

SKILLS ACQUISITION IN NIGERIAN EDUCATION SYSTEM: PROBLEMS AND PROSPECTS AS THEY RELATE TO VOCATIONAL AND TECHNICAL EDUCATION

Emmanuel Sunday Otu; Bassey Archibong Udo and Hogan Usoro (Ph. D)

Abstract

The importance of skills acquisition in the overall development of a nation cannot be over-emphasized. This seems to be more pronounced in the Vocational and Technical Education sub-sector of the educational enterprise. This important sector of total education is usable, purposive and performance sector Vocational and technical education programme offers employable skills and competence. It provides the necessary information and psycho productive skills needed in the present day technological society and in eradication of unemployment in our society. Indeed, Vocational technical education has been a proven bedrock of national development in the area of Science and Technology. It is education for productive living, therefore, any stagnations in this vital area is a sure recipe for social decay. In this paper, the authors have examined and explained the meaning and principles of Vocational technical education, recent innovations in the curriculum, problems militating against the successful implementation of Vocational technical education curriculum and suggested possible solutions to the problems. The paper concludes by highlighting the prospects of Vocational technical education in the realms of personal and national development.

Introduction

Skill is the expertness in doing something therefore, it is not limited to technical and engineering careers. Skill economizes efforts and therefore, saves time. Skills acquisition in vocational and technical education refers to the

development of psychproductive skills which are dependable and time tasted factors of technological development of a nation. Nigeria, as a third world nation, needs these skills as she is aspiring to join the community of the highly industrial nations of the world. Skills acquisition and the programme that promotes it cannot be treated with levity. Vocational technical education as workshop - based education is that programme which emphasizes skills acquisition or psychomotor / psychoproductive skills development. It is so far, the only aspect of education that touches all the aspects of human development viz, cognitive, affective,. Perceptual and psychomotor or psychoproductive dimensions of work behaviour (Erickson and Wentling, 1986). All acquired skills must reflect all the dimensions of work behaviour otherwise, such skills can lack human touch.

Technology Education Defined

Technology education is education designed to equip individuals with problem-solving as well as creative skills. This definition is based on the definition of technology which is a cultural tradition developed by human communities to deal with physical and biological environment. The purpose of technology is to simplify labor for productive advancement. Vocational education is any form of education whose primary purpose is to prepare personas for employment in recognized occupations. It provides the skills, knowledge's and attitudes necessary for effective employment in a specific occupation. Ukpongson. (2000), opined that, those who undergo vocational

education are assumed to have already chosen reported that vocational technical education their life occupations and thus, need relevant accounts for over 60% of Nigeria's national skills and knowledge to enable them progress and growth and development. Nwosu (2005) opined develop in such occupations. Oranu (2004) has that, vocational technical education is the defined vocational education as that skill -based education that is always responsive to the global programme designed for sub-professional level changes in technology.

education' and based on specific vocation. Technical education on the other hand, facilitates the acquisition of practical and applied skills as well as basic scientific knowledge. In effect, every vocational education programme is technical in nature while not every vocational education programme is vocational in nature. The nature and content of vocational technical education are reflected in this specialized level of education.

Objectives of Vocational Technical Education

The goals of vocational technical education as contained in the National Policy on Education (Federal Republic of Nigeria, 2004) are as follows:

- a) To provide trained manpower in the applied science, technology and business particularly at craft, advanced craft and technical level.
- b) To provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development.
- (c) To give training and impart necessary skills to individuals who shall be self -reliant economically.

The objectives of today's vocational technical education consist in the development of functional and marketable knowledge, psycho productive and affective work competencies skills needed in the world of industry. Eyster (1979), has also observed that, vocational technical education is important to the people, to the society and to the economy of the nation. Also, Ulinfun (1986) has

Basic Principles of Vocational Technical Education

Prosser (1949), developed the principles guiding the provision of vocational technical education in and outside the school system. These principles which are worthy of serious consideration by every administrator of vocational technical education, specify the minimum standards below which effective technology education cannot be offered.

Some of the prosser's principles are started thus:

- Technology education will be efficient in proportion as the environment in which it must subsequently work,
- Effective vocational training can only be given where the training jobs are carried out in the same way, with the same operations, the same tools and same machines as in the occupation itself.
- Vocational education will be effective in proportion as it trains the individual directly and specifically in the thinking habits and the manipulative habits required in the occupation itself.
- Effective vocational education for any profession, calling, trade, occupation or job can only be given to the selected group of individuals who need it, want it, and are able to profit by it.
- The administration of vocational education will be efficient in proportion as it is elastic and fluidy rather than rigid and standardized
- Vocational training will be effective only to the extent that it provides training

experiences for forming right habits of doing those finished skills necessary for gainful employment.

- The effective establishment of habits in any learner will be possible relation to the training given on actual jobs and not on pseudo jobs, and other principles (not listed here).

In the light of the foregoing principles, vocational technical education has to plan skills acquisition under an atmosphere similar to the one in the world of work. Adherence to Prosser's principles not only guides skills acquisition but also facilitates transferability of such skills to novel situations in the world of industrial development.

Recent Innovations in Curriculum for Vocational and Technical Education

Curriculum is the basis for any educational enterprise; its scope stretches beyond the school to embrace the socio-cultural, philosophical, moral, political and ideological issues. Innovation in curriculum refers to a set of approaches which guide the teacher/ educator to develop situational -specific models of vocational technical education programmes to suit specific needs at a particular time and place. Today's curriculum for vocational technical education has adopted the worker- centred approach that accommodates the personal, social, cultural and " vocational needs of worker at the same time. This helps to ensure an all -round development of the learner.

Again, it would appear that the present Nigerian vocational. technical education curriculum is restrictive because of its prescriptive nature. Emphasis on minimum standards is inimical to the flexibility of the curriculum and detrimental to the teachers' initiative in utilizing his / her expertise based n experience. It is noteworthy that the National Policy on Education is an equal opportunity document. Vocational technical education is

available to all who have the aptitude for it. Furthermore, the scientific and technological achievements have positively impacted on the vocational technical education practices. For instance, in the business education sector, there has been a significant adoption of technological software and -hardware in the processing and dissemination of information. Owens (1982), recommended the inclusion at various levels in the business of education programmes.

Finally, the incorporation of Information Communication Technology (ICT) and entrepreneurship skill course should be effected. As in other spheres of human endeavor, technological advances have sharpened the focus and practices of vocational and technical education. For example, the (ICT) has significantly revolutionized office and business procedures through the use of electronics gadgets. Most equipment and machines used in vocational technical education have been computerized enhance speed and precision in operation.

Problems Militating Against the Successful Implementation of Vocational Technical Education Programme in Nigeria as a Third World Nation

These problems are stated and briefly explained by Usoro and Ogenye (1998), Towe (1989), Imarhiagbe (1997), and Wolansky (1981) as follows:

1. There is the lack of public understanding of this types of education

The image of vocational technical education is still unclear to people in the society.

2. Lack of Proper Government Support

Vocational technical education is generally given the shorter end of the*stick when it comes to statutory allocation of resources.

3. There is absence of aptitude scale for identifying youths who are likely to excel in the

acquisition of skills in vocational technical education for national development.

4. Lack of adequately equipped vocational laboratories for psychoproductive learning.

5. No ready jobs for programmed productions.

6. No adequate and ready capital or seed money for graduates who wish to self-employ themselves upon programme completion.

7. Greater Government Emphasis on other Programmes than on Vocational Technical Education

This is detrimental to its existence.

8. Corruption in the quarters that implement policies on vocational technical education.

9. Poor Treatment of Vocational Technical Education Teachers

Vocational technical education teachers rarely given incentive or sponsored to attend seminars, workshops and conferences on vocational education. In addition, their experience delayed promotions.

10. There are no Indigenous Books and Guides on Vocational Technical Education

All or most of the available texts are foreign and lack the familiar background upon which student learning should be based.

11. Inadequate Utilization of the Local Industrial Raw Materials for Skills Training

Many training materials are still being imported.

12. Existing Gap between General Education and Vocational Technical Education

Introductory technology which was introduced to close this gap is not achieving much because of implementation problems. Many introductory technology equipment given to school in 1982 have not been installed till date because there are no adequate structures to house them.

13. Unreliable Source of Power

Skills acquisition in vocational technical education depends on machines and tools that operate on electrical power. When these equipment remain unused as a consequence of erratic or absence of power supply, they become atrophied. The problems associated with repairing or maintaining foreign equipment do hinder efforts in skills acquisition.

14. Inadequate Number of Qualified Technical Teachers

The available qualified teachers who are willing to stay in the classroom are inadequate. Research evidence indicated 95.5% of the qualified teachers are leaving with the job of teaching.

15. **Inadequate Infrastructural Facilities** Since practical work constitutes an essential component of vocational and technical education, it is obvious, that without suitable workshop space, programme implementation and structuring would be very difficult if not impossible. However, this problem can be reduced if the government accords greater financial attention to vocational technical education.

16. Facilities and Equipment (too expensive to procure)

While efforts are being made to update curricular offerings and introduce new ones technical and vocational colleges need tools and equipment for successful implementation of any programme. However, the cost of equipping vocational and technical institutions is astronomical and has gone up in recent times, (Imarhiagbe, 1997). Global financial recession or melt-down has further compounded the problem. However school-industry relationship, if and when established, will help solve the problem for the nation (Walanski, 1981). Technical colleges should be encouraged with huge financial assistance to participate in producing basic hand tools which are now being imported.

17. Programme Adjustment

This adjustment is necessary in order to help the programme meet today's and tomorrow's industrial needs of the nation.

18. Students - Teacher Ratio

The National policy on Education recommends teacher- student ratio of 1:20. This may be adequate for some school programmes, but not for vocational technical education which is a workshop - based education involving articulation of skills. With the number of students as large as 20, Skills acquisition in any specialty area in vocational technical education becomes a very difficult task. The authors on the bases of many years of laboratory experience, do recommend a teacher - student ratio of 1:10. This of course, must be backed by adequate equipment in quality and quantity. There is an alarming situation currently in Akwa Ibom State with its free and compulsory primary and secondary education. In this situation, it is difficult to estimate the teachers - student ratio especially where a given class has A, B, C, D, E, F, G, H, I, divisions with one or two teachers handling them. The near remedy to the problem is to employ more teachers so that there is one qualified teacher for a typical class size of 20 as prescribed in the National Policy on Education.

19. Non -Involvement of Industries

The greater percentages of technical manpower available in Nigeria are employees of industries. This situation is inadequate for Nigeria. An establishment of school -industry relationship between vocational and technical education and industries would improve the situation (Oranu, 1994).

20. Absence of Professional Continuity in every area of Human Endeavor

Vocational technical education is one of such areas. Skills acquisition in vocational technical career should not end upon one's retirement from active service. It should continue. Experts in vocational technical education should encourage their wards by

examples and motivational attitude to continue with the passage of the acquired skills from one generation to another. This, however, must not preclude the role of school guidance and counseling in the choice of careers.

21. Improper Examination and Screening of Fresh Students

The polytechnics and colleges of Education (Technical) should conduct strict internal qualifying examinations to select the candidates that will benefit from the programme. This examination should take the form of aptitude test. In this test, nobody fails or passes because the intent is to identify materials with potentials success in vocational technical education pursuit

22. There is the Lack of Adequate - base for the Development of Vocational Technical Skills

A close examination of the National Policy on Education indicates a favourable reflection of the contents and objectives of vocational technical education in its urge for skills acquisition. However, it must also be observed that the methods employed to attain the skills are devoid of the essential elements of skills development. A visit to a typical vocational technical education workshop is apt to convince one in respect of the foregoing observation. Psychoproduative skills may be learned without adequate cognitive coverage or cognitive skills are learned without opportunity for practical application. Added to the forgoing, socio-psychological skills or affective work competency skills are in most cases left out. It should be remembered that vocational technical education programme is not designed to produce technicians, therefore, acquisition of skills without affective work competency colouring is inadequate if the individuals involved must secure jobs, hold and advance in them for the good of the nation. Cognitive, affective, psychomotor and perceptual dimensions of work

behaviour must blend in favour of a COMPOSITE SKILL for national development.

The professional question to raise at this juncture, is how can the skill components be developed in the learners for our desired goal of technical progress? The answer to the gorging question is pivoted in occupational analysis which involves the identification of the essential elements of an occupation, trade or payroll job and listing them for teaching purpose (Frzyklund, 1970). The illustration of this process in figure 1 may throw greater light on its role and importance in skills acquisition.

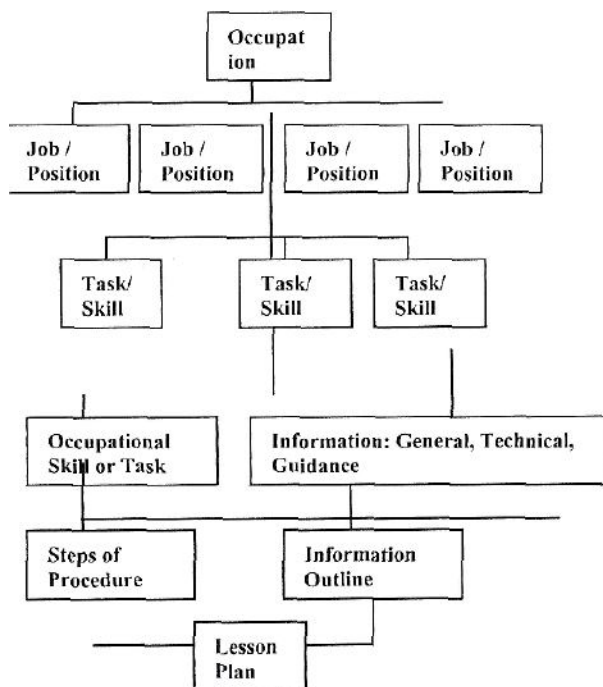


Figure 1: Occupation Analysis.

The key terms indicated above are herein defined.

• **Occupational Analysis:** Is the process of identifying the elements of a trade occupation or payroll job and listing them for instructional purpose. It involves psychoproductive, infrastructural elements and personality tracts associated with skills acquisition.

• **Task Analysis:** The breaking down of a job or position into tasks and listing them in a prerequisite order for instructional purpose. Each task is a teaching element and suggests the level of learning difficulty.

• **Instructional Analysis:** This is the process of identifying and listing the knowing (theory) and doing (practice) aspects of an occupation or trade and placing them in a two-column chart - the knowing aspect on the right and the doing aspect on the left side of the chart.

Occupational analysis is an important technical a vocational technical teacher must master if he or she is to effectively teach laboratory skills. Analysis of occupations comes first in a training programme for vocational technical teachers. A teacher who has analyzed his course, has identified the daily lessons. The identification of teaching elements helps him or her to plan for demonstration, prepare visual aids, instructional sheets and other aspects of effective teaching. Therefore, occupational analysis ensures a reliable base for skills acquisition in vocational technical education.

Prospects of Vocational Technical Education

As the world of work is becoming more complex due to expansion in business and technical enterprises, sophistication in technologies, there is a correspondingly high demand for vocational and technical education graduates the world over including Nigeria.

Vocational and technical education is expanding due to technological changes. And societal needs. This expansion means creation of more employment opportunities for vocational and technical education graduates. Excellent job prospects are expected for vocational and technical education graduates by the year 2020.

Daily experience has indicated that inventions of new technologies for business and industry is endless. The new technologies so invented call for the services of skilled

technicians, well trained workers to operate and maintain them for efficient functioning.

Change is a constant in life. As changes occur in business and industry in Nigeria and other third world nations more job opportunities are created in most department of humans affairs.

Vocational technical education constituting one of such departments has a future of great job prospect. It is anticipated that with the successful implementation of the National Policy of Education (6-3-3-4 and 9-3-4 system) and the materialization of vision 20 20 will turn our expectations in to reality.

Conclusion

In conclusion, the paper has examined and discussed the meaning of Vocational Technical Education, its objectives and principles. Problems of vocational technical education in Nigeria and possible solutions were highlighted. The state of affairs in curriculum of vocational technical education was treated. The prospects of vocational technical education in Nigeria were also elucidated. The basic for ensuring acquisition of skills in vocational technical education has been discussed.

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**Emmanuel Sunday Otu Dept. of
Agricultural Education, Akwa Ibom
State College of Education Afaha Nsit,
Etinan**

**Bassey Archibong UDO Dept. of
Agricultural Education, Akwa Ibom
State College of Education Afaha Nsit,
Etinan**

**And
Hogan Usoro (Ph. D)
Dept, of Vocational Education
Technical Education Unit
University of Uyo, Uyo**