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Effect of Skills Training Among Poultry Farmers in Eleme Local Government Area in Rivers State

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ABSTRACT

The study was on the effect of skills training among poultry farmers in Eleme Local Government Area in Rivers State. The specific objectives of the study were to; describe the socio-economic characteristics, identify the training areas, ascertained the level of poultry farmers involvement in skills training, ascertain the effect of skills training on poultry production among poultry farmers livelihood and examine factors hindering the acquisition of skills training in poultry production among poultry farmers. Multi stage sampling technique was used. Simple random sampling technique was employed to select 60 poultry farmers. Data were collected using questionnaire and interview schedule. Data were analyzed using descriptive statistics and mean score analysis derived from Likert scale. The result revealed that 63.3% were males, 45.0% and 36.7% were of the age limits of 31-40 years and 41-50 years respectively, 58% of the respondents were married. Furthermore, 71.7% indicated farming as their main occupation. High-priority training areas were Chick rearing (95%), disease diagnosis (91.7%), culling/selection (88.3%), and brooding management (83.3%), suggesting that training programs prioritize bird survival and health. The grand mean of 2.72 confirms that, overall, farmers are involved in skills training. The grand mean of 3.31 confirms that skills training has a perceived positive effect on poultry production among the farmers studied. The grand mean of 3.25 confirms that, overall, the identified factors were perceived to hinder the acquisition of skills through training in poultry production among poultry farmers in the study area. The study concluded that poultry farmers in the study area are involved in skill training and have actually acquired skills in poultry production. it was recommended that future training programs should balance technical and economic content, address financial barriers, and ensure equitable access to all training areas.

KEYWORDS: Skills, Training, Poultry, Farmers

How to Cite

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1. Introduction

Background to the study

Agriculture is mostly confronted with problems of acquiring skills that will help facilitate and improve productivity. Agricultural practices have solved problems relating to hunger. Agriculture encompasses of different sectors such as the cultivation of crops and rearing of animals such as poultry birds and other livestock. These birds are mostly reared for their meat, eggs, feather which serves for consumption, source of income and for recreational purposes (FAO, 2022.)

Skills training is a career-oriented method of teaching workplace skills. It is aimed at providing personalized hands-on training to employees looking for employment, in order to equip them with competencies required to perform a particular job. The need for acquiring skill for poultry production cannot be over emphasized. Breeding and health management is notably the most important area of training needs perceived by the response irrespective of the species. To increase the productivity of poultry birds, selection of birds or breed is the first step, so it is perceived that training in breeding is very important. Similarly finding were also reported by (Durggarani & subhadra, 2009) and (Pagaria, 2012). Disease in animals generally causes greater losses, farmers feel the high need for training in health care. Balaraju, (2013) also reported similar findings with respects to effects of training needs in health care.

Skills training are essential in agriculture, it is an important key to producing maximum yield in agriculture, and in turn helps improve lives and development of rural people and the communities at large (Harris & Fuller, 2014). Agriculture is mostly confronted with problems of acquiring skills that will help facilitate and improve productivity (FAO, 2022).

There have been Government and Non-Governmental programmes/policies to provide support for the poultry industry in order to increase production and consequently bridge the gap between the increasing demand and the low supply of poultry products, especially chicken. (FAO, 2008).

Poultry farming industry must take the issue of experience very seriously in terms of technology and current issues that border on poultry farming industry to stand the test of time.

The objective of the study was to know the effects of skills training among poultry farmers in Eleme Local Government Area. The specific objective were to: describe the socio economic characteristics of the farmers, identify the training areas, ascertain the level of poultry farmers involvement in skills training, ascertain the effects of skills training on poultry production among poultry farmers and examine the factors hindering the acquisition of skills through training in poultry production among poultry farmers in the study area.

Materials and Methods

The study area was Eleme local government area, Rivers state, Nigeria. This study adopted descriptive survey design. Simple random sampling technique was employed to select 60 poultry farmers from the study area. Data were analyzed using descriptive statistics and mean score analysis.

Results and Discussions

Socio-Economic Characteristics of the Respondents

Table 1: Socio-Economic Characteristics of poultry farmers in Eleme LGA

Variables	Freq. (n =60)	%	Mean ($\bar{X}$)
Sex			
Male	38	63.3	
Female	22	36.7	
Age (years)			
21 - 30	11	18.3	
31 - 40	27	45.0	35.5 years
41 - 50	22	36.7	
Marital status			
Single	19	31.7	
Married	34	56.7	
Divorced Separated	2 10	3.3 16.7	
Widowed	5	8.3	
Educational Level			
No formal education	9	15.0	
Primary	8	13.3	
Secondary	22	36.7	
Tertiary	21	35.0	
Household size			
1-5	29	48.3	
6-10	27	45.0	6 persons
11-15	4	6.7	
Years of Experience			
1- 3 years	9	15.0	
4 - 6 years	6	10.0	6.25 years
7- 9 years	18	30.0	
10 years and above	27	45.0	
Major Occupation			
Farming	43	71.7	
Civil Servant	6	10.0	
Trader	9	15.0	

Artisan	2	3.3	
Income (₦)			
Less than 20,000	2	3.4	
21,000- 30000	12	20.0	
31,000 - 40,000	9	15.0	₦42,150.
41,000 - 50,000	17	28.3	
51,000 and above	20	33.3	

Source: Field survey, 2023

Result in Table 1 showed that majority (63.3%) of the poultry farmers were males whereas 36.7% were females. This finding agrees with Adisa and Okunade (2005) who reported that since most farming work or activities is energy demanding, hence men tend to be more involved in production while marketing and processing are often the routines of women.

The result in Table 1 also indicated that greater proportion (45.0) of the poultry farmers fell within the age bracket of 31-40years followed by some (36.7%) who fell within 41-50 years and few (18.3%) fell within 21-30 years. Their mean age was 35.5 years. This implied that they were relatively young and economically active. This agrees with (Agwu *et al*. 2012) that the size of labour force in a country is determined by the number of the people in the age group of 15-59 years. Also, (Chikezie *et al*, 2012) revealed that majority of youths are at the productive age where by their energies could be harnessed and utilized for productive venture in agriculture. Therefore, it can be seen that individuals within the ages of 18-40 years are the active segment in the production activities of a country.

Marital status showed that, majority (56.7%) of the poultry were married and so would have more family obligations, whereas (31.7%) were single, (8.3%) were divorced, (16.7%) were separated, and 3.3% were widowed. This finding is in line with (Suleiman *et al*. 2017) who in their study reported that the majority of poultry farmers in Kaduna State were married.

Education level showed that most (36.7%) of the poultry farmers had secondary education as their highest education, 35.0% had tertiary education, 15.0% had no formal education, and only 13.3% had primary education. This indicated that most of the respondents were literate. The high percentage of respondents with formal education may be due to the location of the study area in which educational facilities are easily accessible. This finding is similar to the findings of (Suleiman *et al,* 2017) who reported that educated farmers are more innovative and knowledgeable; therefore, education is expected to have positive association with training needs. (Babatunde & Qaim,2010) stated that education is an important factor in assessment of training needs by poultry farmers. Exposure to formal education can be regard as vehicle for increasing knowledge about new farming ideas, that is, farmers with some forms of education would know better how to seek information on improved systems of poultry production.

Result on family size showed that greater (48.3%) of poultry farmers had family sizes ranging between 1 to 5 persons, while 45.0% had family sizes ranging between 6 to 10 persons and a low percentage 6.7% had household sizes ranging between 11 to15 persons. The mean household size was 6 persons. This implies that poultry farmers in the study area had a fairly large household size. The finding of this study is consistent with that of Obe-Nwaka, Okidim and Worlu (2022) in Obio/Akpor and Emohua LGAs, Rivers state who determined a mean family size of 6 persons among farmers.

Also, the majority (45.0%) of the poultry farmers had above 10 years experience in poultry rearing. While 30.0% had between 7 – 9 years of experience, 15.0% had 1- 3 year and 10.0% had between 4– 6 years experience. The mean years of experience was 6.25 years. This result implies that most of the poultry farmers had been in poultry rearing for some time. The farmers years of poultry experience are expected to serve as a guide to know the appropriate training needs by poultry farmers in the study area. Poultry production experiences may also lead to increased production efficiency and may likely result into better understanding of poultry management.

Occupation shows that most (71.7%) of poultry farmers were farmers, 15.0% were traders, 10.0% were civil servants and 3.3% were artisans. This implies that farming was the major occupation of the respondents in Eleme LGA. This finding agrees with the finding of Obe-(Nwaka *et al*. 2020) who found that most of the respondents in Emohua and Obio-Aknor LGA identified farming as their major occupation.

Moreover, 33.3% of the poultry farmers earned ₦51,000 and above, 28.3% earned between ₦41,000 – ₦50,000, 20.0% earned between ₦21,000 – ₦30,000, 15.0% earned between ₦31,000 – ₦40,000 while only 3.4% of the them earned less than ₦20,000. The mean income was ₦42,150. This indicate that poultry production was dominated by middle income earners. This may be due to the high cost of production that is involved in poultry production. According to (Sonaiya,2011), poultry keeping is an important source of income. The income from the production may seem small, but can be important for the household as they

often can decide upon the use of the money generated.

Areas of training in poultry farming

Table 2: Areas of training in poultry farming

Training areas	Frequency	Percentage
Feed formulation	37	61.7
Vaccination and prevention measures	60	100
Finances and loan facilities	14	23.3
Brooding management	50	83.3
Disease diagnosis and healthcare	55	91.7
Chicks rearing	57	95
Poultry shed & Housing management	29	48.3
Feeding & watering management	36	60
Culling/selection of birds	53	88.3
Value addition	21	35.0
Layer management	44	73.3
Bird/meat/egg marketing	31	51.7
Compost preparation	24	40.0
Chick purchasing	43	71.7
Breeding/mating aspect	34	56.7
Maintenance of records/accounts	29	48.3
Vaccination techniques	44	73.3
Housing techniques	29	48.3
Stocking density	17	28.3
Litter application and type	38	63.3
Sorting and handling eggs	40	66.7

Source: Field survey, 2022, Multiple responses

Vaccination and prevention measures (100%) indicating that all respondents received training in this critical area, reflecting its importance in disease prevention and poultry health.

High-priority areas: Chick rearing (95%), disease diagnosis (91.7%), culling/selection (88.3%), and brooding management (83.3%) are also highly emphasized, suggesting that training programs prioritize bird survival and health.

Moderate emphasis: Areas like layer management, vaccination techniques, chick purchasing, egg handling, litter application, feed formulation, and feeding/watering management fall between 60% and 73.3%, indicating substantial but not universal coverage.

Lower emphasis areas: Value addition (35.0%), stocking density (28.3%), compost preparation (40.0%), and finances/loan facilities (23.3%) received the least attention. This suggests that training programs may neglect economic and entrepreneurial aspects of poultry farming.

The result demonstrates that skills training among poultry farmers in Eleme LGA is comprehensive in technical areas but deficient in economic and entrepreneurial areas.

Level of Poultry Farmers Involvement in Skills Training

Table 3: Level of Poultry Farmers Involvement in Skills Training in Eleme Local Government Area in Rivers State

	HI	I	SI	NI	Total score (TS)	Mean Score ($\bar{x}$)	Remarks
Feed formulation	27	25	5	3	196	3.26	Agreed
Vaccination and prevention measures	48	8	2	2	222	3.70	Agreed
Disease diagnosis and healthcare	29	23	5	3	198	3.30	Agreed
Poultry shed & Housing management	18	25	10	7	174	2.90	Agreed
Value addition	14	19	23	4	163	2.72	Agreed

Layer management	35	11	10	4	197	3.28	Agreed
Bird/meat/egg marketing	20	22	6	12	170	2.83	Agreed
Breeding/mating aspect	21	17	2	8	195	3.25	Agreed
Grand mean						**2.72**	

Source: Field survey 2023 Multiple Responses ≥ 2.5 - Agreed; <2.5 - Disagreed
HI= Highly involved, I= involved

Table 3 presents the level of poultry farmers' involvement in various skills training areas related to poultry production. The table is structured around nine poultry skill areas, with respondents indicating their level of involvement using a three-point scale: Highly Involved (HI), Involved (I), and Not Involved (NI). The total scores and mean scores are computed, with a decision rule of mean ≥ 2.5 = Agreed (Involved) and mean < 2.5 = Disagreed (Not Involved).

The grand mean of 2.72 exceeds the threshold of 2.5, indicating that, on average, poultry farmers in the study area are involved in skills training across all identified poultry production areas. This suggests that farmers are actively participating in training programs designed to enhance their poultry production capabilities. The involvement in various poultry production training implies high level of interest among the poultry farmers as their source of livelihood. The result agrees with the findings of Adeniran *et al.* (2018), Ekerete, Ekanem, and Umoh, (2017) which indicated active participation of the youths in poultry production

The highest level of involvement was recorded in vaccination and prevention measures, with a mean score of 3.70. This indicates that farmers are most actively involved in training related to disease prevention and vaccination. This is critical because poultry production is highly susceptible to disease outbreaks, and vaccination is a key biosecurity measure. The high involvement suggests that farmers prioritize health management training, possibly due to the direct impact of disease on flock survival and profitability.

Closely following is disease diagnosis and healthcare (mean = 3.30), further confirming that farmers place significant emphasis on health-related training. This aligns with the understanding that disease management is a major challenge in poultry production, and farmers seek training to reduce mortality and improve productivity.

Layer management recorded a mean of 3.28, indicating strong involvement. This is expected, as layer production requires specialized knowledge in areas such as lighting, nutrition, and egg handling. Farmers involved in layer production would naturally seek training to optimize egg output and quality.

Feed formulation also recorded a high mean of 3.26. Feed constitutes the largest cost in poultry production (typically 60–70%). Training in feed formulation helps farmers reduce costs by mixing their own feed, improving profitability. The high involvement suggests farmers are aware of this economic benefit.

Breeding/mating aspect had a mean of 3.25, indicating active involvement. This is important for farmers who wish to produce their own stock, improve genetics, or maintain a sustainable flock. The high involvement suggests a desire for self-sufficiency in chick production.

Poultry shed and housing management recorded a mean of 2.90, still above the threshold but lower than the health and nutrition-related areas. This suggests that while farmers are involved, it may not be as prioritized as disease prevention or feed formulation. Housing is important for biosecurity, ventilation, and comfort, but farmers may perceive it as less critical or may lack resources to improve housing.

Bird/meat/egg marketing had a mean of 2.83, indicating moderate involvement. Marketing is essential for profitability, but farmers may have limited access to marketing training or may rely on traditional sales channels. The relatively lower mean suggests that marketing skills training is less emphasized compared to production-related skills.

Value addition recorded the lowest mean (2.72), though still above the threshold. Value addition (e.g., processing eggs into powder, making sausages, packaging) can increase income, but it requires additional capital, equipment, and market linkages. The lower involvement suggests that farmers may not have access to such training or may not see it as immediately relevant to their operations.

However, the relatively lower involvement in value addition and marketing suggests that training in these areas may be less accessible or less prioritized. This could limit the overall effect of skills training on the entire poultry value chain, as farmers may produce more but fail to maximize income due to poor marketing or lack of value-added products. The grand mean of 2.72 confirms that, overall, farmers are involved in skills training.

Table 4: Perceived Effect of Skills Training Among Poultry Farmers

Effect	VGE	E	LE	NE	Total score (TS)	Mean Score ($\bar{x}$)	Remarks
Increase in production	35	15	8	2	203	3.38	Effect
Increase employment	23	20	16	1	185	3.08	Effect
Improve standard of living	40	15	3	2	213	3.55	Effect
Reduction in rural urban migration	24	23	12	1	190	3.17	Effect
Increase income	23	27	6	4	189	3.15	Effect
Improve level of knowledge	39	15	4	2	211	3.52	Effect
Improve management of bird	28	28	3	1	203	3.38	Effect
				Grand mean		3.31	

Source: Field survey 2023 Multiple Responses > 2.5 - Effect; <2.5 – No Effect
VGE= Very Great Effect, E= Effect, LE= Less Effect, NE = No Effect

Table 4 presents seven (7) perceived effect indicators measured on a 4-point Likert-type scale: VGE = Very Great Effect (scored 4), E = Effect (scored 3), LE = Less Effect (scored 2) and NE = No Effect (scored 1). The decision rule is based on a criterion mean of 2.5. Any item with a mean score ≥ 2.5 is regarded as an effect, while any item with a mean score < 2.5 is regarded as no effect.

Improve Standard of Living (Mean = 3.55): This indicator recorded the highest mean score of 3.55, indicating that skills training has a very strong positive effect on the standard of living of poultry farmers. With 40 respondents indicating "Very Great Effect" and 15 indicating "Effect," it is evident that training equips farmers with knowledge and skills that translate into improved livelihoods. This finding aligns with the broader literature on vocational training, which posits that skill acquisition enhances productivity and income, thereby improving living standards.

Improve Level of Knowledge (Mean = 3.52): The second highest mean score was 3.52, showing that skills training significantly enhances farmers' knowledge. Thirty-nine (39) respondents reported a "Very Great Effect," and 15 reported an "Effect." This suggests that training programs are effective in imparting technical knowledge on poultry production, including breeding, feeding, health management, and record-keeping. Improved knowledge is a precursor to improved practices and productivity.

Increase in Production (Mean = 3.38): With a mean score of 3.38, increase in production was perceived as an effect of skills training. Thirty-five (35) respondents indicated "Very Great Effect," while 15 indicated "Effect." This implies that trained farmers are better positioned to apply improved husbandry practices, resulting in higher output. This finding supports the argument that skills training is a catalyst for agricultural productivity.

Improve Management of Birds (Mean = 3.38): This indicator also had a mean score of 3.38, tying with increase in production. Twenty-eight (28) respondents each indicated "Very Great Effect" and "Effect." Proper management of birds, covering housing, feeding, sanitation, disease control, and record-keeping is critical to successful poultry farming. The result shows that training has positively influenced farmers' management capabilities.

Reduction in Rural-Urban Migration (Mean = 3.17): With a mean score of 3.17, skills training was perceived to contribute to the reduction of rural-urban migration. Twenty-four (24) respondents indicated "Very Great Effect," 23 indicated "Effect," 12 indicated "Less Effect," and 1 indicated "No Effect." This suggests that when poultry farming becomes more profitable through enhanced skills, rural dwellers are more likely to remain in their communities rather than migrate to urban areas in search of greener pastures. This finding is consistent with rural development theory, which emphasizes the role of agricultural skill development in stemming rural-urban drift.

Increase Income (Mean = 3.15): The mean score of 3.15 indicates that skills training has an effect on farmers' income. Twenty-three (23) respondents reported "Very Great Effect," 27 reported "Effect," 6 reported "Less Effect," and 4 reported "No Effect." Increased income is a logical outcome of improved production and management. When farmers produce more and manage their birds better, they are able to sell more birds and eggs, thereby increasing their revenue.

Increase Employment (Mean = 3.08): This indicator recorded the lowest mean score of 3.08, though it is still above the criterion mean of 2.5. Twenty-three (23) respondents indicated "Very Great Effect," 20 indicated "Effect," 16 indicated "Less Effect," and 1 indicated "No Effect." The relatively lower mean

suggests that while skills training does contribute to employment generation, its effect is perceived as less pronounced compared to other indicators. This could be because poultry farming is often a family-based enterprise, and the employment effect may be indirect or seasonal.

The grand mean of 3.31 confirms that skills training has a perceived positive effect on poultry production among the farmers studied. The most pronounced effects were on standard of living, level of knowledge, production, and bird management, while the least pronounced, though still important, was on employment generation. These findings validate the premise that investing in farmers' skills is a viable strategy for enhancing poultry production, improving rural livelihoods, and fostering rural development.

Table 5: Mean distribution of factors hindering the acquisition of skills training in poultry production among poultry farmers in the area (n=60)

Factors	SA	A	D	SD	Total score (TS)	Mean Score ($\bar{x}$)	Remarks
Lack of interest	50	7	2	1	226	3.76	Agreed
High training cost	30	25	3	2	203	3.38	Agreed
Inadequate training environment	28	24	5	3	197	3.28	Agreed
Lack of awareness on training information	30	14	9	7	187	3.11	Agreed
Inadequate training fund	32	15	11	2	197	3.28	Agreed
Lack of government support	30	25	3	2	203	3.38	Agreed
Distance to training area	35	19	4	2	207	3.45	Agreed
Inadequate training facilities	14	12	31	3	157	2.62	Agreed
Complicated training session	34	14	11	1	201	3.35	Agreed
Lack of training plans	25	24	7	4	190	3.17	Agreed
Inadequate training provision	26	13	18	3	182	3.03	Agreed
Grand Mean						**3.25**	

Source: Field survey 2023 Multiple Responses ≥ 2.5 - Agreed; <2.5 - Disagreed
SA= Strongly Agreed, A= Agreed, D= Disagreed, SD = Strongly Disagreed

Table 5 presents the mean distribution of factors hindering the acquisition of skills training in poultry production among poultry farmers in the study area (n = 60). The decision rule adopted was that any factor with a mean score of 2.5 and above was regarded as "Agreed" (i.e., a hindering factor), while any factor with a mean score below 2.5 was regarded as "Disagreed" (i.e., not a hindering factor).

Major Hindering Factors (Agreed)

The results reveal that lack of interest ranked highest among the hindering factors with a mean score of 3.76. This suggests that many poultry farmers in the study area are not personally motivated to participate in skills training programmes, possibly because they do not perceive training as beneficial to their operations or because they are comfortable with their current level of knowledge.

Distance to training area (mean = 3.45), high training cost (mean = 3.38), and lack of government support (mean = 3.38) were also identified as significant hindrances. The high cost of training and the long distances farmers must travel to access training venues make participation difficult, especially for resource-poor farmers. The lack of government support further compounds the problem, as farmers receive little or no assistance (financial or logistical) to enable them to attend training programmes.

Other agreed hindering factors include:

Complicated training session (mean = 3.35): indicating that the content or delivery of training is too complex for farmers to understand and apply.
Inadequate training environment (mean = 3.28): suggesting that the venues and conditions under which training is conducted are not conducive to effective learning.
Inadequate training fund (mean = 3.28): implying that there is insufficient funding to organise or sustain training programmes for poultry farmers.
Lack of training plans (mean = 3.17): indicating the absence of a structured, systematic approach to training poultry farmers.
Lack of awareness on training information (mean = 3.11): meaning many farmers do not even know that training opportunities exist or how to access them. Lack of awareness for instance can affect the interest of the poultry farmers by limiting their participation in various training programmes. This finding was in contrast with the study of (Ovharhe *et al,* 2021), who reported that inadequate training and market outlet were the major constraint to poultry training in Ondo state.
Inadequate training provision (mean = 3.03): suggesting that the available training programmes are too few or irregular to meet the needs of farmers.
Inadequate training facilities (mean = 2.62): although close to the cut-off, farmers agreed that this was a major hindrance.
The grand mean of 3.25 is well above the 2.5 threshold, which confirms that, overall, the identified factors were perceived to hinder the acquisition of skills through training in poultry production among poultry farmers in the study area.
These findings suggest that efforts to improve poultry production through skills training must address not only the provision of training but also the motivational, financial, logistical, and structural barriers that prevent farmers from participating in and benefiting from such training. Without addressing these hindrances, the intended effects of skills training on poultry production may not be fully realised.

Conclusion and Recomendations

The study concluded that poultry farmers in Eleme Local Government Area of Rivers State are involved in skill training and have actually acquired skills in poultry production. This finding shows that skills training had effects on poultry farmers production. Based on the outcomes of the study, it was recommended that future training programs should balance technical and economic content, address financial barriers, and ensure equitable access to all training areas.

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