

IMPROVING SAFETY IN NIGERIAN WORK ENVIRONMENT: IMPLICATION FOR TECHNOLOGY EDUCATION

BY

Idris, A. M., Umar, I.Y., and Audu, R.
Department of Industrial and Technology Education
Federal University of Technology, Minna.,

Abstract

This paper focuses at safety in work Environment and its implication to Technology Education. It examines reasons for safety and also looks at how to make Nigerian environment safe place to work. The part plays by Government in making work environment a safe place was also discussed. The main trust of the paper is to call for change and improvement in the attitude of both employer and employee toward safety in work environment and suggest for inclusion of safety programme in curriculum of Technical institution in order to acquire the right safety at all times.

Introduction

People are exposed to a great variety of hazards based on the environment in which they carry out their daily activities. Nigerian work environment had becomes more sophisticated than before in terms of materials, equipment and machineries. There are hazards in the street, at homes and in the factories. Pritchard (1970) stated that industrial safety is the concern of all those engaged in the engineering industry. It is concerned with the protection and safeguarding of the individuals working in the industry and other members of the society. Work in the utility fields is potentially more hazardous than in other occupations, but by conforming to safe practices, one can attain working in a more manageable harmless working environment. Therefore an increasing awareness must be introduces to expose all hazards that could be injurious to workers and the general public.

Concept of Safety

According to American Heritage Dictionary, safety is refers to freedom from danger, risk or injury. Safety is an art of inculcating the necessity of taking precautions for the avoidance or reduction of accidents in order to protect people and property. Siurilarly. Okorie (2000), state that safety in the work place is concerned with all the safety mechanisms put in place by employers or individuals to ensure, as much as possible, the avoidance or elimination of accident in industries or work place. Generally, safety could be observed to be the condition of being free from harm and accident in a work place. Safety is required in any daily activities involving human being either at work place or at home.

It is equally important that all reasonable workers should always place priorities on safety before performing "any functions or duties which could to be termed as SAFETY FIRST".

Work Environment

In order to enhance better productivity of workers, a more conducive environment for work usually motivates the workers to perform their activities at work with little or no accident. According to Okorie (2000) work plays vital role in man's life since economic viability, social mobility and psychological stabilization are derivable from it on the other hand environment can be seen as all the surrounding conditions, which influence growth and development

Besides the provision and the need for supply of good drinking water, positioned and maintained at suitable points conveniently accessible to all employees, adequate washing facilities, first aid box or cupboard and canteen facilities, there are other more practical services that can be made available to workers to environment their comfort and satisfaction. Other specified amenities includes, equipment, tools, transportation and other relevant facilities. Well-organized work environment must be protected from risks and hazards.

Reason for Safety Applications in Work Environment

The acquisition and retention of safe habits of workers should be encouraged by providing the necessary kits, which is necessary for the activities by the employer. Oranu (1996), said that records has shown that 17, 000 workers were killed every year, over 200, 000 workers received injuries, 300, 000 workers are permanently impaired. Apart from the effect on company production and operating cost, both the employees and employers also feel very much concerned about the injured particularly if the accident could have been prevented. The country at large suffers a loss in human resource when injuries occur. It is of course impossible to quantify satisfactorily how much some permanent impairment will reduce workers' future earnings. In recent time, about hundred working staffs, material and equipment were lost in a fire outbreak that engulfed an engineering company in Lagos Pitan (2002) maintained that the incident resulted due to lack of observation of safety regulation.

Factor that Influence Accidents

Okorie (2000) observed that most accidents, which could have other wise been avoided or prevented, are caused by human actions, it was explained that suck accident could arise from radiation, noise, vibration, lighting, Pollutants, acids, and alkalis, heat, fire, machinery, and material handling etc. The lack of adequate safety devices in the design of machinery, or non-provision of safety equipment constitutes hazards, which can lead to accident. Likewise, a highly polluted environment will lead to hazard and accident. "A careful worker is the greatest asset to the industry". The worker himself is a major contributory factor. He needs to receive adequate training particularly when new processes and procedures are introduced, and must cultivate safe working habits. Industrial pollution is gradually changing the environment in Nigeria. This pollutant includes highly poisonous waste and heavy metals. But these industrial waste which are injurious to the health of the users of industrial equipment and the environment, raise questions concerning productivity and safety concerns. This means that a balance has to be struck between the need for industrialization and the safety of the environment and its habitants.

Making Nigerian Environment Safe Place to Work

Despite laws on occupational health and safety, injury and death at work still constitution a major problem Employers and employees must take a measure of responsibility for their own safety and that of others. Tired workers are less efficient and make more mistakes. The consequences are potentially devastating. Perhaps nowhere is this problem as evident as the transport industry, where drivers may be encouraged or even forced to drive for long hours without breaks. The same can be said of ignoring safety precaution is when using power tools and machinery. Another cause of injury and death is failing to clean up spilled fluids, especially toxic ones. Many injuries have occurred when worker have slipped on oily or wet floors. So it might be said that the first law of good work is to be clean and orderly.

Government Policy Toward Environment

Some government agencies are charged with the responsibility of ensuring that work environment has a high standard. The agency ensures that the observances of the relevant safety rules are mandatory affected. These agencies are some of the bodies charged with the statutorily empowerment to enforce safety culture in work environment. They include the Federal Ministry of Employment Labour and productivity and Federal Environmental Protection Agency (FEPA). Decree 58 also spells out the fire and criminal involvement for any infringement of standard that are laid down by FEPA. These agencies are to maintain;

- i. The factory ordinance (1953)
- ii. Factory decree, 1987
- iii. The mineral oil ordinance.
- iv. Other regulations

Relevance of Technology Education to Safety in Work Environment

The importance of Technology Education whether in a developed, under-developed society cannot be over-emphasized. It is expected to provide employment for self-reliance. Technology Education emphasizes practical demonstration in modeling and the acquisition of skills in the use of tools and equipment (Surman, Umeh and Iyortyer, 1998). It is therefore, job oriented and production-oriented. Appropriates vocational and technical education programmes can therefore, make average Nigerians technologically competent in the manufacture of many needed good and service for the country.

In order for the nation to be technologically development our technological institution must be replica form of the environment in which the products will eventually practiced. Olaitan atal (1999) explain that safety habits must be an integral part of college programme for the safety of workers, tools and equipment in a workshop. Instructors in technical institutions are expected to impact adequate safe practices to their students in order to enhance their understanding in practicing safety first in all their activities. It is not exaggeration to state that technology is the heart beat of a nation because development of a country is measured by her ability to turn around her natural resources.

The society is changing at an exponential rate due to increasing applied knowledge and technological invention. This implies that the strength of a nation depends on its level of technological development, which has a lot of influence on the environment. Despite all the goodies enjoy from technology to make environment bearable to man, the physical or natural environment also suffer greatly which also has negative impact on man. However, human ingenuity should not be carried to the extreme by creating danger for human life at work environment and the society in general.

Recommendations

Based on the aforementioned and in order to realise the goal of raising the quality of life and safety in Nigeria work environment, the following needs to be done.

- Adequate safety devices should be made available for the use of all staff in case of any emergency in all work environments.
- Federal Environmental protection Agency (FEPA) should be adequately funded to be able to tackle the environmental problems.
- National Emergency Management Agency and (NEMA) should organise workshops and enlightenment programmes on safety in the workplace and the environment in general.

- Safety training is a must for all industrial workers. Every worker should be trained to be safety conscious, obey rules and regulations and promptly respond to danger signals without panicking.
- Government should continuously monitor closely the work environment and make sure that staffs sent out to do this are not bought over.
- Safety programme should be included in the curriculum of Technical institutions in order to acquire the right safety at all times.

Conclusion

In the final analysis, safety involves correct human behaviours of being sensible and not fooling around. It is always essential to consider the importance of knowledge on the job, correct working methods and hazards associated with the job. All these affect the efficiency of the work as well as the Prevention of accidents. There is the need to obey rules and regulations applying to each of our operational situations. Technology teachers in particular need to be exposed to environmental education to adequately prepare them for teaching on safety of the environment as it relate to manufacturing processes and human life.

References

- Okorie, J .U. (2000): Recent Trends and Impact of Unemployment: Developing Nigeria Workforce. Calabar: Machly Environs.
- Olaitan, S. O., Nwanchukwu, C. E., Igbo, C. A., Onyemachi, G.A. and Ekong, A.O. (1999): Curriculum Development and Management in Vocational Technical Education. Onitsha: Cope Publishers Inter Ltd.
- Oranu, R. N. (1996): Management of Industrial Education Laboratory. Unpublished Work. University of Nigeria Nsukka.
- Pitan, L. (2002, September 30): Spectacle of Sorrow. Tell Independent Weekly Magazine No 39.
- Pritchard, R. T. (1970): General Course Workshop Processes and Material. London: Hodder and Stoughton.
- Sunman, D. A., Umeh J. C. and Iyortyer, P. J. (1988): Nigerian System of Vocational and Technical Education: Trends And Issues. Katsina Ala: Servo Computers and Publication co.
- William, M. (1969): The American Heritage Dictionary of the English Language. Boston: Houghton Mifflin Company.

Mechanism for Improving Technology Education Curriculum: A Necessity for Sustainable Youth Empowerment.

IDRIS, ABUBAKAR MOHAMMED

Department of Industrial and Technology Education
Federal University of Technology, Minna.

&

UMAR, IBRAHIM YAKUBU

Department of Industrial and Technology Education
Federal University of Technology, Minna

&

AUDU, RUFAI

Department of Industrial and Technology Education
Federal University of Technology, Minna.

Abstract

Generally, there has been a growing concern over a number of issues that affect the well being of youths in most nations of the world. Some of these issues are education, health, employment poverty, drug abuse and involvement in crime. This paper is aim at improvement the quality of technology education through the identification of mechanisms that will enhance and sustain youth empowerment.

Introduction: The basis for industrial development of any nation is hinged on the fact that the basic necessities of citizens of such a nation should be well taken care of the need for food and shelter, for instance; have to be met before one considers every other needs. The present hardship Nigeria is passing through is massive unemployment, low capacity utilization and sub-standard nutrition. In the present day Nigeria, nothing is as precious as saleable skills in order to survive the economic hardship especially for the youth. Every individual should be equipped with the necessary skills to contribute effectively to the development of the country. The inclusion of technology education in the Nigerian education system through the national policy on education is an obvious testimony of its recognition by the government. This is aimed at changing the former system of education of training the head and not the hand to training the head and the hand.

Osuola (1981), define technology education as education to earn a living in an occupation in which success is dependent largely upon technical information and understanding of the laws of science and principles of technology as applied to modern design, production, distribution and services. Also Longman (1995), defined Technology as Knowledge about scientific or industrial methods or the use of those methods; Technology education which includes vocational and technical education is a utility education, it passes to the individual, useful and useable skills which are expected, presently or later in life, to make the individual self sufficient. It involves the use of the heart, the head and the hands. This type of education will make the youth to be more empowered and be useful to themselves and the society at large.

No doubt, technology education ought to reduce unemployment, provide incentives for employment opportunities and ensure proper organisation and meaningful output of those employed. It will equally ensure self-employment. Curriculum in technology education is considered as the totality of those experiences, knowledge, skills and activities systematically planned to educate the students for gainful employment in an y chosen occupation or a cluster or occupation (Ogwo, 2002). This

connotes that the aim of technology education curricula is to develop manipulative skills for employment and or producing job makers and not seekers. What is apparent therefore, is that technology education curriculum should be geared towards development of specific skills required for attainment of youth empowerment for self-sustenance.

According to Hornby (2000), Mechanisms is defined as a methods or procedure for doing things, while Ezeji (1990), viewed mechanisms as ways or means of improving the provision of facilities. The mechanisms that exist for improving technology education for youth empowerment include subvention from the state and federal government, Social clubs, Foreign aids, Education Tax Fund, Parent Teachers Association (P.T.A), Philanthropists\ Philanthropic organisation, e. t. c.

An Overview of Nigeria's Youth Profile: The conceptualization of the term "youth" varies from one country to another depending on the interplay of socio-cultural, economic, institutional and political factors. In Nigeria a youth is any person aged between 12 and 35 years (FRN, 1999). Although the UN convention on the right of the child defines children as persons below the aged of 18 (UN, 1996) it appears the age categorization for children and youth by the united nations are overlapping this was intentional in view of the fact that it had no separate plan for a convention on the right of the youth. However, it is important to note that in many societies a dividing line is drawn between a child, youth and adult based on number of characteristics and traditions (UN, 1996). Despite, the nuances in the operational definition of the term youth, this paper accept the UN'S conception of youth as its working definition.

Global demographic data as at 2002, revealed that the world youth population was one billion, that is, one out of every five persons is between ages 15-24 years representing 18 percent of the world's total population. In Nigeria, available population data indicated persons between 15-24 years as at 2000 represented 24, 726.912 representing 19.2 percent of the total population. By 2030, it has been projected that the youth population would have increased to 20.0 percent of the total population (UN, 1996). Today, a great number of these populations of youths are unemployed, thereby making them to indulge in a lot of vices. Technology education can provide the teaming population of the youth with the necessary saleable skills and expediencies that can make them to be empowered and becomes self-sustenance

The problems of Technology Education: Despite all efforts been put in by the various Government towards the advancement of technology education, some impediments still stand on the way. These include;

Problem of Funding: there is no doubt that technology education is poorly funded. It is capital intensive and enough money is not made available to run the programme. Because of this poor funding basic facilities like equipment, machines, workshops are lacking in our technical\vocational schools.

Lack of Qualified Technology Teachers: shortage of qualified and well trained technology teachers hinders the growth of technology education. Nwokolo (1993) stated that it is not surprising that teachers of technology are being recruited, trained and lost to other sectors due to prestige and status due to prestige and status when compared to other sectors. Motivation of Teachers of Technology Education: the mass exodus of teachers from this area to industries and private sectors today should be a thing of concern to the government. This is because they are not sufficiently motivated. Lack of

Equipment, Facilities and workshop: Norman (1975) stressed the need for facilities, pointed out that certain facilities are specially designed to enhance the teaching of certain skills in some subjects without which some skills cannot be acquired.

Mechanism for Improving Technology Education for sustainable youth Empowerment: Having gone these far, the writers would want to make some suggestions for the improvement of technology education.

Curriculum planning: - the curriculum planning Implementation of indeed all technical institutions should be adjusted in such a way as to lay more emphasis on practical skills. Sufficient facilities should provide by Government and organisation to sustain the high emphasis on practical work.

Integration of indigenous Technology in our school programmes: some highly developed countries such as USA, Germany etc, have systematically improved their indigenous technology by incorporating it in their school system as well as adequately funding technology education through teaching, research, and development (Johnson, 1987). Nigeria should emulate such idea so that technology education could be improved. Motivation of Teachers of Technology Education: As a way of improving technology education, Aina (1994) suggested that the Government must see that the condition of services and of technicians is raised and their salaries improved.

Upgrading of Technology Education: Technology education ought to be upgrading and its practitioners should be given the deserved recognition.

Continuous Training: Technology education requires continuous training on the part of the teachers. Such teachers need to be exposed to sufficient modern equipment and conditions of improved services, through acquiring the right type skills and competence and imparting it on our youth for empowerment and national development.

Also, relevant government agencies (i.e. NBTE, NAITED, Ministry of Education, F.F) in conjunction with industries should organize workshops or conferences to create awareness for support in making technology education curriculum effective for economic development and youth empowerment.

Conclusion: The need for effective curriculum implementation cannot be over emphasized. The curriculum needs to be properly implemented to ensure that its objectives are achieved. This means that the appropriate resources for effective teaching and learning must be made available, this is because skill development in vocational/technical education is predominantly workshop based. It is also a well-known fact that theoretical concepts must blend with practical concepts for any vocational/Technical education or training to be meaningful. Therefore, for the youth to be empowered and be self-sustenance, the curriculum of technology education need to be reviewed to meet the present and future challenges of the youth and national development.

References

- Aina, I. S. (1994) Administration of Vocational and Technical Education. *Journal of Technical Teacher Education*, 1(2).
- Ezeji, S. C. O. A (1990): *Guidance and Counselling in Education*. Naukka: Chibson Int. Press.
- Federal Republic of Nigeria (1999): *National Youth Development Policy, Programme and Implementation Strategies*. Abuja: Federal Ministry of Youth Affairs.
- Johnson, P. (1987): *The Shinn Civilization*.
- Hornby, A. S. (2000): *Oxford Advanced Learners Dictionary of Current English*. London: Oxford University Press.
- Longman, (1995): *Longman Dictionary of Contemporary English*. The Complete Guide to Written and Spoken English. Britain: Longman Group Ltd.
- Norman, C. (1997): *Principles and Problems of Business Education*. Ibadan: South-West Publishing Company.
- Nwokolo, P.O. (1993): *Social Perception and Status of Teachers in Nigeria with Particular Reference to Vocational Teachers. A Case Study of Edo and Delta State of Nigeria*¹ Ph d Thesis, Lancaster University, U.K.
- Ogwo, B. A. (2002): *Curriculum Development in Industrial Education*. Monograph.
- Osuala, E. C. (1981): *Foundation of Vocational Education*. Awka: Meks Publisher Ltd.
- United Nation (1996): *World Population Prospects*. New York: United Nations.