



Research Article

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Received: 15 January 2023 / Accepted: 29 February 2024 / Published: 6 March 2024

Safety Awareness in Auto Mechanics Workshop among Technical College Students in Lagos State

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DOI: <https://doi.org/10.36941/mjss-2024-0016>

Abstract

The study investigated the safety awareness in auto-mechanics workshops among Technical College Students in Lagos State. The study adopted the survey type of descriptive research. The population of the study consists of eighty (80) technical college students in three technical colleges in Lagos state. Data were collected with the use of instrument namely: Safety Awareness in Auto Mechanics Workshop Questionnaires (SAAWQ). In the data processing the simple percentage and frequency counts were used to quantify and to analyse the responses. The result of the study showed that accidents prevention does not occur by itself, that it is the duty of the students, the teachers, instructors and administrators to be educated on why and how accidents happen. Also, the need to develop and adhere to safe working habits. Findings showed that using wrong tools to work, worn out tools, poor safety rules among others can cause accidents in the workshop. Based on the findings, it was recommended that the well planned workshop should be provided with standard facilities. Regular training and retraining program should be given for both teachers and students. Also, government must always visit the technical colleges and provide enough money for the school.

Keywords: Safety, Awareness, Auto mechanics, Workshop, Technical College

1. Introduction

Present day auto mechanics workshop are becoming more and more complex because of the new innovation in auto mechanics works and they have to meet the requirement of increased services and production rate. In the course of this high efficiency and optimization is required from the craftsmen produced from the technical colleges in Lagos state in order to meet the demand of the population using vehicles in Lagos state. Safety today is very important in any planning workshop so also compulsory in auto mechanics workshop. Even safety today is an integral part of any industry. Any negligence at any stage from concept stage to design, erection, operation can result into disaster, loss of human lives and huge production and services losses. So as a result of these safety aspect need to be seriously take note of when planning auto mechanics workshop in Lagos state. (Jain and Sunil, 2014) Agreed safety as a complex mechanism, necessary documentation has to be evolved, checklists prepared and system to designed to ensure implementation of all safe procedures and practices. According to Jain and Sunil, the safety system may have to be reviewed from time to time and updated. In order to maintain standard of safety in the auto mechanic workshop necessary audit

should be carried out. Safety head should report directly to the top management in the auto mechanics workshop. This safety reports of the auto mechanics need not be compromised at any way either in money, cost of application in the workshop management.

It is a welcomed development that federal government has taken a serious step to rectify the odds in the workshop management in educational system, especially in the technical colleges of the country. Government had laid more concerned in the education policy concerning safety in the workshop. The government policy spelled out that the entire auto workshop in technical colleges must be well equipped and properly maintained in order to avoid accidents.

Accidents have long been happening in auto mechanic workshops in all our technical colleges in Lagos state and the whole country of Nigeria. Accidents has been regarded as sudden or unexpected but in most cases, these accidents is usually preceded by a hazard and if this can be removed, the accident can be forestalled. As a result of these, it is realized that the importance safety in auto workshops in technical colleges in Lagos state can therefore not be over emphasized, because accident is an unplanned event that leads to severe or minor injuries which could either be temporary or permanent or total loss of life. In technical colleges in Lagos state, most of the accidents that occurred among auto mechanics students were due to carelessness, over confidence of students, the use of wrong tools, misplacement of tools, hoarse playing, improper handling of materials and machinery in the workshop and distraction when working in the workshop or on vehicles. Fontanta 1973 and Ogunmilade 2017, accidents are a leading causes of death and injury to students that teachers and instructors must be watchful while working in auto-mechanic workshop.

Teachers and Instructors play a major role in practical exercise in the workshop, especially in auto-mechanics workshop. Teachers should always give supporting hands to the students to encourage them to keep to safety rules while working in the workshop. Safety needs to be taking serious while working because safety is what affect life and is a way of life. We need to act in a safe manner no matter what we are doing in the workshops or on vehicles. Most of the accidents that occurred in auto-mechanics workshops in technical colleges in Lagos state are: small cuts and burns, spills and minor. Fire outbreaks usually occurred in the auto-mechanics workshops among students in technical colleges in Lagos state. This research will work towards the steps on how to reduce the occurrence of these accidents to the minimal level in auto-mechanics workshop in Lagos state.

2. Statement of the Problem

This study is to determine the level of the safety awareness in auto-mechanics workshops among technical college students in Lagos state. Accidents do happen in the auto-mechanics workshops where students engage in the practical aspect of their course and these accidents may lead to loss of life, or permanent disability to the individuals involved, it can bring damage to valuable equipments, instruments and materials that cannot be done without and therefore have to be replaced. These will result to cost of money and abandoned work because of damage equipments and accident to the workers.

3. Purpose of the Study Are

- Common causes of accidents that occur in the auto-mechanics workshop among technical college students?
- Facilities to be put in place in order to successfully combat these accidents in auto-mechanics workshop?
- Disciplinary actions to be introduced to ensure that safety rules are strictly followed in the workshop?

4. Research Questions

This study is specifically carried out to answer the following questions listed below:

- What are the common causes of accidents that occur in the auto-mechanics workshop among technical college students?
- What are the facilities to be put in place in order to successfully combat these accidents in auto-mechanics workshop?
- What are the disciplinary actions to be introduced to ensure that safety rules are strictly followed in the workshop?

5. Methodology

The survey types of the descriptive research were used to carry out the study. The study is primarily on safety awareness in auto-mechanics workshop among technical college students in Lagos state. This study will help to correct the nonchalant attitude in the mechanic workshop in Lagos state. The population surveyed consisted of eighty (80) college students in four (4) technical colleges in Lagos state. Sample and sampling techniques were used for this study. The instrument used for the study was questionnaire of Safety Awareness in Auto-mechanic workshop Questionnaire (SAAMQ). The researcher constructed the questionnaire after careful review of some literature related to the study. The response rating in the (SAAMQ) were on the bases of common causes of accidents occurred in auto-mechanics workshop, the facilities to put in place in order to successfully combat these accident and assessment of suggested disciplinary actions to be considered. All the questionnaire were on frequent count and percentage: "Yes", "No" and F%. The instruments were validated and their reliability was also established using. Data collected were summarized and analyzed by the computer using Statistical package for social sciences (SPSS).

6. Results

Research question 1: What are the common causes of accidents that occur in the auto-mechanics workshop among technical college students in Lagos state.

Table 1: Assessment of the common causes of accidents that occurred in the auto-mechanics workshops in technical colleges in Lagos state.

S/N		YES	F %	NO	F%
1	Using of wrong tools to work	62	77.51	18	22.50
2	Worn out tools can cause accident	80	100	0	0.00
3	Safety rules can cause accident in the workshop	78	97.5	2	2.50
4	Poor lighting can cause accident in the workshop	71	88.75	9	11.24
5	Overcrowding of the workshop can cause accidents	53	66.25	27	33.75
6	Untidiness can cause accident in the workshop	74	92.51	6	7.50
7	Using of bad equipments can cause accidents in the workshop.	61	76.25	19	23.76
			85.54		14.46

From the table 1, it is shown that the items listed are major causes of accidents among auto-mechanics students in technical colleges in Lagos state. With the average of the 'YES' respondents being 85.54%.

Research question 2: What are the facilities to be put in place in order to successfully combat these accidents?

Table 2: The assessment of safety measure to be taken in order to combat accidents in this workshop can be answered by research questions of 8 and 14 of the questionnaire.

S/N		YES	F%	NO	F%
8	Safety posters should be fixed on the wall of the workshop to always check the students	70	87.51	10	12.50
9	Standard first aid must be made available	67	83.74	13	16.26
10	Fire extinguishers should always be made available in the workshop	78	97.51	2	2.50
11	Hazard cards should be pasted on the wall, machines and other places in workshop	55	68.75	25	31.26
12	Power tools should not be used without the workshop instructors	51	63.75	29	36.26
13	There should be periodical inspection of hand tools, power tools and equipments in the workshop	80	100	0	0
14	There should be provision for protective overalls for teachers and students during the practical work	75	93.76	5	6.24
			85%		15%

Research question 3: are the disciplinary actions to be introduced to ensure that safety rules are strictly followed in the workshop?

Table 3: Assessment of suggested disciplinary actions to be considered from item 15 and 20 of the questionnaire.

S/N		YES	F%	NO	F%
15	Any student who failed to follow the laid down safety rules and regulations should be disciplined	62	77.51	18	22.50
16	Student who failed to obey safety rules should be given verbal warning	65	81.25	15	18.76
17	Students who failed to obey safety rules should be send to collect letter of undertaking from their parents	42	52.51	38	47.52
18	Suspended from participating in workshop practical exercises	54	67.50	26	32.51
19	Physical punishment should be given to any student who failed to obey safety rules	39	48.75	41	51.26
20	Any students that failed to follow safety rules after two or three times correction, such students can be withdraw from the subject	48	60.01	32	40.00
			64.58		35.42

The table above reveals that many of the respondents are of the opinion that students who failed to obey the safety rules should be duly disciplined. The number of respondents agreeing to the average percentage of the 'YES' respondents amounted to 64.58%.

7. Discussion of Findings

The safety awareness in auto mechanics workshop among technical college students in Lagos State, revealed in table 1 shows that the respondents agreed on all the items which means that the findings in table 1 are the common causes of accidents in auto mechanic workshop which are using of wrong tools to work, worn out tools can cause accident, poor safety rules can cause accident in the workshop, poor lighting can cause accident in the workshop, overcrowding in the workshop can lead to accident, untidiness can cause accident in the workshop, using of bad equipments in the workshop can also cause accidents in the workshop. For proper safety awareness in auto mechanic workshop in technical colleges, the above mentioned items should be properly considered for the teaching in auto mechanic workshop in technical colleges in Lagos state. The findings is in accordance with Gedzune (2015) that there should be proper instructional guide for the students before a teacher going to class to implement the teaching, it was also recommended that adequate safety awareness should be given to auto mechanic students in technical colleges.

The result in table 2 shows the facilities to put in place in order to successfully combat accidents in auto mechanics workshop. All the respondents agreed on all the items which means that the finding in table 2 are safety posters should be fixed on the wall of the workshop to always check the students, standard first aid must be made available, fire extinguishers should always be made available in the workshop, Hazard cards should be posted on the wall, machines and other places in the workshop, power tools should not be used without the workshop instructors, there should be

periodically inspection on hand tools, power tools and equipment in the workshop, there should be provision for protective overalls for teachers and students during the practical class. Workshop should be properly managed in order to successfully combat accidents in auto mechanics workshop.

According to Fontanta(1973) in Onikoyi(2015), stated that accidents are a leading causes of death and injury to students, teachers and instructors in the workshop. The instructors should always give supporting hands to students to encourage them and help them to keep safe by ensuring that they adhere to safety rules while working in the workshop. Teibo(1975) in Onikoyi(2015), also explained that experienced and well trained teachers or instructors should be placed in charge of facilities, equipment and tools in the workshop.

The result in table 3, show the suggested disciplinary actions to be considered for ensuring that safety rules are strictly followed in the workshop. Many of the respondents agreed on the items which are: Any student who fails to follow the laid down safety rules and regulations be disciplined, students who fails to obey safety rules should be given verbal warning, students who failed to obey safety rules should be sent to collect letter of undertaken from their parents, physical punishment should be given to any student who fails to obey , also any student who fails to follow safety rules after two or three times of corrections, such student can be withdrawn from the subject or course. Workshop should be well managed with safety rules in order to prevent accident among students in the workshop. The finding is in accordance with Elwood(1990), that safety and health are of importance on the aims and objectives of vocational and technical education in schools and colleges. As a result of this, any student who learn to work safely in the school workshop will become a safe worker in the field or labor market.

8. Conclusion

Based on the findings of the study, the following conclusions were drawn:

It is clearly shown that accidents prevention does not occur by itself, it is the duty of the students, the teachers, instructors or supervisors and the administrators or administrative bodies. All the bodies involved in safety should be educated on why and how accidents happen, how to forestall the occurrence of accidents and the need to develop and adhere to safe working habits. Displaying of safety posters, organizing seminars, conferences on safety are required to make both the students and the teachers with instructors to be safety conscious while working with facilities, equipment, power and hand tools. Also, disciplinary measure should be put in place to check the students digression from safety obligations or safety rules and regulations and curb the nonchalant attitude that some of them might decide to put up when it comes to their safety and that of others.

9. Recommendations

Based on the findings of the study, the following recommendations were made:

1. A wide and well planned workshop should be provided in the technical colleges
2. Standard facilities, equipment and tools should be provided in the workshop
3. A regular training and retraining program should be organized in technical colleges for both teachers and students
4. A prospectus that emphasizes on the “do and don’t” of the workshop should be issued and punishments should be made compulsory for students
5. Government should always visit the technical colleges and provide enough money for the school.

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