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A Comparative Analysis of Competencies Needed By Female and Male Village Agricultural Extension Agents In Benue State, Nigeria.

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ABSTRACT

The study shows a comparative analysis of competencies needed by female and male village agricultural extensions agents in Benue State. Stratified three-stage and cluster sampling techniques were used to obtain a sample size of 150 respondents. In data analysis, percentage, t-test, four-point rating scale, mean and standard deviation were used. The results of the socio-economic characteristics of the respondents showed that apart from age, formal education and income, there was no significant difference between the female and male village agricultural extension agents. Female agricultural extension agents rated the following competency mean to be of the highest need: commitment to extension work 4.00, facilitating team-work and cooperation 4.00, problem solving 4.00, interpret result finding from research stations 4.00, evaluate results of an event 3.98, presentation skills 3.95 and subject-matter expertise 3.98 whereas, competencies needed by male agents of high rating include: ability to motivate farmers 3.93, development of instructional materials 3.91 and commitment to extension work 3.90. Differentiation in perception is suggested or could be influenced by group role expectations and organizational setting in which the agents were immersed. It was however, concluded that, for competency of the extension agents, training and retraining of the agents based on the prioritized competencies forming the basis of the training curriculum is a necessity.

Keywords: Comparative, Competencies Needed, Female and Male Agricultural Agents, Benue State.

INTRODUCTION

The new world oriented economy requires that the skills of work- force be continually enhanced and that quality of its social and material infrastructure be regularly renewed to support its work-force. For extension education, the challenges are severe, including the triple change to provide high quality education and training suitable for the 21 century, to provide it for those who need and can profit form it and to provide it in most effective way.

A lot of agricultural development programmes have been initiated by the federal government of Nigeria but when these programmes are evaluated against the broad objectives of reducing rural poverty agricultural production and overall education impact on the rural people, the result vary from fairly successful programme to token efforts in some and expensive failures others (Okomoda, 1998). The majority of the farmers are still traditional in production methods and therefore, suffers from low

productivity and lower income. Sometimes, the farmers are regarded as change-resistant. However, the technologies, which are considerable alien, are often inappropriate and the extension agents promotional skills generally questionable (Atala, 1993). One very important question that comes to mind is; are the extension agents who are responsible for the dissemination of innovations competent in performing their roles as agent of transformation? One need to determine the degree of preparedness of extension agents, particularly those in the “food basket” zone of the country for the added responsibility of disseminating complete agricultural message to farmers with varying interests.

Olson and Fruin (1979) described two important approaches of determining the impact of a programme to include; measuring learning and measuring behavioral change. They argued that it is possible to identify training effectiveness by examining the comparative frequencies of what is called “already know” versus the “know now” versus the need help.

Comparing competency needs of extension agents is recognized as an important element among extension services and seen critical factor in the success of the organization. According to Buford et al (1995), as extension agents face the change of learning new skills maintain their proficiency or becomes qualified, the importance of an effective staff training programme for extension agents becomes evident . Thus, the key to effective teaching and successful extension delivery in Nigeria and Benue State in particular lies in the acquisition of sound professional training to become competent by all field staff. Furthermore, the dynamics of communication are most effective extension agents are similar to their clients in all respects except technical competence (FAO, 1993). Robbins et al . (2001,) identified training in five skill areas: human skills, conceptual. Skills, technical skills, emotional intelligence and industry knowledge skills to be relevant to competency. Gibson (1994) identified extension education process, human development, learning and social interaction processes, knowledge about organization within which they work to affect competency. Cooper and Graham (2001) identified 57 competencies needed by the country agents and country extension supervisors in Arkansas. The major ones include human skills, conceptual skills technical skills communication skills, emotional and intelligences skills and industry skills. Obinne et al. (1996) identified age, level of knowledge and income to effect competency of the extension agents etc. Also Martin et al. (1988) found all the competencies to be important in their work and teaching of competencies needed by extension workers in transferring agricultural technologies to Malaysian farmers. It is agreed that substantial training effort is needed to upgrade the skills, knowledge and qualifications of extension personnel (Perzehirad et al. 1994).

The broad objective of this study was to compare the socio-economic characteristics and competencies needed by the male extension agents in Benue State.

The specific objectives included to (1) compare the socio-economic characteristics of female and male village extension agents in Benue State and describe the needed competencies as perceived by female and male agricultural extension agents in Benue State.

Methodology

The respondents were village extension agents who work for the Benue State Agricultural! Rural Development Authority (BNARDA) involved in creating a change the lives of the farmers. Stratified three-stage and cluster sampling techniques were used to select the respondents. The extension agents were stratified into three agricultural zones namely: north, east and central zones. It was further divided into another stratum, the Local Government Area. Cluster sampling was used to group the extension agents in extension blocks and finally stratified sampling was used to select female and male extension agents from their blocks. Twelve Local Government Areas and 25 extension blocks were selected from the zones. The sample size selected were 40 females and 110 males. As a whole, 150 respondents were selected.

The statistics used include, percentage, t- test, 4- point rating scale of great need=4; need= 3; moderate need=2; least need=1; mean and standard deviation.

RESULTS AND DISCUSSION

Table I shows the selected socio- economic characters of the respondents. Apart from age, educational and income levels, there were no significant difference in extension tenure, in- services training number of organizational membership and distance from place of work. Informal educational level, Higher National Diploma (HND) was the highest educational attainment for both female and male agents. The mean years of formal education for both extension agents were 15 years for female and 17 years for male respectively. The mean income were N140, 025 and N 145,554.55 per annum for the female and male agents, respectively. Majority of the extension agents had worked for 11- 16 years. The mean extension tenure for females and males were 13 and 15 years, respectively. Majority of the female and male extension agents had no opportunity to attend a single in- service training course prior to the commencement of the study. A large proportion of female and male agricultural extension agents were between 31- 50 years age range. This could mean that there was a predominance of middle- aged extension agents who are energetic and creative in carrying out extension work prior to this study. There was a significant difference between ages of female and male extension agents. The significant difference is not surprising as agricultural extension service is a male- dominated in the Third World as only about (7%) of the agents in the 1980s were women (UNDP, 1991). According to Akubue (2001), women ministries established in most Third World Countries act as catalysts to inspire young

women into traditional male- dominated area such as the agricultural extension profession. Also, because the males dominated extension, it could be explained that women farmers have not been well attended as the dynamics of communication are most effective when extension agents are similar to their client in all respects except technical competence (FAO, 1993).

There was a significant difference between educational level of female and male extension agents. The difference is not surprising, as overall education was seen as an investment capable of yielding dividends. Such dividend benefited the parent's family directly in the case of the boys and the husband family in the case of girls. The choice as to who should go to school, considering the scarce family resources, had to be made in favour of the boys. Also, in similar studies opportunity cost sending a child to school according to Ityavyar et al, (1996) is higher for the girl than the boy. Herz (1998) found women and girls to receive less education and training than men and boys in developing countries. Investments in education continue to be higher for sons than for daughters. There was a significance difference in the income levels of female and male extension age. It could be explained that as the difference in education level was significant, it has effect on the income levels of respondents. In order words, differential educational background of the extension agents could account for differential income levels.

Regarding the competencies needed by extension agents on Table 2, the rating of 2.50 and above was taken arbitrarily prior to collection of data as the level of competency needed to act as future point of reference of items for extension agents training. Female extension agents perceived that they needed some competencies than others, that is out of 44 were at the level of competency needed whereas male agents 35 competencies of 44. Thus, while there were some variations in opinion about the needed competencies and their constituent knowledge and ability, the data showed general agreement among the groups.

Table 2 indicates that of all the 44 competency needed of the female extension agents, four competencies tied as the highest, which include commitment to extension work 4.00; facilitating team work and cooperation 4.00; problem solving 4.00 and interpret result finding from research stations 4.00. Other that come next were evaluating results of events 3.98; presentation skills 3.95 and subject- matter expertise 3.95, whereas, ability to motivate farmers 3.93 was considered to be most needed competency among male respondents. Others were, development of instructional materials 3.91 and commitment to extension work 3.90 as second and third respectively. As regard to the competencies needed in the least category for female agents includes; delegation and use of early adopters or opinion leaders in extension programme 1.43, whereas, for male extension agents, the needed competency statements interpersonal understanding 1.99; building relationships 1.98 and marketing public relations 1 .96.

The mean score of each competency area was used to determine the perceived differences in competency needed. While there were some variations in opinion about the needed competencies and their constituent knowledge and abilities, the data showed general agreement among the groups. The extension service personnel as well as research should examine the situation thoroughly and search further for the reasons of the variation in order to provide adequate solutions for operative malfunctioning in the service, it might be necessary for the extension service to give its staff more responsibility according to the objectives set out. The high degree of agents' agreement in their perceptions on competencies needed in performing agricultural services could lead to the conclusion that, it would be essential to take the extension agents' opinion into consideration for formation of the service objectives. This would result in the increase of extension service productivity, as its objectives will be based on knowledge and information coming from the agents called upon to realize extension programmes.

The policy of the extension service should be adjusted accordingly. There are areas where needs may not be felt as is a difference between "felt needs and real needs". In such cases, it seems necessary that agents are encouraged towards a more in-depth self-valuation so as to be able to pinpoint their real training needs. This will lead to a search for drives related to satisfying the needs either through in-service training or other means of attaining knowledge and extension service. However, there are differentiated competencies. It should be noted that for practical purposes, these differentiated competencies needed should be considered in planning extension education courses. This is because the agents rate some of them to be moderately needed. Differentiation in perception is suggested to be influenced by group role expectations and the organizational setting in which the agents were immersed.

Table 1: Socio-Economic Characteristics of the Respondents

Characteristics feature	Females		Males		df	t-value
	Frequency	%	Frequency	%		
Age (years)						
0-30	1	2.5	1	0.9		
31-40	19	47.5	26	23.6	148	2.16*
41-50	17	42.5	72	65.5		
51-60	3	7.5	11	10		
Mean		14	45			
Sex	40	27	110	73		
Educational level (years)						
Secondary School	0	0	2	16		
Ordinary National diploma	2	5	20	18.2	148	2.00*
Higher National Diploma	37	92.5	75	68.2		
Post Graduate Diploma	1	2.5	13	12		
Mean	15		17			
Income PA.						
135,000- 160,000	27	67.5	65	59.5		
161,000-186,000	10	25	32	28.8	148	3.48*
213,000-238,000	2	5	8	7.2		
Above 238,000	1	2.5	5	4.5		
Mean	140,025		145,554.55			
Extension tenure (years)						
5-10	12	30	2	1.8		
11-16	22	55	88	80.1	148	0.574
17-22	5	12.5	14	12.7		
23 and above	1	2.5	6	5.4		
Mean	13		15			
Number of in-service training						
No in-service training	22	55	51	46.4		
1-2	12	30	39	35.1	148	0.447
3 and above	6	15	20	18		
Mean	2		2			
Number of Organizational Membership						
0-2	36	90	88	80		
3andabove	4	10	22	20	148	0.713
Mean	2		2	2		

Distance from place of Work (Kilometers)						
0-3	37	92.5	84	76.4		
4-6	2	5	15	13.6	145	0.687
7 and above	1	2.5	11	11		
Mean	3		5			
135,000- 160,000	27	67.5	65	59.5		
161,000-186,000	10	25	32	28.8	148	3.48*
213,000-238,000	2	5	8	7.2		
Above 238,000	1	2.5	5	4.5		
Mean	140,025		145,554			
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Mean	13		15			

*** Sig1cant alp <0.001 *Significant at p <0.05

Table 2: A Comparative Analysis of Professional Competencies Needed by Male and Female Extensions Agents

S/No	Competency (Item)	Male Agents Competency			Female Agents Competency		
		Mean	SD	Rank	Mean	SD	Rank
i.	Ability to motivate farmers	3.93	0.26	1st	3.98	0.16	5th
ii.	Development of instructional materials	3.91	0.29	2nd	3.78	0.53	17th
iii.	Commitment to extension work	3.9	0.9	3rd	4	0	1st
iv.	Presentation skins	3.9	0.33	4th	3.95	0.22	7th
v.	Facilitation team work and cooperation	3.9	0.33	4th	4	0	1st
vi.	Problem solving	3.89	0.3	6th	4	0	1st
vii.	Listening, understanding and responding	3.86	0.93	7th	3.88	0.33	11th
viii.	Subject matter expertise	3.84	0.42	8th	3.95	0.22	7th
ix.	Employ principles of learning and teaching	3.82	0.39	8th	3.9	0.3	10th
x.	Interpret result finding from research stations	3.78	0.54	10th	4	0	1st
xi.	Reliability	3.76	0.49	11th	3.75	0.43	18th
xii.	Evaluate results of an events	3.76	0.55	12th	3.98	0.16	15th
xiii.	Utilize a calendar of event	3.7	0.55	13th	3.58	0.48	26th
xiv.	Personal learning	3.67	0.54	14th	3.88	0.33	11th
xv.	Spoken verbal communication fluency	3.66	0.56	15th	3.83	0.38	5th
xvi.	Confidence in :n abilities	3.65	56	16th	3.55	0.81	27th
xvii.	Employ good feedback techniques	3.65	0.69	17th	3.88	0.33	11th

xviii.	Integration of technology	3.6	0.7	18th	3.78	0.53	17th
xix.	Coaching	3.57	0.59	19th	2.95	0.68	32nd
xx.	Group formation	3.55	0.63	20th	3.73	0.45	21st
xxi.	Information seeking and utilizing library sources	3.54	0.67	21st	3.75	0.43	19th
xxii.	Writing communication	3.45	0.64	22nd	3.83	0.44	16th
xxiii.	Use of Non-formal teaching methods	3.45	6.7	23rd	3.7	0.56	23rd
xxiv.	Follow a written programme of work	3.45	6.75	24th	3.65	57	25th
xxv.	Select progressive farm cooperatives for trial demonstration	3.44	0.81	25th	2.15	0.75	
xxvi.	Humility in his work with farmers	3.41	0.73	26th	3.38	0.49	28th
xxvii.	Analysis and interpret Results from questionnaire	3.29	0.8	27th	3.88	0.33	11th
xxviii.	Flexibility	3.25	0.98	28th	3.93	0.38	9th
xxix.	Ability to lead	3.19	0.92	29th	2.63	0.44	37th
xxx.	Rural Sociology	3.13	0.8	30th	3	0.52	31st
xxxi.	Work Management Planning Organizing and priority	3.12	0.8	31st	3.7	0.77	24th
xxxii.	Conflict Management in Communities	2.92	0.67	32nd	2.65	0.8	36th
xxxiii.	Managing Vision and Purpose	2.91	0.77	33rd	2.26	0.57	40th
xxxiv.	Higlighting diversity	2.83	0.72	34th	2.78	0.53	35th
xxxv.	Sensitive to Others	2.56	0.89	35th	2.84	0.48	34th
xxxvi.	Delegation	2.47	1.02	36th	1.98	0.95	42th
xxxvii.	Prepare Job Description for Staff	2.3	1.07	37th	1.7	1.07	43th
xxxviii.	Identify and : Early Adopters or Opinionleaders in extension programme	2.2	1.13	38th	1.43	0.78	44th
xxxix.	Organizational Savvy	2.11	0.93	39th	2.57	0.59	38th
xi.	Develop a plan for professional Development	2.09	1.08	40th	3.16	0.73	29th
xii.	Prepare a long range of programme of work	2.08	1.15	41st	3.15	0.62	30th
xiii.	Interpersonal Understanding	1.99	0.98	42nd	2.18	0.55	41st
xiiii.	Building Relationships	1.98	1	43rd	2.88	0.65	33rd
xiiv.	Marketing and Public Relations	1.96	1.07	44th	2.57	0.78	39th

Note: 4= great need; 3=need; 2=moderate need; 1=least need.

CONCLUSION

In most development programmes Is an attempt to bring about change in people. In educational terms, change may come about in people's knowledge, understanding skills, attitudes and behaviour.

The need for personal development in individual would rarely be disputed. Adequate training will no doubt I improve the formational competency of the extension affect and them to educate convince farmers to adopt improved farm practice that result 'prom developments in agricultural technology and research. Extension employees should possess the necessary competencies to anticipate and deliver quality educational programme of relevant and importance to our farmers. This study provided vital

information about the area of competencies needed by agricultural extension agents in Benue State. The need to prioritize these competencies, the identification of the competency needs of extension agents, the differences and amendments of those difference' between male and female agents would help to minimize the high degree of wastage in resource allocation and utilization. Arid also, this work would help in upgrading the quality of extension agents needed in the 21 century.

RECOMMENDATION

To rectify the inadequate training of the extension personnel, the following recommendations are made:

- (i) All the competencies identified in the study as meeting the competency divided level for the success of extension agents should be incorporated into in-service training. A balance is needed between skills and technical subject matter training for all field staff
- (ii) Benue State Extension Service should place more emphasis on induction, and in-service training programme. There is an apparent need for a review in the extension training programmes of our schools and colleges of agriculture to ensure their functionality with a view to meeting the field needs of trainees.

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