SKILL IMPROVEMENT NEEDS IN RE-ENGINEERING NOMADIC TEACHERS IN CATTLE FEEDS AND FEEDING, RANGE AND PASTURE MANAGEMENT IN NIGER STATE

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Abstract

This study was conducted to identify skill improvement needs in re-engineering nomadic teachers in cattle feeds and feeding range and pasture management. The research formulated two research questions in accordance with what the study sought to find out. Structured questionnaire was developed and used for the study. Data collected were analyzed using mean and deviation to answer the research question. The finding of the study revealed that skill improvement are needed by nomadic teachers in animal feeds and feeding, animal range and pasture management.

Government's need is not just the provision of quantitative educations at reasonable distance to its citizens but putting in proper place the important conditions for the quantitative education to be accessible to all citizens especially at the primary and secondary levels. In support of this, Aminu (1998) declared that wandering clans of Nigeria cattle rearers are as much part of Nigeria as any other tribe. He further stated that it is therefore right that they also partake of the same right and privileges as the rest of other tribes in the country.

The aims and objectives of nomadic education as derived from Nomadic Education Blueprint (1986) stressed on the acquisition of knowledge and skills to enable the nomads improve their income earning capacities in the area of animal production.

For the above aims and objectives to be realized as stated in the nomadic education blueprint, there is the need to provide nomadic teachers who are usually fulbe with intellectual and professional background adequate for their assignment and to make them adaptable to any changing situation (NPE, 2004). The National Commission for Nomadic Education also organizes seminars and workshops for nomadic teachers to improve their knowledge and skills (NCNE 1999). Based on this, it becomes necessary that the skill of nomadic teachers in animal feeds and feeding, range and pasture management needs re-engineering for employment and productivity. Okorie (2000) referred to skill as expertness, practice, ability, dexterity and tact. Skill and knowledge are inseparable entities. There is no element of differentiation between them. However, all skills are dependent on some form of knowledge. So re-engineering and improving the nomadic teachers skills in cattle feed and feeding, range and pasture management implies that the nomadic teachers have some skills but need more. Olaitan et al, (2000) stressed that skills needed for improvement assumes that the teachers already have some skills but needs more for better performance.

This lack of improvement and re-engineering had led to shortage of animal protein in human diets because the nomad cannot meet up in their production capacity considering the increasing population of the people and demand for animal protein.

Statement of the Problem

Acquisition of knowledge and skills is emphasized in the long term objectives of nomadic education to enable the nomads improve their income earning capabilities through mixed farming, land acquisition and consequent development of grazing reserves and settlement, proper grazing management including effective use of good variety of fodder (grasses and legumes improvement) modern scientific livestock breeding and scientific treatment of animal diseases. (B.N.E., 1986)

The above long term objective are yet to be realized specifically in the areas of cattle feeds and feeding, range and pasture management due to inadequate modern scientific knowledge and skills on feeds and feeding, range and pasture management of nomadic teachers. The inadequate knowledge and skills of nomadic teachers in these areas affects the cattle production of the nomads. Most of the cattle died of nutritional deficiency diseases, with increase in the cost of production which affect the profit of the nomads and result in shortage of animal protein in human diet.

This study is conducted in order to improve the nomadic teachers knowledge and skills in the areas of cattle feeds formulation and feeding, range and pasture management. This in turn will help to improve the cattle production skills and socio-economic life of the nomads in particular and Nigerians at large.

Research Questions

The following research questions were formulated to guide the study:

1. What are the skills improvement needed in feeds and feeding by nomadic teacher in cattle production
2. What are the skills improvement needed in range and pasture management by nomadic teachers?

Methodology

Design

This is a survey research in which nomadic teacher in the three emirate councils of Niger State were used.

Population/Sampling

There are 100 nomadic teachers in three emirate council which comprise of 12 B.Ed, 7 B.Sc, 76 NCE and 5 HND Nomadic teachers. There was no sampling, all the no nomadic teachers were used for the study.

Instrument for Data Collection

The instrument has two section - section A Qualification of the nomadic teachers while section B of the instrument contained (16) items eliciting information from the respondents.

Validation of the Instrument

The instrument was given to two (2) experts in the department of agriculture education and one (1) expert in measurement and evaluation in the department of education in College of Education Minna for criticism and suggestions.

Reliability of the Instrument

Copies of the questionnaire were administered to ten (10) nomadic teachers and ten (10) nomadic extension workers.

The internal consistency was determined by analyzing the data obtained from the exercise using Cronback Alpha Reliability Coefficient of 0.92 obtained was considered adequate.

Method of Data Collection

The instrument was administered to 100 nomadic teachers through personal contact with the help of two research assistants. All the questionnaire were collected and used for the study. It took one month to retrieve the instrument because nomadic schools are located in remote areas.

Method of Data Analysis

The data collected from the respondent were analyzed using frequency table and mean. This mean and frequency were used to answer research question.

A mean score on each item that is greater or equal to 3.50 and above stand for needed while a mean score of less than 3.50 stands for not needed. The limit of each response category that was used for interpreting the data is as follows:-

Table 1:
Real or Bounding Limits of Numbers of Nominal Value for Interpreting Mean Scores

Response category	Upper limit	Assigned value	Lower limit	Cut-off point	Decision
Very Highly Needed	5.00	5	4.5		Needed
Highly Needed	4.49	4	3.5		3.50 above &
Averagely Needed	3.49	3	2.50	3.50	
Slightly Needed	2.49	2	1.50		
Not Needed	1.49	1	1.00		Below 3.50 Not Needed

Result
The result of the study are presented below in accordance with research questions.

Research Question 1

What are the skills improvement needed in cattle feeds and feeding by nomadic teachers?

Table 2
Mean Rating of Nomadic Teachers on Skill Improvement Needed in Cattle Feeds and Feeding by Nomadic Teachers in Niger State

S/NO	Identified skills in feeds and feeding	NIRS X	Decision
1	Identify the feeding standard of locating cattle.	4.65	Needed
2	Formulation of ration and diet for cattle.	4.33	Needed
3	Identifying types of animal feeds.	4.00	Needed
4	Sourcing out food stuff for feed preparation.	4.51	Needed
5	Preparing feeds for breeding cattle.	4.10	Needed
6	Formulating feeds for pregnant cattle.	3.68	Needed
7	Identifying methods of processing feeds to improve palatability.	3.76	Needed
8	Formulation of balance ration.	3.59	Needed
N=100	Grand Mean	32.62	

Note: X = Grandmean N=100; df=98; NN = Not Needed
ND = Needed NTRs = Nomadic Teachers.

From the analysis presented in table 2 above, all the items had mean responses greater than 3.50. This indicates that the respondents who are nomadic teachers needed skill improvement in cattle feeds and feeding to enable them improve the skill of the nomads that are their students.

Research Question 2

What are the skills improvement needed in Range and Pasture Management by nomadic teachers?

Table 3

Mean Rating of Nomadic Teachers on Skill Improvement needed in Cattle Range and Pasture Management by Nomadic Teachers in Niger State

S/NO	**Identified skills in Range and Pasture Management**	**NIRS X**	**Decision**
9	Managing pasture land efficiency.	4.87	Needed
10	Identifying the various grasses.	4.25	Needed
11	Identify methods of improving pasture.	3.57	Needed
12	Irnproving the palatability of pasture.	3.92	Needed
13	Ability to carryout forage preservation.	3.77	Needed
14	Identify the various characteristics of good pasture.	3.53	Needed
15	Identifying legumes and cereals used in pasture.	3.68	Needed
16	Identifying common storage or pasture.	4.14	Needed
	N = 100 Grand Mean	31.73	

Note: X = Grand mean N=100; df=98; NN = Not Needed
NO = Needed NTRs = Nomadic Teachers.

The analysis presented in table 3 above indicates that items number 9, 10, 11, 12, 13, 14, 15, 16 has mean response scores above 3.50. This indicates that the respondents who are nomadic teachers agree to improve their skills on those items.

Discussion

RQ1: Skills Improvement Needed in Animal Feeds and Feeding by Nomadic Teachers in Niger State

The study also shows that skills improvements are needed by the nomadic teachers in animal feeds and feeding. This will enhance the right amount of feeds to be given to livestock at any stage of development. Some of these skills that need improvement are identifying feeding standards of lactating cattle, formulation of ration, and diet, identifying types of animal feeds, preparing feeds for pregnant cattle, identifying methods of processing feeds to improve palatability, formulation of balance ration. The finding in respect to the research question agreed with the finding of Akinsanmi (1988) who stated that animals need food for their daily growth. This food is called feeds. In addition, he reported that the art of feeding deals with the application of the knowledge gained from the investigation to suit or satisfy the body need of the animals in different conditions. Skills of the nomadic teachers on the right amounts of nutrient required by animal need to be improved based on the findings of this study. And this is in agreement with McDonald (1998) who reported that the statement of the amounts of nutrient required by animals are described by the term "feeding standards". From the study the nomadic teachers need improvement on feed processing to improve palatability. This is in accordance to the view of Chatsworth (1992) who stated that feed processing may be accomplished by physical, chemical and thermal bacterial or other alteration of a feed ingredient before it is fed. He also mentioned that feed may, however, be processed to alter the physical form of particle, size, preserve to isolate specific parts, to improve palatability.

RQ2: Skills Improvement Needed in Animal Range and Pasture Management by Nomadic Teachers in Niger State

It is revealed from the study that nomadic teachers need improvement in range and pasture management. These skills that require improvement are managing pasture land efficiently, identifying various grasses, identifying methods of improving pasture, improving the palatability of pasture, ability to carry out forage preservation, identifying legumes and cereals, use in pasture. This

finding on range and pasture management is in accord with the view of Sastry and Thomas (1988) who stated that animals thrive on pasture and that excess pasture or forage can be processed into hay, silage, cruproces for dry season feeding. Considering this it becomes fundamental to improve the skills of nomadic teachers in range and pasture management, for the nomadic teachers also in turn improve the skills of the nomad. The needs for improvement of nomads through nomadic teachers in animal range and pasture management becomes desirable because Lamorade (1977) stated that seasonal fluctuations in weight adversely affect the productivity of the nomadic cattle. The finding also agreed with Voison (1978) who stressed that a good pasture should contain favourable grass and legume ration, because legumes increase the protein content of the pasture and palatability as well as increase the nitrogen content of the soil. He also added that good pasture must contain high quality grasses, good proportion of legumes and a very small fraction of local weeds.

Conclusion

On the basis of the above finding, the following conclusions were drawn: Nomadic teachers in Niger State have inadequate skills on feeds and feeding of livestock. Also, skill improvement are needed by nomadic teachers on how to manage pasture land efficiently, identifying various grasses, identifying methods of preserving pasture, improving palatability of pasture, ability to carry out forage preservation, identifying characteristics of pasture, identifying legumes and cereals used in pasture and identifying common forage or pasture.

Recommendations

The following recommendations were drawn based on this finding:

1. Serving nomadic science teachers should be experts in the field of cattle production and therefore, should be made to undergo in-service training and short time courses in cattle production.
2. Skill and practical oriented teachers with high professional competency should b~ employed to teacher cattle production in nomadic schools

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