Areas from highest to lowest include: “Farm storage and processing”, “Soil fertility and conservation”, “Crop protection techniques”, “Rural social system”, “Farm storage techniques”, “Programme planning and execution”, “Extension organisation and administration”, and “General administration.”

The results also indicate that extension agents seem to have better understanding of extension methods, communication skills, crop production techniques and extension teaching all of which are regular features in the FNT sessions and other aspects of training for extension agents in the

KSADP.

Objective two is concerned with the competencies that need emphasis during staff training of EAs. Each of the five competency areas is broken down to a number of competencies relevant to the job of EAs. A total of 70 competencies are included in the study. For each competency area, therefore, the respondents were requested to indicate on a five-point scale their perception of the competencies during staff training in order to upgrade their knowledge and skills. In the five-point scale 5 represents “very high emphasis”, 4 for “high emphasis”, 3 for “average emphasis”, 2 for “low emphasis”, 1 for “very low emphasis.” A mean score of 4 and above indicates competency of high priority training needs while a mean score of 3 as well as above the group mean score may also be considered as suggesting a training need. The results are presented in Table 2 below.

Table 2(a): Competencies Needing Emphasis under Crop Protection Techniques Competency Area

Competencies	Total Added Score	Weighted Mean Score	Rank
Identifying disease and pest symptoms	428	4.198	1
Safe precautions in the use of pesticides	410	4.020	2
Identifying pest and diseases	405	3.971	3
Identifying herbicides, insecticides and fungicides	404	3.961	4
Understanding first aid treatment	401	3.931	5
Measuring and mixing pesticides	400	3.922	6
Calibrating spraying equipment	399	3.912	7
Spraying against pests	398	3.902	8
Training farmers on pesticide use	396	3.882	9
Understanding economic threshold	395	3.873	10
Understanding application techniques	394	3.863	11

Understanding label instructions for use	388	3.804	12
Storage methods of agro-chemicals	387	3.794	13
Maintaining spraying equipment	376	3.686	14
Mean score: 3.908; Field Survey Data (2011)			

Table 2(b): Competencies Needing Emphasis under Extension Teaching Competency Area

Competencies	Total Added Score	Weighted Mean Score	Rank
Utilising SPAT as teaching situation	418	4.098	4.098
Presenting information at farmers' level	406	4.980	2
Identifying farmers 'training needs	396	3.882	3
Using problem-solving approach	395	3.873	4
Giving farmers opportunity to try out skill	393	3.853	5
Eliciting feedback from farmers	389	3.814	6.5
Summarising impact points	389	3.814	6.5
Understanding farmers' view point	388	3.804	8
Motivating farmers	382	3.745	9
Identifying appropriate teaching aids	380	3.725	10
Focusing training on skill development	377	3.696	11.5
Principles of adult learning	377	3.696	11.5
Using teaching aids	376	3.686	13
Determining instructional objectives	372	3.647	14
Organizing content of training	371	3.647	15
Timing of presentation	368	3.608	16
Preparation of simple teaching aids	357	3.500	17
Mean score: 3.768; Field Survey Data (2011)			

Table 2(c): Competencies Needing Emphasis under Farm Storage and Processing Competency Area

Competencies	Total Added Score	Weighted Mean Score	Rank
Understanding ways of soybean utilisation	417	4.088	1
Processing of cassava to forms	405	3.971	2
Construction simple farm storage structures	401	3.931	3
Storing farm products	397	3.892	4
Storage techniques for grains	394	3.863	5
Fumigating store and stored products	392	3.843	6
Identifying storage pests	391	3.833	7.5
Advantages in fermenting cassava	391	3.833	7.5
Concept of post-harvest physiology	384	3.765	9
Utilizing cassava and plantain flour	376	3.686	10
Processing of yam and plantain in flour	367	3.598	11
Mean score: 3.846; Field Survey Data (2011)			

Table 2(d): Competencies Needing Emphasis under Farm Management Techniques Competency Area

Competencies	Total Added Score	Weighted Mean Score	Rank
Linking farmers with input distribution centres	390	3.824	1
Calculating costs of input per unit area	385	3.775	2
Organising factors of production	381	3.735	3
Assessing input requirements	379	3.716	4
Applying economic principles	378	3.706	5
Keeping farm records and accounts	377	3.696	6
Forecasting periods of scarcity	364	3.569	7.5
Understanding simple financial analysis	364	3.569	7.5
Understanding bargaining techniques	342	3.353	9
Collecting and using market information	329	3.225	10
Mean score: 3.617; Field Survey Data (2011)			

Table 2(e): Competencies Needing Emphasis under Programme Planning and Execution Competency Area

Competencies	Total Added Score	Weighted Mean Score	Rank
Communicating problems to higher authority	405	3.971	1
Maintaining visit schedules	400	3.922	2
Using extension methods to present information	399	3.912	3
Understanding farmers 'problem to situations	394	3.863	4.5
Adapting extension messages to situations	394	3.863	4.5
Developing visit schedules	388	3.804	6
Understanding concept of programme planning	384	3.765	7
Determining needs of farmers	383	3.755	8
Developing training programmes	381	3.735	9
Involving farmers in programme development	380	3.725	10
Setting programme priorities	373	3.657	11.5
Developing schedules of operations	373	3.657	11.5
Utilizing contribution of farmers	372	3.647	13
Determining programme objectives	369	3.618	14
Developing programme for rural women	362	3.549	15
Sourcing information for programme development	359	3.520	16
Using resource persons	357	3.500	17
Involving traditional institutions and local govt.	352	3.451	18

Mean score: 3.717; Field Survey Data (2011)

Table 2 (a) shows competencies needing emphasis under crop protection techniques Competency Area. The findings show that only two competencies need "high emphasis". These are "identifying disease and pest symptoms"1"(x=4.198 and "safe precautions in the use of pesticides"2nd (x =4.020). These results also show a group means score of 3.908 which is very close to the score of 4. This finding reveals that all the competencies under

crop protection techniques need emphasis as to the high importance attached to this competency area.

Table 2(b) indicates competencies needing emphasis under extension teaching competency area. Result shows that only one of the competencies, "utilizing SPAT as teaching situation" needs high emphasis, its mean score being 4.098. It also ranked highest of all the competencies. This finding appears to support the findings of Osuntogun (2007) in which "understanding concept of SPAT" ranked highest. The finding also indicates that all the remaining competencies need average emphasis during the training of extension agents.

Table (2c) indicates competencies needing emphasis under farm storage and processing competency area. The result reveals that only "understanding ways of soyabean utilisation" needs "high emphasis", obtaining a mean score of 4.088 to rank first of the eleven competencies. This may be due to the fact that soyabean is a new introduction assuming some importance in extension package to farmers. The results also indicate that the rest competencies rank order 2 to 11 need "average emphasis." However, "processing of yam and plantain into flour" obtained the lowest score with a mean of 3.598 and also ranked the least of the competencies. This may be due to the fact that utilisation of yam and plantain in flour is not prominent in the food habit of the people in the area where the respondents are working. The findings also reveal a group means score of 3.846 which affirms the trends in Table 1. Farm storage and processing ranked highest in terms of difficulty in understanding (Table 1). This may vividly suggest that this competency area and its included competencies are of priority training needs.

Table 2(d) indicates competencies needing emphasis under farm management techniques Competency Area. The result shows that all the competencies only need "average emphasis", their mean scores being between 3.824 and 3.225. The results give a trend as to the importance the respondents attached to "farm management techniques" which obtained a mean score indicating "importance."

Table 2(e) shows competencies needing emphasis under programme planning and execution competency area. Results indicate that all

competencies were perceived as needing” average emphasis” their mean scores ranging between 3.971 and 3.451, the high number of competences to execution of programme ranked 1 to 6 than those relating to programme hardly involved in programming. This situation seems to have been compounded and institutionalised by the T & V system in which extension show that programme planning may be related to the job of extension agents to the extent that it indicates area of training need.

Conclusion and Policy Recommendations

Based on the results of the study, some conclusions were drawn as follows:

- i. That all competencies included in the study are job-related training needs judging from the fact that they were rated as to require average emphasis to high emphasis during the in-service training of extension agents.
- ii. That apart from the normal FNT sessions, it would be desirable to have other well-planned staff training programmes of short duration spread over the year. The content of such training should be based on identified job related training needs with regard to level of understanding and emphasis needed.
- iii. That all extension agents need to be exposed to the same type of training Opportunities. The VEAs are not adequate in all the competencies necessary for the effective performance of the job. To remedy this deficiency and therefore improve the job performance and competencies of the extension agents in KSADP. the following recommendations are made:

To ensure that extension agents adequately up-grade their knowledge and skills and thus make them competent on their job, it is suggested that the EAs be given opportunity to attend at least one short training course of 3-5 days in each quarter of the year. Furthermore, to ensure that the training of EAs become effective and efficient, an annual staff training programme for EAs as well as fortnight training session should be advocated and reorganized

respectively, in addition, there is a need for the inclusion of EAs in programme planning in order to increase their knowledge and competencies on their job performance.

References

- Adeoye, E.A, Alao, S. & Olukosi, E. (2009). Need Assessment: A Critique of 'Philosophical Assumptions, *Adult Education*, 29:84-87.
- Debisi, S.O. (2000). A Concept of Needs: *Journal of Cooperative Extension*. 1(3):90-93.
- Fabiyo, O. & Olaniyi M.O. (2004). *Skilled Performance Perception and Motor Skills*. USA: Colt Foreman and Company Publishers.p.112.
- Mathias, C.J. (2005). Enhancing Effectiveness of Development Programmes for Small Farmers: Elements of an FAO Training *Approach*. *Agricultural Administration and Extension* 32:169-172.
- Olowu, J.O (2007). Determining Training Needs. In: R.L. Graig (Ed.). *Training and Development Handbook*. New York: Mc Graw-Hill Book Co.pp.10-11.
- Osuntogun, M.J. (2007). Needs in Education. *British Journal of Educational Studies* (14):18-19.
- Sigman, V.A. & Swanson, B.E. (1984) Utilization of Technology: The Corner-stone of Agricultural Development policy and Programmes. In: B.E. Swanson (Ed.). *Agricultural Extension: A Reference Manual*. 2nd ed. Food and Agricultural Organization of the United Nations, Rome, Italy, pp.227-228.

