

Profiling the Objectives of Roadside Mechanic Apprenticeship Programs in North Western Nigeria

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Abstract— The roadside auto mechanic apprenticeship program in Nigeria, is as old as the automobile itself. It has contributed to the creation of jobs, maintenance and repairs of motor vehicles and found in all corners and cronies in the country and the North Western Nigeria, in particular. However, the conduct of this all important program is largely left to unorganised and uncoordinated individuals who own, plan, fund, maintain, train and determine everything that goes on in the workshops in informal ways. As a result, as observed by the researcher, different objectives, processes, programs and policies are found in different auto mechanic road side workshops solely determined by the proprietors. This therefore, prompted this study with the aim of identifying and profiling the objectives of the auto mechanic roadside apprenticeship programs in North Western Nigeria as a unified guide to the programs. To achieve this, seven objectives were stated in the questionnaire, derived from the literature, whereby participants were required to rate the importance of each of the objectives based on 1 to 7 ranking. The questionnaire was administered to 150 master craft trainers and 750 apprentices across two states, while the result was analysed using the mean rank order. The result identified that acquisition of technical skills in auto mechanics is the most preferred objective, while acquiring knowledge of professional ethics is considered the least. The study then recommended that the identified objectives be adopted for all apprentice training workshops in North Western Nigeria and also the implementation of NBTE accreditation scheme for the road side auto mechanics program, amongst others.

Index Terms— Auto Mechanics, Apprentice, Training.

I. INTRODUCTION

The concept that education is a long life process that produces a change of behaviour of an individual from birth to death and so a critical factor in the survival of man, implies that whatever an individual learns as a way of acquiring experiences about a certain concept(s), which bring about changes in the individual, is referred to as education. During the pre-independence period in Nigeria, education was geared towards the training of people who would be able to read and write and subsequently be employed as clerks and interpreters, (Garba, 2017), thus as at that period, education in Nigeria was conceived only as the ability to read and write.

However, the Federal Republic of Nigeria through the national policy on education portrays education as an instrument that produces a change in the intellectual and social outlook of any society, through the contributions of educated individuals within that society, (Group et al., 2015)

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The policy lays emphasis on what could be referred to as positive change and development of the society, attributable to the education of its citizens; the intellectual ability and brainpower developed by human beings to perfectly operate within their environment.

Meanwhile, specialists in Education express the opinion that education, looking at it in a broader sense, is not acquired by going to a formal school setting only, as it is described, by Mukhopadhyay, (2019), as the total process of human learning by which knowledge is imparted, faculties trained and skills developed. Based on this definition, therefore, school can be considered as only one agent through which education can be acquired, thus, acknowledging the importance of other agencies of education such as the home, the family, the peer group, the mass media, religious centres, social centres and other organised and non-organised sources. Thus, it is suggested that knowledge is acquired through what is termed informal, non- formal and formal ways. These forms of education will be carefully discussed, with special preference to the non-formal education as it forms the area of interest on which this research is hinged.

The concept of Formal Education; this type of education is delivered in a formally organised fashion under the directive of the school at all levels from primary to the university. It involves training in a variety of specialised programs and institutions for full technical and professional training, in addition to general/academic education, (Maruyama, 2019). Formal education in Nigeria is targeted at young men and women from the age of six based on the 6-3-3-4 system of education made up of six years of primary school, three years each for junior and senior secondary school, and four years in higher education studies.

The concept of Informal education, the informal education on the other hand, is the situation whereby an individual acquires attitudes, values, skills and knowledge as a result of daily experiences in his/her environment (families and neighbours, from work and play, the marketplace, library and mass media), (Mahalakshmi, M; Akilandeewari, 2017). This type of education gives the opportunity for a child to learn and be able to use the rudiments of some locally used languages, before going to school. Although this system of education is as old as the origin of mankind itself, it is unorganised and unsystematic, hence providing different individuals the opportunity to learn about a particular concept or vocation in different ways, because there're no pre-arranged plans for learning procedure. Learning in this system does not require any basic pre-requisite to qualify an individual in acquiring it, and most of the learning is through observation, imitation, role play, narration and so on. In the

light of that, Okafor, (2011), suggested that, the agencies through which informal education is transmitted include organisations such as youth clubs and associations, as well as political parties where participants select learning objectives. The above narrative is a clear indication that informal education programs are generally open and non-competitive and so encouraging a high level plurality of potential clientele, which the overall system can accommodate.

The concept of Non-formal education; interestingly, this research work is principally focused on this type of education, which, happens to be the form of education publicly organised to educate its participants outside the normal school setting, in other words, it is the form of education given to individuals in a non-school set up. Non-formal education has been with man as old as his existence in this world and has said to be a concrete means of educating youth through apprenticeship by passing it from one generation to the younger generation, (do Amaral, 2019). Modernization has however influenced some positive innovations in non-formal education sector where by apprenticeship programs are provided in many fields of occupations that include tailoring, hair dressing and iron bending, carpentry, brick laying, auto-mechanics, auto-body repairing, air conditioner maintenance, tyre vulcanising, electrical installation, furniture making, welding/ fabrication, sheet metal work, machining (turning), fitting and foundry work, amongst others.

The non-formal education in Northern Nigeria is a popular program whose important component involves a contract agreement entered into between the master craftsman and the apprentice. Such contractual agreement incorporates the fee payable by the apprentice, the period of training and also spells out the penalty to be meted out when either party breaks the contract, (Matenda, 2017).

The organisational set-up for the auto mechanics training workshop is normally made up of the master craftsman (trainer), who owns the facility exercises full control, owns the tools for the exercise and possesses the skills to provide the needed training to the apprentice, who happens to be the learner, (Ziblim, Nkrumah, & Imoro, 2018). Furthermore, Hyland, (2014), in his contributions, asserted that the system is planned such that it provides a wide ranging trainings and technical competencies suitable to satisfy the needs of the society and the economy, and, through articulated measures, enhance the economic well-being of the nation. However, (Ziblim et al., 2018), observed that the often illiterate or semi-illiterate master models, develop training programs that are predominantly practical and lacking in basic theoretical concepts. They further posited that, despite the fact that roadside mechanics function successfully in the labour market, they remain in the final analysis, in the lower cadre of manpower personnel and their practical expertise gradually taken over by modern mechanical manipulation. Be it as it may, however, the fact remains that the roadside auto mechanics apprentice program is a major contributor, in its own way, to the Nigerian economy. It has continued to create training and employment opportunities for many Nigerians who would have become social miscreants to the public and is indisputably, an indispensable part and parcel of the formal

education with a lot of demands coming its way. In view of the enormous contributions of the roadside apprenticeship to the national economy and its attendant challenges, therefore, leaving the master craftsman to absolutely determine the training situation of the system is amounting to placing too much responsibility on that person.

Having acknowledged the contributions of road side apprenticeship, and with the view to enhancing its operations, the Federal Government of Nigeria introduces a policy for the accreditation of the program and it states that “the question of accreditation for roadside mechanics and others who complete training programs through non-formal education will be undertaken by the National Board for Technical Education (NBTE)”, (World Bank, 2015). Unfortunately, however, more than three decades after the promulgation of this policy, not a single roadside mechanic has been accredited, and there is no concrete evidence of the intention to implementing the policy. And to cap it all, there doesn't seem to be a defined objective documented for these apprentice programs. This informed the motive behind this study, which is aimed at profiling the perceived objectives of these training workshops from the perspective of the trainers and trainees.

II. RESEARCH METHOD

Research question

In order to achieve the purpose of this study, the research intends to provide credible answer to the questions;

- What are the perceived objectives of the roadside mechanic apprenticeship training programs?
- What is the profile in terms of importance, of the perceived objectives?

Hypothesis

The study formulates the following hypothesis;

There is no significant relationship between the perception of the master craftsmen and the perception of apprentices on the objectives of roadside mechanic apprenticeship.

Population and Sampling

The population of the study consisted of all road side auto mechanic master craft trainers and apprentices on apprenticeship programs in North Western Nigerian states of Sokoto and Kebbi. From each state, three major towns of high automobile transportation activity were purposively selected, while five roadside mechanic apprenticeship programs (auto-repairs, auto-electricity, furniture making, iron bending, and carpentry) with workshops that have not less than five apprentices were randomly selected for inclusion in the study in each town. From each workshop, five apprentices were then used for the study. Where the number of apprentices was more than five, random sampling was applied to obtain the five apprentices. In each of these programs in a town, five workshops were randomly selected. In total, 150 master craft trainers and 750 apprentices were included in the study.

Instrumentation

The Roadside Mechanic Apprenticeship Programmed Objective Questionnaire (RMAPOQ), made up of seven items of objectives of the roadside mechanic apprenticeship

programs, derived from the literature was applied. Participants were required to score each of the seven statements of '1' to '7' in their order of importance and representative of the objectives of roadside mechanic apprenticeship programs in North Western Nigeria. The scoring order was based on the highest score of '7' allocated to the statement of objective that was considered most important and most representative of the roadside mechanic apprenticeship programs, while '1' was given to the statement of objective that was considered least important and least representative of the roadside mechanic apprenticeship programs. The questionnaire was face validated by five experts in the school of vocational and technical education Waziri Umaru Federal Polytechnic, Birnin Kebbi.

For reliability the questionnaire was administered to 15

Table 1; Profile of the perceived ranking of the auto mechanics apprentice program in North Western Nigeria.

S/N	List of Objectives	Apprentices Mean Response	Rank	Master Craft Mean Response	Rank	Average Mean	Order of Ranking
1	To provide training opportunities for youth prior to employment.	2.94	6 th	2.19	7 th	2.57	6 th
2	Opportunity to acquire basic knowledge for advanced training.	3.26	5 th	2.45	5 th	2.86	3 rd
3	Encouraging interpersonal relationships.	3.42	4 th	3.20	2 nd	3.31	4 th
4	To help instil discipline amongst the youths.	4.88	3 rd	2.58	4 th	3.73	3 rd
5	To create opportunity for advanced knowledge and skills in auto mechanics.	5.04	2 nd	3.10	3 rd	4.07	2 nd
6	To provide knowledge of professional ethics.	2.44	7 th	2.28	6 th	2.36	7 th
7	To acquire technical skills in auto mechanics.	5.60	1 st	3.66	1 st	4.63	1 st

in their perceptions of the objectives of the training programs.

Presentation of the Results of the study.

From table 1, the indication is that, the four most perceived important objectives of the roadside mechanic apprenticeship training programs from the perspectives of the participants are: (a) the acquisition of technical skills in automobile mechanics, (b) to create the opportunity for advanced knowledge and skills in auto mechanics, (c) to instil discipline among youths and (d) to provide opportunity for interpersonal relationships. The overall weighted means of the items are 4.63, 4.07, 3.73 and 3.31 respectively to emerge in ranks of 1st, 2nd, 3rd and 4th respectively.

The marginal objectives of the training programs included: (a) to acquisition of basic knowledge for advanced training, (b) to provide opportunity for pre-employment training and (c) for the acquisition of professional ethics, with means of 2.86, 2.57 and 2.36 to rank 5th, 6th and 7th respectively.

The means of the two groups (apprentices and master craft trainers) were ranked and correlated to establish relationship between their views. The calculated value of 0.93 is greater than the critical value of 0.71 at a degree of freedom of 7 and alpha level of 0.05, therefore the null hypothesis is rejected at $p < 0.05$. The conclusion, therefore, is that there is a significant relationship between the apprentices and master craft trainers

master craft trainers and 20 apprentices chosen from the target population, but who were not included in the sample. The questionnaire was administered on the same group two weeks after the first administration. The test-retest approach using the Pearson r Product formula was used to achieve the reliability co-efficient of 0.78.

The questionnaire was directly administered by the researcher to master craft teachers and apprentices, and completed questionnaires were obtained and answers were collated.

III. DATA ANALYSIS

The data analysis was carried out using mean rank order.

IV. DISCUSSION

The study of the data in Table 1 shows that "to acquire technical skills in auto mechanics" obtained the highest mean average and therefore, the highest ranked objective of the training programs. Roadside mechanic apprenticeship programs expose trainees to the acquisition of technical skills in auto mechanics. The practical activities involve forming and shaping of materials, dismantling, servicing and assembling of vehicle components and they are mostly devoid of theoretical knowledge information which makes it difficult for the apprentices to perform any operations not related to those carried out by their tutors. In the practice of skills, the recipients observe the master trainer perform the operations, and through imitation, the apprentices then practice the skills until they become proficient in them, (Oviawe, Uwameiye, & Uddin, 2017).

From the data, it is also deduced that "creation of opportunity for advanced knowledge and skills" occupy the second most rated objective. The focus of the roadside mechanic apprenticeship programs is geared towards training for the future, (Rainie & Anderson, 2017), so graduates of mechanic apprenticeship programs acquire skills that would

enable them seek further knowledge in the field of auto mechanics, which is as dynamic as the human needs.

The data further show that “to instil discipline among youth” happened to be the third rated objective for the roadside mechanic apprenticeship programs. Youth restiveness and intolerance resulting into ethnic and religious conflicts, acts of social vices such as armed robbery, kidnapping and cultism have been largely attributed to gross indiscipline among the youths. Most youths do not have the useful skills and therefore cannot find themselves in any paying or in self-employed jobs. The high discipline underlined in the apprenticeship programs and the hope of gainful employment help to curb the excesses of apprentices. They are expected to be punctual and consistent at work, display customer appreciation and behave appropriately. Punishments are levied when wrongs are done.

The fourth most rated objective for the roadside mechanic apprenticeship programs was “to create an avenue for interpersonal relationships”. Interpersonal relationships refer to relationships in society between members of the same company and other individuals. Apprentices are trained to relate to other apprentices by making them work in groups, which fosters group work and community orientation in the apprentices.

V. RECOMMENDATIONS

Based on the humble findings of this study, some recommendations are made which includes;

- I. That the identified four highly rated objectives for the auto mechanic should be adopted as the main objectives of the roadside mechanic apprenticeship programs in North Western Nigeria;
- II. That the much expected accreditation of apprenticeship programs in Nigeria (Federal Republic of Nigeria 1998) by the National Board for Technical Education (NBTE) should be implemented as soon as possible, as, this would help in setting a basis for the operation and organisation of apprenticeship programs in Northern Nigeria;
- III. That the technical training institutions should incorporate evening/part time programs for the master craft trainers and journeymen to acquire or update their levels of technical information. The acquisition of knowledge of technical information will provide a sound basis for the recipients to be able to make judgment about technical situations;
- IV. That, relevant authorities should set a program for regularising the numerous apprenticeship programs scattered all over the North West of Nigeria. This program should be comprehensive, setting in motion the policy for the organisation of roadside apprenticeship programs. It should also incorporate a program for literacy training for the master craftsmen and journeymen who are mostly illiterates.

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