

**WORKSHOP SAFETY COMPLIANCE AND STUDENTS'
PSYCHOMOTOR SKILLS ACQUISITION IN ELECTRICAL
INSTALLATION WORKS IN TECHNICAL COLLEGES IN
AKWA IBOM STATE, NIGERIA.**

Emmanuel Bassej Joseph, Ph.D
Department of Vocational Education,
University of Uyo,
Akwa Ibom State, Nigeria.

Okechukwu Amadike, Ph.D
Department of Industrial Technology Education,
Michael Okpara University of Agriculture,
Umudike – Umuahia, Nigeria.
Abia State

James Okon Nsikan, Ph.D
Department Electrical/Electronic,
Maritime Academy Of Nigeria,
Oron-Oron,
Akwa Ibom State, Nigeria.

and

D. G. Sagbara
Department of Building Technology Education,
Federal College of Education (Technical),
Omoku,
Rivers State, Nigeria.

Abstract

The study examined workshop safety compliance and students' psychomotor skills acquisition in electrical installation works in technical colleges in Akwa Ibom State, Nigeria. Three objectives, three research questions and three hypotheses were formulated to guide the study. The design of the study was survey design. The population of the study consisted of 550 Electrical Installation Works Senior Technical II (ST II) Students in Public Technical Colleges in Akwa Ibom state, Nigeria. 120 STII students from the six

Technical Colleges were selected through simple random sampling technique. Two researcher developed instruments titled Workshop Safety Compliance Inventory (WSCCI) and Practical Test in Electrical Installation Works (PTEIW) were used to gather data for the study. The two instruments were validated by experts and pre-tested on students in two private technical colleges who did not take part in the actual study. Cronbach's Alpha estimate was used to establish the reliability indices of .74 for WSCCI and .73 for PTEIW respectively. Data collected from the completed instrument WSCCI and PTEIW were collated. The research questions were analyzed using Mean and Pearson's Product Moment Correlation (PPMC) and for testing the hypotheses at .05 alpha level and 199 degree of freedom. All the three null hypotheses were rejected. The findings of the study revealed that there were significant relationships between workshop safety compliance in the independent variables and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria. It was concluded that the level of safety compliance in Technical Colleges in terms of wearing approved safety clothings, safety use of tools and utilization of electricity is generally poor. The non-compliance results in students' poor psychomotor skills acquisition in Electrical Installation Works. Based on the findings, it was recommended that teachers of electrical installation works in technical colleges in Akwa Ibom State, Nigeria should teach the students to comply with safety roles and regulation as well as acquire psychomotor skills before graduation.

Background for the Study

Technical Colleges are the principal institutions noted for the training of skilled manpower as technicians that can be effectively used for economic self-reliance of the nation. Students are expected to acquire practical skills, basic and scientific knowledge and attitudes at sub-professional level necessary for electrical installation and maintenance work. Electrical installations works is done as one of the trade subjects in technical colleges to include domestic and industrial installations, cable jointing, to carry out surface and concealed wiring in domestic and industrial buildings, to identify, install, terminate, solder and braze different types of cables and to charge, maintain and repair batteries, draw and interpret electrical wiring diagrams to enable job performance. The students are expected to acquire psychomotor skills required for their own well-being in the labor market. The students are to be conscious of safety as well as acquire psychomotor skills. Akpan (2007) opined that safety education comes with effective skill development and that no student should be allowed to use any electrical equipment or machine for any process until the student has been tested and certified satisfactory in workshop compliance. Psychomotor skills are those skills that one had done so often that the person do not need to think about how to do them while doing it. Workshop safety compliance has a lot to play in students' psychomotor skills acquisition.

Statement of the Problem

Occupational education involves skills preparation which cannot be separated from safety education. The competent worker is a safe worker, the degree of competence is reflected in his safety record. Safety instructions should be incorporated into every workshop demonstration to guide students toward positive safety philosophy and emphasize safety procedures for both the instructors and students. Compliance with workshop safety rules and regulations is mandatory with psychomotor skills learning in technical tasks. The students must comply with safety rules to eliminate much of the hazards incurred by them.

The emphasis on vocational technical education is on psychomotor skills acquisition for employability. It is unfortunate that the graduates of technical colleges are ill equipped with employable skills to sustain their living. The graduates from these technical colleges do not have the required psychomotor skills to be in the manufacturing/production vocation nor help them to be self-reliant and self employed in industries. Technical education experts and the general public are expressing some concern in relation to the rate where technical colleges graduates are going about searching for jobs in government establishments and industries whereas they are supposed to create jobs for themselves and employ others. Pertinent questions may be raised:

What is the degree of students' compliance with workshop safety in electrical installation works in Akwa Ibom State Technical Colleges? What is lacking in the training of these students? Do the colleges have safe workshop environment to promote students' safety in their learning process? In carrying out workshop assignments, do the students observe laid down shop rules and regulation? Do the graduates from the technical colleges possess sufficient psychomotor skills needed by potential employer? These constitute the problems which this study is set to investigate.

Purpose of the Study

The study investigated the relationship between workshop safety compliance and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria. Specifically, the study aims:

- (1) To determine the relationship between safety compliance in wearing approved safety clothings and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.
- (2) To determine the relationship between safety compliance in the use of appropriate tools and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.
- (3) To determine the relationship between safety compliance in safe handling of electricity and students psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

Research Questions

The following research questions guided the study:

- (1) What is the relationship between safety compliance in wearing approved safety clothings and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria?
- (2) What is the relationship between safety compliance in the use of approve tools and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria?
- (3) What is the relationship between safety compliance in safe handling of electricity and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria?

Hypotheses

On the bases of the research questions, the following null hypotheses were formulated for testing at .05 alpha level.

Ho₁: There is no significant relationship between students' safety compliance in wearing approved safety clothings and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

Ho₂: There is no significant relationship between safety compliance in the use of appropriate tools and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

Ho₃: There is no significant relationship between safety compliance in safe handling of electricity and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

Technical College Workshop provides the environment for the development of safe working habits and students' psychomotor skills acquisition in Electrical Installation Works that will guide the action of the students throughout their work life. Getting safety into the consciousness and reflexes takes a long time and patient but when once taken will occur voluntarily throughout their future employment. When workshop safety compliance is not observed unpleasant event may happen unexpectedly during a careless moment to prevent the acquisition of psychomotor skills (Joseph, 2010).

Safety Compliance in Wearing Safety Clothings and Psychomotor Skills Acquisition

Akpan (2007) opined that the only practical way to reduce illness and injures in industrial/vocational education workshop is the use of protective clothings for the body, helmets for the head, hand gloves for the hand, eye goggles or face shield for eyes, boots for the feet (foot wear), respirators for the nose, earplug or protector for the ear, belt for the waist and other items which protect the students against such hazards as flying particles, chemicals and electrical shock, if properly used. The National safety

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council (2010) cautioned on insufficient and improper protective equipment. On improper fit, Peterson (2008) opined that improperly fitted protective equipment discourages students' acceptance and in some cases causes a loss of protection. Thomen and Stephenson (2001) both maintained that unless the persons who are required to wear the equipment are trained and educated in its necessity, its proper use and its care and maintenance, personal protective equipment will do little to fulfill its intended purpose.

Safety Use of Tools and Psychomotor Skills Acquisition

The effective use of tool enhances the acquisition of psychomotor skills in Electrical Installation Works. These tools must be maintained so that they will continue to function. Ibritam (2007) asserted that tools must be kept in good condition to facilitate safety and protective functions and noted that poor tools are potential weapons and can cause injuries/accidents which may prevent students' acquisition of psychomotor skills.

Electricity Safety and Psychomotor Skills

Lack of electrical safety causes short circuit which results in electrical faults and fires (Hawkins, 2008). To avoid electrical accidents and acquire effective psychomotor skills, students must:

- Understand the colour coding of cables, flex and components.
- Select approximately rated cable and flex
- Select appropriate size of fuses for a stated application
- Make correct connection to a system
- Earth or ground electrical equipment
- Avoid conduction of electricity by the human body.

In Electrical Installation Works, making the correct connection to a system is very important and this depends on circuit/wiring diagram to enable job performance (Joseph, 2010).

Research Method

Survey research design was used in the study. The area of the study was Akwa Ibom State Technical Colleges, Nigeria. The population consisted of all the 550 Senior Technical II students of Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria. The sample for the study was 120 respondents. This was obtained by simple random sampling.

Two instruments were developed by the researcher titled "workshop safety Compliance Inventory (WSCI) and "Practical Tests in Electrical Installation Works (PTEIW) and were used to collect data for the study. Instrument 1 had 15 items while Instrument II had two items with a-ten item criteria used for checklisting and evaluation of the students. Instrument 1 elicited information on the level of safety compliance in

terms of Wearing Approved Safety Clothings, Use of appropriate Tools and Electricity safe handling of by students while Instrument II elicited information on the level of psychomotor skills by the students. The two instruments were face and content validated by three experts from the Department of Vocational Education and two from Measurement and Evaluation Unit of the University of Uyo. Cronbach's Alpha estimate was used to ensure the reliability indices of .74 for Instrument I (WSCI) and .73 for Instrument II (PTEIW) respectively.

Decision Rule

Real limits for the various response options in the psychomotor ratings scale were used in taking decision regarding the status of safety compliance and psychomotor skills acquisition as follows:

Mean scores between 1.00 and 1.49 were regarded as very poor

Mean scores between 1.50 and 2.49 were regarded as poor

Mean scores between 2.50 and 3.49 were regarded as fair

Mean score between 3.50 and 4.49 were regarded as good

Mean score between 4.50 and 5.00 were regarded as very good.

The correlation values and the associated nature of relationship as suggested by Joshua (2005) were adopted as guidelines for interpreting and taking decisions with regards to the research questions as follows:

+1.0	-	-	-	-	Perfect positive relationship
+0.40 to +0.99	-	-	-	-	High (strong) Positive relationship
+0.10 to +0.39	-	-	-	-	Low (weak) positive relationship
-0.09 to +0.09	-	-	-	-	Very (weak) or no relationship
-.10 to -0.39	-	-	-	-	Low (weak) negative relationship
-0.40 to -0.99	-	-	-	-	High (strong) negative relationship
-1.00	-	-	-	-	Perfect (negative) relationship

Source: Joshua (2005). Fundamentals of Test and Measurement in Education p. 157

In testing the hypotheses, where the calculated r-value was greater than the critical r-value at .05 alpha level and 119 degree of freedom, the relationship was adjudged to be significant. Where the calculated r-value was less than the critical r-value at .05 alpha level and 119 degree of freedom, the relationship was adjudged to be not significant.

Results

Presented below is the analysis and interpretation of the data collected for the purpose of answering the research questions and testing the hypotheses.

Research Questions

Research Question 1

What is the relationship between students' safety compliance in wearing approved safety clothings and their psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria?

Table 1

Relationship between Students' Safety Compliance in Wearing Approved Safety Clothings and Their Psychomotor Skills Acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria

Variables	N	\bar{X}	r-cal	Decision
Wearing Approved Safety Clothings	120	2.59	0.40	Poor Performance and High Positive Relationship
Psychomotor Skills Acquisition	120	2.02		

Analysis in Table 1 reveals that the Mean score regarding students' safety compliance in wearing approved safety clothings is 2.59. This implies a poor performance regarding safety compliance in the wearing of approved safety clothings by the students. For the students' psychomotor skills acquisition, the mean score is 2.02. This indicates a poor level performance with regards to students' acquisition of psychomotor skills.

The calculated correlated coefficient (r-value) is 0.40. This indicates a high positive relationship between students' safety compliance in wearing of approved safety clothings and their psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

Research Questions 2

What is the relationship between safety compliance in use of appropriate tools and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria?

Table 2
Relationship Between Safety Compliance in the Use of appropriate Tools and Students’ Psychomotor Skills Acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

Variables	N	\bar{X}	r-cal	Decision
Compliance in Use of Tools	120	2.32	0.44	Poor provision of appropriate tools and High Positive Relationship
Psychomotor Skills Acquisition	120	2.02		

Analysis in Table 2 shows that the mean score regarding students’ safety compliance in the use of appropriate tools by students is 2.32. This implies a poor provision of appropriate tools by students. The acquisition of psychomotor skills by the students is 2.02. This also indicates a poor level performance with regards to students’ acquisition of psychomotor skills.

The calculated correlated coefficient (r-value) is 0.44. This indicates a high positive relationship between the use of tools by students and students’ psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

Research Questions 3

What is the relationship between safety compliance in electricity handling and students’ psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria?

Table 3
Relationship Between Safety Compliance in Safe Electricity handling and Students’ Psychomotor Skills Acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

Variables	N	\bar{X}	r-cal	Decision
Compliance in Safe Electricity Handling	120	2.12	0.28	Fair Safe Handling of Electricity and Positive Relationship
Psychomotor Skills Acquisition	120	2.02		

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Analysis in Table 3 shows that the mean score regarding safety compliance in utilization of electricity is 2.12. This implies a poor utilization of electricity by students. For the students' psychomotor skills acquisition the mean score is 2.02. This indicates a poor level of performance by students.

The calculated correlation coefficient (r-value) is 0.28. This indicates a positive relationship between safety compliance and utilisation of electricity by students and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

Hypotheses Testing

Hypothesis 1

There is no significant relationship between students' safety compliance in wearing approved safety clothings and their psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria. This hypothesis is tested using Pearson's Product Moment Correlation (PPMC).

Table 4

Relationship Between Students' Safety Compliance in Wearing Approved Safety Clothings and Their Psychomotor Skills Acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

Variables	N	\bar{X}	r-cal	r-cri	Decision
Compliance in Wearing approved Safety Clothings	120	2.59	0.40 *	.196	Reject null hypothesis
Psychomotor Skills Acquisition	120	2.02			

*Significant at .05 alpha level, df = 119

Analysis in Table 4 shows that the calculated r-value of 0.40 is greater than the critical r-value of .196 at .05 alpha level and 119 degree of freedom. Therefore, the null hypothesis that there is no significant relationship between students' safety compliance in wearing approved safety clothings and their psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria is rejected. This implies that the alternate hypothesis is accepted, that there exists a significant relationship between students' safety compliance in wearing approved safety clothings and their psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

Hypothesis 2

There is no significant relationship between safety compliance in use of tools and student psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

This hypothesis is tested using Pearson’s Product Moment Correlation (PPMC).

Table 5

Relationship Between Safety Compliance in Use of appropriate Tools and Students’ Psychomotor Skills Acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria

Variables	N	\bar{X}	r-cal	r-cri	Decision
Compliance in use of appropriate tools	120	2.33	0.44*	.196	Reject null hypothesis
Psychomotor Skills Acquisition	120	2.02			

*Significant at .05 alpha level, df = 119

Analysis in Table 5 reveals that the calculated r-value of .044 is greater than the critical r-value of .196 at .05 alpha level and 119 degree of freedom. Therefore, the null hypothesis that there is no significant relationship between students’ safety compliance in use of appropriate tools and students’ psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria is rejected. This implies that the alternate hypothesis is accepted, that there exist a significant relationship between students’ safety compliance in the use of appropriate tools and students’ psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

Hypothesis 3

There is no significant relationship between safety compliance in utilisation of electricity and students’ psychomotor skills acquisition in Electrical Installation works in Technical College in Akwa Ibom State, Nigeria.

This hypothesis is tested using Pearson’s Product Moment Correlation (PPMC).

Table 6
Relationship Between Safety Compliance in Safe Electricity Handling and Students' Psychomotor Skills Acquisition in Electrical Installation Works in Akwa Ibom State, Nigeria

Variables	N	\bar{X}	r-cal	r-cri	Decision
Compliance in Safe Handling of Electricity	120	2.12	0.28*	.196	Reject null hypothesis
Psychomotor Skills Acquisition	120	2.02			

*Significant at .05 alpha level, df = 119

Analysis in Table 6 indicates that the calculated r-value of 0.28 is greater than the critical r-value of .196 at .05 alpha level and 119 degree of freedom. Therefore, the null hypothesis that there is no significant relationship between students' safety compliance in handling of electricity and students' psychomotor skills acquisition in electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria is rejected. This implies that the alternate hypothesis is accepted, that there exists a significant relationship between students' safety compliance in safe handling of electricity and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

Findings of the Study

The following are the findings arising from the analysis of the data for research questions and hypotheses.

Research Questions

(1) There is a high positive relationship between students' safety compliance in wearing approved safety clothings and their psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria in terms of wearing approved safety clothings for the body, hard rubber hand gloves, hard hat or helmet, boots/industrial shoes and waist belt for fastening on electric pole while working. This mean that students' safety compliance in wearing approved safety clothings was poor with regards to instrument I items 1 and 2 while items 3, 4 and 5 were fair. For instrument II students' psychomotor skills acquisition was poor (2.02).

(2) The relationship between use of appropriate tools and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

There is a high positive relationship between safety compliance in use of appropriate tools in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria in term of effective utilization of tools, use of correct tools, careful selection of correct tools in terms of identifying the tools required based on activity, experiment or operation to be demonstrated using the right tool to the right job, applying appropriate technique required as related or needed by the occupation, replacing or repairing worn out or defective tools and maintenance of the tools so that they will continue to function properly in order to enhance psychomotor skills acquisition. This means that students' safety compliance in the use of appropriate tools was poor with regards to instrument I items 6,7,8,9,10 and 11 were poor. For instrument II students' psychomotor skills acquisition was poor (2.02).

(3) There is a high positive relationship between safety compliance in safe handling of electricity and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria in terms of understanding the colour coding of cables, flex and components, selection of appropriately rated cable and flex, selection of appropriate size of fuses for a stated application, making correct connection to a system, earthing or grounding of electrical equipment and avoiding conduction of electricity by the human body. This means that students' safety compliance in the safe handling of electricity was poor with regards to instrument I items 12,13,14,15 and 16 were poor. For instrument II students' psychomotor skills acquisition was poor (2.02).

Hypotheses

The findings of the hypotheses tested showed that

1. There is a significant relationship between students' safety compliance in wearing approved safety clothings and their psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.
2. There is a significant relationship between safety compliance in use of tools and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.
3. There is a significant relationship between safety compliance in handling of electricity and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in AKwa Ibom State, Nigeria.

Discussion of Findings

The discussion is done under sub-headings that have relevance with the research questions and hypotheses of the study.

Students' Compliance in Wearing Approved Safety Clothings and Their Psychomotor Skills Acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

The findings indicated that there is a high positive significant relationship between students' safety compliance in wearing approved safety clothings and their psychomotor skills acquisition in Electrical Installation works in Akwa Ibom State, Nigeria. The reason for the observed result might be that students who wear their safety clothings stand the chance to reduce illnesses and injuries than the students who refused to use proper safety clothings (Akpan, 2007). Protective equipment must show a level of compliance for students' ability and efficiency in the workshop. Peterson (2008) opined that improperly fitted protective equipment discourages student's acceptance and in some cases causes a loss of protection. Safety compliance is an attitude, a state of mental awareness, impression, rooted in the emotions, which a student possesses and which serves as a guide for his conduct, behaviour and overt actions as related to safety (skills). Thomen and Stephenson (2001) both maintained that unless the persons who are required to wear the equipment are trained and educated in its necessity, its proper use and its care and maintenance, personal safety protective devices will do little to fulfill its intended purposes. A good safety attitude in workers or students means fewer accidents. A large percentage of industrial accidents are traceable to the faulty attitudes of the workers or students, it then follows that the development of positive safety attitude in students should be a cardinal purpose of Technical Colleges since today's students are tomorrow's production workers, foremen and leaders. Safety compliance in the Technical College workshop results in psychomotor skills acquisition of students in Electrical Installation Works.

Safety Compliance in Appropriate Use of Tools and Students' Psychomotor skills Acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

The findings showed that there is a positive significant relationship between safety compliance in safe use of appropriate tools and students' psychomotor skills acquisition in Electrical Installation Works in Akwa Ibom State, Nigeria. The result was expected because effective, correct adequate and carefully selected tools are pre-requisite for the training and education of learners who are groomed to acquire saleable psychomotor skills in Electrical Installation Works. Wrong tools may constitute to injury or accident.

The present finding supports that of Ezeji (2006) who reported that adequate training facilities are required in learning situation (workshop) in which the learners may experiment, test, construct, draw, assemble and disassemble, repair, design, fabricate, create, imagine and study. These findings further support Strong (2005) who found positive correlation between safe use of appropriate tools in the College workshop to be related to effective instruction, psychomotor skills acquisition and other

elements of a safe workshop environment. Strong opined that correct and effective use of appropriate tools means to protect students and other persons working in the workshop from accidents, unauthorized use, improper or unsafe handling and deterioration. The result of lack of safe use of appropriate tools results in non-acquisition of psychomotor skills in Electrical Installation Works. Onweh (2005) reported that where instructional facilities are not adequate and functional, technical training programme will suffer and will lead to production of highly unskilled personnel who are unemployable

Safety Compliance in Electricity Utilisation and Students Psychomotor Skills Acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.

The findings showed that there is a positive significant relationship between safety compliance in safe electricity safe handling and students' psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria. The fact is in agreement with the view of Akpan (2005) who contended that teaching occupational skills such as Electrical Installation Works requires appropriate settings. He maintained that workshop electrification should reflect the planner's concern for both instructional and occupational needs. Electrical provision is designed to provide electrical services to customers thereby enabling job development and competency and this is psychomotor skills acquisition. Merrill (2000) opined that if electricity provided in the college workshop do not facilitate transmission and acquisition of the desired knowledge, skill, attitude and behaviour, then they are not effective, has no value and do not suit safety compliance. Electricity availability in college aids students performance in electrical Installation works. Miller (2007) reported that Electricity provides excellent source of materials for learning situation to acquire safety compliance and psychomotor skills in Electrical Installation works.

Major Findings of the Study

Major findings of the study are as follows;

1. There was a high positive significant relationship between safety compliance in wearing approved safety clothings and their psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.
2. There was a high positive significant relationship between Safety compliance in proper use of appropriate tools and student's psychomotor skills acquisition in Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria.
3. There was a high positive significant relationships between Safety Compliance in proper utilisation electricity and students' psychomotor skills acquisition in Electrical Installation works in Technical Colleges in Akwa Ibom State, Nigeria.

Conclusions

The level of safety compliance in Technical Colleges in terms of wearing approved safety clothings, storage of materials, physical facilities, regular maintenance of electrical equipment, housekeeping practices, first-aid kits and workshop design is generally poor. The non-compliance results in students' poor psychomotor skills acquisition in Electrical Installation Works.

Educational Implications of the Study

This study has educational implications for the students of Electrical Installation Works to realize that workshop safety compliance should be taught alongside with psychomotor skills acquisition for employment. The findings of the study may help the students to develop in them safety consciousness in which employers of labor place premium. The findings of the study are likely to alert the students to the fact that safety compliance implies economy of efforts, materials resources and achievement of quality workmanship. The findings of the study may also be of importance to educational policy formulators either in their effort to enforce safety compliance by trainees or in Electrical Installations Works alone, and also in other technical education business. The findings of this study are likely to constitute the bases for generating other related problems for investigation.

Recommendations

1. The State Technical Education Board (STEB) should recruit professionally competent, qualified and experienced Technical Education Teachers to teach Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria so that students can acquire safety compliance alongside with psychomotor skills acquisition required by employers.
2. The State Technical Education Board (STEB) should give approval to only Technical Colleges with adequate instructional facilities, classrooms, workshops, tools/equipment, electricity (light/generating sets), water, safety gadgets, and all it takes to run a good Technical College to offer Electrical Installation Works in Akwa Ibom State, Nigeria. This will enhance students safety consciousness and acquisition of psychomotor skills.
3. The Teachers of Electrical Installation Works in Technical Colleges in Akwa Ibom State, Nigeria should teach the students to comply with safety rules and regulations and to acquire psychomotor skills.
4. Students should acquire enough safety rules and regulations alongside adequate psychomotor skills before graduation. This will enable them to be self-reliant, self-employed, job creator, self-actualizer and employers of labour, in Akwa Ibom State, Nigeria.
5. The curriculum planners in Vocational/Technical Education (VTE) should enrich the Electrical Installation Works course content for the Technical Colleges so

that graduate can benefit from its instruction of being safety compliance and acquire psychomotor skills.

6 Teachers of Electrical Installation Works should make use of good and proper instructional techniques in the teaching of Electrical Installation Works to impart safety compliance and psychomotor skills to students before graduation.

Suggestions for Further Studies

It is suggested that further studies be carried out on:

1. Effect of workshop safety compliance on graduates' psychomotor skills acquisition in building technology in Industries in Akwa Ibom State, Nigeria.
2. The roles of safety compliance and psychomotor skills acquisition in vocational-technical education in Akwa Ibom State, Nigeria.
3. Strategies for improving workshop safety compliance and psychomotor skills in technical colleges in Akwa Ibom State, Nigeria.

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