



## Research Paper

# Training Needs Analysis and Factors Affecting Animal Science Lecturers' Job Performance in Tertiary Institutions of Abia State, Nigeria

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The training needs and factors affecting Animal Science Lecturers' job performance in tertiary institutions of Abia State, Nigeria were investigated. Thirty (30) Animal Science lecturers were purposively selected from Michael Okpara University of Education, Umudike and the Abia State College of Education Technical, Arochukwu to represent the sample population for the study. The instrument used for data collection was a structured questionnaire. The most preferred trainings needed by the lecturers were the information and technology communication (ICT) skills among others. These training needs can be fulfilled through in-service training programmes, short/certificate courses, awards of post doctoral/internships/fellowships, attending the Nigerian Institute of Animal Science (NIAS) Mandatory Continuing Education Programmes (MCEPs), engaging in online/e-learning programmes, conferences, workshops, seminars and field trips. Inadequate finance, lack of time and poor scheduling of training programmes, poor institutional financial support/sponsorship,

poor institutional facilities to implement the learning experiences after training and ignorance on the existence of educational/training programmes were identified as impediments to fulfilling their training needs. It is recommended that, the University authorities should establish a Directorate of exchange and linkage that could help in sourcing for training opportunities/programmes, lecturers should be properly trained in information communication and technology (ICT) skills to gain requisite knowledge in the use of computers to source for training for opportunities. Finally, the university authorities should provide adequate institutional facilities such as laboratories, equipment, etc to enable the lecturers trained in a particular area of expertise to effectively implement their learning experiences after training.

**Keywords:** Animal Science, Lecturers, Tertiary institutions, Training needs, Job performance.

## INTRODUCTION

Training is defined as the act of increasing the awareness and skills of an employee in undertaking a particular job (Farinde and Ajayi, 2005). It is mostly directed at improving the ability of individuals to make their vocation more effectively and efficiently. It for the most part includes procuring data and creating capacities or states of mind, which will bring about more noteworthy abilities in the execution of a work by a person (Farinde and Ajayi,

2005). Therefore, additional training can reduce, if not eliminate, the gap, by equipping Animal Science lecturers with knowledge and skills as well as encouraging them to build and enhance their capabilities.

It is explained, that in the future, the role of Animal Science lecturers will result in improved student learning, but will require them to have broader capabilities than content, knowledge and pedagogy skills. Thus Animal Science

lecturers will need to be technologically competent and gain the right knowledge in their profession to cope with the challenges of the modern day innovations in their field of study.

The quality of teaching in the Faculties of Agriculture in the tertiary institutions in Nigeria depends on the quality of the lecturers which, in turn, depends to some extent on the quality of their professional development. Without well trained, qualified and dedicated lecturers, it will be impossible to deliver an effective functioning educational system (Unwin, 2005). Therefore, to overcome the challenges of globalization to meet the animal protein sufficient to cope with malnutrition, lecturers are required to gain the necessary skills and knowledge. According to Smaldino *et al.*, (2008), the teacher in tomorrow's classrooms needs to exemplify willingness to explore and discover new technological capabilities that will enhance and expand learning experiences. In this regards, professional development or training programmes for Animal Science lecturers becomes essentially very important.

Consequently, there is the need to examine the existing need for training in a profession within an institution. This is pertinent to identify performance areas where training should be applied. It is therefore very important to carry out a needs assessment analysis. Needs Assessment is the process of evaluating the organization, individual employees, and employees' tasks to determine what kinds of training, if any, are necessary (Noe *et al.*, 2009). Applying needs analysis before a lecturer-training program defines the fields in which they need to develop their skills. This will provide a baseline against which the training accomplishment can be measured.

Although, Animal Science lecturers in tertiary institutions view themselves as to be educated and certain, be that as it may, because of the new desires and difficulties and present day developments, they have an impression of a crevice between their current knowledge and what they have to know to upgrade their research and teaching.

Subsequently illustrating their preparation needs turns into an inescapable practice to upgrade their performance. Therefore, the purpose of this study is to analyse the training needs of Animal Science Lecturers for better job performance in Tertiary Institutions of Abia State, Nigeria.

## METHODOLOGY

### Design of the study

The research adopted the field survey design to assess the training needs and factors affecting Animal Science Lecturers for better job performance in tertiary institutions of Abia State, Nigeria. The survey was carried out by means of a structured questionnaire.

### Area of the study

The research was conducted in all the Universities and Colleges of the Faculties and Departments of Agricultural Science of all the tertiary institutions offering Animal Science in Abia State: Michael Okpara University of Education, Umudike and the Abia State College of Education Technical, Arochukwu.

### Population and sampling technique

The population of the study comprised of all Animal Science lecturers in Michael Okpara University of Education, Umudike and the Abia State College of Education Technical, Arochukwu respectively. Thirty (30) of these lectures were purposefully selected to represent the sample population for the study.

### Description of research instrument

The instrument used for data collection in the course of this study was a structured questionnaire. The questionnaire was sub-divided into four (4) sections. Section A was designed to obtain the personal data of the respondents (lecturers). Section B was designed to elicit information on the training needs of Animal Science Lecturers. The items in this section were responded to on a 3-point Likert scale of Strongly Needed (SN) – 3; Needed (N) – 2 and Not Needed (NN) – 1. Section C was designed to elicit information on the various trainings attended by the Animal Science Lecturers that will fulfil their training needs. The items in this section were responded to by a simple Yes or No by the lecturers. Section D was designed to elicit information on the factors that may influence or hinder Animal Science Lecturers from attending training programmes. The items in this section were responded to on a 4-point Likert scale of Strongly Agree (SA) – 4; Agree (A) – 3; Disagree (D) – 2 and Strongly Disagree (SD) – 1.

### Data analytical procedure

Data were analyzed using frequencies, percentages and statistics mean. With the mean established at 2.0 (i.e. the summation of the 3 i.e.  $3 + 2 + 1 = 6$  divided by 3), any item having the mean of 2.0 and above was considered to be "Needed", while the one with the mean less than 2.0 was considered "Not Needed" for the responses to the items on Section C. Similarly, with the mean established at 2.5 (i.e. the 4 i.e.  $4 + 3 + 2 + 1 = 10$  divided by 4), any item having the mean of 2.5 was considered as an "Agreed factors", while the one with the mean less than 2.5 was considered as a "Disagreed factors" respectively, for the responses to the items on Section D.

## RESULTS AND DISCUSSION

### General information on the animal science lecturers

Table 1 shows the general information of the Animal Science lecturers in the tertiary institutions expressed in percentages. The results obtained revealed that a greater proportion (36.7%) of the Animal Science lecturers from which information on this study were elicited were within the age limits of 36 – 41 years, while 26.7% were from 48 years and above, while 23.3% were within the age range of 35 years and below. Those that fell within the age range of 42 – 47 years were 13.3%. This distribution pattern suggested that majority of the lecturers are matured in age. This implies that they will be able to take rational decisions in improving teaching and research in their various areas of specialization in Animal Science (Akinlagbe and Baiyeri, 2011). Similarly, it was revealed that higher proportions (46.7%) of lecturers had MSc degrees. About 33.3% and 16.7% of them had PhD and BSc/B. Agric degrees, respectively, while 3.3% of them had an HND degree. Similarly, reports on the table reveal a higher proportion (30.0%) of lecturer II, followed by senior lecturers (26.7%), lecturer I (16.7%), associate professors (10.0%), assistant lecturers (6.7%) and 3.3% of professors, graduate assistants, and technologists respectively. Out of these lecturers, a greater proportion (33.3%) specialized in Animal Nutrition and Biochemistry, followed by 16.7% that specialized in Animal Breeding and Genetics and Ruminant Animal Production and Nutrition respectively, 10.0% specializing in Animal Production and Management and 6.7% in Poultry Management and Production and Animal Products respectively. The results also revealed that a higher proportion (70.0%) had spent less than 5 years in lecturing, while 13.3% had spent between 6 and 10 years in lecturing. About 10.0% had spent between 11 and 15 years in service, while the remaining 6.7% had spent between 16 and 20 years. Majority (83.3%) of the lecturers were married, while 16.7% were single. Similarly, majority (73.3%) of the lecturers were males, while 26.7% were females.

### Training needs of animal science lecturers

Table 2 shows the responses of the Animal Science Lecturers as regards the trainings need in order of preference. The results revealed that the lecturers needed to be trained in all the items outlined in Table 2. The order of preference for various trainings needed by order of decreasing mean values by the lecturer was in the order of Information and Technology Communication (ICT) skills > Feed mill Management > Poultry Farm Layout Designing and Management > Hatchery Management > Fundable Research Proposals > Entrepreneurship and Agri-business development >

Slaughter House Solid Waste Management > Fundable Agri-business Plans > Integrated Crop-livestock Management > Artificial Insemination and Ultrasonography > Application of Assisted Reproductive Technique (ARTs) > Biometrics for Livestock Research > Promotion of Value Added Livestock Products with HACCP Compliance for Export > Fodder production and preservation > Dairy Industry Operations > Hazard Analysis and Critical Control Points (HACCP) in Meat Handling and Processing > Sustainable Use of Animal Genetic Resources > Fattening and Feedlot Operations > Gene Bank Management > Lobbying and Advocacy Skills. The most preferred/relevant trainings needed by the lecturers within the first fifth positions were: Feed mill Management, Information and Technology Communication (ICT) skills, Poultry Farm Layout Designing and Management, Hatchery Management, Fundable Research Proposals respectively (Table 2). Consequently, five least preferred training needs by the lecturers were: Hazard Analysis and Critical Control Points (HACCP) in Meat Handling and Processing, Sustainable Use of Animal Genetic Resources, Fattening and Feedlot Operations, Gene Bank Management and Lobbying and Advocacy Skills (Table 2). The preference of ICT as one of the major training needs required by lecturers may be due to the conviction that the lecturers have, that computer technology has come to stay and that computer technology holds the promise of increased productivity towards achieving the University's goals as stated in the National Policy on Education which include: teaching, research and the dissemination of existing and new Information (Nwachukwu and Asom, 2015). Similarly, the findings in this study is in consonance with the technical trainings needed by livestock keepers, professionals as well as many National Agricultural Research Systems (NARS) scientists reported in South Asia by Ibrahim (2007). Although the trainings needed by the lecturers in this study, where in no particular order similar to those reported in South Asia by Ibrahim (2007), they to some extent, emphasize similar training demands in certain areas such as, biometrics, bioinformatics, value-addition with HACCP compliances for export, sustainable use of animal genetic resources, management of gene bank, proposal writing, scientific writing, effective communication as well as value chain analysis.

### Educational/training programmes for animal science lecturers

Table 3, outlines some Educational/training programmes that can fulfil the training needs of Animal Science Lecturers in the study. Majority (76.7%) of the lecturers explained that they can fulfil their training needs by acquiring higher degrees through in-service training programmes. This is because in-service education is

**Table 1.** General information of the animal science lecturers in the tertiary institutions.

Question item	Response	No. of Respondents	Percentage
Age	Below 35 years	7	23.3
	36 – 41 years	11	36.7
	42 – 47 years	4	13.3
	48 years and above	8	26.7
	Total	30	100
Highest Qualification	PhD	10	33.3
	MSc	14	46.7
	BSc	5	16.7
	HND	1	3.3
	Total	30	100
Rank/Current position	Professor	1	3.3
	Associate Professor	3	10.0
	Senior Lecturer	8	26.7
	Lecturer 1	5	16.7
	Lecturer 11	9	30.0
	Assistant Lecturer	2	6.7
	Graduate Assistant	1	3.3
	Technologist	1	3.3
	Total	30	100
Area of Specialization	Animal Physiology & Reproduction	3	10.0
	Animal Breeding and Genetics	5	16.7
	Animal Products	2	6.7
	Ruminant Animal Production & Nutrition	5	16.7
	Animal Nutrition & Biochemistry	10	33.3
	Poultry Management & Production	2	6.7
	Animal Production & Management	3	10.0
	Total	30	100
Years of Experience	1 – 5 years	21	70.0
	6 – 10 years	4	13.3
	11 – 15 years	3	10.0
	16 – 20 years	2	6.7
	21 years and above	0	0.0
	Total	30	100
Marital Status	Married	25	83.3
	Single	5	16.7
	Widow/Widower	0	0.0
	Total	30	100
Sex	Male	22	73.3
	Female	8	26.7
	Total	30	30

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necessary and appropriate when people need special training to correct deficits in their skills (Daresh and Playko, 1995). It also involves activities designed to improve their knowledge and skills especially when still employed by the school system (Ali Shah *et al.*, 2011). Majority of the lecturers (86.7%) agreed that they could actually fulfil their training needs by attending short/certificate courses in some world class training centres like the Centre for Development Innovation, Wageningen UR in Netherlands and other Mandatory Continuous Professional Education (MCPE) courses by the Nigerian Institute of Animal Science (NIAS) (NIAS, MCPE, 2015). This is in agreement with the fact that all lecturers and administrators must constantly study in order to keep up with advances in the subject matter of their profession as well as in the theory and practice of teaching and research and that, continuous training and education is needed to keep the professionals abreast new knowledge and to release creative abilities (Mehmood,

2008).

Furthermore, majority of the lecturers: 93.3%; 83.3%; 80.0%; 90.0%; 80.0%; 93.3% and 76.7% agreed that they could actually fulfil their training needs by awards of post doctoral/internships/fellowships, attending the Nigerian Institute of Animal Science (NIAS) Mandatory Continuing Education Programme (MCEP), engaging in online/e-learning programmes, attending conferences, workshops and seminars and as well as embarking on field trips, excursions or agricultural shows respectively. These programmes described could be described collectively as Continuing Professional Development (CPD) programmes (Bell, 1991). The lecturers in Animal Science deemed it fit to attend any of these programmes because they are natural learning experiences or consciously planned activities, which are intended to be of direct or indirect benefit to them, their colleagues and

**Table 2.** Training needs of animal science lecturers by order of preference.

Training	1	2	3	ΣF	N	$\bar{X}$	Decision	Order of Preference
Artificial Insemination and Ultrasonography	2	12	16	74	30	2.46	Needed	10 <sup>th</sup>
Application of Assisted Reproductive Technique (ARTs)	0	17	13	73	30	2.43	Needed	11 <sup>th</sup>
Gene Bank Management	4	11	14	68	30	2.27	Needed	19 <sup>th</sup>
Sustainable Use of Animal Genetic Resources	4	12	14	70	30	2.33	Needed	16 <sup>th</sup>
Feed mill Management	0	7	23	83	30	2.77	Needed	1 <sup>st</sup>
Hazard Analysis and Critical Control Points (HACCP) in Meat Handling and Processing	3	14	13	70	30	2.33	Needed	16 <sup>th</sup>
Poultry Farm Layout Designing and Management	2	7	21	79	30	2.63	Needed	3 <sup>rd</sup>
Hatchery Management	1	9	20	79	30	2.63	Needed	3 <sup>rd</sup>
Fattening and Feedlot Operations	3	15	12	69	30	2.30	Needed	18 <sup>th</sup>
Dairy Industry Operations	3	13	14	71	30	2.37	Needed	15 <sup>th</sup>
Fodder production and preservation	3	12	15	72	30	2.40	Needed	13 <sup>th</sup>
Promotion of Value Added Livestock Products with HACCP Compliance for Export.	3	15	12	72	30	2.40	Needed	13 <sup>th</sup>
Slaughter House Solid Waste Management	1	12	17	76	30	2.53	Needed	7 <sup>th</sup>
Biometrics for Livestock Research	0	17	13	73	30	2.43	Needed	11 <sup>th</sup>
Lobbying and Advocacy Skills	3	18	9	66	30	2.20	Needed	20 <sup>th</sup>
Integrated Crop-livestock Management	0	16	14	74	30	2.47	Needed	9 <sup>th</sup>
Fundable Agri-business Plans	1	13	16	75	30	2.50	Needed	8 <sup>th</sup>
Fundable Research Proposals	0	11	19	79	30	2.63	Needed	3 <sup>rd</sup>
Information and Technology Communication (ICT) skills	0	7	23	83	30	2.77	Needed	1 <sup>st</sup>
Entrepreneurship and Agri-business development	1	11	18	77	30	2.57	Needed	6 <sup>th</sup>

Questionnaire items Adopted from NIAS Research and Extension Department, 2015; 1 = Not Needed; 2 = Needed; 3 = Strongly Needed.

their Universities aimed at contributing to the quality of education in the classroom (Day, 1999). Furthermore, there has been a widespread agreement that continuing professional development is the best possible answer to meet complex challenges which benefits the individual and the school system (Steyn, 2010) and that, these approaches appear to positively impact on the quality of teaching and learning aimed at bridging the achievement gaps amongst learners (Pitsoe and Maila 2012). Consequently, CPD in teaching profession are seen as a structured approach to learning that helps to ensure competence to practice of the lecturers, acquiring information, and taking in knowledge, skills and application of practical experience (Adu and Okeke, 2014).

### Personal and institutional factors affecting the training needs of animal science lecturers

Table 4 outlines some personal and institutional factors affecting the training needs of Animal Science Lecturers for better job performance in the study area. The lecturers agreed that inadequate finance, lack of time and poor scheduling of training programmes, poor institutional financial support/sponsorship, poor institutional facilities to implement my learning experiences after training and ignorance on the existence of educational/training

programmes hinders them from meeting their training needs and/or nonattendance to trainings in their lecturing job.

The findings is in agreement with Adu and Okeke, (2014) who also showed that insufficient resources to implement learning and insufficient money to pay for courses were among the factors inhibiting their participation in CPD or their training needs. Findings also revealed that, CPD programme content were not well focused and structured and lecturers' workload hindered their ability to participate in CPD. Conversely, the lecturers did not agree that lack of prerequisite academic qualification, too much family responsibilities, insufficient years of service and age limits disqualify them from meeting up with their training needs.

### Conclusion and Recommendations

Analyzing the training needs of Animal Science lecturers is an inevitable practice to enhance lecturers job performance. The most preferred training needs of Animal Science lecturers revealed are : information and technology communication (ICT) skills, feed mill management, poultry farm layout designing and management, hatchery Management and fundable research proposal writing. Conversely, amongst the couple of training needs identified by the Animal Science

**Table 3.** Educational/training programmes that can fulfil the training needs of animal science lecturers.

Educational /Training programmes	Yes		No	
	Response	%	Response	%
Acquisition of higher Degrees through in-service trainings	23	76.7	7	23.3
Short/Certificate courses in World class training centre like the Centre for Development Innovation, Wageningen UR in Netherlands, etc.	26	86.7	4	13.3
Post Doctoral/Internships/Fellowships	28	93.3	2	6.7
The Nigerian Institute of Animal Science (NIAS) Mandatory Continuing Education Programme (MCEP)	25		5	
Online/E-learning	24	80.0	6	20.0
Conferences	27	90.0	3	10.0
Workshops	24	80.0	6	20.0
Seminars	28	93.3	2	6.7
Field trips/Excursions/Agricultural shows	23	76.7	7	23.3

**Table 4.** Personal and institutional factors affecting the training needs of animal science lecturers for better job performance.

Factors	4	3	2	1	ΣF	N	X	Decision
Inadequate finance hinders me from meeting my training needs in my lecturing job.	13	8	7	2	92	30	3.06	A
Lack of time and poor scheduling of training programmes hinders me from meeting my training needs in my lecturing job.	9	9	7	5	91	30	3.03	A
Poor institutional financial support/sponsorship hinders me from meeting my training needs in my lecturing job.	8	14	3	5	85	30	2.83	A
Lack of prerequisite academic qualification hinders me from meeting up my training needs in my lecturing job.	6	6	7	11	67	30	2.23	D
Too much family responsibilities hinder me from meeting my training needs in my lecturing job.	4	6	12	8	66	30	2.20	D
Poor institutional facilities to implement my learning experiences after training hinders my nonattendance to trainings in my lecturing job	5	18	3	2	82	30	2.73	A
Insufficient years of service disqualify me from meeting my training needs in my lecturing job.	3	11	11	5	72	30	2.40	D
Age limits disqualify me from meeting my training needs in my lecturing job.	7	4	7	12	66	30	2.20	D
Ignorance on the existence of Educational/training programmes hinders me from meeting my training needs in my lecturing job.	6	4	12	18	78	30	2.60	A

1 = Strongly Disagree; 2 = Disagree; 3 = Agree; 4 = Strongly Agree; A = Agree; D = Disagree.

lecturers in this study, the least preferred training needs were: Hazard Analysis and Critical Control Points (HACCP) in Meat Handling and Processing, Sustainable Use of Animal Genetic Resources, Fattening and Feedlot Operations, Gene Bank Management and Lobbying and Advocacy Skills. The essence of these trainings is to keep them abreast of new knowledge and to release creative abilities that will enhance their job performances. Similarly, in as much as the lecturers agree to the importance of these trainings to their teaching profession and subsequent job performance, factors such as inadequate finance, lack of time and poor scheduling of

training programmes, poor institutional financial support/sponsorship, poor institutional facilities to implement the learning experiences after training and ignorance on the existence of educational/training programmes were identified as factors that could hinder them from meeting their training needs and/or non attendance to trainings in their lecturing jobs. On the contrary, the lecturers disagree that lack of prerequisite academic qualification, too much family responsibilities, and insufficient years of service and age limits does not in any way deprive them from meeting up with their training needs. Therefore, it is recommended:

(a) University authorities should establish a Directorate of exchange and linkage that could be saddled with the responsibility of sourcing for opportunities that can provide in-service trainings, post doctoral fellowships, internships, etc. that can complement the training needs of the lecturers for better job performance.

(b) The lecturers should be properly trained in the area of information communication and technology (ICT) by their Universities to enable them acquire the requisite knowledge in the use of computers and be able to surf the web to search for opportunities for post doctoral awards and fellowships.

(c) The University authorities should provide adequate institutional facilities such as laboratories, equipment, etc to enable the lecturers trained in a particular area of expertise to effectively implement their learning experiences after training.

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