Introduction
This paper studies the development of educational innovations in Nigeria as change strategies around which education is interpreted as a powerful agent of social transformation. The study is carried out around the general theoretical background of educational change theories.

The analysis is divided into two broad sections. Section I discusses the various theoretical frameworks often used to explain patterns of educational change. Two theoretical perspectives informed the discussion in this section. First is the consideration of various models explaining patterns of educational change, especially as it relates to focused innovations rather than broader educational reforms. Second, the strategies used to implement changes once the need for the change has been identified are considered.

In Section II, selected recent innovations in Nigeria's educational development are discussed against the theoretical background of educational change theories.

Section I: Theoretical Framework For Educational Changes
Changing economic, social and political situations in both developed and developing countries have combined to create needs for constant innovations and reforms in education. As Durkheim (1938) argued,

“Educational transformations are always the result and the symptom of social transformations in terms of which they are to be explained. In order for people to feel at any particular moment in time the need to change its educational system, it is necessary that new ideas and needs have emerged in which the former system is no longer adequate.” (Durkheim, 1938 p.167)
This is more so in developing countries where from the late 1950s to mid 1970s independence from colonial administrators, and in some cases new found wealth based on natural resources have contributed to a redefinition of social priorities and objectives. As Fagerlind and Saha (1982) contended, although it is difficult to pinpoint when strong links between education and social and economic development began, nevertheless,

“...it is certain that by late 1950s and early 1960s there was general agreement among politicians, educational and social planners, and schools that education was a key change agent for moving societies along the development continuum.” (Fagerlind and Saha, 1982 p.39)

And within this context, expanded and improved educational provision became a focus of development efforts, especially in developing countries as a means of acquiring new skills and increasing productivity. A further strong rationale behind massive investment in education is argued by Adams (1977) who also contended

“educational systems were said to produce the skilled manpower and the new knowledge requisite for technological advancement and economic growth.” (Adams, 1977 p.299)

The rationale behind this argument is reflected, for instance, in a review of several documents issued in the 1950s and 1960s in several African, Asian and Latin American countries. These documents, in the form of National Plans, expressed a desire to use educational provision for economic development (Lewin 1984). A common theme has been that education is not seen to be pursuing relevant goals, and its various outcomes subsequently unsatisfactory (Hurst 1983). Educational innovations are often introduced to make education more utilitarian, and this has generated a whole theoretical field with a focus on how the innovations were initiated and how they achieve their effects.

However, in my discussion I would wish to make a clear distinction between the forces responsible for the initiation of localized educational innovations and wide scale educational reforms. The former (educational innovations) are aimed at improving the maximization of educational resources (finance, personnel, instructional facilities) while the latter (educational reforms) have the added dimension of direct social antecedents and reflect a revolutionary, rather than evolutionary trend in the society. As Karabel and Halsey (1977 p.551) observed,

“The process of educational reform during periods of revolutionary upheaval raises with particular sharpness the general problem of relationship between educational and social change...Revolutions do not merely make educational change possible, they require it. They must transform the educational system and bring it into harmony with a new institutional and ideological framework.”

They cite Russia, Cuba and China as typical examples of the interplay between educational reform and social change. This distinction between educational
innovations and educational reforms is necessary because my focus is on the Science Schools as small scale innovatory strategies. As such in tracing the mechanism of their origin and outcomes, my focus will be within the context of localized conditions giving rise to the project, rather than social pressures with national proportions.

This stand is augmented by a similar distinction in Paulston (1976) who views an innovation as a

“relatively isolated technical or programmatic alterations or as low level change, whereas reform involves a normative, national and broad structural change.” (Paulston 1976 p.1)

This distinction makes it easier for instance to separate Paulston’s (1976, 1977) classification of theories of educational change with social antecedents, and the innovatory theories characteristic of “isolated programmatic alterations.” In Paulston (1977), he forwards the thesis that the unique characteristics of any educational reform effort can be partly explained by the theory of education and development in a given society.

However, in situations reflecting “low level change”, Zaltman, Duncan and Holbek (1973) were able to generate two broad categories of theories explaining change in education, separated by the origin of the change. These categories are those that see change as an internal process originating from the organization, and those explaining change as externally motivated, with a large input from social conditions.

Within this broad categorization, Zaltman, Florio and Sikorski (1977) were further able to generate subcategories of theories which they describe in terms of specific models analyzing educational and organizational changes. These subcategories see models as being environmental (external), organizational (internal) authoritative/participative (both internal and external), and individually-oriented (internal).

The environmental category includes models which reflect organizational change as arising from external social conditions. A good example in this category is Levin’s (1974) Polity model whose main inspiration is the social environment from which the educational change is to occur. The model argues that educational changes essentially reflect changes in the society or “polity”.

The main implication of this model for any change agent is its requirement that any attempted change should be developed and presented in a way consistent with the values and goals of the society. It also implies major educational changes should be introduced when major changes in the society occurred. Finally, the change agent must identify social influences which are very important to change being considered.
Organizational change models are concerned with group process. An example is the Zaltman, Duncan and Holbek (1973) model whose emphasis is on the effects of internal environment of an organization on the change process. The model suggests two basic stages in change: initiation and implementation, each with series of substages. Initiation substages are knowledge-awareness, attitude formation and decision, while implementation goes through initial implementation and continued-sustained implementation.

An important implication of the Zaltman et al (1973) organizational model also is that organizational characteristics which facilitate introduction of innovations may make implementation difficult, while characteristics enabling easy implementation may make initiation difficult. Further, its linear structure is blind to realities of innovations. Many changes are initiated, but not implemented fully or at all. For instance, lack of teacher commitment may produce only passive compliance with change, and thus the potential benefits of the change may not be fully realized.

The Authoritative/Participative models characterize change in terms of the extent to which decisions are made by authority figures. In this framework, decisions about the nature of process of change are made entirely by individuals holding positions of authority. Such authority figures may be within the organization (e.g. teachers), or outside (e.g. the Ministry of Education).

Interestingly enough, although authority figures more in this model, those who will implement it must have an input, no matter how negligible, in some stages of the decision making regarding the innovation. The magnitude of this input often puts this category of change into a participative mode. For instance, although teachers may not be part of the decision to set up the Science Schools Project, their input is required regarding which science textbooks to use and this may become part of an established policy, according to the assumptions of this model.

An illustration of a model which describes these characteristics is the one proposed in Rogers and Shoemaker (1971) which has two dimensions. The first dimension is Authority Innovative Decision and emphasizes the importance of the superior-subordinate contact. Under this dimension, three stages of decision making are separated from an implementation phase. Knowledge of the need for change, persuasion regarding intended changes, and decisions regarding acceptance or rejection of changes are handled by authority figures prior to implementation. The implementation phase includes communication of the decision to adoption units within the organization and action by the adoption units to implement or reject the change. And while consultation may occur, authority innovative decisions are made for and not by the adopting units.

The other dimension of the model is Collective Decision Making, which is more participatory and whose substages are stimulation, initiation, legitimation, decision and action which all reflect the involvement of personnel concerned with identification and subsequent adoption of the innovation. There are various ways the collective decision dimension can be implemented. A change planner, for instance may assume the role of stimulator and initiator, or may help facilitate the
performance of these roles by providing information, creating opportunities for stimulators and initiators to interact with each other.

Individual oriented models focus on the individual decision maker or adopter, and many models were described under this category (see Zaltman et al 1977). The models describe the cognitive processes persons undergo, whether their decisions are made in a group or organizational context, or in relative isolation. Although the individual is the main focus, several elements in this model are parallel to those described by organizational change models.

In the individual oriented model, the initial stimulus for change in the individuals comes from some awareness, perception or problem recognition by the individual. This is the awareness that a gap exists between real and desired circumstances, and therefore a need for some change or innovation to close that gap. This is followed by an informative stage involving considerations of various change possibilities and their attributes. If enough interest is generated from the information, comprehension follows which initiates attitude formation process. This leads to support gained through attitude formation and becomes legitimation or adoption.

A basic flaw with individual-oriented models is their lack of clear consideration given to the implementation process. Many of the models, according to Zaltman et al (1977) describe a purchasing or selection action only. The initial or sustained use of the innovation is neglected.

Another problem of the individual oriented models is the linear presentation of the model whereas various elements may occur at the same time or in different order. The overall implication of these models is the need to convince the change targets that there is a need for the change. Also knowledge of the actual solution must be made available, and must be realistic to the environment in which the change will occur.

There are many other models explaining the process of educational change, although they all contain elements of either an internal or external input as a pattern of initiation. For instance, Ponsioen (1972) discusses a series of models delineated as Imposition, Conviction, Participation and Interaction, all of which define the flow of ideas within an educational system when change is being considered, each of which stands on its own and incorporates elements of other models in it. Their definition also places them within the broad categories of pattern initiation of either describing a change which is externally or internally motivated. Fullan (1982) also identifies four major aspects pertaining to the nature of the change strategy itself which he argued related to subsequent implementation. These are need, clarity, complexity, and quality and practicality of the material (product quality) which characterize educational change.

Other models are derived from an observation of the pattern of initiation and implementation of various educational changes. For instance, Havelock and Huberman (1978) in a survey of various educational innovations in African, Asian
and Latin American countries were able to synthesize a structural model which describes the internal qualities of various projects depicting innovations in education.

Interestingly, this model was not categorized according to the source of change. Its main feature is it enables understanding the structural mechanism of the innovations themselves, rather than the pattern of their initiation. By this characteristic, the model also describes the pattern of use of the various components of innovatory programmes.

The model has four basic structural components. These are Infrastructure (I), Authority (A), Consensus (C), and Resources (R). However, in their discussion of the derivation of the model, Havelock and Huberman paid prominence only to the first three elements. This is because Resources, according to Havelock and Huberman, are a problem in change situation in the countries they surveyed, and its inclusion will only complicate the theoretical dimensions of the model.

From the reviews of the models, it is clear the social process leading to the initiation of educational innovations are too complex to be described by a single model. The review in this section therefore sensitizes the presentation and analysis of the data to the theoretical values of the various innovations discussed in Section II.

Section II: The Case Studies of Innovation in Nigeria

Changes in education often come about when the current practices are challenged and questions are being asked about the way things are done. The search for a more efficient way of achieving educational objectives may lead to proposals for either a new way of doing the same thing, or restructuring the current provisions to enable achievement of the same set of goals.

Changes, however, do not normally come about just because someone decides they want a change. There must be an event which informs those in charge of education that the present system is either not achieving or is incapable of enabling the achievement of developmental goals. Once that decision is made, what remains is the attempt to carefully identify not only why the old system can no longer be continued in its present form, but also how to provide a more acceptable alternative. The extent to which educational innovations in Nigeria follow any specific pattern of change strategies will now be explored using three case studies.


Perhaps the main innovation in Nigerian post-independent educational development was the National Policy on Education, commonly referred to as the 6-3-3-4 education system which replaced the previous 6-5-2-3 system. As explained in September 1980 during a seminar on the new system in Bagauda, Kano State,

“the new senior secondary school proposed in the Federal Republic of Nigeria National Policy on Education is an innovation, indeed a transformation of the present system which is a five year course followed by
a 2 year Higher School Certificate course, neither of which is employment oriented. Both aspects appear to prepare for the higher institutions in a number of disciplines providing university graduates with no supporting intermediate personnel, therefore limiting their productivity. Further, the range of disciplines the student could pursue in the university is equally restricted and particularly deficient in mathematical, scientific, technological and agricultural disciplines. To redress the situation both at the higher institutions and the secondary school, the 3-3 structured has been proposed to channel junior secondary school pupils into the senior secondary school as well as into teacher-training and crafts." (NERC 1980 p.29)

This new system was intended to reflect the fact that educational structures in the country will be made up of six years in primary schools, three years of Junior secondary schools and six years of Senior Secondary Schools. The main objective is to diversify educational services for Nigerian children. The curriculum for the secondary schools, especially the Junior section, is more technical and vocationally oriented, while the Senior Secondary School curricula is more academic. Students who passed the Junior Secondary Schools will then be admitted to the Senior Secondary Schools (Nigeria 1981).

Some of the common arguments given in favor of the new system was that it would enable students to focus attention on more practical aspects of education such as technical and vocational studies, rather than purely academic pursuits which seemed possible only to high ability children. As usual, attempts to first of all identify, then attempt to solve the problems inherent in the old system were not made.

The new system was supposed to have started operating in 1982 when the first products of the previous six year UPE course would have finished the primary schools. But in 1985, only Kano and Anambra, out of the then 19 states in Nigeria, have actually started the new system of education; “almost all the other states have either delayed the take-off of the policy or altered its format as a result of shortage of funds, teachers, workshops and equipment” (New Nigerian 12 March 1985).

The possibilities of the collapse or limited successful implementation of the new policy on education in Nigeria yielded many conferences and seminars on the subject throughout 1985. As the Commissioner for Education in Kano noted in a speech in 1986,

“Before 1982, the Kano State Ministry of Education conducted courses and seminars for teachers and educationists in general to explain to them the aims and objectives of the policy. This was accompanied by a state-wide campaign to enlighten the general public. More recently, a Kano State National Policy on Education implementation Committee has been established to pursue the same task. It has visited Emirs, district heads and others who are he key to bringing awareness and understanding of the new policy into the rural communities.” (Kano State 1986).
But not all the government-sponsored seminars approved of the provisions made for the implementation of the new policy. For instance, at one seminar, it was argued that

“the government should have started off with the provision of the necessary infrastructures and personnel and then fix a uniform date for the States to take off:: what we see now is that a State will say it has started the new policy whereas it is doing the wrong thing.” (The Guardian 27 May 1985)

The Nigerian Educational Research Council which was in charge of the implementation of the policy was optimistic that shortage of science equipment, teaches and funds can be overcome in a short time

“going by the current government efforts and efforts and expected supplies from the science equipment manufacturing complexes in Enugu and Minna. The output of these complexes will need to be supplemented by with simple aids that classroom teachers can device. (The Federal Government) did not anticipate the downturn in the economy.” (The Guardian 27 May 1985 p.3)

This explanation underlies the central characteristic of educational innovations in Nigeria — lack of room for the inexplicable, whether in the form of changes in the political structure of the country or downturn in the economy.

This was more so since before the end of the 1970s, when the oil glut on the world market had set in, and suddenly, Nigeria was no longer rich. Some projects were abandoned, others scaled down to more realistic levels. But even then, the downturn in the economy continued and those projects left intact, such as new National Policy on Education, became in danger of dying out. But then the new policy itself gained prominence - like the National Open University - at the height of political era in Nigeria; leaving the event to various interpretations. As the then Kano State Commissioner for Education explained in an interview in 1984,

“The civilian regime started the Junior Secondary Schools in 1982 but because of so many constraints, the programme for the Junior schools was implemented in a hasty manner. Facilities provided were not adequate for the new systems, some primary schools were converted to junior secondary schools and certainly in such a situation, many things got missing: no science laboratories, workshops, etc. The junior secondary schools are supposed to deal mainly on technical education but this is somehow difficult. We are expecting about 37,000 children to come out of the junior secondary schools in September (1984). So knowing fully well that the majority of these are ill-equipped, academically and in technical fields, we are making the necessary preparations to have at least one vocational centre, a reasonably comprehensive one, in each local government area so that we can enroll a large percentage of the products of thee junior secondary schools in some of the centers. This, we hope, will equip them better for the labour market and other higher institutions. Nevertheless, we
The economy, of course, has always been seen the key factor in the implementation of educational innovations. But often it masks a whole range of other factors associated with the design and implementation. It is contentious that development and implementation of new ideas is linked with the economy — especially when it must have been clear the economy is not stable. Linking the implementation process with the economy — as the Nigerian new national policy of education clearly does — makes the innovation susceptible to the instability of the market forces that affect the economy. But what is more surprising is lack of a review of either the scope or timing of implementation of the new policy to reflect the changing fortunes. Policies enacted at the time of prosperity are implemented at the times of scarcity of economic strength to enable them to achieve a reasonable measure of their intended aims; and yet the same goals are retained. The result is either improper implementation of the project, or implementation in a way that deters from the intended primary objectives of the project.

In other states of the federation where the new policy was partially implemented, like in Kano, there were uncertainties about the quality of the junior school products. For instance, according to a report the Borno State governor told a conference in July 1985 that

“the students in the junior schools were ill-equipped for the labour markets because they were not properly tutored in the pre-vocational subjects as envisaged in the new national policy on education. Consequently, all students who finished the junior secondary schools will be recalled to continue with the Senior Secondary School programme. The governor pointed out other problems of the new policy in his state. For instance, he pointed out that the development of curriculum in introductory technology as opposed to pre-vocational subjects could help to cut down on the staffing problems but the huge expenditure for the provision of the minimum necessary workshop facilities could not be afforded at the present. (New Nigerian 26 July 1985).

The production and the availability of textbooks to support the new system was another serious dimension adding that the bulk of the books and materials could not be imported because of the huge foreign exchange involved.” (New Nigerian 26 July 1985).

Similarly, in Kaduna State,

“all the 55,430 pioneer graduands of junior secondary schools have received admission into the 170 senior secondary schools in the State. The stage government said it would not tolerate a situation where 15 year olds would be roaming about the streets.” (New Nigerian 5 June 1985)
The problems of the implementation of the National Policy on Education in Nigeria in 1985 did not stop with the Junior Schools only. The Guardian of Tuesday 24th September 1985 revealed that

“Senior high school pupils in the 41 unity schools and 10 States which began implementing the 6-3-3-4 policy three years ago will go through their first term unguided by the curricula designed to teach them. The Federal Ministry of Education which should roll out copies of the curricula, has not printed them, although they are supposed to have been in use from this month...The Nigerian Educational Research Council confirmed that the curricula would not be ready until December, but revealed that the 19 States and Abuja the future federal capital had copies of the high school curricula which they could photostat and distribute to schools running the programmed (sic). Alternatively, suggested the NERC, the States could continue giving their pupils instructions based on the old curricula until the new ones are ready.”

It should be pointed out here that “curricula” refers to the syllabus guidelines only, and not any other materials. This case study further illustrates the irony of educational change process in Nigeria. Educational advancement is seen as the only way in which social development will occur in the Nigerian society. Yet this need does not seem to leave room for careful and comprehensive systems and cost analysis and a consideration of constraints innovatory programmes are likely to impose on the available resources or their consequences for the future. Changes in government also often means changes in political ideas and this factor is not taken into consideration when educational programs are conceived of in Nigeria.

The idea of an open university in Nigeria has been with the Nigerian Universities Commission since 1976, although it was only tow years later, at the height of the new political development in Nigeria, that the idea gained prominence, almost to the point of being an electoral promise. However, it was not until 1st May 1980 that a Planning Committee on the Open University was set up by the then newly elected civilian administration. The Chairman of the Presidential Committee on the Open University system in Nigeria, Professor G J Afolabi Ojo who also became the first Vice-Chancellor of the institution explained that,

“the terms of reference of the Committee were comprehensive and at the same time specific, thereby enabling the Committee within six months of its establishment, after due consultations with experts within and outside the country, to come up with clear-cut proposals and recommendations on, among other things, the nature of the proposed Open University in the context of Nigerian higher education, the administrative and academic structure of the University, the technical support services, staff establishments, relationships with other universities and related bodies within and outside the country, and also relationships with the mass media.”
(Ojo 1982 p.13)
The objectives for the NOU are to provide programmes which

“are rationally flexible and responsive to changing circumstances...(which)...will be run at the degree and post-graduate levels as well as for diploma, certificate, enrichment and refresher courses to meet the needs of university students who will include working adults willing to combine work with learning, housewives, handicapped persons, and also young men and women who must have minimum qualifications for admissions as determined by the Senate of the University.” (Ojo 1982 p.15)

The teaching methods of the University are also clearly laid out. As Ojo further states,

“by its nature, the University will have to use the following teaching methods, in various combinations depending on, among other things, available technology and energy: a) correspondence material; b) radio and television; c) sound and video tapes suitable for use in transistorized equipment; d) face-to-face teaching at local study centers; and e) written assignment.” (Ojo 1982 p.15)

The dependence of the NOU on many services outside its immediate capacity and provisions were the danger signals for the new system, especially in the Nigerian economy, a fact acknowledged by Ojo himself who later stated that “there are undeniable deficiencies in radio and television transmission in Nigeria” (Ojo 1984 p.37). At the initial stages of the University, however, Ojo stated that

“in view of the wide range of teaching techniques to be used by the Open University, plans have been made to ensure that its dependence on some technical support services is reasonable, feasible and reliable. Such essential technical support services include printing, radio, television, post and telegraphs (with reference to mail delivery), and computer facilities.” (Ojo 1982 p.15)

This would seem to put too much faith on most consumer services in Nigeria, although Ojo has his own prescriptions for any of these problems. For instance, he explains that,

“regarding accessibility to the materials to be transmitted, the Planning Committee took note of the inability of the vast majority of Nigerians, especially in rural areas to own and operate radio and television sets. Hence it is recommended that such media resources should be provided at local study centers where they can be operated with the assistance of technicians and where generators can be used to supply power if and when the supply from the National Electric Power Authority is unavailable.” (Ojo 1982 p.15)

This, however, did not provide solutions to urban power supply which, because of high demand is quite irregular. A solution to this problem as seen by the planners
of the NOU lies in the use of solar power! — although details were not given as to how this could be achieved. Due to these many problems and uncertainties, the very future of the Open University, at one stage in the civilian administration in Nigeria was at stake. As Ojo explained later,

“The Open University Bill which had been passed by the House of Representatives on 16th July 1981, was turned down by the Senate on 16th September 1981. The result was delay of not less than nineteen months before the Senate finally saw fit to pass the bill on 20th April 1983. Between the time when the Senate defeated the Bill and the time it was passed, the news media was inundated with arguments for and against the Open University System...many commentaries...were likely motivated by either political or ethnic biases...even when the arguments were presented as if based on educational considerations.” (Ojo 1984 p.46)

To sort out the problems of the Nigerian postal system of either slow or non-delivery of letters and parcels to students of the NOU, the Planning Committee suggested that the NOU should operate an independent courier system to be operated by the University itself which will relay the materials to students. This will, of course, increase the cost of the courses at the NOU and probably make it inaccessible to many more people — a prospect apparently not taken into consideration by these suggestions.

The Nigerian National Open University was finally granted legal status on 22nd July 1983. It started broadcasting on radio on 6th February 1984, and on television on 2nd April 1984. Some of its problems remained with it, as made clear by the following letter from a student of the Open University who lived in Sokoto State in Northern Nigeria.

“I am writing in reaction to the broadcast of lectures of the Open University over Radio Nigeria, Lagos which began on 6th February (1984) between 7.30 pm and 8.00 pm. As a matter of fact, due to poor reception I was not able to grab anything over the Radio and so did other Nigerians. Another problem was the difficulty in locating the frequency of Radio Nigeria Lagos which must have posed a grave problem to many other people living outside the Federal Capital (then Lagos). If Nigerians want the Open University system to be a success, I suggest the Federal Government makes it mandatory for all Radio Nigeria stations and state owned Radio Stations, if possible, to hook up with Radio Nigeria Lagos for the programmes as they do during new bulletins.” (Letters page of Democrat Weekly of 1st April 1984).

The Nigerian government characteristically solved all the problems of the NOU on 7 May 1984 by the simple act of suspending it — precisely four months after it came to life. In a broadcast to the nation over the issue, the then Military Head of State General Muhammad Buhari (who came to power in a military coup on 31 December 1983) announced that
“the military administration had given serious consideration to the National Open University Programme and found that the infrastructure to make the programme succeed were not available and adequate...The government has decided that in the present financial situation Nigeria could not afford the Open University Programme. (New Nigerian Tuesday 8 May 1984 p.1)

Nigerians are generally used to interpreting military decisions in context. Thus “suspended” eventually meant terminated. The government certainly left no doubts about it really meant, especially with the further revelation that

“...the staff of the Open University would be suitably re-deployed...existing universities with schemes for part-time students (should) be encouraged to expand their programmes and take in more students.”

In an interview with some of the officials of the Open University after the suspension order, it was revealed that

“there was no prior consultation...before the suspension order...The office knew about it at the same time as the whole nation.” The Guardian Tuesday 22 May 1984).

The NOU soon turned into another forgotten event in the annals of Nigerian educational development.

In this development, it is possible to identify the problems of innovations as investigated by Havelock and Huberman. The National Open University was certainly seen as problem solving solution to opportunities for higher education in Nigeria. And yet full and careful feasibility studies about the whole idea was not seemingly carried out. Certainly, the Nigerians cannot claim originality to the idea: it was transposed from somewhere else, where social services are likely to be structured along different lines from those obtained in Nigeria, where even the motives for education itself are likely to be different scales. So to what extent was the original model - from wherever - carefully studied and to what extent were modifications carried out to determine if it will fit the Nigerian social system? Attempts to defend the position of the NOU were made by Ojo who explained that

“Although substantial data on this novel type of institution were collected, nothing was one in terms of concrete planning for Nigeria’s own Open University (in the past). The Federal Military Government at the same time seemed to have determined that policies and project which it could not implement to a reasonable extent would not be initiated. Even though specific ideas on the Open System were conceived during the Military era, the planning and implementation fell to the succeeding civilian administration, which lost no time in setting up a co-ordination committee on the project in November 1979.” (Ojo 1984 p.33)

No time indeed, considering that when the Open University Committee was set up, the civilian administration in Nigeria was exactly one month old. The NOU itself
came at the height of one of the most intense and turbulent political eras in Nigeria. Thus while the concept itself may have its noble objectives of making higher education accessible to those who were denied the opportunity at earlier stages of their lives (improving the quality of manpower production in Nigeria), the NOU nevertheless carried with it educational ambitions which can only be sustained by a political climate not often found in Nigeria. This was in fact acknowledged by Ojo who pointed out that

“The political bias against the Open University was complex and not easy to unravel. However, it was obvious that because the former President, Alhaji Shehu Shagari, was supporting the Open University through an Executive Bill, the institution was automatically linked with the President and his Party, the National Party of Nigeria. Most of those who for one reason or another were opposed to that ruling Party and especially those who were not prepared to separate the issue of the Open University from the Party rallied against the proposal...In many ways, therefore, the Open University Bill was caught in the cross-fire of political disagreement that existed at that time...The Bill was in fact a scapegoat in a political struggle.” (Ojo 1984 p.46)

This was not the only problem, however. There was also a marked lack of experience in operating a University of the Air in Nigeria. Certainly, there was nothing like a pilot stage; on in the whole, the process was a pot shot aimed at achieving an “all or nothing” effect. In this case, it was nothing. The ambitions behind the NOU fall into the description given by Havelock and Huberman who saw such ambitions as arising “from political pressures resulting from the perceived urgency” of the innovation. Again, in their identification, it could not be discounted that the NOU demised because of “unreliable data for planning as well as a tendency not to consult data which are available” as well too much “confidence that the system can adapt well in problematic situation or situations which have not been prepared for.”

Certainly, in the development of the Open University in Nigeria, there was no evidence at all that the comprehensive plan for implementation of innovations identified by Havelock and Huberman in developing countries were considered as factors to its success. In the end, it became quite difficult not to associate the University with the political development of Nigeria at the time it existed. It also shares the same fate of such political forces. As Ojo further analyzed,

“political and ethnic considerations also contributed to the polarization of opinions towards the Open University.” (Ojo 1984 p.42)

In the end, it was the political hierarchy and texture that drastically, but characteristically, changed and sealed the fate of the NOU in Nigeria. And in this is another lesson for innovations in developing countries. Most innovations last for as long as those who initiated them were in positions of power and authority. Once they are removed - by whatever means - the innovation often collapses with them, or becomes reduced in its importance.
The Joint Admissions and Matriculation Board, JAMB (1978)
The 1969 National Curriculum Conference called for the cessation of the sixth form. As stated in the National Policy on Education:

The Sixth Form as at present constituted will be abolished. Pupils will go direct from secondary school to university...The abolition of the Sixth Form (i.e. Higher School Certificate) Course means that the Universities will have to re-structure their courses from the 3 year to the 4 year degree course pattern to suit the six year secondary school system (Nigeria 1981 p. 18).

It was not, of course, clear what informed the decision to shift students from the secondary schools in Nigerian educational backgrounds directly to universities, especially as the vast majority of the secondary schools were incapable of providing the students with the necessary background to effectively cope with advanced academic work, especially in science subjects (to illustrate this point, see Yoloye (1989) which reports on the preparedness of Nigerian secondary schools to teach science and technical subjects in the aftermath of the compulsory 60:40 university admission ration in favor of science and technical students).

The policy gave the universities seven years from its inception (ten, actually since the prototype policy was made in 1977, and revised in 1981) to brace themselves for these changes, expected to be effected from September 1988. On October 8, 1987, all Nigerian universities were sent a form circular by the Federal Ministry of Education Lagos to inform them that

the Senior School Certificate Examination (SSCE) will be conducted for the first time in May/June 1988 by the West African Examinations Council. Also the Joint Admissions and Matriculation Board (JAMB) examination will be held for the Senior School Certificate holders and others in 1988 for possible admission to the universities. The purpose of this circular is to apprise you of the arrival of this category of school leavers in the country’s educational scene as from 1988 and urge you to transmit this information to all universities, Polytechnics and other tertiary institutions under your Ministry so that due account could be taken of their qualifications when advertising for placement in these institutions (IMP/COM/NPE/22/SE/JSS/SSS circular of the Federal Ministry of Education, Director, Schools and Education Services, 8th October 1987).

Thus an immediate consequence of the National Policy on Education for the universities was that they had less control over their entry conditions. This was further stated in the Policy where it was outlined that

Admission of students and recruitment of staff into universities and other situations of higher learning should be on a broad national basis. For better mobility of students and easy access to higher education, the universities will need to establish a joint Matriculation Board for the selection of students for courses (Nigeria 1981 p. 24/26).
This intention of taking over the control of admission into universities had already made its appearance in the draft national policy first published in 1977. Immediately thereafter, the then Federal Military Government established the Joint Admissions and Matriculation Board (JAMB) on February 13, 1978. The 1981 National policy further consolidated the position of the Board when it stated that:

Admission to universities will be based on the results of matriculation examination conducted by the universities or by any agency established for that purpose (Nigeria 1981 p. 47).

The establishment of the Board was actually as a result of the initiative of Nigerian Committee of Vice-Chancellors (CVC), which was worried about multiple applications for admission as well multiple offers of admission to Nigerian universities. In 1974 the CVC set up a two man panel consisting of L. R. Kay, Secretary, Universities Central Council for Admissions in the United Kingdom (UCCA), and H W Pettipierre of the Ontario Universities Applications Center of the Province of Ontario, Canada. They were to examine the system of admissions into Nigerian universities, identify the problems and shortcomings arising from it and make recommendations. However, due to the regional nature of the universities at the time, it was not possible for the report submitted by this panel to have been accepted. When in 1976 new universities were created by the Federal Government, and all regional universities federalized, the government set up a National Committee on University Entrance whose terms of reference included the possibility of setting up a Joint Matriculation Board. The Committee recommended the setting up of two bodies, the Central Admissions Board and the Joint Matriculation Board. Of these, the latter board was accepted by the government which subsequently established the Joint Admissions and Matriculations Board (JAMB) in April 1977, although becoming fully operational in February 1978.

The primary functions of the Board were to determine matriculation requirements into the first degree programs of Nigerian universities, conduct a joint matriculation examination for candidates seeking places in these institutions and place suitably qualified ones in the available places within the universities. The first nation-wide Joint Matriculation Examination was conducted on April 29, 1978 and candidates placed in all the universities based on their preferences and level of performance in the examination. The JAMB therefore co existed with the Schools of Preliminary Studies, and other Advanced level facilities up till 1988 when the latter were finally closed down as per the specifications of the National Policy on Education.

The introduction of the JAMB, and the subsequent closure of the School of Preliminary Studies evoked strong protests from students. As West Africa magazine noted in a commentary,

When the Joint Admissions and Matriculations Board was set up last year [1978] by the Federal Military Government, nobody really wanted it. Since then its short life has been marred by widespread opposition to its very

The most notable opposition to JAMB was concentrated in northern Nigerian universities where students significantly rely on the School of Preliminary Studies to gain access to especially northern universities. Establishing the JAMB and abolishing these university access school was seen by northern students as an attempt to deny them access to university education by the Nigerian government — a move seen as championed by southern interests. It was on this assumption that northern students demonstrated against the JAMB in February 1979, causing a temporary closure of all the northern universities by the Federal government. A consequence of this was that

Students were splitting on ethnic lines, with Southerners favoring JAMB and Northerners determined to annihilate it...In no time at all the southern press was attacking the demonstrating students, and supporting the principle that university admissions be based only on exam-proven academic achievement (which they still dub “merit”) — a principle that will obviously favor the better resourced south (*West Africa* 9th April 1979 p. 626).

To cope with events such as these, the Nigerian government gradually evolved an admissions policy for all federally controlled institutions based on an extremely flexible formula that apportions percentage points for: Merit, 40% (based purely on a combination of secondary school examination results and the results of the Jamb entrance examination to the university), Educationally Disadvantaged Status, 20% (the extent to which an applicant is from an area historically designated as having low educational output), Catchment Area, 30% (the extent to which admission in a federal institution should serve the applicants from the immediate vicinity of the educational facility; state universities do not have to admit federal candidates and can restrict their admission only to the students from their states of location), and Discretion, 10% (a catch-all phrase for basing admission on the individual circumstances of the applicant).

Interestingly, while at the inception of JAMB it was detested by Northern radical student elements as attempts by Southern students to gain a stronghold into Northern institutions, the conception reversed itself a decade later when the JAMB admission formula seemed to favor Northern students. A significantly larger student output from Southern secondary schooling systems made repeated attempts to gain admission into apparently scarcely populated Northern universities (those in the South having been over-populated). This, coupled with strong protectionist measures from Northern institutions (claiming non-reciprocity for Northern students in Southern institutions) led to predominantly Southern dissatisfaction with JAMB as a means of gaining university entrance in Nigeria in late 1980s.

Particularly irksome to Southern opinions was the issue of basing admission on “quota”, the “disadvantaged status” and “catchment area” formulae. Indeed the feelings against the quota system which was seen to favor the Northern university admission candidates was so much that it was reflected included in the Longe
Commission Report as a Minority Report where a member of the Commission noted that

The quota concession has been in use for more than 20 years, since it first began with Federal Government Schools in 1967. By now, it should substantially have solved or reduced the gap between advantaged and disadvantaged States. That it is said not to have done so, is in my honest view, because those it was intended to assist, no longer see the need for that special effort to close the gap...Consequently, places continue to be left unfilled...in certain areas...either because candidates are not available, or because those who should come forward, do not see higher education as a necessary step to high socio-political positions... (“Reservation on Quota for Admissions” a Minority View of the Longe Commission Report by Dr. Rex E. O. Akpofure, O.F.R.; Nigeria, 1992 p. 189, including emphasis).

Significantly, none of the only three Northern members (Alhaji Abdulhamid Hassan, Alhaji Yusuf Aboki, and Dr. A. R. Augi) of the 21 member committee sought to counteract this minority observation with another minority report that provided the Northern perspectives on the quota system.

By early 1990s the fate of JAMB was in jeopardy especially when The Longe Commission submitted a report in which the Commission observed that

Even with the present constraints in resources a formula must still be agreed on the pattern of admissions. Today, a breakdown of enrolment into State derivation shows a gross disparity between the States; but many submissions related their data to the numbers that apply originally from each State. The basis for the controversial Quota System of Admission which mandated a quantum of intakes from defined educationally disadvantaged States has been questioned in a large number of submissions and representations as morally indefensible and contrary to the spirit of the Constitution. Others have argued that if it was justified a decade or so ago because of imbalance in educational opportunity, the creation of thousands of primary and hundreds of secondary schools following the inauguration of the 6-3-3-4 National Policy on Education should by now have given the so-called disadvantaged States the opportunity to catch up. It was never envisaged that such a concession should be enjoyed on a permanent basis. The more radical critics of the quota system have therefore advocated its total abolition. Less severe views have advocated its drastic reduction over time (up to 2000 AD)(Nigeria 1991 p. 151).

The Nigerian Federal Military Government, in its reaction (Nigeria 1992 p. 44) to this recommendation (reduction in percentage allocation to quota) by the Longe Commission noted that

...Inequality is a fact of life. It is the responsibility of government to recognize and address the problem pragmatically. The provision of equal
educational opportunities is one such problem. Government will therefore, continue to review the admissions formula from time to time within the context of our development. Government [also] rejects the recommended time-table. Government further directs that the following formula should apply for the meantime: merit (40%), catchment area (30%), disadvantaged States (20%), discretionary (10%). In place of disadvantaged States, government approves the use of special needs which is defined to mean that admissions to higher institutions should cater for the interest of candidates from all parts of the country who might apply for rare courses in particular institution. In applying the criteria for special needs, any unfilled vacancies shall be filled on the basis of merit.

This formula of course reinforces the already existing practice. The government then proceeded to provide a more regional definition of “catchment area” by allocating admission priorities to some universities to States within the immediate vicinity of all federal universities: a policy decision which simply perpetuate the existing system, thus by-passing the Longe Commission’s recommendations.

The final university entrance examination formula accepted by the government was the UME and Senior School Certificate. In a strange twist to historical development, the introduction of the UME and the twin entry mode into Nigerian universities (through the UME, and direct) is a reversal to precisely the same conditions that led to the abolishing of the sixth form in mid 1970s. The sixth form was phased out in Nigeria because it was felt that it delays the rate at which a student could acquire a university degree. The JAMB was introduced to provide a seamless transition mechanism from the secondary school to the university.

And yet the mechanism of operation of the JAMB re-introduced the philosophy of the grammar school curriculum and its tightly selective and elitist mechanism of determining who can have university education. This is because the same academic tracking determined entry to the Nigerian university as in the previously British oriented system. Nigerian education, if anything, amplified its examination orientation, since students still must pass a battery of examinations before they can proceed to each stage of education. The National Policy on Education also made it clear that only students who are “able and willing” can proceed to senior secondary schooling, after the junior school — with a possibility of dropping out and getting a job which the junior schooling should have prepared the candidate for. In a situation where distribution of educational resources is not equitable, this imposed considerable disadvantage to junior high school students from poor urban schools, as well as virtually all the rural schools. University access then became possible only to students who attended well equipped schools, mostly located in urban centers.

And at the end of the senior secondary school, students still have to pass the Senior Secondary School Certificate examination before they can apply to take the university entrance examination.
Moreover, despite the abolishing of the sixth form and School of Preliminary Studies in Nigeria, the government was aware that substantial remedial programs would have to be continued for a large number of students who would not otherwise have had a chance to obtain university education if the present mode of admission is maintained. To this end, the government accepted the recommendation by a committee set up in 1984 to investigate the university curricula in Nigeria to the effect that universities can continue providing science remedial programs “in order to attract students into their undergraduate programmes, especially in the sciences.” (Nigeria 1987 p. 10). However, the same government accepted the recommendations of the Longe Commission, which recommended that

Remedial programmes in the Universities should be phased out and candidates defective in specific subject areas should find means of remedying them outside the university system (Nigeria 1992 p. 48).

The Government accepted this and “directs the gradual phasing out of the science remedial programmes from universities.” (Nigeria 1992 p. 48). Only time will enable determining the consequences of this directive, especially in the light of attempts to provide more scientists and technologists in the university system in the country.

Over the years, the number of students sitting for the UME has increased, reaching an all time high of 397,780 candidates in 1991/92, with the highest number of entrants of 40,912 applying to the University of Nigeria, Nsukka, and the least of 1,605 applicants for the Federal University of Technology Minna. Despite this surge, the National Universities Commission recommended that admission be given only to a total of 35,705 — accounting for less than 9% of those who applied (The African Guardian, December 23, 1991 p. 14). The demand for university education is reflected further in the statistics released by the JAMB. According to The Guardian (August 13, 1991), of the 1,141,489 applications received by the JAMB between 1986 to 1990, the federal and state universities admitted only 204,223.

The Americanization of Nigerian Universities (1980-1990)

The greatest challenge faced by the Nigerian university in the years after independence from Britain was whether to retain its British legacy — the gold standard of Lord Ashby of Brandon (Ashby 1965 p. 82) — or open itself to other influences — as is the case with universities all over the world — and gradually evolve a distinct character of its own.

The desire to retain the British framework predominated quite simply because the Nigerian labor market — civil service, private sector and the industries — has not developed a system of assessing prospective employees except through their education and examination outcomes. And since the entire employment superstructure is based on British patterns, retaining British educational framework

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1 A full treatment of this topic is the sole focus of Adamu (1994).
had the comfortable currency of predictability. An almost paternally condescending relationship between Nigeria and Britain also helps to retain Nigeria within the British ambit for a considerable period after independence.

Earlier, since the end of the Second World War, it was clear that colonialism has also ended in many African countries. The new international agenda was shifted to curbing the tide of Soviet communism, especially in African countries with the United States at the forefront of the attack with the major assistance of the big three foundations: Carnegie Corporation, Rockefeller Foundation and Ford Foundation. As Berman (1979 p. 146) argued,

the foundations accomplished this primarily by funding programs linking the educational systems of the new African nations to the values, modus operandi, and institutions of the United States.

Closely connected with avowed non-political and technocratic involvement in African education by the foundations was the more explicit objective of increasing the United States economic expansion, continued access to raw materials abroad and control of markets for American exports. “These themes mark the prologue to the African programs of the Carnegie Corporation, the Ford and Rockefeller foundations since 1945” (Berman 1979 p. 149).

To all intents and purposes, therefore, a new colonial path was being carved out in African countries even as the old one was dying. In Nigeria, for instance, the process of bonding the country to British structural framework started with the United Africa Company which was a purely commercial venture later taken over by the British government and provided a convenient vehicle for colonization. It would seem the new American strategy would follow different patterns, but achieve the same goals: loyalty to the interests of the United States, for as Berman (1979 p. 151) further analyzed,

it should come as no surprise that the foundations whose boards of trustees and administrative ranks were dominated by men sharing this common ideology, sought to create circumstances in the developing world that would ensure change that was predictable, manageable, and consonant with the perceived economic and strategic interests of the United States.

While the foundations representatives themselves have denied these motives (see “Responses to Edward H. Berman” in Harvard Educational Review Volume 49 Number 2 1979 p. 180) nevertheless the mere presence of the facilities made available by the foundations — training in the U.S., establishment of projects, setting up linkages between Nigerian and American universities — all have contributed to make the elements of American education distinct features on the Nigerian educational landscape in the two decades after Nigerian political independence. And as Gruhn and Anthony (1980 p. 13) noted,
the dominant type of assistance was the rural development project funded by the U.S. government carried out by a land grant institution, providing U.S. technical expertise and opportunities for study in the United States.

In Nigeria, the first of such elements was the establishment of the University of Nigeria, Nsukka in the Eastern Region of Nigeria in 1955 patterned on the American land grant philosophy with the Michigan State University as the model. And

although the stated intention of Nsukka’s founders is to draw the best from British as well as American experience and create something uniquely suited to Nigeria’s needs, the approach is considerably more American than British (Conklin 1961 p. 9).

Thus the disenchantment with inherited British educational structures led to a scramble for alternative educational structures immediately after independence. The United States government aid policies, together with major US. philanthropic foundations proved catalytic in the quest for what seemed to be such an alternative framework for Nigerian education. This was realized through well developed programs of institution building and linkages between Nigerian universities and various American institutions. But perhaps the most significant US. impact was the training Nigerians received from the US. as compared to the United Kingdom.

What made the US. institutions quite attractive to the Nigerian students at the time (early 1950s to mid 1970s — the formative period of Nigerian university development) were the less restrictive admission procedures of US. institutions, coupled with a far more diverse curricular offering. Nigerian students were used to strict and centralized restricted access to university education with limited curricular choices characteristic of both the Nigerian and British educational systems. As a result, more Nigerian students tended to study in the US. than in Britain. For instance, in 1961 there were only 552 Nigerian students in the United States, while there were 1,124 in the United Kingdom. By 1964 the US. share had gone up to 2,945 while the number of Nigerian students in UK. was only 1,382 in the same year (UNESCO, 1966).

Eventually those who received early training in the US. either by personal sponsorship or through aid agency process especially immediately after the Second World War returned to Nigeria in the early 1950s and 1960s. These returnees soon occupied positions of power and authority and created context situations around which the continued relevance of the British educational legacy in Nigeria that neither emphasized science, technology or agriculture, nor was it developmentally oriented, was continuously challenged.

The impact of such returnees, both explicit and implicit had been nothing less than spectacular in many developing countries, and perhaps no region in the world vividly illustrates the impact of these American returnees on the adoption of American educational traditions than South-East Asia. For instance, in Thailand,
the transformation of the educational system at all levels was initiated by American
trained returnees from Minnesota, Oregon, and SUNY-Buffalo (Fry 1984). And
although the Japanese educational system was a quilted mosaic of influences from
Germany, France, and Britain, nevertheless the American influence was more
sustaining (see Nakayama, 1989). The Philippines, a former American colony, has
retained its definite American educational heritage (Gonzales, 1985). Even
Malaysia, a showcase of British educational tradition in the South-East Asian sea of
reform, had at one stage contemplated the relevance of American higher
education to the country (Ahmat, 1985). And dramatically, in Indonesia a group of
government officials and policy makers became dubbed The Berkeley Mafia on
account of the fact that in 1968 virtually the entire cabinet of the Indonesian
government was dominated by American trained individuals, most of them alumni
of University of California, Berkeley (Ransom 1970).

In Nigeria, Coleman (1958) had also argued that Nigerians trained in the US.
during the second world war have been leading figures in postwar nationalism.
And upon their return to Nigeria, they

 became crusaders for American practical ("horizontal") education, as
 contrasted to the British literary ("vertical") tradition. Their agitation in
behalf of American education...was one of the principal reasons for the
post war migration of hundreds of Nigerians to America. Their propagation
of the American educational ideal and their positive nationalism contributed
to the antipathy of both British and British educated Nigerians toward
American education and American-educated Nigerians (Coleman 1958
p.243).

The influence of the Nigerian returnees, while quite explicit in political affairs (the
first President of Nigeria, Dr. Nnamdi Azikiwe was an alumni of Lincoln University)
was rather subtle in educational matters, but nonetheless, effective. The 1969
National Curriculum Conference initiated by a group of highly influential Nigerians
trained in the US. and co-sponsored among others, by the Ford Foundation, set
the tone of Nigeria’s educational policies for the next three decades and in calling
for a restructuring of the Nigerian educational system, reflected the distinct
American influence of its conveners and sponsors. Mass education and education
for self-reliance and development were its distinct themes. Definite departures from
the British educational inheritance included proposals for a two tier secondary
schooling divided into a three year Junior High School, and a three year Senior
High School, followed by the abolishing of the two year intermediary Higher
School Certificate/General Certificate “A” Level, and a direct transition to a
restructured four year university education.

The National Policy on Education that was created eventually from events started at
Conference was even more explicit about its orientation with regards to university
education. It prescribed the adoption of a credit unit system of structuring university
curricula for Nigerian universities and general education for the first two years. At
that stage (1977) these were recommendations, although gradually some
universities started to implement these as internal policy decisions. Further, some
universities had already started experimenting with these concepts in the 1960s, even before the National Policy on Education made it a recommended practice.

A common argument for this departure, which helped to understand the readiness to accept the change, was that the British established the educational systems in Nigeria to enable them train enough Nigerians to help them administer the country. Now that the British are gone, these legacies must be tuned to the genuine development of the country. Thus the American aid agencies, while not recommending a specific educational pattern to be followed, created the context situations around which U.S. educational frameworks were seen as more viable to development than sustaining the British legacy. This political move also ensured Nigerian sensitivity to U.S. economic and political policies and philosophies.

In this way, the American aid agencies also helped create a comprehensive Senior High School in Aiyetoro, Western region based completely on American high school structure, as well as a university in the Eastern Region (the University of Nigeria, Nsukka), modeled on the Michigan State University. A strong teacher education project in Northern Nigeria sponsored by the USAID and the Ford Foundation coordinated by Ohio State University and University of Wisconsin (leading to the establishment of what is now Federal College of Education, Kano) ensured a federal coverage of American educational activities in the entire country. Consequently by the end of the first decade of Nigerian independence, the country was receptive enough to reform its entire educational structure from elite to mass education.

Thus in the case of Nigeria outside impetus for reforms in the universities came because of political beliefs that the university education should be made more relevant to contemporary social needs — a vision that will fit university graduates for jobs in a developing society. It is this linkage between relevance, job markets and development that serves as a direct antecedent to the reform of the university curricula in Nigerian universities.

The mixture of returnees and American educational aid efforts, which must be seen as outside intervention agents, further sensitized the Nigerian universities and made them amenable to structural changes in their curricula, especially from 1965-1980. General education made the first appearance at the University of Nigeria, Nsukka in 1964 and spread slowly to other first generation universities, particularly Lagos and Ile where it became a focus for providing breadth to the undergraduate degree in African studies. A stringent effort was made to ensure that such breadth requirements were not merely copies of general education curricula at Harvard, Columbia, Michigan or wherever. The University of Lagos, for instance, developed a very comprehensive general education program with exclusive focus on African studies. This provided a stimulus for similar development of such programs in other Nigerian universities.

In some universities, faculties organized themselves into Schools, departing from the traditional faculty structure. Yet other universities converted their single
sessional year of three terms to a two term semester system each of 15 weeks duration.

But perhaps the most striking transformation of the university curricular structure was in the introduction of the course unit system of instruction evaluated in terms of credits with its associated accessories (especially grade point, cumulative grade point, and grade point average). Individual units of various universities started experimenting with this new structure in the mid 1960s, requiring, as usual, only their academic senate to approve them. The practice soon spread to other universities, and a mosaic pattern of adoption and usage of the course unit system practice emerged. At the same time, it became quite common to observe both the British and American academic curricular structural traditions in many Nigerian universities for about two decades after independence from Britain; for while the American model had its attractions, the British model offered a more acceptable degree of certitude through familiarity, especially when it comes to looking for jobs in a British style labor market economy. Students also came to be subjected to the different traditions in their studies, especially in faculties that operated different structures in their programs and yet required a student to offer programs in both.

The course contents of most of the programs were enriched to reflect the reforms. Further, the programs were fragmented to provide diversity of choices especially under the course unit system. All these reforms were possible because although Nigeria had a National Universities Commission (modeled on the British Universities Grants Commission), this Commission existed mainly for funding purposes, at least in the 1960s through to early 1980s. Thus since the university programs were not under central control of the Commission, the changes were not very noticeable, and perhaps not surprisingly, their management and outcomes little studied. Further, they do not seem to have produced any adverse effects among students. If anything, the novel nature of the reforms made them a source of competition among the faculties to see which would attract the brightest students.

Thus surprisingly, some of the traditional reasons ascribed to resistance to change in higher education do not seem to have applied themselves in the case of the transformation of the Nigerian university curricular structure. For instance, Philip Altbach has consistently drawn attention to the conservative nature of universities that made them resistant to radical changes (Altbach 1985, 1991). Yet such conservatism merely makes the process of change and reform in universities complicated, rather than impossible. For instance, although each stage of the Nigerian university curricular change process — general studies, semester system, course unit system — had to go through the Departmental Board, Faculty Board, University Academic Development Committee, and finally the Senate before any department can adopt it, nevertheless this was a process freely, and often eagerly endorsed by the faculty. This seemed to have discounted a British view that

New schemes rarely arise from the careful deliberation of committees and is often than one might expect from convincing demonstration of a systematically researched need. An innovation is more typically triggered off

Thus although there was no research and development to inform in the process of adopting the new structures (such as suggested by Havelock and Huberman, 1977) there was a careful assessment of the consequences of such adoption by the units through the bureaucratic safeguards installed in universities.

However, one key to understanding the general willingness of Nigerian universities to change was that the change itself does not involve too much departure from their established practices — situations also creating barriers to change (Prange, Jowett and Fogel 1982). For the most part, and in the early stages, the changes in Nigerian university curricular structure involved merely adding suffixes to courses, breaking down existing courses to provide more choices to students, but most significantly, adopting a new evaluative mechanism to reflect a grade point average system of educational measurement.

University units that do not wish to encourage such structural reforms in their programs merely refrained from allowing such development in their units (e.g. Bayero University, Kano, established 1976). In other, older and more traditional universities, such as University of Ibadan (established 1948), there was spirited resistance to prevent any changes in the existing structure of the curricula, especially in trenchantly traditional faculties of Medicine and Veterinary Medicine. In yet other newer universities (e.g. the University of Port Harcourt, established 1977) the hostility to the older, British systems was quite open and the move to newer decidedly American structure, totally encouraged.

The willingness of the individual academic units to sustain the change and its side-effects was significant in getting them the permission of their Senates to go ahead with the change. The universities were happy to allow any experimentation so long as it does not incur extra expense from the central votes. And in the early stages of the reforms, the individual departments that wanted to change were allowed to bear the financial costs from their own departmental votes.

But while many Nigerian universities (according to NUC statistics, as much as 90%) were using the American framework in the structure and organization of their curricula (see, for instance, Agiri (1987, University of Lagos), and Akinrinade (1989, Obafemi Awolowo University, Ife) especially at the undergraduate level, they all retained a vital feature in the conduct of their examination: the external examiner system. This was brought about by overriding considerations to standards. The Nigerian educational system has come to perceive standards in the form of excellent examination results, the conduct of which is highly centralized. Any deviation from the solemnity of the learning process, the climax of which is the examination is seen as cheapening of knowledge. It was assumed that dispensing of the external examiner tradition, as in the United States, would seriously erode the quality of Nigerian education.
This explained why the individual units and departments that adopted the American framework retained the entire external examiner system — a process which a bewildered American expatriate at Obafemi Awolowo University (University of Ife) termed mixing of traditions (Hector 1983). The external examiner system was retained to provide a measure of accountability and ensure quality control in the system through the maintenance of the much cherished gold standard of knowledge as coined by Lord Ashby of Brandon, an extremely influential commentator on Nigerian education. Eventually however, some universities (e.g. Gbadamosi, 1987: the University of Lagos) came to criticize the external examiner process as being inhibitory to the principle of diversity, choice and academic freedom characteristic of the course unit system. Further, the external examiner system was increasing perceived as an instrument of state control over educational affairs in an increasingly democratized educational climate.

The reforms continued uninterrupted from about 1965 to 1985 as internal processes; and not imposed on the universities by the central National Universities Commission. And all along, the NUC has not attempted to participate in this individualistic development of Nigerian universities. Competition, variety and diversity became the key concepts that characterize Nigerian university education in this era. Programs in Medicine, Engineering, and Agriculture all became fine-tuned to the immediate communities of the universities. The agricultural program at the Ahmadu Bello University Zaria for instance developed what Prange, Jowett and Fogel (1982 p.160) refer as “formidable work on the development of irrigated and dry crops, for both cash and food. In this regard, it has been a centre of truly international repute.” The University of Maiduguri, Usman Danfodiyo University (University of Sokoto) and the University of Jos also developed medical programs diversified to reflect their existing community health care system. The Usman Danfodiyo University stepped up research in solar energy by establishing a Center for Solar Research with a main focus on harnessing and providing an alternative power source.

However, this relative freedom, which acted as a catalyst for reform and diversification was called to question in 1985 when the then Federal Military Government released the Education (National Minimum Standards and Establishment of Institutions) Decree No 16. The Decree provided for the National Universities Commission, hitherto mainly a financial co-ordinator between the universities and the government, to “lay down minimum standards for all universities and other institutions of higher learning in the Federation” The decree also vested the NUC with the power to accredit the degree programs (especially undergraduate) of all the universities. This was eventually understood to mean harmonization of programs in all Nigerian universities to create a distinct national curriculum.

One of the first steps taken towards the harmonization of Nigerian university undergraduate education suggested by this decree was the establishment in January 1987 by the NUC of a series of subject panels to determine the academic contents of all programs in Nigerian universities. These panels created what, in
their estimation, should consist of a minimum academic subject matter coverage in thirteen disciplines for all Nigerian universities and submitted their reports to the NUC at various times in 1987.

The submissions of the panels were sent to the universities by the NUC for comments, after which the final versions of what later came to be known as Minimum Academic Standards (MACS) guidelines were finally produced by the NUC and became operative in all Nigerian universities in 1989.

However, what also emerged from the survey of Nigerian university curricula by the NUC panels was the observation that Nigerian universities seemed to be evolving gradually towards the American educational framework in their adoption of the similar evaluative mechanisms particularly the course unit system, although there were still many faculties and units operating the inherited British academic structures. Indeed in some universities (e.g. Bayero University Kano), the modular approach to the course unit system favored in Britain in the early 1970s seemed to have found its way in academic organization of various faculties.

The National Universities Commission felt that such differences in interpretation of common structural elements to the same system needed to be harmonized and given a common national approach. To this end, another independent panel was set up in June 1988 by the NUC to create a common national framework around which structural elements of the Nigerian university curricula could have the same currency in all the universities. This was in addition to the specifications of the MACS guidelines.

And since the universities themselves clearly preferred an American style curricular structure, the panel simply recommended a system-wide adoption of this style of curricular organization in all Nigerian universities with effect from 1989, blending the terms and providing guidelines on the measurement of learning under the new system. What emerged was a new harmonized curricula for all Nigerian universities that not only defined the minimum academic standards in the universities accepted to the government, but also provided the curricula with a new delivery and evaluative structure. It is of course significant that the panel did not attempt to determine the conditions under which the individual university units operated what came to be known as the course credit system before making a system-wide recommendation for its adoption in all Nigerian universities.

Conclusions And Implications
The innovations discussed in this paper were direct consequences of Nigerian economic prosperity in 1970s. But the development of the projects did not follow any specific pattern described any model of educational change. For instance, although the educational and economic situation in Nigeria in early 1970s lends credence to the proposal by Karabel and Halsey (1977) that educational changes reflect a revolutionary trend in society, no such revolution as envisaged in the proposals that gave rise to these innovations.
Similarly, even in theories of “low level” change as proposed by Zaltman et al. (1973), the polity model of Levin (1972) proved insufficient to explain the magnitude of social change needed to bring about any of the innovations discussed in this paper. The non-linear pattern of the development of the innovations also rules out most of the elements of the organizational change model proposed by Zaltman et al. (1973). This is more so since a monitoring mechanism was not made integral to either of the innovations, which Zaltman et al. (1973) proposed as necessary in their model.

It would seem the pattern of the development of these innovations follows one of the Authoritative/Participative models (Zaltman et al. 1977) which characterize change in terms of the extent to which decisions are made by authority figures. In the three innovations discussed, lack of dialogue involving input from teachers, parents, or even students (the National Union of Nigerian Students, under several guises in the 1970s was quite active at the time), concentrated the decision to initiate the project with those in authority.

But the framework described by this class of models requires implementers (teachers, for instance) to have an input, no matter how negligible, into the innovation. This did not happen. Thus because of the nature of their development, the developmental pattern of the three innovations therefore leans more towards Authority Innovative Decisions dimensions of this class of models, as proposed by Rogers and Shoemaker (1971).

The innovations discussed in this paper therefore combine elements of many models which describe educational changes, and confirms the vulnerability of a research strategy where attempts were made to explain the findings within the theoretical paradigms of a single model. Moreover, educational changes are not about models, but outcomes. And since social processes are not always linear, it becomes difficult to suggest a definite pattern of behaviour in educational change strategies. Any model that attempts to explain the process of change therefore must rely on a measure of the outcomes of the process.

What emerges from the findings of this paper is political rationales for educational change strategies in Nigeria provide a suitable basis for projecting beliefs about social progress, but little attention was paid to the sustenance of these change strategies, or in real terms, how they fit in with social realities. The issue facing any change strategy is not just of need, clarity, complexity or the quality of the materials used, but the constant production of personnel who identify with the rationales of the change strategy enough to see to its sustenance to achieve a reasonable measure of its objectives. That is the essence of science education as a long term service aimed at radical social transformation.

Moreover, economic forces under which radical or ambitious change strategies were advocated often turn out to deplete the same verve with which the strategies were started. These two other ingredients - political and economic stability - must be made fully part of any model which provides any analytical framework for educational change strategies in Nigeria. Havelock and Huberman (1978)
eliminated them from their model — making it incomplete as a theoretical paradigm for analyzing all categories of educational changes.

References
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Education in Nigeria is said to be an instrument “par excellence” for effecting national development. The Country’s educational goals shall be clearly set out in terms of their relevance to the needs of the individual and those of the society, in consonance with the realities of our environment and the modern world. For the educational system in Nigeria therefore to be relevant to the needs of individual and the society, there must be radical changes in our educational system in terms of curricular content, methodology and instructional materials.

O. Olayiwola, O. Ojo. Educational reforms in Nigeria: successive years of inconsistences and confusions. Educational reforms emanate from the basic conviction that considerable progress can be made in a nation by its people through careful engineering of the educational process. Professor Micheal Omolewa(2007). Introduction. The above quotation is cited from a presentation by a learned scholar Professor Omolewa. It tells in a sentence what educational reform is all about. Nigeria has witnessed several educational reforms which started at pre-independence.