Assessment of Availability, Adequacy and Functionality of Workshop Facilities for Effective Skill Acquisition of Auto Mechanics Students in Technical Colleges in Delta State

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Abstract

This study investigated the availability, adequacy and functionality of workshop facilities for effective skill acquisition of Auto Mechanics students in technical colleges in Delta State. Three research questions guided the study. The study adopted a descriptive survey design. The instrument for data collection was the check list of workshop facilities titled Availability, Adequacy and Functionality of Auto Mechanics Workshop Facilities (AAFAMWF). The checklist was used to match the availability of the various workshop facilities in technical colleges in line with NBTE minimum standard to determine their level of adequacy and functionality. The data collected were analyzed using frequency count and percentages. The findings revealed that the required auto mechanic workshop facilities are available but not adequate. It was also revealed that most of the available workshop facilities are not functional. The study therefore recommends that government at various levels should double effort in provision of workshop facilities required in technical colleges. In addition, government should make provision for periodic repair and maintenance of the available facilities in auto mechanic workshops in technical colleges so as to enhance effective skill acquisition of auto mechanic students.

Keywords: *Workshop facilities, availability, adequacy and functionality*

1.0 Introduction

The availability, adequacy and functionality of tools and equipment in technical college workshops have been and still a source of concern to many scholars in educational institutions. This is because the acquisition of psychomotor skills that could make recipients of technical college programme employable in the world of work depends largely on the availability, adequacy and functionality of facilities in technical college workshops. To acquire psychomotor skills, it has to be through practical activities in the school workshop. The convectional teaching and learning in the classroom only enhances cognitive skills. Therefore some form of activities or participation in the school workshop is necessary for an individual to gain a complete knowledge and acquire creative skills required to be

employable in the labour market. That is to say, auto mechanic students should be exposed to environment that conforms with the concept of vocational education philosophy. According to Okotubu (2020), an environment which says that vocational education can only be effectively given where the training jobs are carried out the same way with the same operation, the same tools, machines and equipment as in the occupation itself. Similarly Ogbuanya, and Usman, (2020) stated that one of the pillars of a successful implementation of technical college programme is the availability and adequacy of instructional materials. In the same vein Mbaga, Sambo and Aminu (2018), opined that occupational skills cannot be taught effectively without a workshop with appropriate tools and equipment**.** Such school workshops offer opportunities for practical training of students in skill acquisition in their trade subjects to meet the basic needs of the society. To further buttress this fact of skill training, NBTE (2013) stated that every technical college should provide workshop with adequate instructional facilities to enable graduates of technical colleges adaptable to any changing situation in technological development not only in the country but also in the world at large.

Availability and adequacy of appropriate tools and equipment in auto mechanics workshop enhances student learning by allowing them to be involved in demonstrations and practice which continues to build their skills. Similarly, Anayo and Ezeudu (2018) proffered that the provision of adequate instructional facilities in the school workshop would enhance the quality of practical skills development. Due to the fact that instructional facilities in technical college workshop plays a vital role in the achievement of educational objectives, it is therefore imperative that sufficient tools and equipment required for practical classes are not only available and adequate but also functional.

Functionality is the degree of being suited to serve a purpose well. It is the ability to perform a task or function or set of functions that something is equipped to perform. (Tijani, Adeyem i& Omotehinshe, 2016). It is the tendency of a product design to serve a function other than identification of the product. According to Usman, Kareem, and Akinpade (2021), functionality is an umbrella term that denotes the serviceability, resilience, reliability and maintainability of a component instrument. Cumulatively, functionality could be defined as the ability of a facility to perform all its required functions at a stated instance or over stated period of time.

At this juncture, it is crystal clear that in order to achieve one of the major objectives of technical college program, which is the acquisition of creative skills required by students to be self employed or employable in the labour market; the availability, adequacy and functionality of facilities in technical college workshop, is not negotiable. These facilities should be readily available, adequate and functional. That is to say, the facilities should be adequately provided and be in good working condition for maximum utilization. However studies have revealed that most graduates of technical colleges lack the basic psychomotor skills required to be self employed or employable in the labour market. Therefore, the need to assess and ascertain the level of availability, adequacy and functionality of the tools, equipment and other relevant facilities required in auto mechanics technology workshop in technical colleges in Delta State.

1.1Purpose of the study

The purpose of the study is to investigate the extent of availability, adequacy and functionality of workshop facilities and equipment in auto mechanics technology workshop for effective skill

acquisition of auto mechanic students in technical colleges in Delta State.
Specifically, the study sought to:
1. Investigate the extent of availability of workshop facilities and equipment in auto mechanic technology workshop for effective skill acquisition of auto mechanic students in technical colleges
2. Investigate the adequacy of workshop facilities and equipment in auto mechanic workshop for effective skill acquisition of auto mechanics students in technical colleges.
3. Investigate the extent of functionality of available workshop facilities and equipment in auto mechanic workshop for effective skill acquisition of auto mechanics students in technical colleges.

1.2 Research Questions

The following research questions guided the study:
1. Are the required workshop facilities and equipment for effective skill acquisition of auto mechanics students available in auto mechanic technology workshop in technical colleges in Delta state?
2. How adequate are the required workshop facilities and equipment for effective skill acquisition of auto mechanics students in auto mechanic technology workshop in technical colleges in Delta state?
3. How functional are the required workshop facilities and equipment for effective skill acquisition of auto mechanics students in auto mechanic technology workshop in technical colleges in Delta state?

2.0 Method

The study adopted the descriptive survey design that employed the inventory method to collect data on the availability, adequacy and functionality of instructional facilities in auto mechanics technology workshop in six technical colleges in Delta State. The instrument designed for the study was the check list with NBTE minimum requirement of workshop facilities and functionality of instructional facilities in auto mechanics workshop. The check list was used to answer research question 1, 2 and 3.

The researcher visited all the six technical colleges in Delta State and met the principals and heads of department in the various colleges. The heads of department in each of the colleges provided the researcher the information of the available and functional facilities in auto mechanic technology workshop. The inventory of the available workshop facilities in auto mechanics workshop in the six technical colleges in Delta State and the check list containing the NBTE minimum requirement of workshop facilities in automechanics workshop were used to assess the availability, adequacy and functionality of workshop facilities in auto mechanics workshop. The HOD's of the various departments provided first hand information on level of functionality of the facilities in auto mechanics workshop. This was done after the introduction of self and purpose of the research. The data from research question 1, 2 and 3 were analyzed using frequencies and percentages.

3.0 Result

Table 1. Frequency and Percentage of Tools and Equipment Available in Auto Mechanics

Workshop in Technical Colleges in Delta State

S/No.	Required Tools & Equipment in Auto Workshop in Technical College	NBTE Minimum Quantity Required	Total Minimum Required in the Six Technical Colleges	Total Available in the Six Technical Colleges	Percentage of Availability	Remark
1.	Toolboxes (comprising a set of flat, ring, half-round, and triangular files)	10	60	48	80.0	Available
2.	Ball pein hammer	10	60	52	86.6	Available
3.	Hacksaws with extra blades	10	60	46	76.6	Available
4.	Socket spanners setswith extension	10	60	34	56.6	Available
5.	(6-32) open and flat spanners	10 sets	60	56	93.3	Available
6.	Ring spanners (6-32mm)	10 sets	60	36	60.0	Available
7	Energy stone/block cloth	10	60	38	63.3	Available
8.	Spanners	10	60	58	96.6	Available
9.	Magnet spanners	10	60	-	0	Not Available
10.	Allen keys	10	60	34	56.6	Available
11.	Feeler gauges	10	60	30	50.0	Available
12.	Oil cans	10	60	36	60.0	Available
13.	Grease guns	10	60	24	40.0	Available
14.	Spark plug files	10	60	60	100	Available
15.	Combination pliers	10	60	60	100	Available
16.	Longnose pliers	10	60	60	100	Available
17.	Wirecutter	10	60	40	66.6	Available
18.	Tyre pressure gauges	10	60	36	60.0	Available
19.	Electric Hand Drill	2	12	6	50.0	Available
20.	Drill bits	3 sets	18 sets	18	100	Available
21.	Set of stock and dies	2 sets	12 sets	6	50.0	Available
22.	Taps and wrenches	2 sets	12 sets	6	50.0	Available
23.	Thread file	2	12	-	0	Not Available
24.	Roller type thread restorer	2	12	-	0	Not Available
25.	Screw (stud) extractor set	2	12	-	0	Not Available

26.	Vernier caliper	15	90	12	20	Available
27.	Hand gloves/apron	5	30	-	0	Not Available
28.	Surface plates	2	12	-	0	Not Available
29.	Vee blocks	8	48	18	37.5	Available
30.	Micrometer internal & external	3	18	6	33.3	Available
31.	Dial gauge indicator	2	12	-	0	Not Available
32.	Grinding machines	1	6	6	100	Available
33.	A bench grinder with wheels	1	6	6	100	Available
34.	Workshop surface gauges	15	90	6	6.67	Available
35.	Valve grinding machine	1	6	6	100	Available
36.	Blow lamps	5	30	-	0	Not Available
37.	Soldering iron	5	30	30	100	Available
38.	Compressor (3phase motor)	1	6	6	100	Available
39.	Wheel balance (rim 13-15)	1	6	6	100	Available
40.	Portable tire inflator	2	12	12	100	Available
41.	Weld master vulcanizer	1	6	6	100	Available
42.	Airline gauge	2	12	-	0	Not Available
43.	Steam cleaner (complete set)	1	6	-	0	Not Available
44.	High-pressure washer	1	6	-	0	Not Available
45.	Tire changer (complete set)	1	6	6	100	Available
46.	Various sizes of wheel braces	3 sets	18 sets	18	100	Available
47.	Tyre repair kit	2 sets	12 sets	12	100	Available
48.	Service station set of tool kit	2 sets	12 sets	12	100	Available
49.	Pipe wrench, clamp or vice	3 sets	18 sets	18	100	Available
50.	Wheel alignment gauge	1 set	6 sets	6	100	Available
51.	Flat spanners (long and short)	2	12	12	100	Available
52.	Clutch alignment gauge	5	30	15	50	Available
53.	Adjustable wrench	3	18	18	100	Available
54.	Injector repair machine	1	6	6	100	Available
55.	Injector needle service kit	1	6	6	100	Available
56.	Pullers, different sizes	3	18	-	0	Not Available
57.	Spark plug tester	4	24	24	100	Available
58.	Workbench with vices	2	12	12	100	Available
59.	Portable engine hoist	2	12	12	100	Available
60.	Diesel engine phasing	1	6	-	0	Not Available
61.	Electrical test bench	1	6	-	0	Not Available
62.	Cylinder boring machine	1	6	-	0	Not Available
63.	Honing machine	1	6	-	0	Not Available
64.	Bottle jack (hydraulic)	1	6	6	100	Available
65.	Vehicle tire	2 sets	12 sets	12	100	Available
66.	Trolley jacks	2	12	6	50	Available
67.	Motor scope (engine analyzer)	2	12	-	0	Not Available
68.	Auto Electrical instructional chassis	1	6	-	0	Not Available
69.	Armature growler	1	6	-	0	Not Available

70.	Hydraulic nipple forming tool	1	6	-	0	Not Available
71.	Timing light	1	6	4	66.7	Available
72.	Inspection pits	2	12	6	50	Available
73.	Compression gauge	2	12	6	50	Available
74.	Valve spring compression kit	2	12	6	50	Available
75.	Coil spring compressor	2	12	6	50	Available
76.	Torgue wrench pre-set type	2	12	-	0	Not Available
77.	Torque wrench dial type	2	12	-	0	Not Available
78.	Carburetor service kit	2	12	6	50	Available
79.	Piston ring compressor	2	12	6	50	Available
80.	Axle stands	8	48	6	12.5	Available
81.	Diagnostic testing machine	1	6	-	0	Not Available
82.	Fire extinguisher	4	24	12	50	Available
83.	Sand buckets	4	24	6	25	Available
84.	Water buckets	4	24	-	0	Not Available
85.	Hoist and box	1	6	-	0	Not Available
86.	First aid box	1	6	6	100	Available
87.	Workshop overalls	10	60	-	0	Not Available
88.	Complete vehicle engine (petrol)	1	6	6	100	Available
89.	Complete vehicle engine (diesel)	1	6	6	100	Available
90.	Live vehicle	1	6	6	100	Available
91.	Camshaft grinding machine	1	6	6	100	Available

From table 1 it could be seen that out of the 91 items recommended by NBTE as the facilities for auto mechanics workshop in technical colleges 65items are available, representing 71.43% while, 26 items are not available representing 28.57%. It therefore implies that workshop facilities are available in auto mechanics trade in technical colleges in Delta State.

Table 2. Frequency and Percentage of Adequacy of Tools and Equipment Available in Auto Mechanics Workshop in Technical Colleges in Delta State

S/No.	Required Tools & Equipment in Auto Workshop in Technical College	NBTE Minimum Quantity Required	Total Minimum Required in the Six Technical Colleges	Total Available in the Six Technical Colleges	Percentage of Adequacy	Remark
1.	Toolboxes (comprising a set of flat, ring, half-round, and triangular files)	10	60	48	80.0	Not adequate
2.	Ball pein hammer	10	60	52	86.6	Not adequate
3.	Hacksaws with extra blades	10	60	46	76.6	Not adequate

4.	Socket spanners sets, with extension	10	60	34	56.6	Not adequate
5.	(6-32mm) open and flat spanners	10 sets	60	56	93.3	Not adequate
6.	Ring spanners (6-32mm)	10 sets	60	36	60.0	Not adequate
7.	Energy stone/block cloth	10	60	38	63.3	Not adequate
8.	Spanners	10	60	58	96.6	Not adequate
9.	Magnet spanners	10	60	-	0	Not adequate
10.	Allen keys	10	60	34	56.6	Not adequate
11.	Feeler gauges	10	60	30	50.0	Not adequate
12.	Oil cans	10	60	36	60.0	Not adequate
13.	Grease guns	10	60	24	40.0	Not adequate
14.	Spark plug files	10	60	60	100	Adequate
15.	Combination pliers	10	60	60	100	Adequate
16.	Longnose pliers	10	60	60	100	Adequate
17.	Wirecutter	10	60	40	66.6	Not adequate
18.	Tyre pressure gauges	10	60	36	60.0	Not adequate
19.	Electric Hand Drill	2	12	6	50.0	Not adequate
20.	Drill bits	3 sets	18 sets	18	100	Adequate
21.	Set of stock and dies	2 sets	12 sets	6	50.0	Not adequate
22.	Taps and wrenches	2 sets	12 sets	6	50.0	Not adequate
23.	Thread file	2	12	-	0	Not adequate
24.	Roller type thread restorer	2	12	-	0	Not adequate
25.	Screw (stud) extractor set	2	12	-	0	Not adequate
26.	Vernier caliper	15	90	12	20	Not adequate
27.	Hand gloves/apron	5	30	-	0	Not adequate
28.	Surface plates	2	12	-	0	Not adequate
29.	Vee blocks	8	48	18	37.5	Not adequate
30.	Micrometer internal & external	3	18	6	33.3	Not adequate
31.	Dial gauge indicator	2	12	-	0	Not adequate
32.	Grinding machines	1	6	6	100	Not adequate
33.	A bench grinder with wheels	1	6	6	100	Adequate
34.	Workshop surface gauges	15	90	6	6.67	Not adequate
35.	Valve grinding machine	1	6	6	100	Adequate
36.	Blow lamps	5	30	-	0	Not adequate
37.	Soldering iron	5	30	30	100	Adequate
38.	Compressor (3phase motor)	1	6	6	100	Adequate
39.	Wheel balance (rim 13-15)	1	6	6	100	Adequate
40.	Portable tire inflator	2	12	12	100	Adequate
41.	Weld master vulcanizer	1	6	6	100	Adequate
42.	Airline gauge	2	12	-	0	Not adequate
43.	Steam cleaner (complete set)	1	6	-	0	Not adequate

44.	High-pressure washer	1	6	-	0	Not adequate
45.	Tire changer (complete set)	1	6	6	100	Adequate
46.	Various sizes of wheel braces	3 sets	18 sets	18	100	Adequate
47.	Tyre repair kit	2 sets	12 sets	12	100	Adequate
48.	Service station set of tool kit	2 sets	12 sets	12	100	Adequate
49.	Pipe wrench, clamp or vice	3 sets	18 sets	18	100	Adequate
50.	Wheel alignment gauge	1 set	6 sets	6	100	Adequate
51.	Flat spanners (long and short)	2	12	12	100	Adequate
52.	Clutch alignment gauge	5	30	15	50	Not adequate
53.	Adjustable wrench	3	18	18	100	Adequate
54.	Injector repair machine	1	6	6	100	Adequate
55.	Injector needle service kit	1	6	6	100	Adequate
56.	Pullers, different sizes	3	18	-	0	Not adequate
57.	Spark plug tester	4	24	24	100	Adequate
58.	Workbench with vices	2	12	12	100	Adequate
59.	Portable engine hoist	2	12	12	100	Adequate
60.	Diesel engine phasing	1	6	-	0	Not adequate
61.	Electrical test bench	1	6	-	0	Not adequate
62.	Cylinder boring machine	1	6	-	0	Not adequate
63.	Honing machine	1	6	-	0	Not adequate
64.	Bottle jack (hydraulic)	1	6	6	100	Adequate
65.	Vehicle tire	2 sets	12 sets	12	100	Adequate
66.	Trolley jacks	2	12	6	50	Not adequate
67.	Motor scope (engine analyzer)	2	12	-	0	Not adequate
68.	Auto Electrical instructional chassis	1	6	-	0	Not adequate
69.	Armature growler	1	6	-	0	Not adequate
70.	Hydraulic nipple forming tool	1	6	-	0	Not adequate
71.	Timing light	1	6	4	66.7	Not adequate
72.	Inspection pits	2	12	6	50	Not adequate
73.	Compression gauge	2	12	6	50	Not adequate
74.	Valve spring compression kit	2	12	6	50	Not adequate
75.	Coil spring compressor	2	12	6	50	Not adequate
76.	Torgue wrench pre-set type	2	12	-	0	Not adequate
77.	Torque wrench dial type	2	12	-	0	Not adequate
78.	Carburetor service kit	2	12	6	50	Not adequate
79.	Piston ring compressor	2	12	6	50	Not adequate
80.	Axle stands	8	48	6	12.5	Not adequate
81.	Diagnostic testing machine	1	6	-	0	Not adequate
82.	Fire extinguisher	4	24	12	50	Not adequate
83.	Sand buckets	4	24	6	25	Not adequate
84.	Water buckets	4	24	-	0	Not adequate
85.	Hoist and box	1	6	-	0	Not adequate
86.	First aid box	1	6	6	100	Adequate

87.	Workshop overalls	10	60	-	0	Not adequate
88.	Complete vehicle engine (petrol)	1	6	6	100	Adequate
89.	Complete vehicle engine (diesel)	1	6	6	100	Adequate
90.	Live vehicle	1	6	6	100	Adequate
91.	Camshaft grinding machine	1	6	6	100	Adequate

Table 2 revealed that out of the 91 items recommended by NBTE as the facilities for auto mechanics workshop in technical colleges only 31 items met the required minimum quantity recommended by NBTE representing 34.07% of adequacy, while 60 items did not meet the required minimum quantity recommended by NBTE representing 65.93% of inadequacy. It therefore implies that workshop facilities are grossly inadequate in auto mechanics workshops in technical colleges in Delta State.

Table 3. Frequency and Percentage of Tools and Equipment Available in Auto Mechanics Workshop in Technical Colleges in Delta State

S/No.	Required Tools & Equipment in Auto Workshop in Technical College	NBTE Minimum Quantity Required	Total Minimum Required in the Six Technical Colleges	Total Functional Tools and Equipment in the [illegible]	Percentage of Functionality	Remark
1.	Toolboxes (comprising a set of flat, ring, half-round, and triangular files)	10	60	45	75	Not functional
2.	Ball pein hammer	10	60	50	83	Not functional
3.	Hacksaws with extra blades	10	60	28	47	Not functional
4.	Socket spanners sets with extension	10	60	30	50	Not functional
5.	(6-32) open and flat spanners	10 sets	60	56	93	Not functional
6.	Ring spanners (6-32mm)	10 sets	60	36	60	Not functional
7.	Energy stone/block cloth	10	60	15	25	Not functional
8.	Spanners	10	60	58	97	Not functional
9.	Magnet spanners	10	60	-	-	Not functional
10.	Allen keys	10	60	34	57	Not functional
11.	Feeler gauges	10	60	30	50	Not functional
12.	Oil cans	10	60	36	60	Not functional
13.	Grease guns	10	60	16	27	Not functional
14.	Spark plug files	10	60	60	100	Functional
15.	Combination pliers	10	60	60	100	Functional
16.	Long nose pliers	10	60	60	100	Functional
17.	Wire cutter	10	60	40	67	Not functional

18.	Tyre pressure gauges	10	60	36	60	Not functional
19.	Electric Hand Drill	2	12	3	25	Not functional
20.	Drill bits	3 sets	18 sets	18	100	Functional
21.	Set of stock and dies	2 sets	12 sets	6	50	Not functional
22.	Taps and wrenches	2 sets	12 sets	6	50	Not functional
23.	Thread file	2	12	-	-	Not functional
24.	Roller type thread restorer	2	12	-	-	Not functional
25.	Screw (stud) extractor set	2	12	-	-	Not functional
26.	Vernier caliper	15	90	6	6.7	Not functional
27.	Hand gloves/apron	5	30	-	-	Not functional
28.	Surface plates	2	12	-	-	Not functional
29.	Vee blocks	8	48	18	37.5	Not functional
30.	Micrometer internal & external	3	18	6	33.3	Not functional
31.	Dial gauge indicator	2	12	-	-	Not functional
32.	Grinding machines	1	6	3	50	Not functional
33.	A bench grinder with wheels	1	6	3	50	Not functional
34.	Workshop surface gauges	15	90	6	6.9	Not functional
35.	Valve grinding machine	1	6	-	-	Not functional
36.	Blow lamps	5	30	-	-	Not functional
37.	Soldering iron	5	30	24	80	Not functional
38.	Compressor (3phase motor)	1	6	-	-	Not functional
39.	Wheel balance (rim 13-15)	1	6	-	-	Not functional
40.	Portable tire inflator	2	12	-	-	Not functional
41.	Weld master vulcanizer	1	6	-	-	Not functional
42.	Airline gauge	2	12	-	-	Not functional
43.	Steam cleaner (complete set)	1	6	-	-	Not functional
44.	High-pressure washer	1	6	-	-	Not functional
45.	Tire changer (complete set)	1	6	-	-	Not functional
46.	Various sizes of wheel braces	3 sets	18 sets	-	-	Not functional
47.	Tyre repair kit	2 sets	12 sets	-	-	Not functional
48.	Service station set of tool kit	2 sets	12 sets	-	-	Not functional
49.	Pipe wrench, clamp or vice	3 sets	18 sets	18	100	Functional
50.	Wheel alignment gauge	1 set	6 sets	-	-	Not functional
51.	Flat spanners (long and short)	2	12	12	100	Functional
52.	Clutch alignment gauge	5	30	-	-	Not functional
53.	Adjustable wrench	3	18	18	100	Functional
54.	Injector repair machine	1	6	-	-	Not functional
55.	Injector needle service kit	1	6	-	-	Not functional
56.	Pullers, different sizes	3	18	-	-	Not functional
57.	Spark plug tester	4	24	-	-	Not functional
58.	Workbench with vices	2	12	12	100	Functional
59.	Portable engine hoist	2	12	-	-	Not functional
60.	Diesel engine phasing	1	6	-	-	Not functional
61.	Electrical test bench	1	6	-	-	Not functional

62.	Cylinder boring machine	1	6	-	-	Not functional
63.	Honing machine	1	6	-	-	Not functional
64.	Bottle jack (hydraulic)	1	6	2	33.3	Not functional
65.	Vehicle tire	2 sets	12 sets	12	100	Functional
66.	Trolley jacks	2	12	6	50	Not functional
67.	Motor scope (engine analyzer)	2	12	-	-	Not functional
68.	Auto Electrical instructional chassis	1	6	-	-	Not functional
69.	Armature growler	1	6	-	-	Not functional
70.	Hydraulic nipple forming tool	1	6	-	-	Not functional
71.	Timing light	1	6	-	-	Not functional
72.	Inspection pits	2	12	6	50	Not functional
73.	Compression gauge	2	12	3	25	Not functional
74.	Valve spring compression kit	2	12	-	-	Not functional
75.	Coil spring compressor	2	12	-	-	Not functional
76.	Torgue wrench pre-set type	2	12	-	-	Not functional
77.	Torque wrench dial type	2	12	-	-	Not functional
78.	Carburetor service kit	2	12	-	-	Not functional
79.	Piston ring compressor	2	12	-	-	Not functional
80.	Axle stands	8	48	-	-	Not functional
81.	Diagnostic testing machine	1	6	-	-	Not functional
82.	Fire extinguisher	4	24	6	25	Not functional
83.	Sand buckets	4	24	6	25	Not functional
84.	Water buckets	4	24	-	-	Not functional
85.	Hoist and box	1	6	-	-	Not functional
86.	First aid box	1	6	6	100	Functional
87.	Workshop overalls	10	60	-	-	Not functional
88.	Complete vehicle engine (petrol)	1	6	6	100	Functional
89.	Complete vehicle engine (diesel)	1	6	6	100	Functional
90.	Live vehicle	1	6	6	100	Functional
91.	Camshaft grinding machine	1	6	-	-	Not functional

Table 3 revealed that out of the 91 items recommended by NBTE as the minimum facilities for auto mechanics workshop in technical colleges, only 13 items were functional, representing 14.29% while 78 items are not functional representing 85.71. It therefore implies that the available workshop facilities in auto mechanics workshops in technical colleges in Delta State are not functional.

Findings of the study

The following are the findings of the study.

1. Facilities are available in auto mechanics workshops in technical colleges in Delta State.
2. The available facilities in auto mechanics workshops in technical colleges in Delta State are inadequate.
3. The available workshop facilities in auto mechanics workshops in technical colleges in Delta State are not functional.

Discussion

The results of this study have shown that though workshop facilities are available in auto mechanic workshop in technical colleges, but the available facilities are grossly inadequate and non functional. This is in line with the findings of Ogbuanya and Usman(2020) who noted that workshop facilities in technical colleges are in adequate. The study also corroborates with the findings of Usman, Kareem and Akinpade (2021) who stated that workshop facilities in technical colleges are not functional.

Conclusion

To produce technical college graduates that can be gainfully, employed, effective skill training through effective utilization of workshop facilities is imperative. These facilities must be functional and adequate for the technical college programs as stipulated in the curriculum. Adequate and functional workshop facilities when effectively utilized by competent teachers in the workshops can promote students' interest, increase students' active participation in auto mechanics workshop, and enhance skills acquisition that will enable graduates of technical college be employable in the world of work.

Recommendation

The study having revealed that workshop facilities are available in auto mechanic workshop in technical colleges but grossly inadequate and non functional. The study therefore, recommends as follows:

1. Government should improve in the provision of workshop facilities in technical colleges.
2. Fund should be made available for periodic repair and maintenance of the available facilities in the technical colleges'workshops.
3. Well meaning individuals as well as non Governmental organizations should partner with government in the provisions of functional workshop facilities in technical colleges in Delta State.

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