Manpower development through relevant technology education curriculum for sustainable poverty alleviation

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Abstract: The purpose of this study was to investigate whether the present curriculum being used to the development of technological manpower in our technical colleges is relevant, adequate in content, effective and enough to make the recipients self-employed for sustainable poverty alleviation. A total of 50 respondent comprising 20 technical teachers and 30 final year students from technical colleges formed the sample of the study. A set of questionnaire was used for data collection while the target population was all teachers and students. A total of three research questions were and simple percentage was used to analyze the data collected. The findings revealed that, the currently used curriculum in technical colleges is inadequate, not very relevant, no enough time for practical and cannot earn the products self-employment for sustainable poverty alleviation.

Keywords: education, sustainable development, curriculum, sustainable development, poverty alleviation, poorness, life standard

Introduction
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 labor force. During the colonial era when Nigeria was in the hands of her colonial master, many notable establishments were put in place for the training of able-bodied Nigerians for manpower development in special trade areas. Such private sectors include among others, the then Electricity Corporation of Nigeria (ECN) which metamorphosed into National Electric Power Authority NEPA), the Post and Telegraph now Nigeria Telecommunications Limited (NITEL) just to mention but a few (Akaninwor, 1992).

It is also worthy of note that in 1895, the Hope Waddel Training Institute in Calabar, Nigeria was established primarily for the training of men for employment in the society. In addition, the Yaba Trade Centre, which is now Yaba College of Technology, was established in 1984 including several others in Nigeria for the development of middle-level manpower for the world of work.
As a follow up, the Federal Government of Nigeria through Decree No.47 established the Industrial Training Funds (ITF) as an organ of government for the purpose of training students on the job-training and re-training of both students and staff of various training Institutions. In 1977, the Federal Government established the National Board for Technical Education (NBTE) through Decree 9 for the purpose of co-ordinating technology education programmes in Nigeria.

Nigeria as a developing country with over 100 million people, one cannot definitely ascertain the number of unemployed graduates or school leavers. As the growing uncertainty in the labour market continues, unabated with more and more graduates without the necessary employable skills being turned out yearly, one then tends to ask the question, where and when would these graduates be employed?

It is a fact that, the now so-called developed nations in the world today did pass through this hectic situation for some decades before arriving at a reasonable lasting solution but when will that of Nigeria come (Puyate, 2002)?

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. Both Federal and State governments at different times made serious efforts to engender the development of manpower necessary to enhance the nation’s industrial aspirations.

According to Tudunwada (1984), Nigeria is naturally endowed with tremendous human and material resources, but there is no gainsaying of the fact that the country has not yet got all that is necessary to make her fully developed industrially”.

Technology education covers the process of producing skilled manpower, craftsmen, technologists and scientists. The International Labour Organization (ILO), defined technology education as that which involves all activities which essentially aims at providing the skills, knowledge and attitudes required for employment in a particular occupation, group of related occupations or a function in any field of economic activity inducing agriculture, industry, commerce, catering, tourism, engineering, public or private services etc.

According to Ukaha (1986), for technological education; manpower development, and self-reliance, Nigeria requires essential skills for survival in the 21st Century. For Nigeria as a developing nation 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. Poverty can only be alleviated when there is a means to sustain it. Thus, the only means is to empower the citizenry is through employable skills’ acquisition programme in the formal way through the proposed suggested skills acquisition innovation.

In his opinion Puyate (2002), stated that for any nation to develop technological and industrially, she must have well trained and capable manpower and that this training ranges from craftsmen to engineers. Curriculum has been defined as the total learning experiences presented to the learner as a deliberate, systematic and planned attempts by the school to change his behaviour (Onwuka, 1981).

In this paper, curriculum is specially limited to the area of technology education. As earlier stated, it is an area of education in which the recipients acquire a level of applied and
manipulative skills, and basic scientific knowledge that will enable them understand the world of technology and the society better.

According to Aremu (1986), the effectiveness of any curriculum can be evaluated in terms of its suitability, relevance and adequacy. A technology education curriculum is ascertained useful and relevant if it meets the needs and aspiration of the trainer and trainee. Hence, the relevance of the technology education according to Aremu (1986), is that of practicability, applicability and functionality if manpower development through relevant technology education for sustainable poverty alleviation is to be achieved.

**Purpose of the study**

This paper investigates major development purposes in the way of development of from various perspectives. On this case development possibilities have been analyzed with the following purposes of the study:

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 exists in the present technology education curriculum for manpower development and sustainable poverty alleviation?

2. What level of adequacy exists in the present technology education curriculum for manpower development and sustainable poverty alleviation?

3. What level of effectiveness exists in the products of the present technology education curriculum for employment and 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 Rivers State.

ii) All final year students of technical colleges in Rivers State

**Sample of the Study**

From the target population a total of 20 technology 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 comprises 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 deal on the adequacy of the curriculum while the fourth section dealt on the effectiveness of the curriculum as it relates to employment.

**Technique for Data 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 analyze the data collected.

**Results and findings**

Research was conducted on various ways of deployment while finding out major points of participants. According to survey, paper has analyzed major points of curriculum in order to make better development as whole.

First, degree of curriculum relevance for Manpower Development investigated as followingly (Table 1.).

**Table 1: Degree of Relevance of curriculum for Manpower Development**

<table>
<thead>
<tr>
<th>Response Options</th>
<th>Number of Respondents</th>
<th>Total Respondents</th>
<th>Development Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teachers</td>
<td>Students</td>
<td></td>
</tr>
<tr>
<td>Very relevant</td>
<td>6</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Relevant</td>
<td>2</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Not relevant</td>
<td>0</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Enough practical</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Little practical</td>
<td>8</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>No practical</td>
<td>-</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>30</td>
<td>50</td>
</tr>
</tbody>
</table>

**Source: Field Report, 2012**

The above figures in Table I show that 12(20%) of the 50 respondents indicated their opinion that, the present curriculum is very relevant, 8(16%) indicated relevant, 8(16%) indicated not relevant, 6(12%) indicated that there is enough practice, 10(20%) indicated little practical work is done while 8(16%) finally indicated that no practical is conducted. This means that, the present curriculum is relevant for manpower development but enough time is not given for practical. Thus, the implication of this is that, students do not gain enough employment skills for sustainable poverty alleviation.

**Table 2: Level of Adequacy of Technology Education Curriculum**
<table>
<thead>
<tr>
<th>Response Options</th>
<th>Number of Respondents</th>
<th>Total Respondents</th>
<th>Development Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teachers</td>
<td>Students</td>
<td></td>
</tr>
<tr>
<td>Very adequate</td>
<td>4</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Adequate</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Inadequate</td>
<td>6</td>
<td>28</td>
<td>34</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>30</strong></td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>

**Source: Field Report, 2012**

Results 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 presently being used technology education curriculum is inadequate in content and cannot meet the demands in manpower development for sustainable poverty alleviation.

**Table 3: Effectiveness of the Curriculum Products and Self-Employment**

<table>
<thead>
<tr>
<th>Response Options</th>
<th>Number of Respondents</th>
<th>Total Respondents</th>
<th>Development Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teachers</td>
<td>Students</td>
<td></td>
</tr>
<tr>
<td>Very adequate</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Adequate</td>
<td>9</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Inadequate</td>
<td>10</td>
<td>26</td>
<td>36</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>30</strong></td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>

**Source: Field Report, 2012**

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 effective and 36(72%) vehemently opined that the curriculum is ineffective thus not for self-employment.

**CONCLUSION**

From the study, it is evident that, the presently used curriculum for the production of technical manpower for the nation is relevant as indicated by the overall result in Table 1 but that there in little or no time for effective practical. The results also indicated that, the content of the present curriculum is inadequate in content as regards practical or skills acquisition aspect with 34, (68%) out of 50(100%) response while in Table 3 the respondents strongly affirmed that the curriculum is ineffective as 36(72%) indicated their response. Manpower development is a very important aspect, which any meaningful administration cannot overlook or ignore, ft is the wheel that moves the progress of the nation. The problem associated with the present curriculum is lack
of enough time for practical, which is the bedrock for self-employable skills in manpower production for sustainable poverty alleviation.

**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 as to enable students acquire more practical skills.

2. Government should enact a policy called 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 remain half time should be utilized in the students’ proposed employment environment for enough practical skills acquisition.

3. Federal Government should urgently urge ITF to carry out its functions for both teachers and students alike.

4. Colleges should adopt students’ projects teaching method in instruction for more skilled manpower development.

5. Government should provide more equipment, materials, and funds to schools for practical as obtainable in the industry so that the learning environment will look the same as the working environment.

**REFERENCES**