

Constraints to Curriculum Changes in Vocational and Technical Education Programmes in Nigeria

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Abstract

Change in technical and vocational education curriculum is essential to make it more responsive to the aspirations and needs of individuals and the society at large. Curriculum development is dynamic and brings about changes in the economy, politics agriculture, industrialization and technology of a country. Continuous development in the above areas also influence changes in the needs of the people in the environment. To meet the change in the needs of the people requires a new curriculum. The paper describes the contexture framework of technical and vocational education and strategies of curriculum change, need for changes and innovation in technical education programmes as stated in national policy on education, the need for changes and innovation in teacher for technical education, concept of curriculum change in technical and vocational education, reason for curriculum change in technical and vocational education. The paper was concluded and recommendations made for improvement.

Introduction

Nigerian Education has witnessed many reforms since independence to date, notable among these is the first National curriculum conference held in Lagos from 8th – 12th September, 1969; it was Organized by the Nigerian Education Research Council (NERC). According to Wang, (2001) this conference led to a proposal for the 6-3-34 system of Education in Nigeria, even though it is now referred to as Nine years Basic Education curriculum and curriculum for the visually impaired persons all by the same organization. NERC has over the years organized workshops and seminars on curriculum development, critiquing, adapting an implementation. Despite these efforts there are challenges, of

- c. effective participation in the world of work.

there are also challenges of interpreting the curriculum into a functional document by the teachers who are the major actors in the implementation exercise. The National Policy on Education (2004) defines Technical and Vocational Education (TVE) as a comprehensive term referring to those aspects of the educational process involving in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitude, understanding and knowledge relating to occupations in various sectors of economic and social life. Technical and vocational education is further understood to be.

- a. An integral part of general education
- b. A means of preparing for occupational field and for
- d. An aspect of lifelong learning and preparation for responsible citizenship;

- e. An instrument for promoting environmentally sound sustainable development
- f. A method of alleviating poverty.

Technical and Vocational Education (TVE) plays a vital role in national development. A number of developing countries have embraced and recognized technology as a means of realizing economic independence. They sought for technical assistance from United Nation's for the purpose of accelerating developmental efforts in the area of agriculture, industry and technology. In addition, some have economic policy reforms in form of a privatization and deregulation as well as increased focus on fiscal and monetary discipline. The worsening economic crisis and economic recovery programmes have increased the need for various forms of assistance in order to alleviate poverty, expand investment and diversify the nation's economy. Curriculum development is dynamic and brings about changes in the economy, politics agriculture, industrialization and technology of a country. Continuous development in the above areas also influence changes in the needs of the people in the environment. To meet the change in the needs of the people requires a new curriculum. This need may arise from the implementation of the existing curriculum. Therefore, the curriculum to meet the new needs is called an improved or reformed curriculum to meet new demands or goals (Offorma, 2002). In the words of Professor Fafuniwa: You cannot use yesterday's tool for today's job and expect to be in business tomorrow.

The Need for changes and Innovation in Technical Education Programmes as Stated in National Policy on Education

The need for innovation and changes in Technical Education Programme Stipulated in National Policy on education for technical education cannot be over emphasized. This is because vocational and technical education is dynamic enterprise and it is bedrock for every developing nation. Finding revealed that technical education is the bed rock of most advanced country and there should be a strong need to incorporate and then make proper provision for changes and innovation technical education in the technical college own programmes as compared to standard in NPC. Any system education requires constant changes, reconstruction, innovation and re-organization from time to time in order to meet the needs of that particular era (Bebibiafia, 2000). The National policy on education (2004) in recognition of the innovation stipulated that Teacher education would continue to take cognizance of the changes in methodology and curriculum. It was also made clear that teacher education will be regularly exposed to changes and innovation in their profession.

The Need for Changes and Innovation in Teacher Education for Technical Education

The paper at this junction looked at the need for changes and innovation in the teacher education for technical education. Innovation is the act of introducing something new, making changes of incorporating technical education, aimed at improving the existing pattern and condition of the basic level to be doing things and also

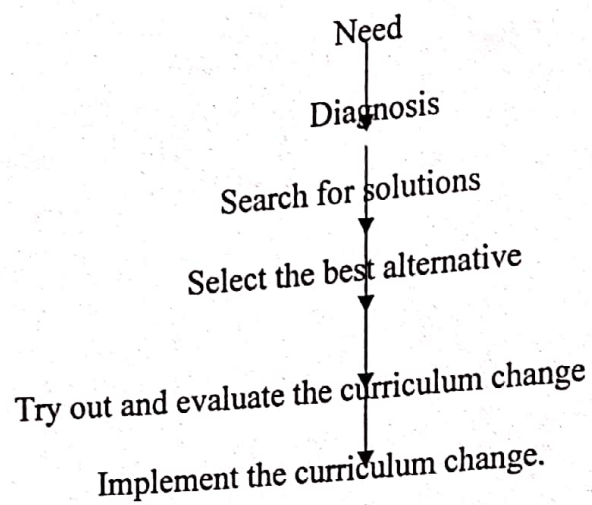
makes children at that level more efficient and more effective after the primary school education. It would merely involve integrating aspects of the technical education to new discoveries like recent technology in this computer age to improve the system. It can involve modification of our outright rejection on the existing order of the National Policy of education concerning curriculum for primary education on the aspect of cultural and creative Arts of drawing, Handcraft, music and cultural activities without adding some ingredient of technical education like simple electric and electricity, auto mechanic, woodwork and mechanical work or even welding and fabrication.

The purpose of Teacher education in this regard is to bridge the gap of educating students at different level. Teacher education stipulated in National Policy of education is that teachers should be emphasized to enable the teacher receive quality training to cope with the changes and innovation in the education system. The emphasis on teacher training is eminent and given priority because no education system can rise above the quality of its teacher (NPE, 2004). The National Policy on Education (2004) stipulated that since no education system may arise above the quality of its teachers, teacher education shall continue to be given major emphasis in all education planning and development. The policy also stipulate minimum qualification for entry into the teaching profession shall be the Nigeria Certificate in Education (NCE).

Strategies of Curriculum Changes

Olaitan (2003) identified four (4) predominant patterns or models of how change, whether in education, industry, technical, vocational or science came about.

1. The Research, Development and the Diffusion model (R, D and D) curriculum change is conceived at the head or centre, for example, at a central planning unit, and then fed into the system.
2. The social interaction model, where change proceeds through contacts formal and informal, among interested individuals or groups of people.
3. The participative problem solving strategy is focused on the user, on his needs, and on what he does about satisfies these needs. The user system identifies and diagnoses its own needs, finds its own solution, tries out and evaluate the solution, and if found satisfactory, itself implements the solution. The emphasis is on local initiative, self-help, and self-reliance.



Source: Cole, P. (2005) cognitive Approaches to Instructional Design.

4. The linkage model, were intermediate, agencies E.g. teachers' centres, link together the centre and the users (e.g. the schools) involved in the curriculum process.

Factors Determining the success or Failure of curriculum Changes

Attributes of the curriculum change itself

1. Environmental condition and social system of school
2. Characteristics of the potential users.
3. The change-agent, i.e. the curriculum change
4. Funding

These factors, if poorly managed will lead to a failure of a curriculum change while their sound management will lead to success. Wang, (2001)

1. Attribute of Curriculum Changes:

For a change to be classified as a curriculum change, it should possess the following attributes.

- a. Feasibility
- b. Communicability
- c. Compatibility

- d. Workability
- e. Acceptability
- f. Triability
- g. Observability
2. Environmental Conditions and Social System of School

Many curriculum changes in technical and vocational education in Nigeria have failed because their introduction did not take the social system of the adopting or implementing schools and the environment condition into consideration, one may come up with a curriculum change to improve an education system. But whether the curriculum change will work or not depends on the beliefs, attitude, knowledge and skill of those who are going to implement the curriculum change that is the principal, teachers, non-academic staff etc. Again, it will also depend on environment of the school system. In most cases, the teachers that are to implement the change may not understand what the changes is all about, since they are not carried along during the curriculum change. The physical environment may not even be conducive for the change to happen or manifest. Hence, the

implementers become negative participant. A typical example is that of computer education in technology. We need to ask ourselves the following questions.

- (i) How many computers do we have for the programme?
- (ii) Which knowledge of computer does teachers of technical and vocational posses that will enable them to teach their students the computer studies?
- (iii) Will the conditions e.g. electricity supply storage system, maintenance culture, safety of equipment, in our schools be alright for the usage of computers.
- (iv) What of the intelligent of an average student in today's Nigeria school etc. this view about the importance of the social system and the environmental of the school to the success of a curriculum change is perhaps best stated by Brown (2003), when he says that he cannot change the curriculum without changing the people.

3. Characteristics of the Users

The prevailing attitudes, experiences and values within the potential user until all affect the rate at which the curriculum change will be accepted. Federal science equipment centre Minna has invented several gadgets of great commercial potentials. And their actual conversion into saleable commodities is entirely dependent on industrialist recognizing

their commercial potential. And this is where the problem lies.

The process of accepting or rejecting an curriculum change consists of four (4) stages:

- (a) Knowledge
- (b) Persuasion
- (c) Decision
- (d) Confirmation

The growing evidence and realization that technical and vocational training plays a smaller part than was previously assumed and that experience and on-the-job training are the main vehicles for implementing new skills (Hassan, 2004) goes along way to reflect the basic advantages for technical and vocational education when these curriculum changes are accepted and industrial production started.

4. The Change - Agent

Resistance will be less if administrators, teachers, Board members and community leaders feel that a curriculum change is their own and not one devised and operated by outsiders. This is equally true if the curriculum change has whole hearted support from top official of the system.

Opinion leaders characteristically are slightly more intelligent and have verbal ability than their peer groups, but importantly, they are enthusiastic about the curriculum change and are willing to deviate from the local group norms. However, opinion leaders of the change - agent must maintain rapport with their peer group. If they become much more advanced than the majority. On the other hand, if the norms of the groups change and those of the opinion leaders do not, and then progress of curriculum change will also be impeded. Suitable

communication channels can be established for the dissemination of information and this can aid curriculum change by informing the majority of what is taking place.

The establishment of 9.3.4 in Nigeria as an integral part of the educational structure is a consequence of many expectations which the traditional type of institution failed to fulfill. These expectations are the desired technical skills, which are expected from the junior and senior secondary schools system. The haphazard take-off of these schools in the country is a direct planning and incoherency in executing policy matters. A good number of the administrators and managers of technical and vocational education are themselves impediments to effective development and maturity of technical education, such administrators and managers have been known to resist changes in technical and vocational education on the ground of their perception of their diminishing roles in the scheme of things.

5. **Funding**

Inadequate funding can create problems in the implementation of any curriculum change. It will be difficult to implement any curriculum change fully and effectively if there is no enough money to provide essential materials, equipment and other facilities. Technical and vocational education no doubt is very expensive to run because of the huge amount of money involved in getting both the infrastructural facilities and the personnel that are needed for the running of the education. The global recession of the world economy and that of Nigeria in particular is hindering the development

of technical and vocational education in Nigeria. Lack of sufficient fund to equip and provide facilities for technology education is actually affecting the implementation of the existing programmes not to even talk of any curriculum change. What we need is to re-address our priority in terms of our revenue allocation so that we can move with the rest of the world.

The Concept of Curriculum Change in Technical and Vocational Education

A change from one stage to another with some remarkable achievement and newness can be regarded as curriculum change. In any human endeavour, nothing is static. The society is a dynamic one moving from one state to the other as the times permits. Education cannot be left out of such, human endeavours. It is noted that education is dynamic process change from one stage to the other according the needs and aspirations of the people in given society. A lot is going on, in the field of the education all over the world and in Nigeria in particularly.

From the above the concept of curriculum change in technical and vocational education can be deduced. It can be seen as an improvement or changing of the existing document. A curriculum change can also be seen as any reform in the elements of the curriculum such that promotes intellectual, social, physical, economic development different from former practice. According to Ben-Yunusa (2000), curriculum change may be defined as a purposeful innovation; change from the established order, a change, which is progressive, and above all a change, which is beneficial to the individual learner and to the society.

Reasons for Curriculum Change in Technical and Vocational Education

Curriculum change is necessary because of the following reasons:

- (a) Some change may occur when certain stimuli in one's environment has awoken in that person, readiness to change by creating a felt need for something different. In this situation the change may be occasioned by the development of kind of new values system for example the successful launching of the sputnik into space by Russians in October, 1957, the emergency dysfunctional and the experience of the civil war (1967-1970) in Nigeria.
- (b) Curriculum change could occur as a result of dissatisfaction with what exists now.
- (c) Change can also occur when the stated objectives are partially met after a careful evaluation exercise.
- (d) Curriculum change can take place when there are changes in the needs, interest and problems of a given society.
- (e) Curriculum, change can also occur as a result of new findings in educational research about learning theories.
- (f) Curriculum change can take place as a result of challenges being posed by technological changes and advancement in different parts of the world can necessitate some curriculum changes.

Conclusion and Recommendation

Conclusion

The new National Policy on Education is in effect, an Invitation to

curriculum change. It needs no emphasis to say that things cannot go in the same way as they have gone on in the past. New approaches to teaching and learning have been provided and teachers need some preparation in implementing them.

Considering the divergent needs of the society, man being an instrument of development and change, the timely review of the curriculum of technical and vocational education will make the program more meaningful, effective and functional. This will be in line with all the worthy expectations of not only the industries, but also the society at large. A curriculum should not be conducted to stale or sour before curriculum changes are inculcated.

Change in technical and vocational education curriculum is essential to make it more responsive to the aspirations and needs of individuals and the society at large. The benefits of technical and vocational education depend not only on what educational system produces, but also on how effective the economy and society use these learning outputs. It is the believe of the researcher that recommendations offered in this paper will innovate our technical and vocational curriculum change for appropriate development.

Recommendations

Technical and vocational institutions should aim at influencing the nature of curriculum change through:

- (i) The creation of new knowledge
- (ii) The establishment of entrance requirements that largely determine what is taught in the lower levels.

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- (iii) The feed back of part of their manpower output to teach in the lower levels.

Planning of change in technical and vocational education must involve the users. In particular, educational planning needs to adopt a more participative, decentralized approach. The advantage of this is that people will accept changes more readily if they understand them, regard them as relevant to their particular situation and have contributed to their planning.

Experts both in public and private sectors in technical and vocational education and in other relevant fields should advice on the restructuring of technical and vocational curriculum to make it more relevant to the needs of the Nigerian economy.

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