

Model For Training Unemployed Youths In Industrial Processing Of Cereal Into Composite Flour In Agriculture For Sustainable Development In Enugu State

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Abstract: *The study was carried out to determine model for training unemployed youths in industrial processing of cereal into composite flour in agriculture for sustainable development in Enugu State. Four research questions and four hypotheses were formulated and answered by the study. The study adopted a survey research design. The population for the study is 317 made up of 97 lecturers from Department of Vocational and Technical education, 86 Extension agents, 110 stakeholders and 24 Experts in the use of Flash dryer. The entire population was used for the study as it was manageable. Structured questionnaire was developed by the researcher to solicit information from the respondents. The instrument used for data collection was 78 structured questionnaire skill items generated from review of literature. The instrument was subjected to face validation by three experts. Cronbach Alpha Statistical test was used to determine the internal consistency of the questionnaire items and a reliability coefficient of 0.83 was obtained. The instrument was administered by the researcher with the help of three research assistants. Three hundred and seventeen were administered and 315 were retrieved representing 99%. Data collected were analyzed using mean to answer the research questions. t-test statistics and ANOVA were used to test the hypothesis at 0.05 level of significance and at relevant degree of freedom. Findings from the study indicated that the respondents agree on the following items as operational competencies to be possessed by trainers in the use of flash dryer in processing cereals into composite flour. Thus, 10 items for maintaining flash dryer, 10 items for preparing grain into paste for flash drying, 10 items for flash drying, 5 items for sieving and 7 items for marketing. Among others. It was therefore recommended that the required competencies identified by this study be packaged and used in empowering graduates of Agricultural Education (youths) for sustainable development.*

Keywords: *Model, Unemployed Youths, Industrial processing, Cereal, Composite Flour*

I. INTRODUCTION

Cereal is one of the staple foods mostly available to mankind. Bareja (2015) stated that agronomically, cereal crops belong to the grass family gramineae which are equally utilized as staple food. Cereal scientist (2017) stated that cereal can be grown in different ecological areas, some even in unfavorable soil and climatic condition. The author further stated that cereal is one of the essential crops widely eaten in a variety of ways by people around the globe with total annual yield in excess of 2000 million tons compared with less than 700 million tons for root and tuber crops and about 380

million tons for legumes and oil seeds. They are easy to package and transported and can be used to produce a large variety of highly desirable foods both for human and animals. Cereal grains are the staple food of the people of the developing countries like Nigeria, providing them with about 75% of their total caloric intake and about 67% of their total protein intake. Food and Agricultural Organization (FAO) in Mckeivith (2004) stated that cereal based foods are a major source of energy, protein, B vitamins and minerals for the world population. Generally cereals are cheap to produce, are stored and transported, and do not deteriorate readily if kept dry. Bareja (2015) stated that the top five cereals in the world

ranked on the basis of production tonnage are maize (corn), rice (paddy), wheat, barley and sorghum (guinea corn).

In the views of Ahmed, Saleh, Qing Zhang, Jing Chen and Qun Shen (2013) millet proteins are good source of essential amino acids, except Lysine and thiamine but are relatively high in methionine. It is also a rich source of Phytochemicals and micronutrients. However, Fulton, Buckler, and Kissel, (2011) reported that maize is rich in magnesium, manganese, zinc, copper, iron and selenium and has small amounts of potassium and calcium. Also in the view of Midas Natural (2016) guinea corn is rich in phytochemicals that reduces the level of bad (LDL) cholesterol. According to the authors, Guinea corn is a rich source of phenolic compounds, especially 3 – deoxyanthocyanidins and tannins that prevent the growth of colon and breast cancer cells. Some of these cereals that are being consumed have limitations in form of nutrient supply to the consumers. However, FAO corporate document repository (2017) stated that maize protein is deficient in lysine and tryptophan but has high amount of sulphur-containing amino acids, methionine and cysteine. and therefore people who take them constantly suffer from weight loss, nerve and muscle damage, pellagra, osteoporosis, osteomalacia, rough skin among others. Since these cereals have different levels of dietary nutrient content. A mixture of some cereals in appropriate ratio can produce composite flour capable of meeting to the dietary requirements of individuals interested in taking these cereals.

Composite flour in the context of this study is the combination of maize; millet and guinea corn grain in appropriate ratio and transformed or processed into flour that will serve as pap. The composite flour tend to balance the deficient nutrient in each of these cereals when eaten alone, for example composite flour when in appropriate amount will prevent osteomalacia, rough skin among others in both human and livestock, supply sufficient lysine, tryptophan and Phytochemicals among others. The issue is that the preparation of this composite flour required some technical skill which the local women processors producing these grains do not possess. Equally, these composite flour are processed manually by our local women processors in a smaller scale which tend to reduce their income, most of their products are being wasted because of their inability to process them into high quality flour rather wet pap that may not be store longer than necessary. Also most of their grains are being wasted and attacked by weevil because of long time of stay in the store.

In the study area, unemployed secondary school graduates (youths) who have completed their secondary school education but could not gain admission into tertiary institutions or being employed elsewhere, migrates to towns and cities from their rural environment getting involve in anti-social problems beyond what the families could contend with, that is, they join anti-social gangs like kidnapping, rapping, stealing, sexworker and drug abuse. These vices help to increase the poverty problems of their families in rural agrarian areas where women farmers operate. If these unemployed youths are empowered through technology (flash dryer) for processing composite ration of maize, millet and guinea corn into flour, will be able to obtain job in the industry or train women cereal producers on how to process their cereals into composite flour. It will help to reduce all these

vices they are into which will later lead to National development.

Flash drying technology involve two phases: (1) milling phase and (2) drying phase. Milling phase involve the following steps; washing, soaking, washing, milling and pressing while drying phase according to GEA.com, (2017) is a pneumatic system used to drive off free moisture in seconds, very efficient in drying wet paste cereals. In flash drying, the wet materials are dispersed into a stream of heated air which conveys it through a dry duct, using the heat from the air stream. The material dries as it is convey product is separated using cyclones and/or bag filters. The author further stated that the benefits derived from flash dryer include; (1) promotes product quality. (2) Enable energy savings and system integration and (3) cost effective and reliable with low maintenance among others. In the study area this kind of technology is not found so common and the little found required personnel with adequate skill to operate. To reduce the problem of unemployment, meet the food and health need of the people through composite flour preparation, the unemployed youths could be empowered through training in flash dryer technology for the production of composite flour to meet local needs of the environment and beyond

Training is a way of impacting skill and knowledge that relate to specific useful competencies to individual that needs it. Beach (2016) defines training as an organized procedures by which people learn knowledge and / or skill for a definite purpose Chand (2016) stated that Training constitute a basic concept in human resource development. It is concern with developing a particular skill to a desired standard by instruction and practice. For an effective training to be achieved, it has to be carried out by a competent trainer. According to Hyla (2015) a trainer is individual that leads people to change, moderating discussion, building moment of reflection, being an expert and sharing his/her expertise in presenting, mentoring and designing. In the context of this study, trainer is an individual who has the expertise knowledge in operating flash dryer technology and has the ability to impact such to unemployed youths that will utilize the knowledge and skills gain to develop themselves and the entire nation, thereby leading to national development.

The major purpose of this study therefore is to determine model for training unemployed youths as well as rural women farmers in industrial processing of cereals into composite flour in Agriculture for sustainable development. Model is a standard or example for imitation or comparison. Ford (2009) emphasized that a model is not the real world but merely a human construct to help for better understanding of the real world systems. In general all models have information input, an information processor and an output of expected result. The model determined in this study considers the limitations of rural women farmers who have never been in school and required being trained competently in operating flash dryer, for example the flash dryer technology assumed some knowledge of English and simple knowledge or interaction with some machines such as motor cycles or vehicle and how they work.

Majority of rural women farmers are not covered by these assumptions hence, this model is meeting the needs of rural

women farmers and secondary school graduates at the level of their experience.

The study therefore answered the following questions.

- ✓ What are the essential knowledge required by trainers in using flash dryer to process cereals into composite flour in order to meet training requirement of youths and women farmers?
- ✓ What are the operational competencies to be possessed by trainers in the use of flash dryer in processing cereals into composite flour in order to meet the training requirement of youth and women farmers?
- ✓ What are the motivational initiatives required by the stakeholders to the trainers for making the training successful?
- ✓ What are the training procedures needed by trainers for empowering youths with competencies in the use of flash dryer for processing cereals into campsite flour?

II. METHOD

The study adopted a survey research design. Survey research design in the view of Nworgu (2006) is one in which a group of people or item is studied by collecting and analyzing data from only a few people or item considered to be representative of the entire group using questionnaire, interview or observation. The design was appropriate for this study since information was solicited from philanthropic, experts in the use of flash dryers, extension agents, and lecturers on model for training unemployed youths as well as rural women farmers in industrial processing of cereals into composite flour in Agriculture for sustainable development in Enugu state.

The study was carried out in University of Nigeria, Nsukka, Enugu state. Enugu State is one of the states in Eastern part of Nigeria. The state shares borders with Abia and Imo States to the south, Ebonyi to the East, Benue State to the North, Kogi State to the North West and Anambra to the West. Enugu State has good soil and climatic condition all year round. It is located at about 223 meters (7.32ft) above sea level, and the soil is well drained during rainy season. The topography of the state is suitable for farming. University of Nigeria has industrial Flash dryer and therefore, this study is more appropriate at the study area.

The population for the study is 315 made up of 95 lecturers from department of Vocational and technical education, 86 Extension agents, 110 philanthropic and 24 Experts in the use of Flash dryer. The entire population was used for the study as it was manageable. Structured questionnaire was developed by the researchers to solicit information from the respondents. The instrument used for data collection was 78 structured questionnaire skill items generated from review of literature. The questionnaire was structured on a four point scale of highly required (4), averagely required (3), slightly required and not required (1).

The instrument was subjected to face validation by three experts. One each from the Department of Extension, Department of Agricultural and Bio-Resources and Department of Engineering all from the University of Nigeria Nsukka and one flash dryer operator. Suggestions observation

and comments of the experts were integrated to improve the quality of the instrument. Cronbach Alpha Statistical test was used to determine the internal consistency of the questionnaire items and a reliability coefficient of 0.83 was obtained

The instrument was administered by the researchers with the help of three research assistants. The research assistants were instructed on the methods of instrument administration before the exercise. Three hundred and seventeen were administered and 315 were retrieved representing 99%.

Data collected were analyzed using mean to answer the research questions. t-test statistics and ANOVA were used to test the hypothesis at 0.05 level of significance and at relevant degree of freedom. Real limit of numbers was used to take decision in respect to research questions. Any item whose mean ranged from 3.50 and above was regarded as highly required. Any item whose mean was between 2.50 and 3.49 was interpreted as averagely required. Furthermore any item with a mean range of 1.50 to 2.49 was regarded as slightly required while any item between 0.50 and 1.49 was regarded as not required.

Similarly, t-test and ANOVA statistics were used to test the null hypothesis at 0.05 level of significance using SPSS software. Any null hypothesis whose p-value was greater than 0.05 level of significance ($p > 0.05$) was accepted while null hypotheses was rejected when p – value was less than 0.05 level of significance ($p < 0.05$)

RESEARCH QUESTION 1

What are the essential knowledge required by trainers in using flash dryer to process cereals into composite flour in order to meet training requirement of youths and women farmers?

HYPOTHESIS 1

There is no significant difference between the mean response of lecturers and Flash dryer operators on the essential knowledge required by Trainers in using Flash Dryer to Process Cereals into Composite Flour in order to meet Training requirement of Youths and Women Farmers.

S/ N	Item Statements	Lecturers		Flash Dryer Operators		\bar{X}_G	t- cal.	Dec .
		\bar{X}_1	SD ₁	\bar{X}_2	SD ₂			
1	Plan, bear risk, make profit and keep appropriate record	3.84	0.56	3.66	0.78	3.75*	0.13	NS
2	Read and write English or local languages	3.81	0.62	3.76	0.58	3.79*	0.79	NS
3	Read and understand numbers in words and recognize symbols	3.82	0.60	3.72	0.66	3.77*	1.31	NS
4	Identify faults in machines through three methods (feeling, sound, smell and finally top work)	3.79	0.62	3.77	0.63	3.78*	0.33	NS
5	Interpret	3.82	0.55	3.76	0.70	3.79*	0.93	NS

6	weights and measure Compute simple arithmetic problems up to 20 such as addition and subtraction	3.82	0.58	3.83	0.48	3.83*	0.08	NS
7	Recognize the parts of a machine and function of each.	3.71	0.78	3.81	0.59	3.76*	1.03	NS

Key: \bar{X} =Mean, SD=Standard Deviation, *= Required, NS= Significant

Table 1: Mean Ratings, Standard Deviation and t-test Analysis of the Responses of the Respondents on the Essential knowledge required by Trainers in using Flash Dryer to Process Cereals into Composite Flour in order to meet Training requirement of Youths and Women Farmers? N- 121

Table 1 showed that all the items stated above had their mean values ranging from 3.75 to 3.83. This signifies that all the seven items were required by Trainers in using Flash Dryer to Process Cereals into Composite Flour in order to meet training requirement of Youths and Women Farmers. The items had their standard deviation ranged from 0.53 to 0.68, this indicated that all the respondents were close to each other in their opinion and were not far from the mean.

Furthermore, the table above showed that all the items had their p-value greater than 0.05 level of significance and at 119 degree of freedom. This implies that there is no significant difference in the mean responses of the respondents on the essential knowledge required by trainers in using Flash Dryer to process cereals into composite flour in order to meet training requirement of Youths and Women Farmers. Therefore, the hypothesis of no significant difference is upheld.

RESEARCH QUESTION 2

What are the operational competencies to be possessed by trainers in the use of flash dryer in processing cereals into composite flour in order to meet the training requirement of youths and women farmers?

HYPOTHESIS 2:

Lecturers and Flash Dyer Operators do not differ in their opinion on the operational competencies to be possessed by trainers in the use of flash dryer in processing cereals into composite flour in order to meet the training requirement of youths and women farmers

S/N	Item Statements	Lecturers		Flash Dryer Operators		\bar{X}_G	t-cal.	Dec.
A	Maintenance Competences	\bar{X}_1	SD ₁	\bar{X}_2	SD ₂			
1	Clean the entire unit	3.20	1.02	3.21	0.82	3.21*	1.40	NS
2	Check the ignition system and climate sensing system as well as the wiring carefully.	3.10	0.74	3.11	0.93	3.11*	1.90	NS
3	Seal all location properly to prevent moisture from getting into	2.77	0.60	2.78	1.08	2.78*	1.30	„

	the area							
4	Check the dryer to make sure they are in the operating order	3.51	0.98	3.41	0.73	3.46*	0.45	„
5	Confirm that all bearing are properly lubricated	3.21	1.03	3.11	0.63	3.16*	0.86	„
6	Inspect the physical structure of the dryer	3.35	1.24	3.34	0.84	3.35*	0.74	„
7	Make sure all belts are properly adjusted.	3.03	1.31	3.00	1.03	3.02*	0.54	„
8	Uses a drill bit of the same size to make sure each hole is open and free any obstruction.	3.01	1.10	2.92	1.04	2.97*	0.61	„
9	Brush and sandblast any loose scale and then paint to prevent further metal degradation.	3.64	0.75	3.68	0.80	3.66*	0.46	„
10	Examine overheat control, make sure they are also working properly	3.24	0.54	3.25	0.68	3.25	0.85	„
B	Preparing Grain into Paste for Flash Drying							
11	Wash grains: the corn, Guinea corn and millet separately to remove the bad grains, sand, stone and chaff.	3.20	1.02	3.21	0.84	3.21*	0.26	NS
12	Pour all into a bowl and add enough water to cover it.	3.10	0.74	3.11	0.78	3.11*	0.29	„
13	Leave it for 2 -3 days ensuring you rinse and change the water everyday	2.77	0.60	2.78	0.97	2.78*	1.26	NS
14	Blend the grain together with commercial grinding machine into a paste in a container	3.25	0.81	3.26	1.05	3.26*	0.54	„
15	Pour water into the paste to lower its temperature and stir the pap well and pour into the clean cotton cloth	3.71	0.50	3.72	0.44	3.72*	0.21	„
16	Squeeze it tightly to remove excess water and use rope to the end of the bag in a way that it can squeeze out more water	4.00	0.86	3.91	0.51	3.91*	0.74	„
17	Place on a hydraulic presser and jack proper for 2 - 4 hours	3.00	0.29	3.25	0.48	3.13*	0.36	„
18	Leave over night if need be until the water is well drained	3.44	0.57	3.47	0.50	3.46*	0.82	„
19	Break the solid lumps of the	2.91	0.73	3.09	0.57	3.00*	1.40	„

	dried product into small and smooth textured using grating machine for easy flash drying								
C	Flash Drying								
20	Check the operating parts including the essentials to ensure their appropriateness	3.22	0.32	2.44	0.69	2.83*	1.90	NS	
21	Make the necessary fixing of the machine or connection to source of power where applicable	2.60	0.36	2.67	0.55	3.14*	1.30		
22	Apply kerosene or condemn oil at the appropriate chamber.	3.57	0.98	3.55	0.40	3.56*	0.45		
23	Required two operator, one at the input and the other at the output	3.23	1.03	2.80	0.62	3.02*	0.86		
24	On the heat generating unit to help in producing or supplying the heat needed for drying of the product.	3.11	1.24	3.41	0.59	3.26*	0.74		
25	Put polythene bag at the output direction for collection of the flash dried flour.	3.14	1.31	3.77	0.51	3.46*	0.54		
26	Feed the grated products into the feeder or input unit	2.75	1.10	2.50	0.68	2.63*	0.61		
27	Product is lift high by the lifter or propeller through the flash dryer	2.44	0.75	3.21	0.51	2.83*	0.46		
28	Product travels through the pipe until gets to the junction where the heat generation pipe meets together with air generation pipe	2.91	0.48	3.09	0.52	3.00*	0.27		
29	Fed the grated product into the feeder little by little in order not to decrease the temperature and shows the rate of drying, until the entire product is flash dried	3.22	0.95	2.44	0.58	2.83*	0.29		
D.	Sieving								
30	Tie large cheese cloth tightly round a big bowl and balance it properly to enable you start the main task of sieving	2.60	0.39	2.67	0.59	3.14*	0.46		
31	Scoop small quantity of flash dried mixture into the cheese cloth and sieve to get the paste pass through the cheese cloth into the bowl	3.57	0.71	3.55	0.62	3.56*	0.34		
32	Keep sieving until the left over is	3.23	0.60	2.80	0.70	3.02*	1.04		

	completely a dry chaff, until you finished sieving all the mixture								
33	Package the sieved flour into different weight for marketing	3.11	0.68	3.41	0.55	3.26*	0.29		
34	Fix prices based on the size of bag and flour quality	3.14	0.72	3.77	0.49	3.46*	0.84		
	Marketing Competencies								
35	Advertize the sales of composite flour through mass media, hand bile, home visit, radio, TV, mobile phone, among others	2.75	0.53	2.50	0.66	2.63*	0.38	NS	
36	Identify the consumers for easy supply of composite flour	2.44	0.34	3.21	0.58	2.83*	0.11		
37	Identify appropriate selling distribution channels for composite flour	2.70	0.32	2.66	0.66	2.68*	0.87		
38	Encourage wholesale, retail and home delivery	3.01	0.46	3.00	0.44	3.00*	0.64		
39	Obtain assessment information from customers and other information for improvement	3.56	0.37	2.54	0.60	3.05*	0.57		
40	Keep appropriate records	3.21	0.43	2.53	0.59	2.87*	1.21		
41	Reconcile sales and expenditure to determine profit and loss	2.99	0.41	3.03	0.44	3.01*	1.35		

Key: X=Mean, SD=Standard Deviation, *= Required, NS= Significant

Table 2: Mean Ratings, Standard Deviation and t-test Analysis of the Responses of the Respondents on the Operational Competencies to be Possessed by Trainers in the use of Flash Dryer in Processing Cereals into Composite Flour in order to meet the Training requirement of Youth and Women Farmers. N- 121

Table 2 revealed that the whole items stated above had their mean values ranging from 2.63 to 3.91 which were above the cutoff point of 2.50. This implies that all the forty-one items were the operational competencies to be possessed by trainers in the use of flash dryer in processing cereals into composite flour in order to meet the training requirement of youths and women farmers. They include all the item statements above. The standard deviation ranged from 0.39 to 1.17. This indicated that the opinions of the respondents were close to each other and they are not too far from the mean.

Furthermore, the table above revealed that all the items had their p-value greater than 0.05 level of significance and at 119 degree of freedom. This implies that there is no significant difference in the mean responses of the respondents on the operational competencies to be possessed by trainers in the use of flash dryer in processing cereals into composite flour in order to meet the training requirement of youths and women. Therefore, the hypothesis of no significant difference is upheld.

RESEARCH QUESTION 3

What are the motivational initiatives required by the stakeholders to the trainers for making the training successful?

HYPOTHESIS 3

Stakeholders, Extension Agents, and Lecturers do not differ in their opinion on the Motivational initiatives required by the Stakeholders to the Trainers for making the Training Successful

S/N	Item Statement	\bar{X}_g	Sum of square	Df	Mean square	f-cal	P=v alue.	Dec.
1	Government to Create awareness on the value of the training for self reliance through media or personal contact	3.57*	0.319 47.069	2 314	0.160 0.150	1.066	0.05	NS
2	Stakeholders to provide market link for farmers to enhance the sale of their product.	3.66*	1.19 166.62	2 314	0.60 0.53	1.13	„	NS
3	Government to sponsor re-training of farmers on new technology in cereal production from time to time	3.34*	1.98 231.37	2 314	0.99 0.74	1.35	„	NS
4	Government to select qualify and competent personnel as youth trainers in cereal production occupation.	2.52*	9.449 41.583	2 314	4.725 132.43	0.037	„	S
5	Government to pay commensurate salaries and allowance to the trainer as at when due.	3.54*	0.60 193.48	2 314	0.30 0.62	0.48	„	NS
6	Address the challenges encountered by the trainers during training of youth and provide solution	3.79*	0.18 199.37	2 314	0.09 0.64	0.14	„	NS
7	Stakeholders to assist in Providing accommodation and health services to trainers and their spouses at training	3.09*	2.40 214.29	2 314	1.20 0.68	1.76	„	NS
8	Government to guarantee the freedom and security of trainers at the training centre.	2.76*	3.46 271.11	2 314	1.73 0.86	2.01	„	NS

Key: df= degree of freedom, f-cal= f- calculated, Dec=Decision, *=Required, NS=significance, S=significance

Table 3: Mean Ratings, ANOVA Analysis of the Responses of the Respondents on the Motivational Initiatives required by the Stakeholders to the Trainers for making the Training Successful. N- 317.

The data presented in table 3 showed that all the eight items had their mean score values ranged from 2.52 to 3.79 which were above the cutoff point of 2.50 that were considered required. This indicated that all the above items are motivational initiatives required by the stakeholders to the trainers for making the training successful.

Furthermore, data in table 3 equally indicated that 7 out of 8 items had their f-calculated greater than p-value of 0.05 level of significance and at 2 and 314 degree of freedom. This signified that the hypothesis of no significant difference was upheld for the seven items. However, item 4 had its f-cal as 0.037 which is less than the p-value of 0.05 level of significant difference. This indicated that there is significant difference among the opinion of the stakeholders, extension agents and the lecturers on the the motivational initiatives required by the stakeholders to the trainers for making the training successful. The hypothesis is therefore rejected.

RESEARCH QUESTION 4

What are the training procedures needed by trainers for empowering youths with competencies in the use of flash dryer for processing grains campsite flour?

HYPOTHESIS 4

There is no significant difference in the mean response of lecturers and Flash dryer operators on training procedures needed by trainers for empowering youths with competencies in the use of flash dryer for processing cereals into campsite flour

A	Item Statements	Lecturers		Extension Agents		X_G	t-cal.	Dec.
		\bar{X}_1	SD ₁	\bar{X}_2	SD ₂			
1	Identify instructional content, materials and activities to be performed by the trainer and trainees	3.71	0.66	3.75	0.87	3.73*	0.20	NS
2	State the objectives to be achieved by trainees at the end of instruction	3.68	0.73	3.75	0.62	3.72*	0.31	„
3	Identify major concepts to be explained by the trainer to the trainees from the content.	3.66	0.76	5.50	1.17	3.58*	0.68	„
4	Select relevant materials for teaching the content	3.60	0.80	3.58	1.00	3.59*	0.08	„
5	Organize the materials to match the aspect of the content to be teach at a particular time.	3.64	0.76	3.50	1.17	3.57*	0.62	„
6	Integrate relevant	3.60	0.79	3.58	1.00	3.59*	0.08	„

7	techniques to support the use of materials and method for teaching and content	3.64	0.78	3.67	0.78	3.65*	0.14	„
	Supply knowledge of results							
B	Procedure to be adopted by the trainer							
8	Teach the trainees from known to unknown	3.69	0.71	3.50	1.17	3.59*	0.86	NS
9	Teach the trainees facilities and how to use such facilities	3.70	0.68	3.50	1.17	3.60*	0.95	„
10	Instruct the trainees on the required skills clearly and step by step	3.66	0.72	3.67	0.78	3.66*	0.06	„
11	Demonstrate each skill to the trainees through the use of appropriate facilities available for training	3.64	0.78	3.58	1.00	3.61*	0.22	„
12	Instruct the trainees to imitate the trainer after demonstration and observe through for correction	3.69	0.81	3.50	1.17	3.59*	0.76	„
13	Correct any mistake on the part of the trainees	3.67	0.79	3.50	1.17	3.59*	0.72	„
14	Instruct the trainees for repetitive practice of the skills acquire	3.71	0.74	3.58	1.00	3.65*	0.59	„
15	Test for the achievement of the goal setting for the trainees	3.69	0.72	3.58	1.00	3.64*	0.47	„
16	Show the result of the test for the performance of the trainers	3.65	0.76	3.83	0.58	3.74*	0.83	„
17	Instruct the trainees to visit other relevant training centres to provide trainees feedback on tier practice in the establishment.	3.66	0.75	3.67	0.89	3.67*	0.08	„
18	Identify other hazards in the environment and how to prevent such hazards	3.60	0.79	3.50	1.17	3.55*	0.44	„
19	Teach the trainees when to acquire resources such as fund for establishing their own enterprise	3.65	0.77	3.58	1.00	3.62*	0.28	„
20	Teach the trainees how to budget for a profitable enterprise	3.63	0.77	3.67	0.89	3.65*	0.18	„
21	Expose the	3.58	0.83	3.50	1.17	3.54*	0.31	„

22	trainees in keeping of some business records such as inventory, sale, purchase and loan record	3.67	0.70	3.67	0.78	3.67*	0.29	„
	Teach the trainees how to balance some of their record books to determine gross the net profit or breakeven and loss.							

Table 4: Mean Ratings, Standard Deviation and t-test Analysis of the Responses of the Respondents on the training procedures needed by trainers for empowering youths with competencies in the use of flash dryer for processing grains into campsite flour. N-183

Table 4 revealed that the above items numbered 1-22 had their mean values which were above the cut –off point of 2.50. The mean value ranged between 3.54 and 3.74. This showed that trainers needed all the training procedures to empowering youths and women farmer with competencies in the use of flash dryer for processing cereals into campsite flour. The items had their standard deviation ranged from 0.67 to 1.00. This showed that all the respondent were close to each other in their opinion and they were not too far from the mean.

The data presented in table 4 above also indicated that all the items had their p-value greater than 0.05 level of significant. The result showed that the hypothesis of no significant difference was upheld for all the items. This signifies that there was no significant difference in the mean responses of lecturers and extension agents on the training procedures needed by trainers for empowering youths with competencies in the use of flash dryer for processing grains campsite flour?

III. DISCUSSION OF FINDINGS

It was discovered from the study as stated in table 1 that the essential knowledge required by trainers in using flash dryer to process cereals into composite flour in order to meet the training requirement of the youths and women farmers are, Plan, bear risk, make profit and keep appropriate record, read and write English in simple languages, Read and understand numbers in words and recognize symbols, among others. These findings were in agreement with the view of Board of Regents of the University of Wisconsin (2017) who stated that dryer technology should expand your knowledge of industrial dryer, understand fundamentals and learn how to apply proven method to improve dryer efficiency, reduce operating and energy costs and improve your operations.

The findings of the study on table one also revealed that there was no significant difference in the mean ratings of the responses of the respondent on the essential knowledge required by the trainers in using flash dryer to process cereals into composite flour. The implication of this study helps to confirm the findings of this study in table one. Also the technical competencies and administrative experiences of the respondents had no significant influence on their responses on the items.

Findings related to research question two showed that respondents agree on the following items as operational competencies to be possessed by trainers in the use of flash dryer in processing cereals into composite flour. Thus, 10 items for maintaining flash dryer, 10 items for preparing grain into paste for flash drying, 10 items for flash drying, 5 items for sieving and 7 items for marketing. The findings of this study in this respect reaffirm the opinion of World grain (2017) who stated that processing cereals into paste involved the following, soaking, washing, milling pressing and flash drying. The findings are also in conformity with GEA.com (2017) that reported the processes involved in flash drying, flash dryer machine is a machine whereby a wet material is dispersed into a stream of heated air which conveys it through a drying duct, using the heat from the air stream, which the material dries as it conveys products and separated using bag filters. The findings are also in conformity with Dumbiri (2010) who narrated that strategies to be adopted in marketing a product are advertising for the product, identifying customers, grading, fixing prices, keep record of sold and unsold produce among others.

The study found out the following among others as motivational initiatives that could be provided by stakeholders to improve participations of trainers for empowering youths and women farmers in the use of flash dryer for processing cereals into composite flour; Government to Create awareness on the value of the training for self reliance through media or personal contact among others. The finding is in agreement with the findings of Abu (2014) who in a study on, Development of Motivational Training Programme for Enhancing the Entry of Almajiris into cotton production occupation in Northwest Nigeria found out that trainers could be motivated through thus: Government to pay commensurate salaries and allowance to the trainer as at when due. among others.

It was also found that there was no significant difference in the mean ratings of the responses of the three groups of respondents (lecturers, stakeholders and extension agents) on the 13 items required by the trainers on motivational initiatives for making the training successful.

The findings on the training procedures needed by trainers for empowering youths and women farmers with competencies in the use of flash dryer for processing of cereals into composite flour include the following planning for the training 7 skill items, 15 skill items for procedure to be adopted by the trainers in training. the findings of the study were in consonance with the view of Abu (2014) who stated that the basic skill involved in planning for training include identifying instructional content, materials and activities to be performed by the trainer and trainees, state the objectives to be achieved by trainees at the end of instruction among others, for procedure to be adopted by the trainer include; teach the trainee from known to unknown, teach the trainees facilities and how to used such facilities among others.

It was found that there was no significant difference in the mean ratings of the responses of the two groups of respondents (lecturers and extension agents) on the training procedures needed by trainers for empowering youths and women farmers with competencies in the use of flash dryer for processing cereals into composite flour. The implication of the

findings that the professional qualification and work experience of the respondents did not significantly influence their responses in the twenty-two items.

IV. CONCLUSION/RECOMMENDATIONS

The study revealed the essential knowledge required by trainers in using flash dryer to process cereals into composite flour in order to meet training requirement of youths and women farmers, motivational initiatives required by the Stakeholders to the trainers for making the training successful.

However, the study has also provided information on a model to be used in industrial processing of cereals into composite flour which could be integrated into school programmes. If students are diligently exposed to will boost the economy of the nation.

Based on the findings, it was therefore recommended that:

- ✓ That the required competencies identified by this study be packaged and used by stakeholders in empowering graduates of Agricultural Education (youths) for sustainable development.
- ✓ Government should give some incentives to the trainees as a way of motivating them to accept to be trained.
- ✓ Government should provide adequate funding and facilities to each community to be utilized for the training.

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