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Short Paper

Self-Validation of N-Power Build Trainees' Skills Acquisition: A Mechanism for Revitalizing Apprenticeship Training System in Nigeria

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Abstract

It appears that the goal of the N-Power Build training program which sought to revitalize the apprenticeship training system in Nigeria cannot be fully achieved without a feedback mechanism on the level of skills acquired by the trainees. This study, therefore, was set to self-validate the skills acquired by N-Power Build trainees. Five research questions guided the study. The study adopted a descriptive survey research design. The area of the study was Taraba state and the population of the study is 501 N-Power build trainees. There was no sampling. The instrument used for data collection was a structured questionnaire developed by the researchers. The instrument was validated by three experts in the fields of Technology & Vocational Education. The instrument was trial-tested on 10 N-Power Build beneficiaries in Adamawa state. Cronbach's alpha was used to analyze the data to establish the reliability of the instrument, and a reliability



coefficient of 0.83 was obtained. Three hundred and forty-two copies of the instrument were administered to the respondents; however, only 318 were properly filled and returned representing a 93% rate of return. Mean was used to analyze the data to answer the research questions. Findings from the study indicated that the N-Power Build trainees acquired moderate skills in Automobile crafts, Electrical Installation and Maintenance Crafts, and Masonry and Tiling Crafts; however, they acquired a little bit skills in the Carpentry and Joinery Crafts, and Plumbing and Pipe Fitting Crafts. Based on the findings, some recommendations were made.

Keywords – N-power Build, Training, Skilled, Apprenticeship, Revitalizing

INTRODUCTION

In the build-up to the 2015 general election in Nigeria, one of the campaign promises made by a candidate for the office of the President under the All Progressives Congress (APC) was to institute a social investment program that will take care of the most vulnerable members of the Nigerian society. With the triumph of the candidate at the election and the subsequent swearing-in into office, the ball was set running for the actualization of such promise. That gave birth to, in 2016 the National Social Investment Programme (NSIP) domiciled in the office of the Vice President. The NSIP is made up of four components- N-Power, National Home Grown School Feeding, Government Enterprises Empowerment Programme, and the National Conditional Cash Transfer Programme. This study will focus on the N-Power program (Federal Government of Nigeria, FGN, 2020).^[2]

N-Power program is a job creation and empowerment component of the National Social Investment Programme (NSIP) of the Federal Government of Nigeria. It is a program designed to help young Nigerians between the ages of 18 to 35 to acquire life-long skills to contribute meaningfully to the socio-economic development of Nigeria (FGN, 2020). The program is categorized into two components- Graduates and Non-graduates. While the former is targeted at those privileged to have attended and graduated from various institutions of higher learning and acquired qualifications such as National Diploma (ND), Nigeria Certificate in Education (NCE), and Bachelor degrees; the latter is targeted at those with School certificate who for one reason or the other could not proceed to acquire further education (FGN, 2020).^[2]

The non-graduates components include the N-Power creative, N-Power Knowledge, and N-Power Build. While the N-Power Creative aimed at training and developing 5,000 young creative talents in the areas of Graphic design, Scriptwriting, Animation among others; the N-Power Knowledge fancied itself as "Training for Jobs". The objective is to ensure that applicants are engaged in the market place in an outsourcing capacity either as employees or freelancers to acquire appropriate knowledge to function optimally in the technology and creative industries (FGN, 2020).^[2]

The N-Power Build on the other hand was designed to revitalize the apprenticeship system in Nigeria through accelerated vocational training by engaging, training, and certifying 75,000 unemployed Nigerian Youths to build a new crop of a highly competent and skilled workforce of technicians, artisans, and service professionals for the Nigerian Automobile and Construction sectors (Osinbajo, 2018). At the launching of the program in Enugu on May 18, 2018, the Vice President, Professor Yemi Osinbajo, made the following remarks:²

“The N-Power build, which is the program that we are launching today, is a sub-component of N-Power. It is an accelerated vocational Training, Certification, and Apprenticeship program that will engage and train 75,000 young unemployed Nigerians between the ages of 18-35. ...the uniqueness of our training model is that we don't just do skill training. We work with the companies and organizations that need this type of technician. So, we train to meet their needs. ...working with Council of Registered Builders of Nigeria (CORBON) and the National Automotive Design and Development Council (NADDC) which are the sector skill councils approved by the National Board for Technical Education (NBTE)...” (Osinbajo, 2018, p. 3).

Therefore, injecting a new crop of the skilled workforce into these sectors will play a vital role in sustaining the modest effort being put in place to accelerate the industrial development of Nigeria. The targeted crafts include Automobile, Carpentry and Joinery, Electrical Installation, Masonry and Tiling, Plumbing, and Pipe fittings among others (Osinbajo, 2018). According to FGN (2020), each of the aforementioned crafts has its distinct objectives within the overall framework of the skill training program. In the Automobile crafts, the beneficiaries would be trained on the fundamentals of the automobile industry, which includes repair and diagnosis of modern Vehicles using modern diagnostic tools, troubleshooting, workshop safety, OBD Scanner, all data scanner, using the modern analyzer, wheel alignment, and balancing, panel beating and spraying, vulcanizing, using modern equipment/tools.²

The beneficiaries under the Carpentry & Joinery craft would be trained on the primary work performed in the trade, which is the cutting, shaping, and installation of building materials during the construction of buildings, ships, timber bridges, concrete framework, etc. In the field of Electrical Installation, beneficiaries would be trained to specialize in the electrical wiring of buildings, stationary machines, and related equipment, which would aid employment in the installation of new electrical components or the maintenance and repair of existing electrical infrastructure.²

Masonry & Tiling craft is designed to enable the beneficiaries to acquire the necessary skills required to translate what the professionals have designed and drawn into the physical building by laying blocks or bricks to construct brickwork, and also to lay any combination of stones, bricks, cinder blocks, or similar pieces or concrete to make up the walls and structural elements of the building including foundations, floors, columns, and beams. They also undertake plastering, tiling, and similar finishing work in the building. In Plumbing & Pipe fittings, the beneficiaries would be trained to specialize in installing and maintaining systems used for plumbing, heating, drainage, firefighting, potable (drinking), and wastewater or small-sized industrial process plant piping.

The N-Power Build sub-programs described in the preceding paragraphs are expected to last for 12 months which consist of three months in-center training and nine months apprenticeship in partnership with employers drawn from both the public and private sectors of the economy (Osinbajo, 2018). While the training lasts, the trainees earn a monthly stipend of ₦10,000 subject to satisfactory performance. On graduation, trainees are handed an exit Toolbox/Starter Kit for the commencement of their journey into the field of work (FGN, 2020).

To institutionalize the program, the federal government moved the program to a newly created ministry of humanitarian affairs and disaster management for proper coordination (Buhari, 2019). Subsequently, in June 2020, the Minister of humanitarian affairs and disaster management announced the exit of the first batch of N-Power volunteers, including the trainees under the N-Power Build indicating that the training program has come to an end. The question is: What is the level of skills acquired by the N-Power Build Trainees as a mechanism for revitalizing the apprenticeship training system in Nigeria?

Though there are several studies (Ohize & Adamu, 2009; Chakravorty & Bedi, 2019; Akujuru & Enyioko, 2019; Nwaobi, 2019; Adeyanju, 2019) on N-Power and other similar programs and their impact on youth unemployment, none, to the knowledge of the researchers specifically touched on the level of skill acquisition component based on individual craft within the sectors under consideration. Hence, the need to self-validate the skills acquired by N-Power Build trainees' as a mechanism for revitalizing the apprenticeship training system in Nigeria. In specific terms, the study sought answers to the following questions: What is the level of skills acquired by N-Power Build Trainees relative to:

1. Automobile Crafts?
2. Carpentry and Joinery Crafts?
3. Electrical Installation and Maintenance Crafts?
4. Masonry and Tiling Crafts?
5. Plumbing and Pipe fittings Crafts?

METHODOLOGY

The study adopted a descriptive survey research design. The area of the study was Taraba state, located in the northeastern part of Nigeria. The population of the study is 501 N-Power build trainees deployed to Taraba state; this comprises of 113, 109, 175, 58, and 46 trainees assigned to train in the areas of Automobile crafts, Carpentry and Joinery Crafts, Electrical Installation and Maintenance Crafts, Masonry and Tiling Crafts, and Plumbing and Pipe Fitting Crafts respectively. There was no sampling; therefore, the entire population was used for the study.

The instrument used for data collection was a structured questionnaire developed by the researchers based on the objectives and the contents of the N-Power Build component of the Federal Government of Nigeria's Social Investment Programme (SIP). A separate instrument was designed for each of the five crafts in line with research questions 1, 2, 3, 4, and 5 respectively. The instrument was validated by three experts in the fields of Technology & Vocational Education. The instrument was trial-tested on 10 N-Power Build trainees in Adamawa state. Cronbach's alpha was used to analyze the data to establish the reliability of the instrument, and a reliability coefficient of 0.83 was obtained.

Three hundred and forty-two copies of the instrument were administered to the respondents with the help of five Research Assistants assigned to take charge of each of the five crafts. However, only 318 were properly filled and returned representing a 93% rate of return. Mean was used to analyze the data to answer the research questions following the Impact of Events Scale-Revised developed by Weiss (2007) as presented below (Table 1):

Table 1. Weiss's Impact of Events Scale-Revised

Response	Point	Lower Limit	Upper Limit
Extreme	4	3.50	4.00
High	3	2.50	3.49
Moderate	2	1.50	2.49
A little bit	1	0.50	1.49
Not at all	0	0	0.49

Any skill area with a mean of 3.50 to 4.00 was considered as extremely acquired; those with 2.50-3.49 were termed highly acquired, while those with a mean of 1.50 to 2.49 were regarded as moderately acquired. Any skill area with a mean of 0.50 to 1.49 and 0 to 0.49 were classified as a little bit acquired and not acquired at all respectively.

RESULTS

Research Question 1

What is the level of skills acquired by N-Power Build Trainees in Automobile Crafts?

Table 2. Level of Skills acquired by N-Power Build Trainees in Automobile Crafts

S/N	Skill Areas	N	Mean	Remarks
1	Repair and diagnosis of modern Vehicles using modern diagnostic tools	82	1.38	A little bit
2	Troubleshooting	82	2.43	Moderate
3	Workshop safety practices	82	2.59	High
4	Operation of OBD Scanner, all data scanner, using a modern analyzer	82	2.75	High
5	Wheel alignment and balancing	82	1.57	Moderate
6	Panel beating and spraying	82	1.24	A little bit
7	Vulcanizing using modern equipment and tools	82	2.32	Moderate
Cluster Mean			2.04	Moderate

The data presented in Table 2 indicated that the mean rating of the level of skills acquired by the N-Power Build Trainees on the various aspects of Automobile crafts ranged from “A little bit” (mean =1.24) to “High” (mean =2.75) with a cluster mean of 2.04. Based on this, it can be concluded that the N-Power build Trainees acquired moderate skills in Automobile crafts.

Research Question 2

What is the level of skills acquired by N-Power Build Trainees in Carpentry and Joinery Crafts?

Table 3. Level of Skills acquired by N-Power Build Trainees in Carpentry and Joinery Crafts

S/N	Skill Areas	N	Mean	Remarks
8	Cutting, shaping, and installation of building materials during construction	70	2.37	Moderate
9	Construction of timber bridges	70	0.24	Not at all
10	Wooden shipbuilding	70	0.00	Not at all
11	Construction of concrete formwork	70	2.51	High
Cluster Mean			1.28	A little bit

Data in Table 3 revealed that the mean responses on the level of skills acquired by the N-Power Build Trainees in Carpentry and Joinery crafts ranged from 0.00 to 2.51 with a cluster mean of 1.28. Therefore, it can be concluded that the N-Power build Trainees acquired few skills in Carpentry and Joinery crafts.

Research Question 3

What is the level of skills acquired by N-Power Build Trainees in Electrical Installation and Maintenance Crafts?

The data presented in Table 4 shows that the mean rating of the level of skills acquired by the N-Power Build Trainees Electrical Installation and Maintenance crafts ranged from 2.01 to 2.32 with a cluster mean of 2.17. Based on this, it can be concluded that the N-Power build Trainees acquired moderate skills in Electrical Installation and Maintenance crafts.

Table 4. Level of Skills acquired by N-Power Build Trainees in Electrical Installation and Maintenance Crafts

S/N	Skill Areas	N	Mean	Remarks
12	Electrical wiring of buildings	93	2.32	Moderate
13	Maintenance of stationary machines and other related equipment	93	2.01	Moderate
Cluster Mean			2.17	Moderate

Research Question 4

What is the level of skills acquired by N-Power Build Trainees in Masonry and Tiling Crafts?

Table 5 contained data relating to the level of skills acquired by the N-Power Build Trainees in Masonry and Tiling crafts. The data indicated that the mean responses ranged from 1.73 to 2.85 with a cluster mean of 2.43. Based on that, it can be concluded that the N-Power build Trainees acquired moderate skills in Masonry and Tiling crafts.

Table 5. Level of Skills acquired by N-Power Build Trainees in Masonry and Tiling Crafts

S/N	Skill Areas	N	Mean	Remarks
14	Translate what the professionals have designed and drawn into the physical building	41	2.22	Moderate
15	Laying blocks or bricks to construct brickwork	41	2.68	High
16	Lay any combination of stones, bricks, cinder blocks, or similar pieces or concrete to make up the walls and structural elements of the building	41	2.37	Moderate
17	Foundations Construction	41	2.71	High
18	Floor Construction	41	2.85	High
19	Columns Construction	41	2.43	Moderate
20	Beams Construction	41	2.62	High
21	Undertake plastering/Rendering	41	2.34	Moderate
22	Tiling and other finishing work in the building ²	41	1.73	Moderate
Cluster Mean			2.43	Moderate

Research Question 5

What is the level of skills acquired by N-Power Build Trainees in Plumbing and Pipe fittings Craft?

Data in Table 6 revealed that the mean responses on the level of skills acquired by the N-Power Build Trainees in Plumbing and Pipe fittings craft ranged from 0.14 to 2.38 with a cluster mean of 1.27. Therefore, it can be concluded that the N-Power build Trainees acquired few skills in Plumbing and Pipe fittings craft.

Table 6. Level of Skills acquired by N-Power Build Trainees in Plumbing and Pipe fittings Craft

S/N	Skill Areas	N	Mean	Remarks
23	Installation and maintenance of plumbing systems	32	2.38	Moderate
24	Installation and maintenance of heating systems	32	1.42	A little bit
25	Design and Installation of a drainage system	32	2.26	Moderate
26	Design and Installation of fire fighting system	32	0.14	Not at all
27	Installation of Small-sized Industrial process plant pipe network	32	0.14	Not at all
Cluster Mean			1.27	A little bit

DISCUSSION

Findings from the study indicated that the N-Power Build trainees acquired moderate skills in Automobile crafts, Electrical Installation and Maintenance Crafts, and Masonry and Tiling Crafts. These findings are in agreement with Ohize and Adamu (2009) who discovered that the Youth Empowerment Scheme (YES) has succeeded in empowering its beneficiaries in terms of skills acquisition particularly for self and to some extent paid employment. The authors while relying on the report of the YES monitoring committee in Niger state, Nigeria, noted that thousands of youth that have in the past lost hope have been empowered.

Because there is an increase in the number of the vehicle in the country, and the increase in construction work all over the country (National Bureau of Statistics (NBS), 2019), there is likely going to be a sharp increase in the demand for competent craftsmen that will handle their maintenances. Fortunately, the findings show that the trainees acquired "moderate" skills in those crafts which may positively affect their workplace performance. These moderate skills acquisition may be as reported by Adeyanju (2019) that both the male and female participants recognized the positive role that the program will play in their lives.

Finding from the study also shows that the N-Power build Trainees acquired a little bit skills in the Carpentry and Joinery Crafts, and Plumbing and Pipe Fitting Crafts. These findings are in agreement to some extent and in sharp contrast with Chakravorty and Bedi (2019) who reported that the skill training program organized for rural Bihar reaches the intended target group with young men and women participating actively in the program. However, the authors discovered that between 2-6 months after the skills training program, the employment effect drops to zero after reaching an all-time high of 29%. This may be attributed to "a little bit" skills they acquired which adversely affected the desire to retain those that are into paid employment or patronize those that are into paid employment. [2]

These findings may not be unconnected with the consequence of the findings of Akujuru and Enyioko (2019). Relying on the data obtained from rivers state, Nigeria, Akujuru and Enyioko discovered that Non-payment of stipend to a participant as and when due, overbearing of politicians in the selection process are some of the challenges affecting N-power build trainees. This is because, when the agreed stipend is not forthcoming, coupled with the interference from politicians, the trainees may not likely put in their best in the training program. In the same vein, while relying on the data obtained from Taraba state, Nigeria, Auta and Obi (2019) reported that Carpentry and Joinery, and Plumbing and Pipe Fittings ranked 7th and 12th position on the list of preferred crafts. The authors also reported that most vocational trainees are placed in crafts outside their crafts of interest which may likely affect their performances because it is a key to learning. [2]

LIMITATIONS AND FUTURE RESEARCH

The authors acknowledged that this study has limitations. This is because the sample size was relatively small since the study only covered one state and the comparison of error rate and power through testing of hypothesis using inferential statistical tools was not carried out in this study. A promising direction for future study may include increasing the sample size as well as the formulation of hypothesis and utilization of inferential statistics to compare error rate and power. [2]

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings presented in the preceding headings, it can be concluded that the goal of the N-Power Build training program of revitalizing the apprenticeship system of training a skilled workforce for the industries has not produced the much-desired results particularly in the Carpentry and Joinery as well as plumbing and pipe fitting crafts. It is, therefore, recommended that: [2]

1. The Federal Ministry of Humanitarian Affairs and Disaster Management should ensure that both the trainers and the trainees are adequately supervised to ensure that they both performed their roles under their terms of engagement. [2]

2. The Federal Ministry of Humanitarian Affairs and Disaster Management should conduct a study to determine the cause of low skills acquisition of the N-Power build trainees.
3. The Federal Ministry of Humanitarian Affairs and Disaster Management should ensure that N-Power Build trainees are posted to only industries that have adequate human and material resources to cater to the training needs of the program.☐
4. The Federal Ministry of Humanitarian Affairs and Disaster Management should review the training module to emphasize periodic evaluation to get feedback on the ongoing training program.☐

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