

ENTREPRENEURIAL AND FUNCTIONAL CURRICULUM AS A MEANS FOR CURRICULUM INNOVATION, ASSESSMENT, NATIONAL GROWTH AND DEVELOPMENT

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Abstract

The attendant questions raised in curriculum issues and the attendant implications for educational practice reveals the very fact that a worthwhile curriculum is never static but dynamic. It is possible when analyzed that all intended aims, goals and objectives, the organization and integration of learning experiences applied and the methods of evaluation used have all continued to change as they may not be meeting the desired ends of the people or nation consuming that curriculum. It is on this premise, that this paper takes a look at the very nature of change and innovation and assessment for national growth and development. It further looks at the various stages of curriculum innovation and the sources of innovation in curriculum development. It also looks at curriculum evaluation vis-à-vis assessment and how innovation and appropriate assessment can lead to national growth and development. It finally concludes and recommends inter-alia that there is the need to revise the present Nigerian curriculum to meet the challenges of the world of science and technology.

Introduction

Educational innovations are often due to the initiative of one person or a very few individuals. As long as that individual or group keeps working on it, the innovation survives. When they stop, it dies (Zais, 1976). Callahan and Clark (1977) see curriculum innovation as the alteration of what is established, novel factors differing from the existing pattern. Curriculum innovation is defined as ideas, approaches and materials introduced into education to:

Academic Scholarship

- (i) Improve the content of the curriculum in order to make it more relevant to the varying needs of the learner and to every changing needs of the learner and to every changing needs of the society.
- (ii) Improve organization of learning experiences in order to make teaching-learning activities more meaningful and less tedious.
- (iii) Improve instructional strategies and techniques in order to help the learner to learn faster and better.
- (iv) Improve desiring production of basic enrichment materials and
- (v) Improve the utilization of facilities that are designed to support and promote the achievement of curricula aims and objectives.

Innovation must be tied to the end product and improvement of education. This is because the essence of introducing innovation in the curriculum is to effect some changes that are expected to improve on the present educational practices that have been judged as deficient and incapable of meeting the aspirations of the ever-changing society. In looking at the relationship between change and innovation, it can be seen that change is a generic term which may include innovation, development and renewal etc. In this instance change and innovation are interchangeably used.

These are two types of innovations that are of relevance in curriculum practices.

These are:

- (i) **Intrinsic innovation:** Innovation is intrinsic if it generated from educational enterprise itself. This type of innovation can be seen in the introduction of programmed instruction, team teaching, discovery learning, flexibility schedule and wall less or open classrooms. In all these cases, what happened before the introduction is that the educational system takes a look at itself and introduces some innovations.
- (ii) **Extrinsic innovation:** This refers to practices borrowed from outside educational enterprise, eg from world of business we have borrowed the “systems approach” in education and from their management by objective we have also borrowed Teaching by Objective (TBO) and simulation and also Planning, Programming and Budgeting System (PPBS) in Educational Planning and Management.

Curriculum innovation can be looked at as a concept or as a specific educational measure. Curriculum innovation as a specific educational measure refers to new ideas to improve the quality of the curriculum. This may take different forms such as programmed instruction, Team Teaching, Non-graded instruction all of which are introduced to improve education. Innovation as a concept is a broader term with respect to the entire school life and activities. It can be seen in the areas of all creative activities in the school, change in the school programme and alteration in the academic calendar etc.

Any innovation introduced into the school curriculum must take into account the social system of the school. Okoye (2007). There are three parameters of the school system that should be considered when introducing any curriculum innovation. These are the areas of;

- (i) The school perspective

- (ii) Relationship with the school personnel
- (iii) Organization of the school structure and administration

Stages of Curriculum Innovation.

Curriculum innovation occurs in a number of stages. These are:

1. **Initiation of innovation:** This is the time for making decision about what kind of innovation that is needed. Here the problems are identified and analyzed. Innovation can be from within and also from outside the school. In the later situation, the school normally recognizes its problem and then seeks for solution from outside.
2. **Statement of objectives which the innovation is designed to achieve:** Firstly, the objective must be clearly spelt out. Sometimes innovation fails because there is no common understanding between the initiator(s) and those who are meant to implement it. It is important to note that innovation must never be introduced as a panic measure.
3. **Development of the innovational measures:** This is the period for writing out the innovation. A number of experts in curriculum development are involved at this stage of the innovation.
4. **Diffusion and dissemination:** At this stage, it becomes necessary to sell the ideas contained in the innovation carried out in the curriculum to others. This may take different forms such as the use of mass media like the radio, television and newspapers. It can also be by informing other people such as parents, guardians and other interested people of what have developed by way of innovation in the curriculum. It can also be done through seminars, workshops, conferences etc.
5. **Implementation of the innovation:** It should be noted that every new curriculum like every new item should be tried out for effectiveness. This will reveal if there is any pitfall in the curriculum innovation carried out. In this instance, there is the need to train the teachers who will implement the curriculum. At this try-out stage, the teachers are exposed to new materials and skills evident in the innovation carried out. The school administrative process is involved here through personnel selection, training and development; motivation of teachers to accept the challenges posed by the innovation; and giving teachers the administrative incentives that they need.
6. **Evaluation of the innovation introduced into the curriculum:** At this stage, the 'new' curriculum arising from the innovation is subjected to some experimental test before it is adopted for use by teachers. Here emphasis is placed on summative evaluation so as to establish the suitability and/or workability of the innovation introduced using a number of pilot schools. Feedbacks from these schools will reveal the level of acceptability of the innovations.

There are many dimensions of innovations. It can be by substitution, replacement or reform. Certain aspects of the curriculum that fail to meet the expectations of the society can be changed with one that produces the right type of

change in the learners. In some cases, there is a replacement of part or the entire section of the curriculum or there are reforms introduced at certain stages of innovation discussed earlier. We can also look at the magnitude of innovation in terms of degree of changes in the behaviour of people who will operate the innovation. This can also be viewed from the angle of the kind of administrative support needed for the innovation to succeed and the type of infrastructures required for the innovation introduced to succeed. There is also the levels at which the innovation is initiated; it can be at the national, state, school or even at the classroom levels.

Sources of Innovation

1. Concerned educators

Nwankpa (1997) sees concerned educators as made up of teachers, educational administrators, and educational planners, researchers in education and even school supervisors or inspectors. These people could alert the general public or the governments on what they think are educational problems and make concrete suggestions as to how these problems could be solved. They may even go as far as providing funds for the achievement of their desired objectives.

Foundations

Some business establishments or voluntary organizations may make money available for specific projects. These projects when completed successfully may result in major curriculum innovations. The use of mother tongue as a medium of instruction in the primary school (Prof. Babs Fafunwa's example) resulted from the findings in the famous six year Yoruba primary school project carried out in Obafemi Awolowo University, Ile-Ife. That project was sponsored by Ford Foundation from USA. Another one is the Primary Education Improvement Project (PEIP) sponsored by the UNESCO, the Institute of Education, Ahmadu Bello University and the Kwara State Ministry of Education.

3. Curriculum researchers

Most curriculum researchers look for areas of problems in existing curriculum under use. These problems might fall under instructional strategies, subject matter content, curriculum organization etc. They then conduct research and attempt to provide answers to these problems. The findings of such researches when published or disseminated become available to the school practitioners who translate the results into actual classroom practice. These researchers may appeal for funds or grants to carry out their studies. On the other hand, they may be given grants for specific research problems.

4. Learners

One of the characteristics of a good curriculum is that it should promote the interest and aspirations of the learners. Okoye (2007), notes that learners differ a great deal in the way they learn and this calls for a lot of variety in approaches to instructional design. Hence, reactions of the learners to teaching methods may generate the need to

modify the existing method or lead to new innovations. Other characteristics of the learners that need to be taken care of by innovative instructional designs or sequences are personality differences, learning styles, curiosity and enquiry levels etc. Students' demonstration or riots to protest against an educational policy or programmes may lead to an innovation.

5. The government in power

In most cases, the government in power lay down policies and determines who teaches what? Where? Why? and perhaps how? It is usually said that he who plays or blows the piper dictates the tune; it is the government that formulates the philosophies and objectives of the educational system. They also lay down policies that determine curriculum content. They set down guiding principles for textbook writers, sponsor curriculum conferences to look into problems of exiting curriculum for the purpose of making recommendations for improvements and possible innovations. They also provide fund for research and textbook publishing. A typical example is the Nigerian Policy on Education which now guides education practice in the country. The policy is actually the out-come of a National Curriculum Conference Organized in 1969. Its prescriptions cover every aspect of education including curriculum and supervision. It is a typical example of a major national innovation designed to replace the curriculum inherited from our British colonial masters.

Though official curriculum decision-making is concentrated at the national level, groups operating at school level can exert some informal influence. There is evidence that parental concern for a more individualistic and less exclusively bookish education has in practice led to a rather free approach by teachers. Brian Holmes (1992). More usually too, the reaction of teachers has been negative to their exclusion in curriculum changes and innovations and the passionate appeal to teachers to relate the curriculum to the background and interests of students were most-times ignored by most teachers.

Curriculum Evaluation

Curriculum evaluation to which assessment belongs is a very important aspect of curriculum development. Evaluation can be defined as systematic procedures for determining the extent to which curriculum objectives are achieved by the consumer of the curriculum. Evaluations have also been defined as:

- (i) The assessment of merit (Popham, 1971)
- (ii) The collection and use of information to make decisions about an educational programme (Cronbach, 1973).
- (iii) The systematic collection and interpretation of evidence leading as part of the process, to a judgment of value with a view to action (Beeby, 1975)

From the following definitions Zais (1975) sees evaluation as probably the most narrowly viewed aspect of the educational enterprise. This is because in most curriculum books that deal with the topic, it is always treated exclusively in terms of the evaluation of students' achievement often in connection with assigning grades and marks which all amount to product evaluation. Product evaluation though an important

part of curriculum evaluation is not very comprehensive. A comprehensive curriculum evaluation would emphasize such considerations as the correspondence between stated objectives and curriculum contents and even the objectives themselves in addition to the product evaluation as earlier stated.

Evaluation includes a number of techniques that are indispensable to the teacher and the government. However, evaluation is not merely a collection of techniques, evaluation is a process. It is a continuous process which underlies all good teaching and learning processes. Some form of evaluation is inevitable in teaching as well as in all fields of activities when judgments need to be made.

Assessment

Broom (1970) sees assessment as a systematic description of approaches to relationships between selected task requirements, criterion behaviours and the environment. Pyne (1974) sees assessment as being concerned with; *the totality of the educational setting and is the more inclusive term, i.e. it subsumes measurement and evaluation. It focuses not only on the nature of the learner, but also on what is to be learned and how.*

According to Ehindero (1986) as quoted by Okoye (2007), assessment is of three kinds terminal, periodic and continuous. Terminal assessment refers to measures of attainment at the end of a course. Periodic assessment is usually intended to provide a similar measure of attainment by means of series of intermittent probes taken at intervals through a course or unit. Continuous assessment according to Ipaye (1982) has several shades of meaning. Some see it as a process which deliberately allow for periodic assessment throughout the course and takes into account progress towards goals as well as success in reaching it. Haste and Bloomfield (1975) defined it as the systematic collection of marks or grades over a period of time and their aggregation into a final grade. Continuous assessment gives scope to the teacher to make use of a wide variety of assessment procedures appropriate to the subject. General course work, practical, oral, project and field work can all have their place in a continuous assessment scheme.

The National Steering Committee on Continuous Assessment in Nigerian Schools led by Prof. Yoloye regards continuous assessment as a method of ascertaining what a pupil gains from schooling in terms of knowledge, industry and character development, taking into account all his/her performance in tests, assignment, project and other educational activities during a given period of term, year or during the entire period of an educational level. It is also a method of using the recorded performances of each pupil to help him or her improve on his or her achievements through guidance, and helping the teacher to improve his or her teaching by identifying areas of difficulties in the pupils' performance. Continuous assessment implies that:

- (a) A variety of opportunities for assessing pupils' performance and progress are provided in schools that these opportunities should not be in the area of academic achievement only but should cover both affective and psychomotor areas as well.
- (b) Records of such performance should be systematically and faithfully kept.

- (c) The classroom teacher must take the major responsibility for carrying out assessment in a continuous manner; and
- (d) The school counselor should play an important role in keeping, using, maintaining and up-dating the records.

National Growth and Development through an Effective and Efficient Curriculum.

The Oxford Advanced Learner's Dictionary (2001) defines growth as an increase in economic activity while the same dictionary defines development as the process of producing something new or more advanced.

From these two terms, it is clear that a sustained and meaningful curriculum could lead to national growth and development. It should be borne in mind that national growth and development could be tangible and intangible types. Tangible in terms of technological developments in a country and intangible in terms of economics development of ideas, concepts, the right attitude to work, respect for elders and good moral conduct.

One of the postulates of the Nigerian Policy of Education is the inculcation of the right type of values and attitude, for the survival of an individual in the Nigerian society and the acquisition of appropriate skills, abilities and competences, both mental and physical, as equipment for the individual to live in, and contribute to the development of his society.

The only means through which these goals could be achieved is through the development of a projective and meaningful curriculum that could launch the country into a technologically advanced nation. Over the years, since independence, Nigeria has made great incursions in the areas of science and technology and even in the arts. That we are calling for export in culture and tourism now is the awareness of our rich cultural heritage which should also be studied in schools.

Further to this, is the growth and development in science and technology education in Nigeria after independence. This growth was necessitated by the United Nations 1963 Conference on the application of science and technology for the benefit of 3rd world countries and also from the 1964 UNESCO International Conference on Research and Training in Africa. The Nigerian Government in 1967 engaged the services of a UNESCO science policy advice to reassess the status of science and technology education in Nigeria and advised it is an appropriate policy measures. This resulted in the establishment of the Nigerian Council for Science and Technology (NCST) in 1967 (Okoye 1967) as was quoted by Agboghroma (2010)

Successive governments in Nigeria on realization of the importance of science and technology education have contributed towards the development of science and technology education in the country. This has been possible through the introduction of various programmes and practices that have advanced the study of science and technology in Nigeria.

Conclusion

In conclusion, whatever curriculum innovation and evaluation that is developed and adopted; there must be some means of putting it into effect. This varies from one

extreme of rigid regimentation where teachers are expected to follow strictly to the latter of the standard syllabus often provided by the various education ministries to the extreme of unrestricted freedom. Teachers should always be considered when there is any innovation in the curriculum as the bulk ends on their table for the success of a change or innovation in the curriculum depends on the efficiency of the teachers.

Recommendations/Suggestions

Based on the highlights of the issue of curriculum innovation, assessment and National growth and development, it is suggested that:

- (i) There should be need to revise the Nigerian curriculum for primary, secondary and tertiary institutions to make it adaptable to our present yearnings and aspirations.
- (ii) It should be noted that the mode of instruction in our schools have always been teach-to-test rather than acquiring practical knowledge to cope with the changes in the world of science and technology. It is suggested therefore, that there should be a paradigm shift.
- (iii) It is also suggested that any curriculum change and innovation should take cognizance of the teachers efficiency for the effectiveness of any curriculum depends on the teachers' implementation. Moreover, no nation progresses beyond the level of her education to which the teachers are stakeholders.
- (iv) Government should introduce teaching through the Nigerian languages as with the Prof. Babs Fafunwa's example to make the intricacies and difficulties involved in the learning of science and technology terms easier.
- (v) It is suggested also that novels which project our rich cultural heritage or document our historical past should be recommended for study to keep our students abreast with the glories of our past.

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