

## **Skill Improvement Needs of Extension Agents for Effective Extension Education Service Delivery in Covid-19 Pandemic Era**

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doi: <https://doi.org/10.37745/bje.2013/vol12n97886>

Published August 24, 2024

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**Citation:** Egbe, B O., Ogba E. I., Oku M.O., and Osomasi R.A. (2024) Skill Improvement Needs of Extension Agents for Effective Extension Education Service Delivery in Covid-19 Pandemic Era, *British Journal of Education*, Vol.12, Issue 9, 78-86

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**Abstract:** *The main purpose of this study was to determine the skill improvement needs of extension agent for effective extension education service delivery in covid-19 pandemic era. This study was carried out in Cross River State. The population of the study was 130 extension agents in the three agricultural zones of the State. There was no sampling: therefore the entire population was involved in the study due to manageable size of the population. The instrument used to collect data was a structured questionnaire developed by the researcher. The instrument was validated by 3 experts, 2 from Federal Ministry of Agriculture Calabar and 1 from Measurement and Evaluation Department of University of Calabar. The data collected were analyzed using Need Gap Analysis. It was found out that Extension Agents need improvement in the pedagogies method, group formation of farmer's method and Information and Communication Technology (ICT) method. It was recommended that conferences and workshops should be organised by ministry of Agriculture for extension pedagogies, group formation and ICT specialists in collaboration with the State Government for effective extension education service delivery.*

**Keyword:** skill, improvement, extension agents, extension education, Covid-19 pandemic.

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### **INTRODUCTION**

The outbreak of COVID 19 caused immediate closure of economic activities in the world. In Nigeria, immediately after the incident case and with the wide spread of the pandemic, the federal government closed the borders of the country, business activities within the various states as a way to check its spread. The effect of this action was the rise in agricultural commodities. Obayori, Nchom and Yusuf (2020) reported that the price of food item rose arbitrarily to 100%. The authors further stressed that the pandemic hit Nigeria hard when farmers associations were

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Publication of the European Centre for Research Training and Development-UK getting set to mobilize resources for cultivation, and this truncated farming activities. For Nigeria's agricultural potentials to be fully realized and productivity increased, there should be effective and massive extension education service Gebrehiwot and Fekadu (2012).

Agricultural extension education service is a system of education which assists farmers and rural people to improve their farming method and techniques increasing production efficiency and income and bettering their level of living (Tsion, 2010). One of the overall goals of agricultural extension education service is to develop well-trained and motivated farmers who will effectively assist in boosting food production in the nation. In the context of this study, Agricultural Extension Education Service aimed at providing farmers with knowledge and skills that could assist them in taking vital decision which would ultimately lead to increase in agricultural production in the pandemic era. Agricultural Extension Education Service get to farmers through extension agents. Agricultural extension agents are trained persons in extension education who are mad to spread agricultural innovations to the rural farmers. National Agricultural Extension and Research Liaison Service (NAERLS, 2015). Extension agents are the most critical element in agricultural extension education service. The effectiveness of the extension agent can often determine the success or failure of an extension program. In this study, extension agents are "change agent", because they help to change the life of rural farmers through extension education. As a result of this change, the lives of the farmers and their families are improved. For extension agents to effectively execute their duties, they should he well skilled in the area of extension services.

Skill can be seen as the ability of an individual to learn and perform certain tasks. Skills are the acquired habit of acting, thinking, and behaving in a specific pattern, in such a way that the process becomes natural to the individual through repetition and practice. To be skilled according to Olaitan and Ali in Asogwa (2013) means the individual has acquired the knowledge, attitude and judgment which are require in other to perform successfully at a specific proficiency level in any given work.

Therefore means extension agents most posses required skill gained through years of training in other to impact the knowledge and attitude to the farmers.

It was observed by the researcher that despite the early introduction of agricultural extension education service to farmers in Cross River State, there has been persistent poor yield of farm produce and food shortages in the state especially in this pandemic era. This situation may have persisted as a result of inability of extension agents to perform their duty effectively, which may be attributed to inadequate extension knowledge and skills. As a result of these situation farmers rarely have good information on the recent innovation and agricultural packages to cushion effects of covid-19. This has consequently leaded to poor yield of farmers produce and food shortages in the State as well as affected the personal development of rural farmers. This situation necessitates this research to determine the improvement need of extension agents for effective extension education service delivery.

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Improvement in the opinion of Ifeanyieze (2014) means a change for better. The author further explained that improvement is an activity undertaken based on meeting the target objectives and satisfaction from lower achievement. With reference to this study, improvement is the process of determining the capability of extension agents and their expected capability in effective extension education services delivery in Cross River State. Skill improvement implies the performance gap to be filling by extension agents for effective extension education service delivery in Cross River State.

In order to determine the improvement of these extension agents they need to be assessed. Need assessment is explained by Ademola, Samuel and Ifedapo (2012) as a type of evaluation used by researchers in determining various areas of need or discrepancies in education. Olufunkanbi (2004) considered need gap as the discrepancy between a current state of affair and a desired future state. The authors maintained that it is the difference that exists between perceived need and felt need. Since the extension agents as revealed during the interaction have low capacity in extension education service delivery coupled with the pandemic era challenges, is therefore necessary to determine their improvement needs in the effective service delivery in Cross River State.

### **Purpose of the study**

The main purpose of the study is to determine the skill improvement needs of extension agents for effective extension education service delivery in Cross River State.

Specifically, the study sought to identify skill improvement needs of extension agents in;

- Pedagogies method in extension services
- Group formation of farms in extension services
- Information and Communication Technology (ICT) in extension services.

### **Research Questions**

The study sought to answer the following research questions:

1. What are the skills improvement needs of extension agents in pedagogies skills in extension education service delivery in Cross River State?
2. What are the skills improvement needs of extension agents in group formation skills in extension education service delivery in Cross River State.
3. What are the skills improvement needs of extension agents in ICT skills in extension education service delivery in Cross River State

### **METHODOLOGY**

The Design for this study was descriptive survey design. The study was carryout in Ikom Local Government of Cross River State. The population of the study is 130 Extension Agents drawn from the six blocks in Ikom agricultural zone. A 40 Item improvement Need Questionnaire (INQ) developed from the content of extension skill need were used to collect data for the study.

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The questionnaire had two components for rating the level of need and level of performance. The level of the need component had four points response option as Highly Needed (HN), Averagely Needed (AN), Slightly Needed (SN) , and Not Needed (NN) with corresponding value of 4,3,2 and 1 respectively. The level performance component also had four point response options of High Performance (HP), Average Performance (AP), Low Performance (LP) and No Performance (NP) with corresponding values of 4, 3, 2, and 1 respectively. The instrument was face validate by three experts; two from Federal Ministry of Agriculture Calabar and one from Department of Measurement and Evaluation University of Calabar. Cronbach Alpha method was adopted to determine the internal consistency of the questionnaire item a coefficient of 0.95 was obtained. Five research assistances were hired and trained by the researcher on how to help administer the instrument on the respondents. One hundred copies of the questionnaire out of 130 were retrieved. The improvement need of extension agent was computed using a gap analysis development by Olaitan and Ndomi (2000) for answering the research questions. The weighed mean need rating for each skill item was represented by  $(\bar{X}_n)$  while the weighted mean performance of respondents for each item was represented by  $(\bar{X}_p)$  was determined to indicate performance gap (PG) which could yield a Zero (0), negative (-ve) or (+ve) values.

- a) A difference of zero (0) indicate that there is no need for improvement because the level at which extension agents were performing the item is equal to that is required.
- b) A negative (-ve) difference implies that there is no need for improvement because the level at which extension agents were performing the item is more than what was required.
- c) A positive (+ve) PG indicate that there is need for improvement because the level at which extension agent were performing the items is lower than what is required

## **RESULTS**

### **Research Question 1**

What are the skills improvement needs of extension agents in pedagogies skills in extension education service delivery in Cross River State?

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**Table 1: Performance Gap Analysis of the Mean Rating of the Pedagogies Skill Improvement Needs by Extension Agent for Effective Extension Education Delivery. (n = 100)**

S/N	ITEMS	$\bar{X}_n$	$\bar{X}_p$	$\bar{X}_n - \bar{X}_p$ (PG)	REMARK S
1	Competences on individual contact method of teaching	3.87	2.64	1.23	IN
2	Group contact method of teaching	3.65	2.43	1.23	IN
3	Use of mass media contact teaching method	3.29	1.28	2.01	IN
4	Farm and home visit technique of extension teaching	3.65	1.45	2.20	IN
5	Method demonstration of extension teaching	3.36	2.24	1.12	IN
6	Group discussion method	3.76	1.56	2.20	IN
7	Skills on farm/field trip method of teaching	3.56	1.49	2.07	IN
8	Skills on office visit techniques	3.75	1.90	1.85	IN
9	Skills on letter writing method of dissemination of information	3.59	2.34	1.25	IN
10	Skills on experimental techniques	3.48	2.10	1.38	IN
11	Skills ability on result demonstration method	3.61	1.28	2.33	IN
12	Skills on Fortnightly Training (FNT)	3.72	1.90	1.82	IN
13	13 Skills on monthly technology review meeting (MTRMS)	3.46	1.87	1.59	IN

$\bar{X}_n$  = Mean of needed, IN = Improvement Needed,  $\bar{X}_p$  = Mean of performance needed, (PG) = Performance Gap.

Table 1 revealed that the need gap values of the thirteen items on extension pedagogies skills need of extension agents ranged from 1.12 to 2.33 and were positive. This indicates that extension agents needed improvement in all the items.

### Research Question 2

What are the skills improvement needs of extension agents in group formation skills in extension education service delivery in Cross River State.

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**Table 2: Performance Gap Analysis of the Mean Rating of Group Formation Skill Improvement Needs by Extension Agent for Effective Extension Education Delivery. (n = 100)**

S/N	ITEMS	$\bar{X}_n$	$\bar{X}_p$	$\bar{X}_n - \bar{X}_p$ (PG)	REMARKS
1	Competences to form formal group	3.24	2.11	1.13	IN
2	Competences to form non-formal group	3.87	2.35	1.52	IN
3	Skill on welfarerism and group interest	3.62	2.18	1.44	IN
4	Skill on interpersonal relationship ability	3.38	1.19	2.19	IN
5	Skill on resolution of group conflicts	3.21	1.56	1.65	IN
6	Skill on group participation spirit	3.45	1.68	1.77	IN
7	Skill on ability to formulate group objectives	3.65	2.17	0.94	IN
8	Skill need group commitment ability	3.26	2.39	0.87	IN
9	Skill on how to increase coverage of farming community	3.23	2.15	1.08	IN
10	Skill on motivating group members to accept agricultural innovations	3.11	1.58	1.53	IN

$\bar{X}_n$  = Mean of needed, IN = Improvement Needed,  $\bar{X}_p$  = Mean of performance needed, (PG) = Performance Gap.

Table 2 revealed that the gap values of the ten items on the group formation of farmers ranged from 0.87 to 2.19 and were positive. This indicated that the extension agents needed improvement in all the ten items of group formation of farmer's method.

### Research Question 3

What are the skills improvement needs of extension agents in ICT skills in extension education service delivery in Cross River State.

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**Table 3: Performance Gap Analysis of the Mean Rating of Information and Communication Technology Skill Improvement Needs by Extension Agent for Effective Extension Education Delivery. (n = 100)**

S/N	ITEMS	$\bar{X}_n$	$\bar{X}_p$	$\bar{X}_n - \bar{X}_p$ (PG)	REMARKS
1	Knowledge on ICT capacity building	3.33	2.11	1.22	IN
2	Skill on the use of audio-visual to explain points to farmers while teaching	3.76	2.16	1.60	IN
3	Skill on computer application to process data in information dissemination	3.21	2.11	1.10	IN
4	Skill on visual instructional materials in teaching agric innovations	3.25	1.38	1.87	IN
5	Skill on the use of multi-media projector for teaching the rural farmers	3.54	1.24	1.30	IN
6	Skill on the use of hand set, to disseminate information by text messages	3.11	1.56	1.55	IN
7	Skill on how to source information in the internet.	3.08	1.47	1.61	IN
8	Skill on the ability of application of white board interactive	3.66	2.61	1.05	IN
9	Skill to use e-mail in information dissemination	3.37	1.63	1.74	IN
10	Skill in the use of whatsapp in information dissemination	3.45	2.71	0.74	IN
11	Skill on the use of Youtube in information dissemination	3.67	2.18	1.49	IN
12	Skill on use of Facebook in information dissemination	3.57	1.78	1.79	IN
13	Skill on the use of Twitter in information dissemination	3.24	2.67	0.57	IN
14	Skill on the use of Telegram in information dissemination	3.19	2.14	1.05	IN

$\bar{X}_n$  = Mean of needed, IN = Improvement Needed,  $\bar{X}_p$  = Mean of performance needed, (PG) = Performance Gap.

Table 3 revealed that the gap values of the fourteen items ranged from 0.57 to 1.87 and were positive. This indicated that extension agents needed improvement in all the fourteen items in ICT for effective extension service delivery.

## **DISCUSSION OF FINDINGS**

The findings of the study revealed that extension agents were deficient in 13 items pedagogies skills improvement needs, 10 items in group formation of farmers and fourteen in Information and Communication Technology (ICT). It therefore means that the extension agents need improvement in the 37 items identified by this study for effective extension education service delivery in the pandemic era. The findings of the study were in agreement with the findings of Obibuaku (2010) who reported that the knowledge and skill in the use of appropriate extension teaching method is necessary for extension agents. He further explained that extension agent should have the skills to use the right teaching method in the dissemination of agricultural innovations. The author further stressed that extension teaching is one of the ways of ensuring effective extension delivery service. This is because knowledge is dynamic and as such the extension agent needs to be updated on the latest on agricultural innovations.

The findings were also in conformity with that of Ekong (2018) who stated that group formation among farmers play a vital role in the adoption of agricultural innovations. He further explained that the ability of the extension agents to organize the farmers to form groups makes effective delivery of extension education services. Farms form group base on numbers of features, such as; Cassava farmer group, Rice farmers group, poultry farmers association and so many others. For extension agents to be relevant in this aspect, there must improve in the skill required in group formation.

The findings of the study were also in agreement with the findings of Wisdom and Joyce (2012) who reported that most extension agents serving the farmers are not ICT compliance and as such, they are deficient of the modern technologies or techniques in extension education delivery. The observation of the Wisdom and Joyce call for retraining of extension agents on ICT to enable them be current with modern global standard in extension service delivery. He further stressed those extension agents who are the key players in the delivery of extension education need necessary training on ICT in the modern extension education service delivery.

## **CONCLUSION AND RECOMMENDATION**

Agricultural Extension Services is a department in ministry of Agriculture. It is expected that extension agents from the department will be competent in discharging their responsibility on the field, but it was observed that extension agents could not deliver their services effectively to farmers and this inadequacy was associated with the way there were trained in school. The study concluded that lack of extension teaching method affects extension service delivery and as a result of this, individual, group or mass contact which is useful for creation of awareness about new agricultural technology. Beside, no matter how efficient an extension agent may be in their service delivery, if they lack the ability to form farmers association success may still become a



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mirage since it will be hard to reach out to farmers at any point in time. This study therefore ascertains skill improvement needs of extension agents for effective extension education service delivery. It was therefore recommended that conferences and workshop should be organized by the ministry of Agriculture for extension pedagogies, group formation and Information and Communication Technology (ICT) specialist in collaboration with the state government for effective extension education delivery.

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