



Suitability of Practical Skills in Automobile Engineering Craft Practice for youth empowerments and Self-Reliance in post COVID-19 Pandemic Economy

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ABSTRACT

The study was carried out to identify the suitability practical skills in automobile craft practice for youth empowerments and self-reliance in post covid-19 pandemic economy. The survey design was adopted to carry out the study in Rivers State in southern part of Nigeria. The population of the study was 273, comprising of 201 Technical college teachers and 72 workshop attendants in six government technical colleges in Rivers State. The entire population was used as respondents, since the researcher considered the population to be of manageable size. A structured questionnaire titled "Automobile Practical Skills Survey" in Nigeria. The instrument consisted of 91 items statements in five subsections structured on a 5-point rating scale. The instrument was validated by three specialists from the Faculty of Education, Rivers State University, Port Harcourt. And the reliability of the instrument was established using test re-test method. Copies of the instrument were administered to 30 respondents at Government Technical and Science Colleges Ahoada, who were not part of the study sample but has similar characteristics with the study population. The reliability were achieved using cronbach Alpha formula which yielded the reliability index .92, .87, .88, 92, & .79 the figures guaranteed the reliability of the instrument. The copies of the questionnaire were administered to the respondents by the researcher with the help of one research assistants from each of the institutions under study. All copies of the instrument which were administered on face to face to the respondents on the first visit and 270 copies were retrieved immediately they were completed. This ensured that there was a 99% returned rate, and all the returned instrument were found useable and considered adequate for the analysis. The data collected from the respondents were analyzed by the aid of using Statistical Package for Social Sciences (SPSS). The research questions were answered with descriptive statistic mean. The decision for the research questions was based on the range for which any item mean response value that falls either below or above the real lower limit 2.50 shall be regarded as not suitable and suitable for below and above respectively. The study found service station mechanic work, petrol engine maintenance work, diesel engine maintenance work, engine reconditioning, auto electrical/electronic work practical skills in automobile craft practice for youth empowerments and self-reliance in post covid-19 pandemic economy. It was recommended that teachers and workshop attendants in technical colleges should always apply effective instructions techniques in delivering practical skills in automobile craft practice that are very suitable for youth empowerments and self-reliance in post covid-19 pandemic economy. The curricula of the Nigeria technical colleges should be reviewed to accommodate latest practical skills in automobile craft practice suitable for youth empowerments and self-reliance in post covid-19 pandemic economy.

Key Words: Vocational and Technology Education, Technical College, Motor Vehicle Mechanic Works, Practical Skills

Introduction

Generally education aims at inculcating knowledge, attitudes, skills, values, and benefits into an individual to assist them achieve a reasonable degree of competence in the various facets of everyday life. It functions as a means for provision of appropriate skills, abilities and competencies for both mental and physical nature as necessary equipment for the individual to be productive in the society (Thomas and Amaechi, 2016).

Vocational and technology education programme were recognized world over as bedrock to meaningful development of any nation's technological quest. According to Okeke (2012) vocational and technology education is considered as the cornerstone for any sustainable technological economy.

Any nation that seeks development technology wise must place priority on its vocational and technology education programmes to improve on the level of her human capacity building/manpower development. Hence, strengthening Nigerian vocational and technology education programme (courses) from the lower up to the upper level of education will enhance the countries technological advancement (Adamu, 2012). Also, technical education is linked to human resources development and economic development worldwide (Hina, 2017). And when Vocational and technology education (VTE) programme is properly implemented it serves as a tool for human capital development and a key to development of the nation indigenous technology.

Technical education with its characteristic comprehensiveness in nature and responsiveness to emerging technologies remains a veritable tool for training manpower needed for national development anywhere. As a workshop-based education, it is concerned with the methods of processing

materials using tools and equipment, into products of economic value. Vocational and Technology education programmes are designed to prepare the individuals for specialize skills, abilities, trade, industrial, agriculture and business for self-reliance and it is generally linked with manual and practical skills and commonly does not include academic abilities (Azubuike, 2011). The aim of vocational and technology education programmes is to produce/provide trained manpower in various applied fields, to provide technical knowledge and vocational skills. Technical and vocational education programmes provide the labor market with skilled and semi-skilled workforce in different trades (Al-said, 2007). Vocational & technology education had more to do with practical work leading to a particular occupation or career. It provides activities for learning by doing and enables individuals' differences to be catered for. In fact, no attempt is made to create homogeneities in groups of children by practice like streaming and ability grouping (Azubuike, 2011).

Vocational and Technology education is an aspect of education that exposes the learner to the acquisition of demonstrable skills that could be transformed into economic benefits and sustainable livelihood (Thomas & Amaechi, 2016). It could also be viewed as that aspect of education which leads to the acquisition of practical, basic scientific knowledge, which involves special manipulative skills, creative minds, and attributes relating to occupations in various sectors of the economic and social life (Aina, et al 2013). The Federal Republic of Nigeria (FRN, 2013) also defined technical and vocational education as a comprehensive terms referring to those aspect of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in the various sectors of economic and social life (P 29). The study of technical and vocational education programmes begins at the secondary school level called Technical Colleges.

Technical skills are the prime mover of economic and social development of any nation; therefore, investment in human capital is an investment for the future of any countries. Skill development and training is central to youth employment and enable the youths to be prepared for work in formal and informal sectors of the economy and thus play important role in employment opportunity. Most countries in the world are faced with the challenges of improving the capital of their workforce to respond to their own national development needs and the demands of a rapidly changing and globally competitive world. The future success of nations, individuals, enterprises and communities increasingly depends on existence and possession of transferable and renewable skills and knowledge. Hence, in recognition of the major role of VTE in equipping individual with relevant skills and knowledge, which enables people to effectively participate in social, economic and technological innovation processes. The globalization process, knowledge economy, advances in technology and increased competition due to liberalization are major forces driving change in the world of work which have important implication for the demand of skills, human resource development and training (UNESCO, 2008).

Technical colleges are the principal vocational institutions in Nigeria which is designed to prepare the individuals to acquire practical skills, knowledge and aptitude required of technicians at sub-professional level. Technical colleges offer basic academic knowledge but focuses on practical and manual (vocational) technological training to prepare its recipients for employment in lower level technical positions (Al-said, 2007). Technical education programmes at the technical colleges (secondary school level) is used for the development of future intermediate level manpower needs of the country. Technical education courses offered at this stage are designed to prepare individuals to acquire practical skills, basic scientific knowledge and attitude required as craftsmen and technicians at sub-professional level (Akpan, 2013). This implies that the cardinal focus of teaching technical trades such as Motor Vehicle Mechanic Works in technical colleges is to impact the appropriate technical and practical skills in its recipients that will enable the individuals to live and contribute meaningfully to the development of not just the immediate community but the society at large (Amaechi & Thomas, 2016). Acquisition of relevant practical skills entails carefully and methodically prepared special course of fairly long duration even for the performance of a restricted number of operations (Timar as cited by Maria, 2009).

The National Board for Technical Education (NBTE, 2012) maintained that technical education trades provide training that leads to the production of skilled personal like craftsman and technicians who could either secure employment at the end of their training, set up their own business (entrepreneurs) or further their studies in polytechnics, colleges of Education (Technical) and Universities. Technical college provides students through training with the relevant and adequate knowledge, skills and attribute for employment under the guidance of a teacher in related occupations. Technical colleges give full craftsman training intended to prepare individuals for entry into various occupations of their interest. One of the areas includes motor vehicle mechanic works trade.

Motor vehicle mechanic works is a technical trade offered in the technical college, which involves the acquisition of scientific knowledge in design, selection of materials, construction, operation and maintenance of motor vehicles. It is designed to produce competent auto mechanics craftsmen in various automobile trades such as repairs and maintenance of brake, transmission, engine, fuel, cooling and lubricating systems on a motor vehicle. According to the National Board for Technical Education (NBTE, 2001) an auto mechanics craftsman is expected to test, diagnose service and completely repair any fault relating to the conventional automobile assembly main units and systems to the manufacturers specification. The programme is designed to prepare the individual for a specific occupation. To prepare the recipient for gainful employment as semi-skilled or skilled worker or technician or sub-profession in recognized occupation and in new and emerging occupations or to prepare individual for enrolment in advanced technical education programme (Ugwaja, 2010). Accordingly, students in motor vehicle mechanic works need to acquire the following skills and abilities; an interest in auto-mobile/electronic system in motor vehicle, good problem solving ability, good vision, hearing and sense of smell,

manual dexterity and mechanical aptitude, ability to communicate well in English, physical fitness and strength, ability to drive a variety of vehicles, ability to read technical diagrams and illustration, have concern for safety and responsible work attitude, and interest in keeping up to date with technology. It means therefore that Motor Vehicle mechanic works trade in the Government Technical College was designed to equip the students with both the necessary theoretical knowledge and practical skills that will enable them secure paid employment, be able to set up their workshop and be self-employed and even employ others.

Acquisition of practical skills would be one of the yardsticks for adjudging the products of technical colleges in Nigeria. Acquisition of practical skills entails carefully and methodically prepared special course of fairly long duration even for the performance of a restricted number of operations (Timar as cited by Maria, 2009). Skill acquisition is regarded as the process by which individuals learn and continuously practice a particular task till the learner becomes proficient in the operation and can perform them when required (Aliezer, 2014). Hence, to possess a skill is to demonstrate the habit of acting, thinking and behaving in a specific activity in such a way that the process becomes natural to the individual through purposeful repetition or practice in that occupation (Okeke, 2010). Acquisition of selectable technical skills is the answer to the Nations unemployment among the youths (Thomas & Amaechi, 2016). Practical skills are perceived to be very relevant in content development of motor vehicle mechanic works in technical colleges in Nigeria for global competitiveness (Amaechi & Thomas, 2020).

Based on the foregoing, it is evident that some skills may have been perceived relevant for motor vehicle mechanic works students to acquire, especially the manual dexterity and mechanical aptitude skills content in technical college's curriculum that account for global competitiveness. Hence, the problem of this study is to spotlight the practical skills in motor vehicle mechanic works in technical colleges in Nigeria that are relevant for global competitiveness?

Purpose of the Study

The study sought to assess the suitability of practical skills in automobile engineering craft practice for youth empowerments and self-reliance in post covid-19 pandemic economy. Hence the study will specifically determine:

1. The suitability of service station mechanic work practical skills in automobile craft practice for youth empowerments and self-reliance in post covid-19 pandemic economy.
2. The suitability of petrol engine maintenance work practical skills in automobile craft practice for youth empowerments and self-reliance in post covid-19 pandemic economy
3. The suitability of diesel engine maintenance work practical skills in automobile craft practice for youth empowerments and self-reliance in post covid-19 pandemic economy
4. The suitability of engine reconditioning work practical skills in automobile craft practice for youth empowerments and self-reliance in post covid-19 pandemic economy
5. The suitability of auto electrical/ electronic work practical skills in automobile craft practice for youth empowerments and self-reliance in post covid-19 pandemic economy

Research Questions

The following research questions were postulated to guide the study:

1. What are the service station mechanic work practical skills in automobile craft practice suitable for youth empowerments and self-reliance in post covid-19 pandemic economy?
2. What are the petrol engine maintenance work practical skills in automobile craft practice suitable for youth empowerments and self-reliance in post covid-19 pandemic economy?
3. What are the diesel engine maintenance work practical skills in automobile craft practice suitable for youth empowerments and self-reliance in post covid-19 pandemic economy?
4. What are the engine reconditioning work practical skills in automobile craft practice suitable for youth empowerments and self-reliance in post covid-19 pandemic economy?
5. What are the auto electrical/electronic work practical skills in automobile craft practice suitable for youth empowerments and self-reliance in post covid-19 pandemic economy?

Methods and Materials

The study adopted the survey design, carried out in Rivers State in southern part of Nigeria. The population of this study was 273, comprising of 201 Technical college teachers and 72 workshop attendants in six government technical colleges in Rivers State. The entire population was used as

respondents, since the researchers considered the population to be of manageable size and they are expected to supply information to the study.

The instrument for data collection was a structured questionnaire titled "Automobile Practical Skills Survey". The instrument consisted of five sections with 91 items statements, structured based on a 5-point response rating scale. The instrument was validated by three specialists from the Faculty of Education, Rivers State University, Port Harcourt. And the reliability of the instrument was established using test re-test method. Copies of the instrument were administered to 30 respondents at Government Technical and Science Colleges Ahoada, who were not part of the study sample but has similar characteristics with the study population. The reliability index .92, .87, .88, .92, & .79 were achieved using Cronbach Alpha formula. This figure guaranteed the reliability of the instrument.

The researchers visited the schools in person and administered copies of the questionnaire to the respondents with the help of one research assistants from each of the institutions under study. All copies of the instrument which were administered on face to face to the respondents on the first visit were retrieved immediately they were completed. This ensured that there was a 100% returned rate, and all the returned instrument were found useable and considered adequate for the analysis.

The data collected from the respondents were analyzed using Statistical Package for Social Sciences (SPSS). The research questions were answered with Mean statistic while the hypotheses were tested with t-test statistical technique at the 0.05 level of significance.

The responses were rated as stated below:

Categories	Value Points	Real Limited
Most Suitable (MS)	5	4.50 - 5.00
Very Suitable (VS)	4	3.50 - 4.49
Suitable (S)	3	2.50 - 3.49
Less Suitable (LS)	2	1.50 - 2.49
Not Suitable (NS)	1	0.50 - 1.49

The decision for answering each research questions was based on the real lower limit range for which any item mean response value falls either below or above.

Results and Discussion

1. Research question one

What are the service station mechanics works practical skills in automobile craft practice suitable for youth empowerments and self-reliance in post covid-19 pandemic economy?

Table 1: Mean responses of service station mechanic work practical skills

S/N	Practical skills services station mechanic works involves the ability to perform the following tasks:	\bar{X}	Remark
	Engine Maintenance: Change engine oil		
1	Replace Spark plugs	3.58	Very Suitable
2	Service carburetor	4.08	Very Suitable
3	Replace brake pads	3.70	Very Suitable
4	Setting contact Breaker Points	4.00	Very Suitable
5	Changing drum brake pad disc	3.66	Very Suitable
	Battery maintenance work: Battery leakage test		
6	Charging the battery	4.06	Very Suitable
7	Checking specific gravity with hydrometer	3.71	Very Suitable
8	Removal and Replacing burnt headlights and other electric bulbs	3.53	Very Suitable
	General Maintenance: Checking for Radiator leaks, tighten and replace broken radiator hoses		
9	Carry out the inspection of the cylinder head for ward page	4.00	Very Suitable
10	Removal and replacing cylinder head gasket	4.07	Very Suitable
11	Spark and compression Ignition Engine – cleaning cylinder head	3.95	Very Suitable
12	Carry out wheel alignment, Camber, Toe and Caster	3.76	Very Suitable
13	Carry out wheel balancing	3.59	Very Suitable
14	Change a tire correctly	3.59	Very Suitable
	Grand mean	3.81	Very suitable

Data presented in Table 1 above, showed that the respondents had mean range of 3.53 to 4.27 and a grand mean of 3.81, which is within the real limit of 3.50 - 4.49. This indicate that respondents agreed that all the items listed as service station mechanics works practical skills in automobile craft practice are very suitable for youth empowerments and self-reliance in post covid-19 pandemic economy.

2. Research question two

What are the petrol engine maintenance works practical skills in automobile craft practice suitable for youth empowerments and self-reliance in post covid-19 pandemic economy?

Table 2: mean responses of petrol engine maintenance work practical skills

S/N	Practical skills in petrol engine maintenance work involves the ability to perform the following tasks:	\bar{X}	Remark
1	Diagnose petrol engine faults listening and observation.	3.11	Suitable
2	Diagnose petrol engine faults using electronic equipment.	3.58	Very Suitable
3	Carry out complete service of a carburetor	4.08	Very Suitable
4	Clean and set contact breaker points to manufacturers' specification.	3.10	Suitable
5	Determine petrol engine ignition point using timing light.	4.00	Very Suitable
6	Carry out valve adjustment to makers' specification.	3.66	Very Suitable
7	Check and test condenser for serviceability.	4.27	Very Suitable
8	Adjust sparkplug to makers' specification.	4.06	Very Suitable
9	Carry out engine service: change engine fuel system.	3.66	Very Suitable
10	Trace and repair leakage in the engine fuel system.	3.53	Very Suitable
11	Overhaul petrol engine fuel pump.	4.03	Very Suitable
12	Determine correctness of engine dwell angle using dwell meter.	4.05	Very Suitable
13	Rewire the ignition system of a petrol engine.	4.09	Very Suitable
14	Remove, inspect, replace and adjust engine fan belt.	4.05	Very Suitable
15	Demonstrate the ability to flush engine water cooling system	3.93	Very Suitable
	Grand mean	3.81	Very suitable

Data in table 2 shows that the respondents had mean range of 3.10 to 4.27 and a grand mean of 3.81 which is within the real limit of 3.50 - 4.49. This indicate that respondents agreed that all the items listed as petrol engine maintenance works practical skills in automobile craft practice are suitable for youth empowerments and self-reliance in post covid-19 pandemic economy

3. Research question three

What are the diesel engine maintenance work practical skills in automobile craft practice suitable for youth empowerments and self-reliance in post covid-19 pandemic economy?

Table 3: mean responses of on diesel engine maintenance work practical skill

S/N	Practical skills in diesel engine maintenance work involves the ability to perform the following tasks:	\bar{X}	Remark
1	Diagnose fault by running the engine on road test.	3.11	Suitable
2	Removing fuel injector assembly in correct sequence	3.58	Very Suitable
3	Replace fuel injection pump can shaft: bearings on gear and gaskets.	4.08	Very Suitable
4	Inspecting component parts of an injector for wear: camshaft lobe for wear	3.65	Very Suitable
5	Replace defective parts of an injector: fuel control and government linkage.	3.00	Suitable
6	Carrying out injection test with standard equipment: Check and adjusting injection pump timing	3.66	Very Suitable
7	Adjusting injection pump timing	4.27	Very Suitable
8	Removing in-line injection pump unit from engines clean and inspect serviceable parts for wear serviceability	4.04	Very Suitable
9	Changing fuel filter.	3.96	Very Suitable
10	Testing, Examine Mechanical Fuel Pump.	3.53	Very Suitable
11	Testing, Examine Electric Fuel Pump	3.13	Suitable
12	Bleed a Diesel Fuel Injection System	4.00	Very Suitable
13	Prime Diesel Injector Pumps	3.09	Suitable
	Grand mean	3.62	Very suitable

Data in table 3 shows that respondents had mean range of 3.11 to 4.27 and a grand mean of 3.62 which is within the real limit of 3.50 - 4.49. This indicate that respondents agreed that all the items listed as diesel engine maintenance works practical skills in automobile craft practice are very suitable for youth empowerments and self-reliance in post covid-19 pandemic economy.

4. Research question four

What are the engine reconditioning work practical skills in automobile craft practice suitable for youth empowerments and self-reliance in post covid-19 pandemic economy?

Table 4: mean responses on engine reconditioning work practical skills

S/N	Practical skills involves the ability to perform the following tasks:	\bar{X}	Remark
1	Checking alignment and re-alignment of connecting rods: Big-end clearance.	4.03	Very Suitable
2	Use instrument and special fixtures to diagnose engine fault engine fault: cylinder compression test.	3.57	Very Suitable
3	Examination of Engines with different arrangement of cylinder: fitting cylinder liners	4.05	Very Suitable
4	Installing piston and connecting rod and ensuring side clearance.	3.64	Very Suitable
5	Valve clearances: checking and adjustment.	3.69	Very Suitable
6	Dismantling examination inspecting and installing rocker arm and bearing.	4.10	Very Suitable
7	Dismantling examining, Overhaul and refitting petrol free pump.	3.85	Very Suitable
8	Mechanical pump fuel pump	3.93	Very Suitable
9	Dismantling examining, Overhaul and refitting petrol free pump. Electrical pump	3.84	Very Suitable
10	Use Instrument and special fixtures to diagnose engine fault: Test the Auto Vacuum System	3.33	Suitable
11	Compression Testing	3.82	Very Suitable
12	Power Balance Test	4.08	Very Suitable
13	Performing cylinder leakage test	3.96	Very Suitable
14	Testing vehicle Exhaust manifold leaks	4.14	Very Suitable
15	Demonstrate the ability to Change the Valve Guides	3.92	Very Suitable
	Grand mean	3.86	Very suitable

Data in table 4 shows that the respondents had grand mean range of 3.33 to 4.14 and a grand mean of 3.86, which is within the real limit of 3.50 - 4.49. This indicate that respondents agreed that all the items listed as engine reconditioning works practical skills in automobile craft practice are very suitable for youth empowerments and self-reliance in post covid-19 pandemic economy.

5. Research question five

What are the Auto electrical/electronic work practical skills in automobile craft practice suitable for youth empowerments and self-reliance in post covid-19 pandemic economy?

Table 5: mean responses on Auto electrical/ electronic work practical skills

S/N	Practical skills in auto electrical electronics involves the ability to perform the following tasks:	\bar{X}	Remark
1	Testing Diagnose/common battery faults symptoms, cracked case and under charge.	3.00	Suitable
2	Battery leakage test: cracked case	3.68	Very Suitable
3	Battery load test: (How well a battery performance under a load)	3.43	Suitable
4	Battery drain test	3.82	Very Suitable
5	Conducting specific gravity test.	3.97	Very Suitable
6	Carrying out open circuit voltage test	4.06	Very Suitable
7	Carry out battery capacitance test.	3.42	Suitable
8	Diagnosing a dead battery cell.	3.39	Suitable
9	Conducting a battery charge	3.82	Very Suitable
10	Cleaning battery terminals to prevent corrosions	3.76	Very Suitable
11	Securing a battery to chassis with appropriate battery clamp.	3.07	Suitable
12	Securing a Battery clamp	3.87	Very Suitable
13	Diagnosing a faulty Alternator	3.83	Very Suitable
14	Servicing faculty of alternator by replacing worn parts. Alternator rotor: coil.	4.21	Very Suitable
15	Diagnose a Bad starter on a motor vehicle	3.30	Suitable
16	Dismantling starter motors disassemble starter motors.	3.36	Suitable
17	Replacing coil pack	3.05	Suitable
18	Installing new coil pack	3.58	Very Suitable
19	Check an ignition coil pack for fault/ correct operations.	3.62	Very Suitable
20	Diagnose/ Trace/rectify fault in electronic instrument panel	3.93	Very Suitable
21	Bench test a starter motor.	3.54	Very Suitable
22	Disassembling and assembling the starter motor.	4.07	Very Suitable
23	Determine wear, checking and replacing parts of a starter motor; Armature. Bushings, brushes field coils, grower.	3.95	Very Suitable
24	Installing the starter motor.	3.50	Very Suitable
25	Assembling the starter motor	4.15	Very Suitable

25	Checking the 12v relay for connects operation and output.	3.73	Very Suitable
27	Checking the headlights for correct operation and out-put.	3.43	Suitable
28	Checking the ground wire for continuity.	3.87	Very Suitable
29	Voltage drop testing, testing circuit for excessive resistance	3.99	Very Suitable
30	Diagnosing the trafficator / indicator for correct operation and speed.	4.07	Very Suitable
31	Removing and testing a multifunction switch.	3.89	Very Suitable
Grand mean		3.69	Very suitable

Data in table 5 shows that the respondents had mean range of 3.00 to 4.21 and grand mean of 3.69, which is within the real limit of 3.50 - 4.49. This indicate that respondents agreed that all the items listed as Auto electrical/electronic works practical skills in automobile craft practice are very suitable for youth empowerments and self-reliance in post covid-19 pandemic economy.

Discussion of findings

The findings that service station mechanics works practical skills in automobile craft practice are very suitable for youth empowerments and self-reliance in post covid-19 pandemic economy. The respondents expressed their views alike about the suitability of practical skills in automobile engineering craft practice in technical college curriculum. The finding of this study is in agreement with Amaechi & Thomas (2020) who found in their study that 91 practical skills are perceived to be very relevant in content development of motor vehicle mechanic works in technical colleges in Nigeria for global competitiveness. The findings of this study were in line with Thomas & Amaechi (2016) who emphasized that acquisition of selectable technical skills is the answer to the Nations unemployment among the youths. Hence when emphasis is placed on practical skills the recipients on graduation become well equipped with skills to earn daily living.

The findings that petrol engine maintenance works practical skills in automobile craft practice are suitable for youth empowerments and self-reliance in post covid-19 pandemic economy. The respondents expressed their views alike about the suitability of practical skills in automobile engineering craft practice in technical college curriculum. The finding of this study is in agreement with Amaechi & Thomas (2020) who found in their study that 91 practical skills are perceived to be very relevant in content development of motor vehicle mechanic works in technical colleges in Nigeria for global competitiveness. The findings of this study were in line with Thomas & Amaechi (2016) who emphasized that acquisition of selectable technical skills is the answer to the Nations unemployment among the youths.

The findings that diesel engine maintenance works practical skills in automobile craft practice are very suitable for youth empowerments and self-reliance in post covid-19 pandemic economy. The respondents expressed their views alike about the suitability of practical skills in automobile engineering craft practice in technical college curriculum. The finding of this study is in agreement with Amaechi & Thomas (2020) who found in their study that 91 practical skills are perceived to be very relevant in content development of motor vehicle mechanic works in technical colleges in Nigeria for global competitiveness. The findings of this study were in line with Thomas & Amaechi (2016) who emphasized that acquisition of selectable technical skills is the answer to the Nations unemployment among the youths.

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The findings that Auto electrical/electronic works practical skills in automobile craft practice are very suitable for youth empowerments and self-reliance in post covid-19 pandemic economy. The respondents expressed their views alike about the suitability of practical skills in automobile engineering craft practice in technical college curriculum. The finding of this study is in agreement with Amaechi & Thomas (2020) who found in their study that 91 practical skills are perceived to be very relevant in content development of motor vehicle mechanic works in technical colleges in Nigeria for global competitiveness. The findings of this study were in line with Thomas & Amaechi (2016) who emphasized that acquisition of selectable technical skills is the answer to the Nations unemployment among the youths.

Conclusion

Practical skills in automobile engineering craft practice are very suitable for youth empowerments and self-reliance in post covid-19 pandemic economy.

The Nigeria technical college offer practical skills contents in motor vehicle mechanic works in that are suitable for Nigeria to surface in the global trend of doing things.

Recommendations

1. Teachers and workshop attendants in technical colleges should always apply effective instructions techniques in delivering practical skills in automobile craft practice that are very suitable for youth empowerments and self-reliance in post covid-19 pandemic economy.
2. The curricula of the Nigeria technical colleges should be reviewed to accommodate latest practical skills in automobile craft practice suitable for youth empowerments and self-reliance in post covid-19 pandemic economy?

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