



Improving Vocational Education and Training among Senior Secondary Schools for Skill Development and Self-Reliance in Jos South LGA of Plateau State

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Abstract: The study was designed to find out the current learning process in vocational education, the challenges of learning vocational education, and strategies for improving the learning of vocational education in senior secondary school for skill development and self-reliance. Three research questions were asked and three hypotheses were tested at (0.05) level of significance. The cross-sectional survey design was adopted for the study and data was collected through a structured questionnaire for students and teachers. The population for the study comprises all the students and vocational education teachers in the study area with a sample of 50 respondents, made up of 30 students and 20 teachers from 8 secondary schools which offer vocational technical subjects. The data collected were analyzed using descriptive statistics with the IBM SPSS software while the t-test was used to test the hypotheses. Results of the findings revealed that most vocational subjects are rather being taught theoretically without adequate practical lessons to balance the learning processes, due to lack of adequate training facilities and equipment, shortage of vocational teachers, inadequate funding of vocational education, poor planning, the societal misconception on vocational education amongst others. It is therefore recommended that Government should improve the infrastructure and equipment by adequate funding of vocational education; Guidance and counselling units should be put in place in all skill acquisition centres to encourage students to study vocational and technical education according to their aptitude while technical and vocational teachers at all level should be retrained to fill the gap between school training and industries. The parents should be encouraged to allow their wards to choose their careers according to their aptitude.

Keywords: Vocational Education, Vocational-Technical Subjects, Skill Development, Self-Reliance

1. Introduction

Education in its general sense is a form of learning through which knowledge skills and habits are impacted to people through teaching, learning, or research. Education should not be seen only as an instrument for enhancing efficiency but is also an effective tool for the socio-economic development of the individual thereby giving opportunity for self-reliance and quality living. An individual thus, either goes through liberal, general, or vocational education. Vocational education is an educational training that is systematically designed to enable an individual to acquire the basic skills, knowledge, abilities, and understanding needed for

developing skills and being self-reliant. Skills and knowledge are the engines of the economic growth and social development of any country [16] Thus countries with higher and better levels of knowledge and skills respond more effectively and promptly to global challenges and opportunities.

Quite a number of secondary school dropouts with no defined skill lack occupation to enable them to be self-employed and thus earn a living. This has increased the level of unemployment in the state and the nation at large. This has also left some of these youths turned to drugs, and other criminal activities on the streets. Some are used by politicians as thugs for their benefit and selfish gains. The solution to

this may be through functional vocational education right from the secondary school level.

1.1. Purpose of the Study

The purpose of this study was to find out the strategies for improving vocational education and training among senior secondary schools in Plateau State for skill development and self-reliance. Specifically, the study sought to determine the following:

1. The current learning process of vocational education in secondary school for skill development.
2. The challenges or constraints to learning vocational education in secondary school for skill development.
3. The strategies for improving the learning of vocational education in secondary schools for skill development and self-reliance.

1.2. Research Questions

The following research questions were formulated to guide the study:

1. What are the current learning processes of vocational education in secondary schools for skill development?
2. What are the challenges or constraints to learning vocational education in secondary school for skill development?
3. What are the strategies for improving the learning of vocational education in secondary school for skill development and self-reliance?

2. Literature Review

2.1. The Concept of Vocational Education

Vocational education is an education that prepares people to work in trade, a craft, as a technician, or in professional vocations such as engineering, nursing, and medicine amongst others. Vocational education is a specialized preparation for entry into employment or advancement on a job or course. Such education may be provided by secondary schools, community colleges, and technical institutions.

Vocational education is any form of education whose primary purpose is to prepare persons for employment in a recognized occupation [11]. Some authors always refer to the twin concepts – Vocational Technical Education in reference to education for skill acquisition. They see it as the education that leads to the acquisition of practical and manipulative skills desired to produce and retain manpower, prepares the learner for entrance into a particular vocation, or upgrades employed workers to meet up with contemporary technical challenges [8]. The content of such education is drawn from the world of work through the analysis of the skills, understanding values, and attitudes of successful workers in a particular field.

The National Policy on Education [5], defined Technical and vocational education “as a comprehensive education referring to those aspects of the educational process involving in addition to general education, the study of

technologies and related science and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupation in various sectors of economic and social life.”

The national policy on education also spells out the aims and objectives of vocational and technical education include to:

1. Provide trained manpower in applied science, technology, and business, particularly at craft, advanced craft, and technical levels.
2. Provide the technical knowledge and vocational skills necessary for agricultural, commercial, and economic development.
3. Give training and impact the necessary skills to individuals who shall be self-reliant economically.

At the Secondary school level, it is termed Pre-Technical and vocational Education with the aim of:

1. Introduction into the world of technology and appreciation of technology towards interest arousal and choice of a vocation at the end of junior secondary school and professionalism later in life.
2. Acquiring technical skills.
3. Exposing students to career awareness and the world of work.
4. Enabling youth to have an intelligent understanding of the increasing complexity of technology.

2.2. The Current Learning Process of Vocational Education in Secondary School for Skill Development

The 6-3-3-4 system of education launched in 1981 with an emphasis on vocational training at the secondary school level, was an attempt to correct the weaknesses in the Nigerian school curriculum at that level [6]. The writer further noted that the broad aims of the new system are preparation for useful living within society and preparation for higher education. The National Policy on Education [4], the curriculum will be comprehensive and include the following at the junior secondary school level (J.S.S.):

1. Core subjects, which all students must offer.
2. Pre – vocational subjects, and
3. Non vocational electives.

At the senior secondary school level (S.S.S.)

1. Core subjects.
2. Vocational subjects.
3. Non–vocational electives subjects.

The National Policy on Education [4] notes further that: the implementation of the 3–year senior secondary school system will mean planning ahead and the inclusion of technical, commercial, and other vocational courses in other to make senior secondary school leavers immediately employable.

The obstinacy of the educational system with regard to academic orientation is still very much around so what is actually novel about the reform is its emphasis on vocational and technical training in all Nigerian secondary schools [14]. The reality in our secondary school is that after several years of launching the program, technical subjects are still suffering from neglect [6]. The question here is, how many

schools actually offer vocational/technical subjects like electronics, woodwork, auto-mechanics, typing, and shorthand? Even in the few schools which claim to offer some of these vocational subjects, how many of the graduates at the senior secondary school can be employable? How many of these students get into a skilled job without undergoing another basic training after leaving school? How many of our secondary schools can boast of a standard workshop? [6]

When the 6-3-3-4 system of education was launched, it was envisaged that all secondary schools would have at least a standard workshop for the teaching of technical subjects. [6]

2.3. The Challenges and Constraints to Learning Vocational Education in Secondary School for Skill Development

Some of the problems associated with vocational/technical education include the following:

1. Lack of adequate training facilities: most vocational education in Nigerian secondary schools do not have laboratories or workshops space let alone usable facilities and where they exist, they are grossly inadequate. Even what is seen and referred to as vocational education laboratories in various secondary schools today is an eyesore. [4, 9].
2. Acute shortage of vocational teachers: acquisition of skill requires that strict attention and supervision must be given to every student. With the overwhelming population of students in Nigerian secondary schools, individualization instruction becomes very difficult, especially during practical lessons due to the shortage of vocational education teachers. So many studies have revealed the shortage of vocational teachers in our schools [13].
3. Poor funding of vocational education. Sufficient fund has not been channeled to vocational/technical education which is a major problem plaguing the system. Similarly poor funding causes acute shortage of the necessary facilities needed for the effective implementation of the program. [10]
4. Poor remuneration of vocational teachers in many secondary schools across the state are inadequately staffed because of poor remuneration of vocational teachers: academics are not as attractive and commensurate to the effort, commitment, and finances put to acquire it. Whereas, a first-degree graduate can function well in the industry he will rather choose politics where he earns good funds [15].
5. Poor public enlightenment and apathy towards vocational/technical education: Vocational education in Nigeria has suffered a serious apathy and obscurity in the past. Most parents prefer their children to study courses like medicine, pharmacy, and law accounting amongst others because they regard vocational education as a course for never do wells who could not secure admission into other disciplines [12].
6. Poor emphasis on the practical aspect of vocational

education: Most secondary schools in Plateau state and Nigeria charge are with the responsibility to teach vocational education subjects, but today, secondary schools are poorly equipped with machines and relevant tools. Vocational education in Nigeria has been bedeviled by inadequate skills and competencies for self-reliance [6].

2.4. The Strategies for Improving Learning of Vocational Education in Secondary Schools for Skill Development and Self-Reliance

Vocational training in secondary schools is a cherished goal required to make graduates of that level useful to themselves and their immediate communities [1]. Some authors [7], noted the following strategies for improving vocational education:

1. Establishment of more skill acquisition centres, where primary school leavers and secondary school dropouts should acquire skills like carpentry, fashion design, beauty salon, and cleaning ventures. Laundry services, photography services, soap making, other engineering workshops, mechanics workshops, shoe manufacturing, panel beating, bookbinding, welding, etc. should all be included at the various skill acquisition centers.
2. All facilities required for trades and skill acquisition should be put in place in order to enhance training on all trades in the skill acquisition centres.
3. Guidance and counselling units should be put in place in all skill acquisition centres and secondary schools so as to create career awareness among the students.
4. Teachers at all levels of learning in vocational education should be retained to that they will update their training to fill the gap between school training and industries.
5. Establishment of functional skill acquisition centres at all institutions of learning (from primary schools to higher institutions) so that each and every student will learn at least a trade before graduation.
6. Establishment of a special scheme whereby interested graduates will be supplied with takes up equipment on non interest basis.

3. Methodology

The study adopted a cross-sectional survey design, where data are collected at a particular time from a sample for the purpose of describing the population represented by the sample at that particular time. The study was carried out in Jos South Local Government Area of Plateau State. The population of this study thus consists of teachers and students in all secondary schools offering vocational and technical subjects/training in Jos south LGA of Plateau state. The random sampling technique was used to select 50 respondents, made up of 30 students and 20 teachers from the schools offering vocational and technical subjects/training. An 18-item, four-point rating scale structured questionnaire was used to collect data by the researchers directly. The data were analyzed with the IBM SPSS software.

3.1. Research Question One (1)

What are the current learning processes of vocational education in secondary schools for skill development?

The mean responses of teachers and students in respect to the current learning processes of vocational education in secondary schools for skill development are represented on table 1 below:

Table 1. The mean responses on current learning processes of vocational education in secondary schools for skill development; $N_1 = 20$; $N_2 = 30$.

S/N	Item Description	\bar{X}_1	\bar{X}_2	AM	Remark
1	Very few secondary schools offer vocational subjects like electronics, woodwork, metalwork, auto mechanics etc.	3.55	3.39	3.47	Agreed
2	Vocational subjects are being taught theoretically without practical lessons due to lack of workshops.	3.32	3.41	3.36	Agreed
3	Teaching of vocational and technical subjects to very large number of students with insufficient facilities and equipment.	3.17	3.05	3.11	Agreed
4	Parents prefer their children to study commercial subjects so as to become Accountants, Lawyers, Bankers, etc.	3.20	3.04	3.12	Agreed

KEY: \bar{X}_1 = Mean of Teachers; \bar{X}_2 = Mean of Students;
AM = Average Mean; N_1 = Number of Teacher; N_2 = Number of Students

The data presented in table 1 shows that items 1, 2, 3, and 4 with average mean scores ranging from 3.11 ~ 3.47 were agreed as the current learning processes of vocational education in secondary schools for skill development.

vocational education in secondary school for skill development?

The mean responses of teachers and students with respect to the challenges or constraint to learning vocational education in secondary school for skill development is shown in table 2 below.

3.2. Research Question Two (2)

What are the challenges or constraints to learning

Table 2. The mean responses on the challenges or constraints of learning vocational education in secondary school for skill development. $N_1 = 20$; $N_2 = 30$.

S/N	Item Description	\bar{X}_1	\bar{X}_2	AM	Remark
5.	Lack of adequate training facilities and equipment.	3.47	3.43	3.45	Agreed
6.	Shortage of vocational teachers.	3.21	3.17	3.19	Agreed
7.	Inadequate funding of vocational Education.	3.45	3.45	3.45	Agreed
8.	Poor emphasis on the practical aspect of vocational education.	3.24	3.24	3.24	Agreed
9.	Poor remuneration (funding) of vocational teachers.	3.32	3.10	3.21	Agreed
10.	Poor planning	3.33	3.20	3.26	Agreed
11.	Lack of qualified teachers.	3.36	3.34	3.35	Agreed
12.	Inadequate workshops.	3.58	3.30	3.44	Agreed
13.	Societal misconception on vocational education	3.05	3.00	3.02	Agreed

KEY: \bar{X}_1 = Mean of Teachers; \bar{X}_2 = Mean of Students;
AM = Average Mean; N_1 = Number of Teacher; N_2 = Number of Students

The data presented in table 2 shows that item 5, 6, 7, 8, 9, 10, 11, 12, and 13 with average mean scores ranging from 3.02 ~ 3.45 were agreed as the challenges or constraint to learning vocational education in secondary school for skill development and self-reliance.

3.3. Research Question Three (3)

What are the strategies for improving the learning of vocational education in secondary schools for skill development and self-reliance?

The mean responses of teachers and students in respect to the strategies for improving the learning of vocational education in secondary schools for skill development and self-reliance are represented in table 3 below.

Table 3. The responses on strategies for improving the learning of vocational education in secondary schools for skill development and self-reliance. $N_1 = 20$; $N_2 = 30$.

S/N	Item Description	\bar{X}_1	\bar{X}_2	AM	Remark
14.	Putting all facilities and equipment required for the learning of trades.	3.30	3.19	3.24	Agreed
15.	Establishment of skill acquisition centres in secondary schools.	3.55	3.21	3.38	Agreed
16.	Guidance and counselling units should be put in place in all skill acquisition centres.	3.25	3.31	3.28	Agreed
17.	Teachers at all level should be retrained in vocational education to fill the gap between school training and industries.	3.27	3.42	3.34	Agreed
18.	There should be proper funding for vocational education.	3.37	3.55	3.46	Agreed

KEY: \bar{X}_1 = Mean of Teachers; \bar{X}_2 = Mean of Students;
AM = Average Mean; N_1 = Number of Teacher; N_2 = Number of Students

The data presented in Table 2 shows that items 14, 15, 16, 17, and 18 with mean scores ranging from 3.30 - 3.37 were

agreed as the challenges or constraints to learning vocational education in secondary school for skill development.

4. Discussion on Findings

From the findings in research question 1, it was discovered that very few secondary schools in Jos South LGA of Plateau state offer vocational subjects such as automobile, electronics, woodwork, and metal work amongst others. The reality in our secondary schools after several years of launching the 6-3-3-4 system is that vocational subjects are still suffering neglect in line literature reviewed [6]. Even in the few secondary schools which claim to be teaching some of the vocational subjects, most of them are not taught to make the secondary school products employable. Thus many of the products get into skilled jobs without practical knowledge. This is due to the fact that vocational subjects are taught theoretically without practicality as discovered in the research. It is also revealed that the vocational and technical subjects are taught in very large crowded classes without sufficient facilities and equipment.

Skill acquisition training demands a lot of individual practice and close supervision so that the trainee can acquire and use the skill independently. Mere observation cannot replace real practice.

From research question 2, it was discovered that vocational education in secondary schools is faced with so many challenges or constraints. Some of these challenges include inadequate training facilities and equipment in line with Enahoro [3]. Most of the secondary schools lack laboratory or workshop space as facilities and where they exist, they are grossly inadequate. Other challenges as discovered by the research include acute shortage of vocational teachers, poor funding of vocational education, poor remuneration of vocational teachers, societal misconception about vocational education, and poor emphasis on the practical aspect of vocational education. Others are poor planning, inadequate workshops, and planning of the programs in school.

Lastly, from research question 3, some strategies were proffered to improve the learning of vocational education in secondary schools. Some of these strategies include: putting in place the facilities and equipment required for the learning of trades, establishing skill acquisition centers in secondary schools, emphasizing the practical aspect of vocational subjects in secondary schools for self-reliance, and guidance and counselling units should be put in place in all skill acquisition centres to guide and encourage students to make a wise decision and choices of career. Others include retraining vocational and technical teachers at all levels to fill the gap between school training and industries, there should be proper funding for vocational education this is in line with some authors in the literature reviewed [7].

5. Conclusion

Vocational training in secondary school is a cherished goal required to equip graduates with useful skills to prepare them for employment and further training/education. The study discovered that very few secondary schools in Jos South

LGA of Plateau state offer vocational subjects. The policy on vocational-technical education is so laudable but unrealistic due to the fact that the implementation is not encouraging, because there is inadequate vocational teachers, facility and equipment at the secondary school level. Other lapses observed include poor planning and funding.

6. Recommendations

The following recommendations are therefore proffered:

1. Government should improve the infrastructure and equipment with adequate funding.
2. There should be proper funding for vocational education.
3. Government, NGOs, institutions/Teachers should embark on advocacy for vocational and technical education.
4. Guidance and counselling units should be put in place in all skill acquisition centres to also enable the parents to encourage their wards to study vocational and technical education according to their aptitude.
5. Teachers at all levels should be retrained in vocational education to fill the gap between school training and industries.

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