

CHAPTER TWENTY SIX

MANPOWER DEVELOPMENT IN TECHNOLOGY EDUCATION CURRICULUM FOR SUSTAINABLE POVERTY ALLEVIATION IN NIGERIA.

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INTRODUCTION

Education is to build man and to make him useful to his environment in general. In essence, education is to develop in order to engage in useful activities that can lead to the production of other "activities". Therefore, manpower development starts from the type of educational background that a man is exposed to. No meaningful progress can be made by any aspiring nation to become a technological giant without the initial step of developing an efficient and reliable labour force. According to Agbionu (1991) "education being a social service is prone to modifications and constant review if it is to bring about the desired change". Manpower development generally is a factor, which no serious nation can afford to ignore. A sound skilled manpower based development is the bedrock for sustainable poverty alleviation.

Poverty is a condition of human existence where resources for meeting basic human needs are extremely limited or inaccessible (Mumaw, 1996). "To be poor is to be hungry, to lack shelter and clothing, to be sick and not cared for, to be illiterate and not schooled" (World Bank 2001, P. 15). Poverty is a global phenomenon threatening the survival of humanity. Over the years, Nigeria has been shipping down the international poverty index (United Nation System in Nigeria (UNSN, 1995). Human

development is the ultimate focus of all types of development – economic, social, cultural and political. Sustainable human development and sustainable development are expected to be *pro-poor*. This follows that all effort at poverty alleviation should be geared towards the sustainability of the individual.

STRATEGIES FOR ENHANCING THE ACQUISITION OF VOCATIONAL/TECHNICAL SKILLS FOR MANPOWER DEVELOPMENT AND POVERTY ALLEVIATION

United Nation Education, Scientific and Cultural Organisation (UNESCO) (1996) defines Vocational/Technical Education as, a comprehensive term referring to the educational processes when it involves in addition to general education, the study of technologies and related sciences and the acquisition of practical skills and knowledge relating to occupation in various sectors of economic and social life. Technology education covers the process of producing skilled manpower, craftsmen, technologists and scientists. According to Ukaha (1989), "for technological educational manpower development, and self-reliance, Nigeria requires essential skill for survival in the 21st century". For Nigeria to survive in the light of the above, she needs to develop a strong employable, skilled manpower development programme different from the present orientation for sustainable poverty alleviation.

Curriculum has been defined as the total learning experiences presented to the learner as a deliberate, systematic and planned attempts by the schools to change his behaviour (Onwuka, 1981). In this paper, curriculum is specially limited to the area of technology education. According to Aremu (1986), the effectiveness of any curriculum can be evaluated in terms of its suitability, relevance and adequacy. Technology education is that of practicability, applicability and functionality, hence, the

relevance of manpower development through relevant technology education for sustainable poverty alleviation.

1. Curriculum: The Vocational/Technical Education curriculum should be relevant to the needs of the child and society. It should reflect the technological skills, which the students are expected to acquire. Such curriculum should be sufficiently flexible to allow for changes and innovations. There is need for regular review of the curriculum to match new development in technology.
2. Delivery/Instructional Processes: A range of appropriate delivery/ instructional processes should be adopted for the delivery of Vocational/Technical Education programmes to match the needs of the various student backgrounds. The emphasis should be the use of a variety of processes.
3. Facilities: It is important to provide adequate and appropriate up-to-date facilities for the Vocational/ Technical education programmes. To ensure this, the following are necessary:
 - i. Emphasis should be given to constant review of minimum standards of facilities and accreditation for Vocational/Technical (Technological) education. As changes occur in science and technology, giving rise to new developments, new facilities (equipment and tools) would necessarily be required to be included in the stipulated or recommended minimum standards of equipment by the various bodies such as NCCE, NBTE and NUC.
 - ii. Bodies such as Project Development Agency (PRODA) and Centre for Adaptation of Technology (CAT) should be equipped and encouraged to manufacture tools and equipment for vocational/ technological education programmes.
4. There is need to intensify school–industry linkage: Such linkage is a form of co-operation between the school and

- industry in providing students of Vocational/Technical Education programmes with opportunities for experiences in actual on - the - job situation.
5. Teachers: The teachers of Vocational/Technical Education Programmes should be very competent in the skills they teach. They should be willing and ready to learn new skills and processes of new technologies evolved. Regular professional development strategies should be put in place for teachers of various levels of education. They should also imbibe desirable maintenance culture.
 6. Funding: There is need for adequate funding. While it is necessary for government to step up its funding for Vocational/Technical Education, it is also necessary to evolve alternative sources of funding in order to meet the ever increasing demands of Vocational/Technical Education in country.

PURPOSE OF THE STUDY

The purpose of the study is to:

1. Ascertain the degree of relevance of the present technology education curriculum for manpower development and sustainable poverty alleviation.
2. Investigate the adequacy of the present technology education curriculum for employment and sustainable poverty alleviation.
3. Determine the effectiveness of the products of the present technology education curriculum in employment for sustainable poverty alleviation.

RESEARCH QUESTIONS

For the purpose of this study, answers to the following research questions were sought.

1. What degree of relevance is the present technology education curriculum in manpower development for sustainable poverty alleviation?

2. How adequate is the present technology education curriculum in manpower development and sustainable poverty alleviation?
3. How effective are the products of present technology education curriculum in employment for sustainable poverty alleviation?

RESEARCH METHODOLOGY

Population of the study:

In this research study; two groups of respondents formed the target population;

- i. Teachers of technology education in technical colleges, in Niger state.
- ii. All final year students of technical colleges in Niger state.

Sample of the Study:

From the target population a total of 20 technological teachers and 30 final year students were sampled for the study.

Instrument of the Study:

The instrument used for the study was a simple questionnaire, which had four sections. The first section requested for the personal data of the respondents while the second section comprised items, which sought to find out the degree of relevance of the present technology education curriculum. The third section also consisted of items that dealt on the adequacy of the curriculum, while the fourth section dealt on the effectiveness of the curriculum as it relate to employment.

Technique for Date Collection and Analysis: The questionnaire was administered personally to the respondents. A total of 50 copies of the instrument were filled and returned which represents 100 percent return. Simple percentages were used to analyse the data collected.

RESULTS AND FINDINGS

Table 1
Degree of Relevance of Curriculum for Manpower Development.

| Responses | Number of Respondents | Number of Respondents | Total Respondents | Percentage |
|------------------|-----------------------|-----------------------|-------------------|------------|
| Very relevant | 4 | 6 | 10 | 20% |
| Relevant | 6 | 2 | 8 | 16% |
| Not relevant | 8 | - | 8 | 16% |
| Enough practical | 2 | 4 | 6 | 12% |
| Little practical | 2 | 8 | 10 | 20% |
| No practical | 8 | - | 8 | 16% |
| Total | 30 | 20 | 50 | 100% |

The above figures in table 1 show that 10 (20%) of the 50 respondents indicated their opinion that, the present curriculum is very relevant, 8(16%) indicated that it is relevant, 8(16%) indicated not relevant 6(12%) indicated that there is enough practical, 10(20%) indicated little practical work is carried out while 8(16%) finally indicated that no practical is conducted.

The overall implication is that, the present curriculum is relevant for manpower development but enough time is not given to practicals. The implication is that, students do not gain enough employment skills for sustainable poverty alleviation.

Table 2: Level of Adequacy of Technology Education Curriculum

| Responses | Number of Respondents | Number of Respondents | Total Respondents | Percentage |
|---------------|-----------------------|-----------------------|-------------------|------------|
| | Teachers | Students | | |
| Very adequate | - | 4 | 4 | 8% |
| Adequate | 2 | 10 | 12 | 24% |
| Inadequate | 28 | 6 | 34 | 68% |
| TOTAL | 30 | 20 | 50 | 100 |

Result from table 2 above indicate that 4(8%) out of 50(100%) indicated that the curriculum is very adequate, 12(24%) indicated adequate while 34(68%) indicated inadequate. The above findings

therefore suggest that, the current technology education curriculum is inadequate in content and cannot meet the demand in manpower development for sustainable poverty alleviation.

Table 3: Effectiveness of Curriculum Product and Self – Employment

| Responses | Number of Respondents | Number of Respondents | Total Respondents | Percentage |
|----------------|-----------------------|-----------------------|-------------------|------------|
| | Teachers | Students | | |
| Very effective | - | 2 | 2 | 4% |
| Effective | 4 | 8 | 12 | 24% |
| Ineffective | 26 | 10 | 36 | 72% |
| TOTAL | 30 | 20 | 50 | 100 |

Results from table 3 above indicate that, 2(4%) out of 50(100%) respondents strongly accepted that the current curriculum being used for instruction is very effective, while 12(24%) indicated that the curriculum is effective and 36 (72%) vehemently opined that the curriculum is ineffective thus not self – employable.

CONCLUSION

According to Anyakoha (2001), poverty is a serious obstacle to development, and must therefore be eradicated. Vocational/ Technical Education is capable for equipping the poor with saleable skills and empower them for survival and enhanced participation in the country as viable human resource/manpower. There are numerous occupations/vocations for which Vocational/Technical Education can train individuals. However, there are various obstacles that militate against viable manpower development in relevant vocations for sustainable poverty alleviation in the country.

The obstacles need to be removed and appropriate enabling environment provided for the various programmes. In doing this, the various strategies presented in this paper would be found useful.

Also, from the study, it is evident that, the curriculum presently in use for the production of technical manpower for the nation is relevant as indicated by the overall result in table 1. but that there is little or no time for practicals. The results also indicated that, the content of the present curriculum is inadequate as regards practical or skills acquisition. Manpower development is a very important aspect, which any meaningful administration cannot overlook or ignore.

RECOMMENDATIONS

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

1. As a matter of urgency, the time for practical work should be increased weekly to enable students acquire more practical skills.
2. Colleges should adopt students' project teaching methods in instruction for more skilled manpower development.
3. Government should provide more equipment, materials and funds to schools for practicals as obtainable in industry so that the learning environment will look the same as the working environment.
4. Government should enact a college-industry link policy which will enable each student each day to spend half of his/her time in the school for theoretical work while the remaining half time should be utilised in the students' proposed employment environment for enough practical skills acquisition.

5. Government should ensure adequate and prompt supply of equipment, tools and expendable/consumables for training in Vocational/Technical/ schools.
6. The curriculum must be evaluated from time to time to ensure that its objectives are being achieved for sustainable poverty alleviation.

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