STRATEGIES FOR THE IMPLEMENTATION OF SOME INNOVATIVE STUDY AREAS IN NIGERIA'S TERTIARY INSTITUTIONS

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ABSTRACT

The dynamic nature of society brings with it changes in its needs, aspirations, and problems. These problems take different forms and education is usually seen as the mechanism for generating knowledge for the mitigation of these problems. For this purpose, therefore any educational system which must be relevant to society must strive to keep pace with its needs and problems. This paper has highlighted some innovative study areas like population and family life education, environmental education, education for peace, human rights and democracy, education for the life of work, drug education, international education amongst others. It has highlighted theories and models of innovation implementation in tertiary institutions. The paper called for the review of the general studies curriculum in all tertiary institutions in the country to make room for the relevant innovative study areas.

INTRODUCTION

Society is dynamic and so are its needs, values, and problems. When issues of contemporary life confronts any given country, education is seen as a veritable tool for the mitigation of such issues. This is why Urevbu (1997) defined education as the process by which a society generates the knowledge necessary for its survival and sustenance and transmits this from one generation to another. Any vibrant educational system must keep pace with not only the aspirations of the society in which it locates, but must also modify, reform, change and innovate its curricula as the need arises.

Most nations, and especially Nigeria, are faced with myriad problems, which may include ecological problems, human rights violation, the culture of violence, cultism, drug abuse, weak family structure, gender abuse, intolerance, discrimination, poverty, malnutrition, traffic problems, ignorance, political instability, international isolation etc. Some of these problems cannot be sufficiently tackled by the existing curricula without some measure of innovation or reform. Some of the issues and problems require interdisciplinary approaches to effectively address them.

Innovative study areas have been developed to help address these problems and issues and they include population education, family life education, peace education, consumer education, drug education, sex education, women studies, environmental education, safety education, human rights education, education for the life of work, social skills educational programmes, communication skills, television studies, education for leisure time amongst others. Their definition and contents may vary from one country to another because they are culture-sensitive and ideology-laden. Some of these programmes have been mounted in countries like United States of America, Britain, Japan, and most countries in Western Europe and Asia. In Nigeria, however, some of them are being integrated into the school curriculum at different levels.

The problem of inertia or resistance to innovation is one that cannot be ignored. Most disciplines and courses are already overloaded and school timetable seems congested. Past efforts at change have either failed outrightly or faced serious problems. What then do we do with these innovative study areas? How do we implement them to achieve results, especially in our tertiary institutions? These are the question which this paper attempts to answer.

Definition of Some Innovative Study Areas

An attempt is made here to briefly define some of the innovative study areas; defined here as fields of study which are relatively new in the school system and which are interdisciplinary in nature and have not acquired the status of a separate subject or discipline internationally. Depending on the importance attached to them by various countries, they may

acquire the status of separate subjects with time.

(a) Population Education (POPED):

Viederman (1971) defined POPED as the educational process whereby individuals learn the causes, and most important, the consequences of population phenomena on themselves, their communities, and the environment, and the possible effective means by which the society as a whole and they as individuals can respond to and influence these phenomena in order to enhance the quality of life now and in the future. The Nigeria Educational Research and Development Council, (NERDC) defines it as an educational process which provides for an articulated and practical study of the population situation in the family, the community, the nation, and the world, with the aim of developing in the individual a more rational attitude and responsible behaviour towards improving the quality of their lives now and in the future (NERDC, 1988).

(b) Environmental Education (EE):

The International Union of the Conservation of Nature and Natural Resources (IUCN) defined Environment Education as the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate, the inter-relatedness among man, his culture and his biophysical surrounding (IUCN, 1970). Schmieder (1977) defined EE simply as education from the environment; about the environment; for the environment.

(c) Peace Education:

Edozie (1999) defined peace education as the process of generating knowledge, values, attitudes and behaviour which foster the culture of peace, unity, respect for and consideration of others and which also inculcates in the individual the dangers posed to human life and well being presently and in future, by conflicts, violence, oppression, war and exclusion.

(d) Political Education

Langeveld (1991) defines political education as the international transfer of knowledge, [1] values, attitudes, and skills needed for participation in the political process.

(e) Others:

According to Idman (1991) consumer education aim to educate the pupils to become critical, knowledgeable, and rational consumers, conscious of their needs and capable of choosing products in a relatively free and uninfluenced manner. To Mortimer (1991) safety education is the study of those human, machine, and environmental variables which interact to affect the possibility of injury or illness to people or damage to

property; it embraces a host of situations involving people, such as work, recreation, sport, transportation, home and natural and human created disasters; it encompasses not only the consumers' environment but also dangers inherent in his diverse activities. Dror (1991) sees education for the life of work as a curriculum focusing on knowledge, skills and predispositions which are considered to help graduates succeed in their adult lives. According to UNESCO (1978:40) family-life education help to develop the ability of family members to play their roles effectively; and to enhance communication between family members and to improve the quality of family life.

These innovative study areas have a validity or relevance of their own. Some scholars have called for the integration of some of them as one. Cultural and ideological positions have also necessitated this. For example, it is suggested that sex education be diffused into family-life education and that POPED and family-life education be integrated together as Population and Family-Life Education (POPFLE). Peace education should go with human rights education and

international education. Variations thus exist from one country to another and this greatly influences the content, structure and mode of inclusion of these programmes in the school systems. One reason for this is that the content may be emotionally charged for the learner, for the teacher and for the community, and this may lead to controversy. Though teachers in Northern Ireland support the teaching of controversial issues in schools (Mckerman, 1982) the response of Nigerian teachers may need to be ascertained.

Another factor is that selecting content involves decisions as to what is central, what is secondary and what can be meaningful to a particular group of students at a certain maturity. The dangers of distortion may arise especially in study areas where values are involved. Selecting one topic to be learned and dropping another means adopting a value position. Who does this selection and for whom?

Models and Theories of Innovation Diffusion:

According to MacDonald and Walker (1976), the process of social change consists of three sequential steps; namely invention, diffusion, and consequences. To them invention is the process by which new ideas are communicated to the members of a social system; and consequences are the changes that occur within a social system as an idea's use or rejection has an effect. The invention is the innovation and the process through which this innovation reaches other people is the diffusion. Diffusion takes place through various forms which have been explained as models and theories. The works of Ronald Havelock, Donald Schon, and Ernest House are worthy of mention.

So much discussion of the problems and strategies of curriculum reform has referred to Havelock's models (Bishop, 1985; MacDonald and Walker, 1976; Stenhouse, 1975; Becher, 1971). Havelock (1971) identified three main models of innovation diffusion namely

(a)   *The Social-Interaction (S-I) model where diffusion proceeds through contacts, formal and informal, among individuals in a social setting.*

(b)   *The Research Development, and Diffusion model where an innovation is researched upon, developed to suit the locale and then diffused to the users in a given social system.*

(c)   *The Problem-Solving Model - where the users or implementers are involved in*
        conceiving, initiating and developing innovation at the local level.

The Social-Interaction (S-I) Model:

In the S-I model, Havelock said that an innovation is brought to the attention of a potential receiver population whose needs are determined by the sender. This is expected to produce a reaction. The awareness of the innovation may generate an interest which is passed through a series of changes that culminate in the acceptance or rejection of the innovation. One factor which is important is the mechanism by which the innovation diffuses through the adopting group. MacDonald and Walker (1976) have noted that studies have shown that the most effective devise for spreading information about an innovation is through personal contact from person to person, or from system to system. For example, individuals who went to school abroad may contact innovations which they share personally to others until such a time all who have accepted its workability may jointly call for its implementation in a school system. The 1969 National Curriculum Conference which culminated in the National Policy on Education was brought about by feelings that the then educational system was not relevant to our aspirations as an independent nation (Fafunwa, 1992).

According to Bishop (1985), the strategy takes the form of convincing a respected administrator or teacher of the usefulness of the innovation. Education for the gifted and Nomadic Education got the attention of Professor Jubril Aminu when he was Minister of Education. Mother-tongue as a medium of instruction received the attention of Professor Babs Fafunwa when he was also the Minister of Education. Here again, the influence of ideology and culture on education plays a crucial role. And as Apple (1979) puts it, what was first an ideology in the form of class interest

has now become the definition of the situation in most school curricula.

This model has the advantage of being a "natural" way of disseminating innovation, but the person to person contact may delay its implementation before it gathers momentum.

The Research, Development, and Diffusion Model (R, D, andD):

The R,D, and D focuses on the central planning and dissemination of innovation. It is highly organized approach and it is popular where curriculum development and implementation is expected to cover a large-scale geo-political area. It involves the establishment of a central project team which conceives (or adapts) the innovation, develops, devises and designs materials, and modifies them before mass production. Thereafter it embarks on mass diffusion activities and training of users (teachers).

NERDC is a good example of a centre for R,D, and D. It is already giving attention to Population Education, Environmental Education and Drug Education. The project team which researches, develops, and diffuses the innovation is the "centre" while the users - the schools and teachers are the "periphery". This is why the R, D, and D model is also called the "centre-periphery" model but because Schon (1971) has developed a distinct model which he called the centre-periphery model, reference to R, D, and D as centre-periphery is therefore limited.

The R, D, and D has the advantage of using the central project team to harness the efforts of professionals and experts in a particular study are and also to ensure that national priorities are given adequate emphasis. Another advantage is that the prototype materials are usually of high quality. Its disadvantage is the high initial cost for research, materials development and training of personnel. The Problem - Solving (P-S) Model:

In the P-S model, the receiver or teacher or school initiates the process of change by identifying an area of concern or by sensing a need for change (Havelock, 1971). Once the problem has been identified, the receiver undertakes to proffer solution either through his own efforts, or by seeking the help of an outsider. Whereas the user or receiver in the S-I and R,D, and D models are passive, he is active in the P-S model. While this model can lead to the solving of local problems, the strategies may not be easily generalizable. Also, it may either distract the teacher or grossly reduce the amount of time he has for meaningful instruction.

Havelock, in an effort to overcome the weaknesses of the three models, put forward what he referred to as the Linkage Model (LM). The LM stresses users needs and a reciprocal relationship between the user and the resource system. This relationship leads to the creation of intermediate or linkage agencies which provide guidance, resources, and training. This model is particularly useful for government supported change. Implementation is grossly affected when private educational institutions are concerned but regulatory agencies may adopt the power-coercive strategy to ensure nationwide implementation.

Donald Schon's Models of Innovation Diffusion

Schon (1971) developed diffusion models based on the principle that novelty begins from one or more "centres" from which they permeate the society as a whole. He recognized three models, namely: the centre-periphery model, the proliferation of centres model; and the shifting centres model.

In the centre-periphery model, it is assumed that diffusion is the movement of an innovation from a centre to its ultimate users and that directed diffusion is a centrally managed process of dissemination, training, and the provision of resources and incentives. The effectiveness of the diffusion of an innovation will then depend, among other things, on the level of resources at the centre, the number of points on the periphery, and the strength of the channels between the centre and the periphery. Schon himself notes that simple systems of this nature are prone to failure because of resource exhaustion, overload, and mismanagement. Failure may also result from distortion of the message, or disintegration of the system as a whole.

Schon's second model, the proliferation of centres model, is designed to extend the limits and overcome the sources of failure inherent in the first model. It retains the centre-periphery structure but differentiates the primary and secondary centres. Secondary centres engage in the diffusion of innovations, while the primary centres support and manage the secondary centres. This model makes the primary centres the trainer of trainers and specialises in training, development, support, monitoring, and management. The problem of this model, like that of the first, is that the weight and pressure on the centre is enormous and it may disintegrate too. The difference is that the secondary centres may transform to primary centres if the regional government it serves can support it. This model has been identified by Stenhouse (1975) as the model that most closely corresponds to that used in England and Wales. In Nigeria, an adaptation of the model is possible, if it is extended to have three centres the primary (national), the secondary (state) and the tertiary (local government) centres.

The third model, the shifting centres model is characteristic of contemporary social movements which operate in the interstices of established organisation (Schon, 1971). The model is reflection of the influence of pressure groups on the introduction of innovation. Hence the shifting centres model has the following features:

(i) It has no established centre: centres appear, reach a peak, and disappear to be replaced by
new centres within quite short periods of time, (ii) There is no stable, centrally established message: the message shifts and evolves,
producing a family of related messages. (iii) The system of the movement cannot be described as a centre: periphery-centres rise and
fall and messages change.

The third model is seriously supported by improved technology, especially in communication, which makes it possible for the participants and users to have access to a wide range of data from elsewhere. The model is particularly useful in a situation where an outdated or failed innovation is being implemented by an educational system. Most of the innovative study areas are about 30 years old in some countries while some are just implementing them.

Ernest House's Model of Diffusion:

MacDonald and Walker (1976) have pointed out that House (1974) does not really offer any new model because he locates his perspectives on Havelock's S-I model. House uses the rural and urban settings to put forward his position. According to him, the rural population is homogeneously spread out so that "contagious" diffusion (that is one to one contact) is the rule, with distance of one rural settlement to another being the only inhibiting factor. He noted also that as urbanization increases, the population becomes more heterogeneous and diffusion is hindered more by social status than by distance. The social structure is one in which only top-level administrators have numerous external direct contacts. In schools, according to him, only few administrators participate in such information flows, and teachers are greatly restricted in their professional contacts. The effect is a reduction in innovation diffusion between towns, organisations, and schools. House suggests that barriers which restrict personal contact should be broken down and that the contact network should connect the teachers directly to the centre.

Implementation Strategies for Innovative Study Areas:

No matter how laudable an innovation may be, it requires a well articulated implementation plan. To achieve this, certain prerequisites would have to be met and these include:
(a)   a clear understanding of the innovation (including its goals and objectives)
(b)   it should receive the support of the funding agency and government
(c)   the implementers must be active participants in implementation process and they must be
        adequately motivated.

Innovation implementation at the tertiary level is one that needs to integrate the various models and theories earlier discussed. Amongst others, the following strategies should be adopted:

1. The innovation should be backed by a clear and well documented policy statement from the Federal Government of Nigeria.
2. NERDC in collaboration with the National Universities Commission (NUC), the National Commission for Colleges of Education (NCCE), the National Board for Technical Education (NBTE) should carry out relevant research and produce a draft content for each of the different innovative study areas.   This may be facilitated by the use of specialists in those fields.
3. Study panels should be set up for each study area to produce prototype materials and determine approaches for their inclusion in the curriculum.

i 4. Heads of tertiary institutions, their deputies (in charge of academic matters), and directors of academic planning, should be sensitized and given opportunity to make inputs into the workability of the programmes. They may also evaluate the prototype materials and suggest the inclusion or removal of topics.
   Master trainers are then trained.   Prototype materials and approaches should   be reevaluated.
6. Pilot institutions should be carefully selected depending on the availability of facilities and personnel.
7. Relevant academic staff are trained and also given the opportunity to evaluate the content and prototype materials.
8. Innovative study areas are then implemented in institutions not originally selected in (6) and their staff trained.
9. Research grant should be made available to lecturers to study different aspects of the innovation.
10. Periodicals, journals and books are floated for the publication of research findings. Contributors may not need to pay any fees.   Conferences, workshops, refresher courses and seminars should precede these publications. To further motivate the concerned staff, institutions should sponsor them to these academic outings.
11. Some tertiary institutions should be commissioned to produce personnel and/or instructional materials for the different study areas,

Recommendations'.
      This paper recommends the following:
(a) That the innovative study areas be treated as General studies courses,
(b) That the following innovative study areas be made compulsory
      i.   Population and family life education
      ii.   Environmental Education
      iii.   Education for Peace, Human Rights and Democracy
(c) That the following innovative study areas be treated as electives from which students may choose any one:
      i. Drug Education
      ii. Safety Education
      iii. International Education
      iv. Consumer Education

Implications:
      The recommendations above have the following implications: i.   The curricula of NUC, NBTE, and NCCE would have to be reviewed and the maximum
      and minimum credit loads be carefully adjusted. ii.   The General Studies courses

would need to be reviewed to either incorporate some of the
      innovative study areas as modules, or the complete dropping of some of the courses, or the outright inclusion of these new courses. The credit weighting of old courses, should be adjusted accordingly. ui.   The cost of implementation should be carefully
worked out in terms of training, materials
      development, and procurement of the learning materials.
iv.   Academic policies would need to be reviewed.

CONCLUSION

      Every society is made up of different institutions which function in different spheres of societal life. Education is one of such institutions upon which the society relies to generate knowledge to mitigate its problems. Since society is dynamic, it follows that its problems also change both in form and complexity with time. For education to keep pace with societal needs and aspirations, schools curricula and methodology would require some measure of reform, innovation and outright change. Innovative study areas abound to tackle contemporary life issues and problems. This paper has not only enumerated some of them but has proposed strategies for their implementation in tertiary institutions. We are about 30 years behind schedule and the time for implementation is now.

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