Assessment of National Automotive Design and Development Council Training Programmes in Informal Sector Automobile Mechanics in Nigeria

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Abstract: The purpose of this study was to assess the NADDC training programme for the informal sector of automobile mechanics in Nigeria. Three research questions guided the study. The design of the study was a descriptive survey design. The population of the study was one thousand, two hundred and two respondents (1,202). The study covered the entire country of Nigeria, which is divided into 6 geopolitical zones comprising of 15 training centres. The sample for the study was two hundred and seventy-two respondents, which was purposefully selected. The instrument for data collection was a structured questionnaire developed by the researcher. The collected data was analysed using mean and standard deviation, and hypotheses were tested using the t-test and ANOVA. The result revealed that the fifteen (15) objectives are highly appropriate for the training of automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. Human resources at the training centres are highly adequate for the implementation of NADDC training programmes for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. One of the suggestions was that a workshop be set up to teach the trainers how to use the materials given, since most machines, tools, or instruments are very computerized. NADDC training programme graduates should be closely monitored for further training and retraining to meet the challenge of modern technologies and innovations in automobiles.

Background of the Study

The modern automobile and its maintenance industry are already becoming more than the roadside mechanic can handle. The industry is becoming more technologically oriented on a daily basis, with many computerised systems, making it more sophisticated.The Nigerian automobile industry is made up of a few automobile assembly plants, automobile merchandising, transportation, maintenance, and spare parts dealerships/sales. Also, because most of the modern vehicles are imported into the country, their maintenance poses a major challenge to the automobile technicians, thus the need for retraining of the automobile technicians in the maintenance and servicing of modern vehicles. Jalal (2015) posited that, due to the increasing complexity of technology that gives birth to modern automobiles that run on integrated electronic systems and complex computers, which measure their performance while on the road, it becomes very necessary for automobile technicians and users to acquire broad-based knowledge and the ability to work with electronic diagnostic equipment and computer-based technical reference material through regular training and retraining. The advent of scanning tools for diagnosing engine faults and code readers has also brought about the elimination of guesswork and trial-by-error services on modern automobiles. This development has also led to a serious need for retraining of automobile mechanics in the informal sector. Adams (2008) observed

that the informal sector serves as a safety net for those unable to find employment in the formal sector and that the term "informal sector" disguises a significant degree of informal activities and involves different types of activities. It is worth mentioning that in Nigeria, like in other countries, the informal sector has two distinct sides (Walther, 2011). On one hand, it is a negative manifestation of inadequate employment creation in private companies, parastatal and government services, which "pushed" large numbers of jobless into informal activities. On the other hand, it refers to the positive response of the poor (and many not-so-poor) in the face of such a situation, combining their minimal resources, hard work, and often a large dose of ingenuity to earn low but important incomes. The International Labour Organisation (ILO) defines the informal sector as "all economic activities by workers and economic units that are in law or in practise not covered or insufficiently covered by formal arrangements" (ILO, 2012). The informal sector of automobile mechanics (roadside mechanics) no doubt has a lot of problems, ranging from lack of a sound educational background, poor performance in an attempt to rectify a fault, poor site location, among many things. Many customers, for instance, accuse them of employing trial and error procedures when rectifying faults on the vehicle. This seems to be a problem for their maintenance and repair work (Johansen, 2012).

Automobile Mechanics training gives young people practical skills in engine management systems, basic auto electricity, wheel balancing and wheel alignment operations, vehicle charging systems, suspension systems, fuel injection systems, and the use of computerised vehicle diagnosing machines (Africa Mechanics Trust, 2007).Automobile mechanics trainers and instructors are the sources of knowledge in the informal workshop environments. As scholars, they operate by analyzing, designing, implementing, and evaluating teaching (training) and learning activities. They establish activities that are measurable and achievable for their instruction. Since the curriculum is expected to essentially reflect the needs of society, it is the responsibility of the teachers and trainers to organise activities for students and trainees in such a manner as to produce useful individuals who are functional and capable of satisfying the needs and aspirations of society (Walther, 2011). According to Nitko (2008), assessment is a process of obtaining information that is used for making decisions about trainees, curricula, and programmes. According to Capper (2015), assessment is a process of investigating an individual, a group, or a programme's performance with reference to set objectives and expected outcomes. For Adedokun (2009), assessment is a process of determining whether or not an individual has gained from instruction (i.e., in a teaching and learning process). Assessment is the collection, synthesis, interpretation, and use of information to aid the teacher in taking decisions before, during, and after instruction. Assessment is central to the overall quality of teaching and learning, which is seen by Alogne (2017) as a lesser form of evaluation. Udoh (2013) has suggested the following procedures which could be used by technical teachers for assessing the performance of their students:

➢ performance or practical tests.
➢ Oral responses and examinations
➢ Written tests and examinations This should be an essay or objective type of question.
➢ Self-evaluation by students
➢ Individual score cards and check lists
➢ Completed assignments or projects
➢ Personal interviews and observations
➢ Note books

Statement of the Problem

In its skills gap assessment report, the United Nations Industrial Development Organization (UNIDO) stressed that in spite of the existence of over 100 universities and over 120 polytechnics and similar institutions, in addition to hundreds of technical and vocational colleges, educational institutions have been largely disconnected from industrial and socio-economic needs by consistent neglect of competence and undue emphasis on paper qualifications. In this regard, despite all the training organised and conducted by NADDC to address the skill gap in the automobile industry, auto mechanics still find it difficult to efficiently work on modern vehicles in Nigeria. This leads to a

poor job being done on maintenance and repair, which causes more damage to the vehicle or complete breakdown of the vehicle, as a result of which the car owner ends up spending more money on replacement of parts and maintenance of the vehicle. With the changes in modern vehicle technologies, automobile mechanics have not been able to update their skills and knowledge to meet the changes in modern vehicles, and this has had a negative effect on the quality of the maintenance and repairs they undertake on motor vehicles in the country. This calls for the development of new policies and incentives for the informal sector that can take care of and respond to technological changes (Jalal, 2017).

In view of the above scenario of inadequate competence reflected by the NADDC's industry skills assessment, the National Board for Technical Education granted approval to the council to establish a Sector Skills Council for the automotive industry in the country (NADDC Journal, 2017). Therefore, there is a need to assess the National Automotive Design and Development Council Training Programmes for automobile mechanics in the informal sector in Nigeria.

Purpose of the Study

The general purpose of this study is to assess NADDC training programme for informal sector of automobile mechanics in Nigeria. Specifically, the study seeks to:-

1. Determine the utilization of material resources provided by NADDC in the training of informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.
2. Ascertain the pedagogies employed in the implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repair of vehicles in Nigeria.
3. Determine the NADDC graduate's attained the objectives of the training programme for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria

Research Questions

1. To what extent is the utilization of materials resources for the implementation ofNADDC programmes in the training of informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria?
2. To what extent are the pedagogies employed in the implementation of NADDCtraining programme for informal sectorautomobile mechanics on maintenance and repairs of vehicles in Nigeria?
3. To what extents have the NADDC graduate's attained the objectives of the training programme for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria

Research Hypotheses

Ho$_1$ There is no significant difference in the mean response of NADDC trainers, assessors and graduates on the utilization of material resources for the implementation of NADDC training programmes in the informal sector of automobile mechanics on maintenance and repairs of vehicles in Nigeria.

Ho$_2$ There is no significant difference in the mean response of NADDC trainers, assessors and graduates on the pedagogies employed in the implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

Ho$_3$ There is no significant difference in the mean responses of NADDC trainers and assessors on the attainment of NADDC training objective by graduates of informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

Methodology

The study adopted a descriptive survey research design. Ezeji (2004) describes a descriptive survey design as one which involves the assessment of public opinion using the collection of detailed descriptions of existing phenomena with the intention of using the data to justify current conditions

and practises or to make better plans for improving phenomena. The study covered the entire country of Nigeria, which is divided into 6 geopolitical zones comprising of 15 training centres. The North East has training centres in Abubakar Tafawa-Balewa University Bauchi and the Federal College of Education (Tech) Gombe. North Central has training centres at Federal University of Technology, Minna, Federal Technical College Orozo and Nasarawa State Polytechnic, Lafia. **The North** West has three training centres, namely Ahmadu Bello University, Zaria; Kaduna Polytechnic; and Peugeot Automotive Nigeria Learning Centre, Kaduna. The south west has three training centres, which are the University of Ibadan, Oyo State; Lady Mechanic Initiative, Lagos; and Lagos State Polytechnic, Ikorodu. The South has two training centres, namely Ken Saro-Wiwa Polytechnic Bori, Rivers State and the University of Benin, Edo State. The South East has two training centres, namely Nnamdi Azikiwe University, Akwa and Metallurgical Training Institute, Onitsha, all in Anambra State. The population of 1,202 respondents comprised 1,140 NADDC graduates, 45 NADDC trainers, and 17 NADDC assessors from all the 6 geographical zones of Nigeria. Two sample techniques were used for this study, namely Census Sampling and Purposive Sampling. The instrument used for data collection was a structured questionnaire. The questionnaire was divided into two parts. Part 1 (Section A) sought the personal data of the respondent. Part II (section A-G) elicited information from respondents on the evaluation of the national automotive design and development council training programmes for informal sector automobile mechanics. The questionnaire items were structured on a five-point scale. The respondents were required to tick the response categories that best describe their opinion as follows: Very Highly Appropriate (VHA) = 5 points, Highly Appropriate (HA)= 4 points, Appropriate (A)= 3 points, Moderately Appropriate (MA)= 2 points, Barely Appropriate (NA)= 1 point. The instrument was validated by two automobile technology specialists from the Department of Vocational Technology Education, Modibbo Adama University Yola, two training centre heads, and one NABTEB Certified Quality Assurance Assessor from NADDC. Their suggestions and corrections were used to improve the production of the final instrument used for the study. The Cronbarch's alpha formula is in order to determine the internal consistency of the instrument. Therefore, the Cronbach alpha reliability coefficient was calculated and a reliability coefficient of 0.804 was obtained. The collected data were analysed using the Statistical Package for Social Sciences (SPSS) version 23's Mean and Standard Deviation. Null hypothesis 2 was tested using Analysis of Variance (ANOVA), while null hypothesis 1 and 3 were tested using a t-test at a 0.05 level of significance. For the null hypotheses, if the computed p-value is less than the alpha-value, the hypothesis was rejected; and where the computed p-value is greater than or equal to the alpha-value, the null hypothesis was accepted.

Results

Table 1: Mean and Standard Deviation of the respondents on the utilization of material resources for the Implementation of NADDC Programmes in the Training of Automobile Mechanics in the Informal Sector on Maintenance and Repairs of Vehicles in Nigeria

S/N	ITEMS	RESPONDENTS CATEGORIES							
		Graduate		Trainers		Assessors			
		N_1 =202		$N_2 = 45$		$N_3 = 17$			
		X	SD	X	SD	X	SD	XG	RMK
1	OBD Diagnostic Tool (Scanner)	3.47	0.71	3.67	0.71	3.65	0.61	3.52	HU
2	Multimeter	3.33	0.75	3.24	0.65	3.24	0.75	3.31	U
3	Fuel Injector Servicing and Testing Machine	4.17	0.79	4.04	0.90	4.35	0.86	4.16	HU
4	Digital Wheel Alignment machine	4.16	0.89	4.35	0.74	4.29	0.85	4.21	HU
5	Brake & Suspension Testing Machine	4.07	0.85	4.22	0.82	4.00	0.79	4.09	HU
6	Exhaust Gas Analyzer	3.16	0.87	2.82	0.83	2.82	0.88	3.08	U
7	Air conditioning system Refilling Machine	4.33	0.79	3.98	0.84	4.12	0.93	4.25	HU
8	Car lift (Boom Ram)	4.26	0.78	4.09	0.87	4.47	0.87	4.24	HU
9	Oscilloscope	3.25	0.79	3.42	0.75	3.29	0.58	3.28	U
10	A/c Leak Tester	3.22	0.76	3.33	0.79	3.35	0.78	3.25	U
11	Timing light for Petrol Engines	4.49	0.67	4.22	0.82	4.47	0.78	4.43	HU
12	Timing light for Diesel Engines	4.13	0.70	3.46	0.59	4.11	0.49	4.02	HU

13	Electronic Headlight Tester	3.51	0.74	3.29	0.51	3.59	0.71	3.50	HU
14	Wheel Balancing machine	4.49	0.67	4.22	0.82	4.47	0.78	4.43	HU
	Total Grand Mean	3.86	0.77	3.74	0.76	3.87	0.76	3.84	HU

Source: Field Survey (2021)

KEY

N1 – **Sample size of NADDC Graduates**

N_2 - **Sample size of NADDC Trainers**

N_3 - **Sample Size of NADDC Assessors**

$\bar{x}$ – **Mean**

SD – **Standard Deviation**

The mean ratings of trainers and assessors on the utilisation of materials resources for the implementation of NADDC Programs in the training of automobile mechanics in the informal sector are shown in Table 1. The results revealed that their grand mean ranged from 3.86, 3.74, and 3.87, with a standard deviation of 0.76 and 0.77. The mean of the graduates ranged from 3.160 to 4.49, with their corresponding standard deviation of 0.67 to 0.89. The mean of the trainers ranges from 2.82 to 4.35, with a standard deviation of 0.59 to 0.82. While the mean of the assessors ranges from 2.82 to 4.47, with a corresponding standard deviation of 0.49 to 0.93, The grand mean also ranged from 3.08 to 4.43. This implies that material resources for the implementation of NADDC Programmes in the Training of Automobile Mechanics in the Informal Sector on Maintenance and Repair of Vehicles are utilized.

Table 2: Mean and Standard Deviation of the respondents on the extent of pedagogies employed in the implementation of NDDC training programmes for automotive mechanics in the informal sector on maintenance and repair of vehicles in Nigeria.

S/N	ITEMS	RESPONDENTS CATEGORIES							
		Graduate		Trainers		Assessors			
		$N_1 = 202$		$N_2 = 45$		$N_3 = 17$			
		X	SD	X	SD	X	SD	XG	RMK
1	Leaning by watching.	4.24	0.79	4.18	0.83	4.47	0.62	4.25	HE
2	Leaning by imitation	3.27	0.71	3.37	0.69	3.64	0.68	3.31	E
3	Learning by practicing	3.09	0.83	3.38	0.98	3.29	0.77	3.16	E
4	Learning through feedback	4.18	0.80	4.16	0.67	4.41	0.62	4.19	HE
5	Learning through conversation	4.19	0.83	3.98	0.72	4.29	0.85	4.16	HE
6	Learning through teaching	3.24	0.81	3.02	0.87	3.23	0.90	3.20	E
7	Learning by real world problem solving	3.09	0.80	3.11	0.86	3.00	0.87	3.09	E
8	Learning through inquiry	4.11	0.87	4.33	0.85	4.35	0.86	4.17	HE
9	Learning by drafting and sketching	4.20	0.77	4.37	0.75	4.41	0.71	4.24	HE
10	Learning by listening transcribing and remembering	3.18	0.72	3.40	0.62	3.70	0.47	3.25	E
11	Learning by coaching	4.15	0.81	3.93	0.81	4.47	0.62	4.13	HE
12	Learning by competing	2.38	0.79	2.60	0.62	2.59	0.51	2.43	ME
13	Learning through virtual environment	3.34	0.79	3.20	0.81	3.58	0.61	3.33	E
14	Learning through simulation and role	3.23	0.84	3.09	0.76	3.29	0.77	3.21	E
15	Learning through facilitation	3.13	0.85	3.31	0.87	3.64	0.49	3.19	E
	Total Grand Mean	3.53	0.80	3.56	0.78	3.76	0.69	3.55	HE

Source: Field Survey (2021)

KEY

N1 – **Sample size of NADDC Graduates**

N_2	-	Sample size of NADDC Trainers
N_3	-	Sample Size of NADDC Assessors
$\bar{x}$	–	Mean
SD	–	Standard Deviation

Results in Table 2 show mean ratings of trainers and assessors on the pedagogies employed in the implementation of NADDC Programmes in the Training of Automobile Mechanics in the Informal Sector. The results revealed that their grand means ranged from 3.53, 3.56, and 3.76 with standard deviations of 0.80, 0.78, and 0.69. The mean of the graduates ranged from 3.094.24 to 3.00, with their corresponding standard deviation of 0.71 to 0.87. The mean of the trainers ranges from 3.02 to 4.37, with a standard deviation of 0.62 to 0.98. While the assessors' mean ranges from 3.29 to 4.47, with standard deviations of 0.69, 0.78, and 0.80. The grand mean also ranged from 3.09 to 4.25. This implies that, among others, learning by watching, learning by imitation, learning by practicing, learning through feedback, learning through teaching, learning through inquiry, and learning by coaching are the pedagogies employed in the implementation of NDDC training programmes for automotive mechanics in the informal sector on maintenance and repair of vehicles in Nigeria.

Table 3: Mean and Standard Deviation of the respondents on the attainment of NADDC graduate's programme objectives for the training of automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria

S/N	ITEMS RESPONDENTS CATEGORIES						
		Trainers		Assessors			
		$N_2 = 45$		$N_3 = 17$			
		X	SD	X	SD	XG	RMK
1	Health, safety and environment operation.	4.60	0.62	4.59	0.51	4.59	VH A
2	Basic computer skills.	4.38	0.68	4.11	0.79	4.31	HA
3	Motor vehicle electrical/electronic system installation operation.	4.40	0.77	4.49	0.61	4.42	HA
4	Power train and rolling chassis diagnosis operation	4.37	0.91	4.20	0.72	4.32	HA
5	Electrical/electronic system rectification.	4.31	0.79	4.26	0.78	4.30	HA
6	Motor vehicle air conditioning system maintenance and repairs operation	4.43	0.69	4.09	0.78	4.34	HA
7	Motor vehicle maintenance/repairs	4.40	0.74	4.20	0.83	4.35	HA
8	Motor vehicle wiring system	4.51	0.66	4.23	0.77	4.43	HA
9	Reading and interpreting trouble codes.	4.20	0.76	4.23	0.77	4.21	HA
10	Wheel alignment operation	4.26	0.70	4.17	0.75	4.24	HA
11	Wheel balancing operation	4.46	0.66	4.26	0.85	4.41	HA
12	Braking system maintenance and repair.	4.71	0.52	4.94	0.24	4.77	VHA
13	Suspension system maintenance and repairs.	4.54	0.61	4.17	0.71	4.44	HA
14	Petrol engine overhauling.	4.23	0.77	4.17	0.75	4.21	HA
15	Petrol engine injection maintenance and repairs.	4.43	0.81	4.57	0.69	4.47	HA
	Total Grand Mean	4.41	0.71	4.31	0.71	4.38	HA

Source: Field Survey (2021)

KEY

N1	–	Sample size of NADDC Trainers
N_2	-	Sample size of NADDC Assessors
$\bar{x}$	–	Mean
SD	–	Standard Deviation

Results on Table 3 show mean ratings of trainers and assessors on the graduate's attainment of NADDC objectives in the training of automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. The results revealed that their grand mean ranged from 4.31 to 4.41 with a standard deviation of 0.71. The mean of the trainers ranged from 4.20 to 4.71 with their

corresponding standard deviation of 0.52 to 0.81. The mean of the assessors ranges from 4.09 to 4.94 with a standard deviation of 0.24 to 0.85. The grand mean also ranged from 4.21 to 4.47. This implies that health, safety and environmental operation; motor vehicle electrical/electronic system installation operation; power train and rolling chassis diagnosis operation; electrical/electronic system rectification; braking system maintenance and repair; and petrol engine overhauling were all attained by NADDC graduates in achieving the objectives of the training programme for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria.

Table 4: ANOVA Result comparing mean responses of the Trainers, Assessors and Graduates on the Utilization of material recourses for the implementation of NADDC training program.

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.	Remarks
Between Groups	75.010	2	37.505	0.743	0.477	NS
Within Groups	13168.975	261	50.456			
Total	13243.985	263				

Table 4 showed that $F_{(2, 261)} = 0.743$, $p = 0.477$ at the 0.05 level of significance. This p-value is greater than the alpha value of 0.05. Hence, the null hypothesis is accepted and the alternative rejected. This implies that there is no significant difference in the mean response of NADDC trainers, assessors, and graduates on the utilisation of material resources for the implementation of NADDC training programmes in the informal sector of automobile mechanics on maintenance and repairs of vehicles in Nigeria.

Table 5: ANOVA Result comparing mean responses of NADDC trainers, assessors and graduates on the pedagogies employed in the implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.	Remarks
Between Groups	174.016	2	87.008	2.434	0.090	NS
Within Groups	9330.798	261	35.750			
Total	9504.814	263				

In table 5, $F_{(2, 261)} = 2.434$, $p = 0.090$ at the 0.05 level of significance. Since the p-value is greater than the 0.05 level of significance, the null hypothesis was accepted. This indicated that there is no significant difference in the opinions of the three groups of respondents on the pedagogies employed in the implementation of NADDC training programmes for informal sector automobile mechanics on the maintenance and repair of vehicles in Nigeria.

Table 6: Summary of t - test of NADDC Trainers and Assessors on the extents to which the NADDC graduate's attained the objectives of the training programme for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria.

Respondents	N	$\bar{x}$	S. D	Df	t – value	P -value	Remark
NADDC Trainers	45	58.80	9.11				
				60	0.869	0.382	NS
NADDC Assessors	17	61.11	9.46				

The results of the t-test on Table 6 determined the significance difference between the mean responses of NADDC trainers and assessors on the extent to which the NADDC graduates attained the objectives of the training programme for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. The result showed a degree of freedom of 60, a t-value of 0.869, and a P-value of 0.382. Since the P-value (probability value) of 0.382 is greater than the 0.05 level of significance, the null hypothesis is accepted. The study therefore concludes that there is no significant difference between the mean responses of NADDC trainers and assessors on the extent to which the NADDC graduates attained the objectives of the training programme for automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria.

Findings and discussion

According to the data analysed in the study, materials resources available at centres are heavily used in the training of automobile mechanics in the informal sector in Nigeria on vehicle maintenance and repairs. This finding is in agreement with Sawaba (2016), who revealed that the impact of machine tools utilisation on students' skills acquisition on students' skills acquisition in Kano state technical colleges is moderate in all major technical skill areas identified and teacher background in those technical skills is either obsolete or defective. Based on the findings, the researcher recommended that teachers and students should be provided with the needed resources to keep them up to date with changing technology and an enabling environment by the authorities for them to be equipped with the needed technical skills for effective utilisation of modern machine tools for self-employment and in industries. This indicates that the availability and effective utilisation of facilities for training in any programme enhances the vital process of the skills to be acquired. Findings on research hypotheses revealed no significant difference in the mean responses of NADDC trainers, assessors, and graduates on the utilisation of material resources for the implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

On pedagogies employed in the implementation of the NADDC training program, the study found that trainers employ high-level pedagogical skills to implement NDDC training programmes for automotive mechanics in the informal sector on maintenance and repair of vehicles in Nigeria. For the NADDC graduates to attain the programme objectives, the psychomotor or manipulative skills must be taught properly. These are tasks that the technician is expected to carry out or perform expertly and effectively. This is consistent with Fadairo (2019), whose major study discovered ten environmental factors, ten curriculum factors, ten practical skills, ten instructional strategies, and ten administrative strategies for increasing students' interest in automobile technology study. Based on the finding, it was recommended that the automobile technology curriculum be reviewed to include innovations that can improve students' interest in the study of automobile technology. The overriding requirement for practical is the ability of the learner to be able to do the job rather than only talk about it (Julian, 2015). The findings also agree with Giri (2017), who added that the job and competence of craftsmen are measured by what he/she can do as against how well he/she can describe what he/she can do. The pedagogical skills employed, such as earning by coaching as well as by practicing, are more of an apprenticeship, which is in line with the ILO (2012), that informal apprenticeship refers to the system by which a young learner (the apprentice) acquires the skills for a trade or craft in a micro or small enterprise, learning and working side by side with an experienced craftsperson.

Findings on research hypotheses revealed no significant difference in the mean responses of NADDC trainers, assessors, and graduates on the pedagogies employed in the implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria. Research question six also revealed that the graduates attained the NADDC programme objectives creditably after being trained in the informal sector on maintenance and repairs of vehicles in Nigeria. This training is aimed at enabling the graduates to effectively repair and maintain modern vehicles and also advise their clients on the proper purchase and maintenance of vehicles (NADDC, 2017). The finding is in line with Ezeama, Obe and Ede (2016), who found that MVM trainers need capacity building in the use of auto scan tools for vehicle systems diagnosis and repairs. The study recommended that workshops and seminars should be organised by centres like the National Center for Equipment Maintenance and Development, the National Automotive Council, and so on to enable MVM trainers to acquire the required skills to meet the training challenges facing them. The findings on research hypotheses revealed no significant difference in the mean responses of NADDC trainers and assessors on the graduate attainment of NADDC training programmes objective for informal sector automobile mechanics in Nigeria on vehicle maintenance and repairs.

Conclusion

From the results of this study, it was discovered by the researcher that the programme objectives are remarkably appropriate as they aim towards the robust training and retraining of automobile mechanics in the informal sector on maintenance and repairs of vehicles in Nigeria. The trainers employ high-level pedagogical skills to implement the NDDC training objectives for automotive mechanics in the informal sector on maintenance and repair of vehicles in Nigeria. However, stringent efforts must be made towards improving human and material resources in order to drive the up-skilling mandate of NADDC in the automobile industry of Nigeria. This, in turn, will create jobs for the industry's teaming youths and reduce social vices in society as they are currently experienced.

Recommendations:

1. Trainers should be encouraged to study and acquaint themselves with the appropriate pedagogical skills for the implementation of NADDC training programmes for informal sector automobile mechanics on maintenance and repairs of vehicles in Nigeria.

2. NADDC training programmes graduates should be closely monitored for further training and retraining to meet up with the challenge of modern technologies and innovations in automobile.

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