

## The Educational Change Process in Ghana and Nigeria: An Evaluation of the Junior Secondary School Innovation

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### Research Article

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#### ABSTRACT

The decision to undertake this research was a pragmatic response to the debates which followed the introduction of a new secondary system in Ghana and Nigeria and it is intended to investigate the reform during its life cycle in Ghana between 1974 and 1987 and in Nigeria between 1982 and 1985 to see how much foundation there was for the doubts being expressed. The reform was designed as a complex package offering an integrated approach to change educational values, orientation and learning outcomes. The changes subsumed in each aspect of the reform have far-reaching implications for the entire education system. Especially one element, the vocationalised curriculum, caused immediate concern at the time because of the discouraging evidence of similar previous attempts in both Ghana and Nigeria and other countries. Further concern was on the changes in the examination system and the introduction of guidance and counselling.

### DEVELOPMENT AND APPLICATION OF A NEW THEORETICAL MODEL

Most reports recently emerging on educational innovations in the developing countries have been initiated as commissioned studies of specific projects by international donor agencies. Academic initiative from the developing countries themselves in this field of study has been very slow in building up though indications from the international education at the Institute of Education, London in May 1986, show encouraging responses from those countries. Even so, initiative from the developed countries has remained dominant. This would explain the dearth of relevant literature particularly with regard to theories dealing with educational innovation processes in developing countries. Some research efforts have been made to extend theories and findings from works carried out in the developed countries to Third World contexts. One such major effort was carried out by Adams, R. S. and Chen, D. in 1981 in a comparative study of innovation projects drawn from seven countries in both developed and developing countries. The Adam and Chen study drew together administrators and researchers from all the projects in a dialogue from which evolved a model which was used in examining the innovations. A major contribution of this approach is that they set out deliberately to:

“use research results to generate a kind of understanding that addresses the concerns of both planner and administrator”<sup>[1]</sup>.

Important procedural lessons were highlighted by the twelve hypotheses generated from the study which open up opportunities for further researches.

The authors however admitted to certain limitations one of which was the fact that the study had not included implementation since many of the projects being considered had yet to reach that stage. Nevertheless the most important finding as they reported:

“... is that we have been led by our study to place such an emphasis on the interfaces between the ‘innovation’ and ‘the system’ and accordingly to regard the adaptive capacities of both as being perhaps the most critical aspect”.

The authors derived their theory from general systems macro theory and acknowledged adopting the treatment of it so completely elaborated in the work of Havelock and Huberman<sup>[2,3]</sup>. While keeping in view the important contributions of Adams and Chen we should consider the excellent effort by Havelock and Huberman in which they worked out a general theory and

evaluation model which had applied to wide-ranging innovative situations in Third World projects that had reached or passed the implementation stage. The data they had to work on were unfortunately too scanty as they themselves acknowledged since they could not carry out any in-depth case studies. The fact however does not detract from the potential applicability of the sharply structured and comprehensive tool they have developed for total understanding of the plethora of the interfaces of an innovation process.

This study claims originality in contributing important theoretical framework for the evaluation of educational innovations in the Third World by developing and extending the analytical model conceptualised by Havelock and Huberman and closely applying it to the Ghanaian and Nigerian context. Ideas from organisational management, particularly concepts elaborated by Charles Handy <sup>[4]</sup>, have been incorporated into the Infrastructural, Authority and Consensus (IAC) model of Havelock and Huberman to transform it into a potentially appropriate and powerful tool for evaluation in the Ghanaian and Nigerian situation as well as in other innovative contexts in both developing and developed countries. This effect has been achieved by emphasising the essential concepts of the systems theory of interdependence, integration, connections and cohesion in examining the implementation of the innovation. For more detail on the new theoretical model <sup>[5]</sup>.

## **THE JUNIOR SECONDARY SCHOOL AS A NEO-COLONIAL LEGACY**

As the Junior Secondary Sector in Ghana emerged from the 1974 reform it is interesting to note that at that time this sector was being introduced in a large number of developed and developing countries such as Nigeria.

The origins of the junior secondary sector in general lie in the emergence of extended primary schools in England, and other forms of post-primary provision in developed countries such as the Junior High Schools in the USA. Because of the colonial connection with Britain and that country's neo and post-colonial relations with its former territories overseas, brief mention will be made here of this international context only in relation to derived and disseminated models of schooling at this sectoral level. In England, the extended primary schools survived the introduction of selective secondary education in 1902 because of the demand for them. The relevant age group involved in England became absorbed in the various forms of secondary schooling to emerge from the 1944 Education Act, some of which (e.g. central schools) had been created by certain LEAs in the inter-war years (1919-1939). But the issue of transition from primary to secondary schools re-emerged within the fundamental reorganisation of secondary education in England from 1965. A significant number of Local Education Authorities opted for various forms of 'middle' or 'junior high' schools forming a new sector between the first schools and the high schools. This was of course costly in terms of staffing and facilities, and became the focus of educational research and discussion <sup>[6]</sup>.

Not surprisingly, the idea of junior secondary schooling emerged as a parallel but not unrelated issue in newly independent former colonies of Britain, and especially in the Caribbean which was the focus of considerable educational aid through the relatively new Ministry of Overseas Development (to become known as ODA and now DFID) created by the Labour Government in the mid-1960s. Assistance was given to the creation of a junior secondary sector in Jamaica, and this became a model for other Commonwealth Caribbean territories.

This trend could be seen as a neo-colonial influence not only in terms of a metropolitan exemplar, but also in respect of aid and development policy. It is not surprising therefore to find that the 1974 education reform in Ghana included a commitment to 9 year of basic education, three of which would be provided in a 'junior secondary school'.

## **THE JSS INNOVATION IN NIGERIA**

Nigeria is an oil rich country with 36 states and a population of 178,516,904 equivalents to 2.6 % of the total World population. It reformed its educational system earlier before Ghana.

The National Policy on Education (NPE) in Nigeria advising on Technology in Secondary Schools, states that:

“At the JSS level introductory technology should be taught as part of general education for every pupil. The subject should be designed as an integrated subject including elements of woodwork, plastics, metalwork, ceramics, elementary building technology and elementary mechanical and electrical technology, related to common domestic appliances, bicycles etc., technical drawing and simple agriculture. It is recommended that 8 periods per week should be allocated to introductory technology” <sup>[7,8]</sup>. This component of the innovation seeks to diversify secondary school curricula by introducing vocational subjects and making them part of the compulsory core to be studied in the first three years of secondary school. The JSS curriculum thus has the following characteristics:

- A pre-vocational base for vocational training;
- An academic base for training in cognitive academic skills;
- Content designed to reflect an integration of school and societal values and needs;
- Content geared to achievements in the highest levels of cognitive, affective and psychomotor domains;
- Teaching/learning strategy to stimulate interest, enquiry and experimentation <sup>[9,10]</sup>. It has been necessary to reproduce much of the details of these specifications in order to bring out some of the implications.

## Scope

The first implication of the curriculum reform is its scope. It has borrowed the idea of the Western state and has introduced one unified curriculum into all secondary schools in Nigeria. This is an enormous undertaking and the variety of subjects for study increases the complexity of the characteristics of the innovation. The requirements in terms of expertise, resources and new attitudes would make unprecedented demands on the capabilities of the system.

## CONCEPTUALIZATION

The specifications of the two official documents are so divergent in detail that there is a distinct problem of conceptualization of purpose and objectives which is bound to cause considerable difficulties for the innovation and its interpretations by different system actors will have process as well as content implications for the innovation: for example the need to differentiate between the requirements for a pre-vocational and vocational training in the design of the curriculum and selection of strategies and resources. How possible will it be to resolve the difficulty implicit in divergent interpretations in the design of a course that would reflect the inter-face between school and the world of work?

### **In Nigeria, under the policy the structure of secondary education is organized in the following manner:**

- A 6 year full secondary education, separated into two stages of junior and senior secondary, each lasting 3 years;
- The two levels are complementary and can be located in the same premises or separately;
- Graduates from JSS may either progress to senior secondary or 'go on to an apprenticeship or some other out of school vocational training' <sup>[8]</sup>.
- Senior secondary school will be for those 'able and willing to have a complete 6-year secondary education';
- Basic education will be followed by 'three years of general education with prevocational subjects ... so that the students who wish to leave at this stage will be employable. The next three years will be general education leading to some market-able skills apart from training in science and humanities so that students graduating at this stage will be employable. Every student will be made to learn a skill.' <sup>[8]</sup>.

### **These structural provisions pose important conceptual and implementation problems with regard to:**

- The status of the JSS structure: given the high demand for secondary education and the increasing competition between educational qualifications in the job market i.e. the 'diploma disease syndrome', <sup>[11]</sup> the validity and viability of the JSS structure becomes debatably;
- Transition and selection: There is an implied acknowledgement in the policy that transition into senior secondary is a superior option to any other post-JSS activity suggested. It would be difficult to use the criteria of availability and willingness as variables for selection particularly as the demand for full secondary education would make weighting for 'willingness' a very tricky decision to make;
- Course content: The JSS structure highlights the dilemma in curriculum design to accommodate a course content that is at, once suitable for pre-vocational and full vocational training to satisfy the different kinds of clients that have been planned to graduate from the system. Such conceptual dilemma, as experiences recorded from other situations show, is never easy to resolve.

The paper by Lewin and Nwakoby <sup>[12]</sup> is worthy of discussion here. It will also be relevant to the discussion of empirical work below. Its title is: Vocationalising secondary education: a study of the junior secondary schooling in Nigeria.

In Nigeria the new curriculum for the JSS was designed to offer a pre-vocational as well as an academic education which would enable students to develop both cognitive and manipulative skills with which they could acquire further knowledge for their future use. Students were expected to learn 13 subjects, comprising 12 core subjects including two Nigerian languages and two pre-vocational subjects, and one non-vocational elective. Even though, the Blueprint allowed considerable autonomy in the adaptation of curriculum content and time allocation to subjects, it recommended that at the JSS level 'introductory technology' should be taught as part of general education for every pupil.

Even though there was a general agreement at all levels of the system to the effect that the old school curriculum had outlived its usefulness and needed to be replaced <sup>[1,13,14]</sup>, according to these writers the reform had encountered a number of problems. For instance, the Chief Inspector of Schools (CIS) vividly expressed the doubts and difficulties that were experienced in getting the concepts of JSS clear at the highest echelon of the implementation subsystem two years after the programme was to have started. This is the kind of issue the writer has been investigating through interviews with Ghanaian officials and also observing in the field.

It also became clear to Lewin and Nwakoby that activities to generate awareness for the new curriculum did not actually start until implementation was well on its way. There was poor integration namely:

a low inter-system information flow among actors in different subsystems; and a low inter-system information flow between

subject disciplines. Moreover, the teachers were not familiar with audio-visual aids or how to use them, and showed little capability for improvisation. Another problem was the lack of funds to provide the necessary materials for producing aids and the principal seemed unwilling to commit himself to the necessary expenditure <sup>[12]</sup>.

The authors tried to explore students' perceptions of the curricula they were following, to see how far these aims were being realised. Generally, students seemed to be grasping the inter-relationship between introductory technology, other subjects and the world of work <sup>[15]</sup>. However, most students argued on a hypothetical basis that they would become better craftsmen and be able to set up viable businesses on account of their experience in introductory technology. In several ways, the chapter by Lewin and Nwakoby has provided a useful comparative perspective for the writer and will help to inform his fieldwork <sup>[12]</sup>.

It was a similar consideration which had prompted the then Chief Registrar to recommend to the Permanent Secretary that the weighting for the final JSS examination should be reversed for this first group of students since they had had neither the equipment, the guidance nor the qualified teachers to prepare them so as to make continuous assessment possible. But in spite of this the examination had gone on as originally planned. Reactions to this were captured in newspaper headlines:-

- “Pioneer students ill-equipped “,
- “6-3-3-4: A new Scheme in Disarray”,
- “A New System and a New Crisis”,
- “Parents want 6-3-3-4 System Suspended” <sup>[16]</sup>.

In January 1986 the Guardian Newspaper carried out a nationwide survey of the new system in operation which was serialized between January 29<sup>th</sup> to 30<sup>th</sup> 1986. Excerpts from the report are instructive:

“Has it started yet? Alhaja Aishatu Dikko Wali principal, Government Girls Secondary School, Yola, retorts when asked how far her school has gone with the implementation of the 6-3-3-4 education system; why I am asking if the program has started is that I took over a confusion shuffling children up and down. If it has taken off, I think we have actually made a slip somewhere. We have overlooked a vital aspect of the program”.

In Anambra State, the report continues,

“... Beyond the expected averment of State education officials that the programme has been very successful, there is hardly anything to testify that the programme has been around for the past three years.”

The survey discovered acute lack of resources in materials, equipment and teachers and concludes,

“In the face of these daunting inadequacies, it is doubtful if the first batches of JSS graduates in the Anambra State current secondary system have any knowledge of basic technology, after three years of experimentation in 6-3-3-4 system of education.”

**In general the points that emerge from these opinions reported here can be summarized as problems of:**

- Structural duality in the system.
- Communication gap.
- Insufficient/lack of implementation.
- Inadequate provision of resources i.e. materials, equipment, funds and teachers.
- Level of prevocational training via employment opportunities.

## **THE JSS REFORM IN GHANA**

Ghana is a nation characterized by a limitation of economic and social opportunity with schools in general lacking sufficient materials, resources and funding. This situation has a strong bearing on and interrelationship with, other variables under consideration.

For the majority of young Ghanaians the JSS represents the terminal stage of their formal education, as Peil <sup>[6]</sup> observed:

Whereas it was assumed that in an expanding system parents would provide more education for their children than they themselves, in Ghana the process seems to have stuck at the middle school/JSS, with top-up vocational schooling if it is available and can be paid for.

This current situation seems to have been formulated by the advent of the latest national reform - Free Compulsory Universal Basic Education (FCUBE), which treats the first nine years of schooling as a simple sector. The full implications of that for JS Schools will not become evident for some time. It could be that this sector, as it has evolved since 1974 will become a kind of ‘fossil stratum’ in the ongoing accumulation of educational reforms.

The 2002 Presidential Committee on Review of Education Reform in Ghana to review the whole education system in the country and make it meaningful to current world challenges is significant. The recommendations include:

- Universal Basic Education is now 11 years
- 2 years Kindergarten;
- 6 years primary school;
- 3 years Junior High School (JHS);
- After JHS students may choose to go into different streams at Senior High School (SHS) comprising General Education Technical and Vocational and Agricultural Training (TVET) or enter into an apprenticeship scheme with some support from the Government;
- A new 4 year Senior High School (SHS) will offer General Education with electives in General, Business, Technical, Vocational and Agriculture, options for entry into a tertiary institution, or the job market;
- Technical, Vocational and Agricultural institutions will offer 4-year courses including the core SHS subjects;
- The medium of instruction in Kindergarten and lower primary school will be a Ghanaian language and English. At the basic level emphasis will be literacy, numeracy, creative Arts and problem solving skills;
- Teacher Training colleges will be upgraded and conditions of service for teachers improved with special incentives for teachers in rural areas; Metropolitan and Municipal and District Assemblies (MMDAs) will be responsible for the infrastructure, supervision and monitoring of basic, junior high and senior high schools;
- Greater emphasis will be put on ICT and Science and Technology
- A new National Inspectorate Board (NIB) outside Ghana Education Service (GES) but under the Ministry of Education Science and Sports (MOESS) shall be responsible for periodic inspection of Basic and secondary schools to ensure quality education <sup>[17]</sup>;
- Free Compulsory and Universal Education (FCUBE) cost-sharing at senior high and tertiary levels will be maintained;
- Special needs education will be improved at all levels
- Education services will be widened to include library and information guidance and counseling and distance education;
- Private sector will be encouraged to increase its participation in the provision of educational services

It brings Ghanaian Education system in line with the rest of the world and not only the UK its former colonial master. It is the same system implemented in the US, Canada and others with slight modifications. The reform is to help both the government and parents save on education cost by reducing the number of years spent in basic and secondary schools. The introduction of Information Communication and Technology (ICT) into the curriculum of schools at all levels of education in Ghana is significant. Furthermore the inclusion of 2 years Kindergarten into the primary education system has been lauded by parents as well as stakeholders <sup>[18,19]</sup>.

### **Curriculum:**

The main issue here has been that of the vocational and technical orientation of the JSS reform, at least as evident in the policy and rhetoric of the day. Here one particular source is worthy of some comment. It is Foster's 'The vocational school fallacy in development planning' <sup>[20]</sup>. According to Foster it was popular belief that schools can readily be modified to meet new economic needs and, especially, to accord with the intentions of social and economic planners. However, he argues that schools are particularly clumsy instruments for effecting immediate large-scale changes in underdeveloped areas. He notes that while the emphasis in Ghanaian education has been placed on vocational and agricultural training in all documentary sources, there is a relative absence of such elements within the actual provision of curriculum. Was there any serious attempt made to implement schemes for agricultural and vocational training in the schools? If so was it regarded with disfavour in colonial times? As already noted in the first part of this paper, this argument can be dismissed in the case of Ghana because the development of academic secondary schools upon the British model was the result of African pressures for such schools. It is likely that such pressures resulted from a combination of perceptions of status, and practical considerations.

An examination of opportunities within the European dominated sector throughout the colonial period reveals that, relatively, there was a greater demand for clerical and commercial employees than for technically trained individuals. Nevertheless, opportunities existed in technical fields and agriculture, but they were inferior to the other alternatives. Access to most of the highly paid occupations was achieved through experience at academic-type institutions.

According to Foster, a major irony of the situation is that while proponents of technical education were criticising the neglect of technical provision in the schools, the products of such technical institutions as existed were often experiencing difficulties in obtaining employment. Often those persons entered occupations unrelated to the training they had acquired. It could be argued that unemployment among these technical graduates has arisen as a consequence of disparities between rising output of schools and low rate of expansion in the modern sector of the economy. It is always going to be difficult to affect a correspondence between

curriculum and economy, and wastage of skills must always be considered in assessing programmes of vocational training in view of the limited resources available. The writer seeks to test this out in the case study schools.

Foster stated that 'no amount of curriculum juggling was likely to produce the kinds of mass results anticipated by the proponents of technical, vocational, and agricultural education.' He asserted that a great deal of training must be developed outside the schools through the use of auxiliary institutions, with special vocational institutes being created in particular cases where their endeavours can be closely meshed with on-the-job training and with the actual manpower requirements indicated by the market for skills. In other words he was very mindful of the different economic contexts of every locality.

## METHODOLOGY

### The Issue of Curriculum

'Curriculum' lies at the heart of the educational process. Given the radical nature of the 1987 reform one would expect a distinct shift in curriculum structure and emphasis towards a technical vocational bias in the JSS. Since Ghana has been a focus for significant research and comment in respect of this area of study/training <sup>[21,22-24]</sup> there is some grounding for the following potential questions:

#### The Research Questions

The primary research question is: 'to what extent has the Junior Secondary School (JSS) reform in Ghana and Nigeria realised their objectives'?

#### Related research questions are:

- What were the objectives of introducing a junior secondary sector as evidenced in the official documentation of the Government of Ghana and Nigeria <sup>[25-27]</sup>?
- How has the policy of introducing this sector been planned as evidenced in the documentation of the Ministry of Education Nigeria and the Ministry of Education/Ghana Education Service and the views of selected professionals <sup>[9,10]</sup>?
- To what extent has the process of implementation assisted, or otherwise, the realisation of the original objectives?
- How was the curriculum of the JSS determined, and what is its detailed composition?
- How do interested parties (students, parents, teachers, administrators, and employers perceive the JSS curriculum and its record, especially in respect of actual and potential employment?
- How does the current curriculum of the JSS and its outcomes relate to issues and findings raised by other writers/researchers <sup>[12,20]</sup>.

A range of research methods were used to explore the questions identified above. These include interviews, questionnaires, case studies and documentary evidence from official sources and literature survey. The procedure and various instruments as they were applied are described below.

#### Literature Search

Intensive library work (and much intensive thinking because the synthesis being attempted is original) was needed to clarify and gain mastery of existing literature on theories about social systems, organizational change and innovation, development, vocational education with reference to the developing countries, continuous assessment, guidance and counselling and on evaluation. All these have been synthesized and applied to the study.

### Official Documents

During my field work period in Ghana between June 1999 and June 2000 it was possible to secure documentary materials from the Ministry of Education and other educational establishments in Ghana <sup>[9]</sup>. These became the source of objective specifications of the innovation and also provided the record of events as they developed at different sub-system levels.

#### Interviews

Altogether forty-five actors from different subsystem levels were interviewed during different periods of the field work in order to elicit relevant information about the innovation in such specific contexts as the Ministry of Education (MOE) <sup>[9]</sup>, Principals and School teachers, employers of labour, the self-employed in the informal sector and parents. Although the primary intention in arranging these interviews was to seek out the understandings, the goals and priorities of these groups of actors at different decision-making sub-systems with regard to the innovation, it was impossible for the researcher to approach these encounters without some kind of pre-conceived questions. The strategy however was to keep the question at a general open-ended level from which the discussion could then be further explored during the interviews <sup>[28]</sup>.

It was possible to tape-record several of these interviews especially those with colleagues who knew me well. However the majority of the interviewees outside the MOE were squirmish about being tape-recorded. I therefore made notes which I filled up soon after each interview. I was careful not to schedule more than one interview a day where recording was not possible to allow

sufficient time for notes making at home. In addition to the first phase of interviews, I also had the opportunity during the case studies in schools to engage in further interviews with principals and school teachers whom I met at base. These form part of the case study reports.

### Questionnaires

The questionnaires provided vital complementary evidence in quantitative terms to the data from the interviews, documents and case studies. It was thus possible to ascertain the spread of a certain view as held within the four target populations which included education officials, principals and teachers, students and parents. Each group of questionnaires focuses on certain key questions of particular relevance to the group but there is also a common set of questions directed at clarifying the understanding of each group of the purposes of the different innovation components.

Because the research methods were deliberately open in order to admit varying shades of opinion about the innovation the questionnaires were not constructed until after a preliminary field investigation was carried out between October and December 1998. The issues that emerged from this initial encounter with actors at different sub-system levels were to be used for comparing the objective specifications of the innovation as proposed.

In preparation and planning for this research, the above questions were considered. In light of these questions, it was decided that qualitative case study would yield the most useful data for the research questions posed. Robert Stake has also written on the case study approach. For Stake, 'case study is not a methodological choice, but a choice of object to be studied' and 'as a form of research, case study is defined by interest in individual cases, not by the methods of inquiry used' <sup>[29]</sup>.

Altogether three schools were used for the case studies which included two state schools and one private school in Ghana. The basis for selection was education zone, rural/urban, equipment and private representation. Activities for the case studies were planned to include interviews with key members of staff and the students, observation of classroom activities, collection and examination of documentary evidence from official school records wherever possible and observation of the general atmosphere in the school in order to get the feel of the context under which the innovation was operated <sup>[14,30]</sup>.

Questionnaires had been administered just before the case study early in the month. It was hoped that the interviews would get the views of different key actors in order to gain perception from different value positions and roles within the human sub-system of the schools. Thus, the Head-teacher and Assistant head-teacher represented the leadership and highest decision-making authority in the school. The guidance counsellor, continuous assessment teacher, subject masters in any of the vocational subjects represented the three innovation sub-systems that are of particular concern in the study. The students who were 'the guinea pigs' of the innovation were also considered to be important contributors. Classroom observation was intended to permit the researcher to watch the educational innovation interact with students and teachers within typical classroom situations <sup>[30]</sup>.

The Ministry of Education officials were also interviewed <sup>[17]</sup>. Newspaper reports provided a very useful secondary source of information, representing mainly public opinion about the innovation. In a system where the pace of bureaucracy tends to be slow even the Government often resorts to the use of the media to put across some of its views as was the case in Ghana and Nigeria. Of course, such sources have been used only when their veracity has been supported by pieces of evidence from other sources.

### Unit of Analysis

The unit of analysis, or the 'primary focus of data collection' <sup>[31-34]</sup> in this study is the junior secondary school, its pupils, teachers, and those responsible for district, regional and national delivery. The selection of these groups as constituting the unit of analysis is tied to the research questions of the study, elaborated in some detail above, but it must also be remembered that each JSS in Ghana is operating in a particular context. This has been well illustrated by Margaret Peil in her paper as 'Ghanaian Education as seen from an Accra suburb' <sup>[21]</sup>.

Peil's case study is of education in the Accra suburb of Madina, undertaken in 1993. She indicates clearly the context of a rapidly growing area of urbanisation with 'three large complexes of government primary and JS schools ... 'This is an area where skills can be marketed and in respect of the people in Madina surveyed by Peil:

Many said that they had learned their skills in school, though for those who only attended middle school this seems unlikely. However, there is now a wide range of courses after middle school/JSS, so these school leavers can prepare themselves for the job market.

This would seem to imply that, in the context of the Madina labour market, JSSs may have a pre-vocational rather than a vocational role. Also, in this context Peil found that if some amount of local employment was available then a population of youngsters would prefer to make money from petty trading without a JSS certificate ...' However, she also found a residual support among parents in Madina for the formal system:

'... Few Madina parents fail to provide at least JSS for their children. They are often critical of the system, but they are convinced that their children need it. Many want to believe government promises that the new JSS will pay off in opportunity ...'

Given the relative buoyancy of Madina's local economy, to some extent related to its location, it will be interesting to see how the writer's three case study schools, in very different contexts compare with it.

## Curriculum Vocationalisation: An Overview of Issues

A range of major difficulties have been associated in literature with curriculum vocationalisation and these include conceptualisation, curriculum design and resourcing, economic, political and managerial. An examination of some of these problems will help to clarify the findings that emerge from the present study.

### Conceptualisation:

The problem here lies with the difficulty of planners in identifying needs and correctly selecting solutions. Often there is failure to evolve a clear rationale for the decision to vocationalise which in turn leads to doubts about validity of the objectives specified <sup>[31]</sup>. Such conceptual confusion has some important procedural and resource implications in the later stages of the programme. For example the big difference between a pre-vocational and full vocational training is hardly sufficiently grasped to make necessary pedagogic and management orientation possible. In many cases the programme is embarked upon without clarity in definition which is one reason why the vocational content often tends to lose out to the academic. Instances of this have been exposed in Tanzania, Botswana and in Western Nigeria.

### The Curriculum and Resource Implications

Differences in pre-vocational and full vocational training demand entirely different approaches in curriculum design, resources and method of implementation. This difficulty had been highlighted in Blaug's criticism of attempts to teach vocational courses in schools, because they are ill-equipped to handle the actual skills required by the job sector. Lillis and Hogan <sup>[32]</sup> agreed with this criticism but suggested that a possible solution might lie in the design of a flexible process-based curriculum that is equally suitable for teaching cognitive as well as generalizable practical skills. Such a curriculum, they suggested, would be able to equip students that are transferable to a range of job situations.

The important point here is that a curriculum that tries to integrate school and work demands a much higher level of expertise in its design that is generally presented in any vocationalising situations. This serious deficiency is further compounded by lack of equipment and teachers with relevant skills to teach the courses. The exorbitant cost of equipping vocational schools is a frequently cited barrier to the success of vocational education (**Table 1**).

**Table 1.** Pupils' - views on curriculum.

Items	Percentage Responses				
	5	4	3	2	1
I do <u>not</u> like English	1.8	1.9	0.9	12.3	83.1
I like a Ghanaian Language	48.3	39.1	4.9	4.6	3.1
I like French	40.6	44.3	5.8	5.9	3.4
I do <u>not</u> like Mathematics	3.1	4.9	1.8	20.9	69.2
I like Social Studies	61.8	32.3	1.5	2.3	2.2
I like Physical Education	39.7	42.2	9.5	4.6	4
I like General Science	77.5	17.5	0.6	0.9	3.4
I do <u>not</u> like Metal work	6.8	10.8	15.7	35.7	31.1
I like Wood work	25.8	36.8	18.2	14.2	5.2
I like Technical Drawing	39.4	42.5	9.2	3.7	4.9
I do <u>not</u> like Cultural Studies	5.8	6.2	3.1	26.2	58.8
I like Agricultural Science	52.9	36.6	5.8	2.5	2.2
I like Home Science	38.2	42.2	9.2	7.4	3.1
I do <u>not</u> like Crafts	4.3	10.5	16.9	35.1	33.2
I like Automobile practice	20	30.2	20.9	17.2	11.7
I like Masonry	12.3	31.4	19.7	20	16.6
I like Commercial subjects	42.5	42.8	5.8	4.9	4
I do <u>not</u> like Beauty culture	7.7	15.4	19.4	31.1	26.5
I like Marine Science	26.2	32.3	20	10.9	10.8
I like Pottery	29.5	42.2	9.5	12.9	5.8

Particularly interesting is that the majority of pupils (87.4%) indicated that they liked a Ghanaian Language, 7.7% thought otherwise, while 4.9% of pupils responded that they were not sure. The significance here is that the JSS reform made it compulsory for each pupil to learn his or her own language and the local language will be the medium of instruction for the first three years of primary education. Clearly this is a welcome initiative.

The majority of pupils (84.9%) stated that they liked French, 9.2% thought otherwise, whereas 5.8% of pupils responded that they were not sure. It could be inferred that the majority of pupils considered the importance of learning French as Ghana's neighbouring countries: Togo in the east, La Cote d'Ivoire in the west and Burkina Faso in the north, all use French as their official language and also as a medium of instruction in schools. Therefore for Ghanaian pupils to be able to communicate with their neighbours they needed to learn French. Of particular interest was that the overwhelming majority of pupils (90.1%) stated



that they liked Mathematics, 8.0% thought otherwise, while 1.8% of pupils responded that they were not sure. The majority of pupils (94.1%) indicated that they liked Social Studies, with 4.4% thinking otherwise, while 1.5 of pupils responded that they were not sure. The majority of pupils (81.9%) stated that they liked Physical Education, 8.6% thought otherwise, while 9.5% of pupils responded that they were not sure. The overwhelming majority of pupils (95%) indicated that they liked General Science, 4.3% thought otherwise, while 0.6% of pupils responded that they were not sure. The response could be inferred to mean that responding to the need to equip the Ghanaian child to understand the modern scientific and technological world would be met with cooperation and genuine interest.

### **Teachers' Views on the JSS Curriculum and Employment**

But when teachers were asked about its introduction into their schools, the majority indicated that they supported it. In responding to a question about how the introduction of the JSS affected their professional future, majority of teachers indicated that it would enhance their professional future. When teachers were asked whether additional training was required to prepare for the JSS syllabus, the majority of them indicated that more training was needed.

It is interesting to note that majority of teachers did not have knowledge of the JSS at the time of its implementation. The majority of teachers did not teach a JSS subject before. One teacher's confession was typical,

"It is unfortunate that we teachers who are supposed to operate the Junior Secondary School have had almost no discussion, etc. on what the whole thing is about. I cannot comment on it because I don't know anything worth talking about."

The few who professed to know something of the JSS stressed the need for re-training, better incentives, higher pay and improved conditions of service. A teacher from Suhum JSS observed:

"When we were at school we were made to learn things off by heart without first understanding them. For example, I know that if you want to divide by a fraction, you turn it upside down and multiply. Why it was so, I did not know. Now the emphasis is on reasoning things out with the children. This is quite good."

The current generation of teachers then was not just reproducing their own experience. They felt they had made some advances. The majority of teachers however, commented very adversely on the implementation. Poor organisation, deficient training, deficient equipment, the total failure to provide follow-up support made the venture a failure in the view of almost everyone. "The aims are laudable, but the organisation and equipping have negated the useful objectives of the system," was the judgement of one teacher.

However, only a few suggested that the shortcomings were as bad and that the program should be discontinued altogether. The majority of teachers felt that attempts should persist to improve it. Even more so, it is of interest that a large proportion of teachers indicated that they were enthusiastic about participating in the JSS program.

The majority of teachers believed that a JSS student (in comparison with equivalent students of the former education system) would be viewed as academically inferior by an employer in Ghana. It is not unfair to conclude then, that while there was some acceptance of improvement and reform, when they were clear and well communicated; there was also some reservation about the benefits of some changes <sup>[33]</sup>. Even if the objectives of the JSS reform were known to these teachers, there was no assurance that they would have been unreservedly embraced and implemented.

In summary, on the whole, teachers were willing to consider change and efforts for improvement. However, imperfections in communication made it more than probable that their classroom teaching would reflect less of the thinking of the JSS reform, and rather more of the practices associated with achieving good formal examination results <sup>[21,34,35]</sup>.

### **Economic Aspects: Job Aspiration and Curriculum Choice of Clients**

Studies by Foster <sup>[36]</sup>, Lewin & Nwakoby <sup>[12]</sup> in Nigeria, King in Ghana and Nigeria, Afenyadu & King in Ghana, Kenya and South Africa, Fluitman & Alberts in Zambia and Mead in Zambia and Kenya, all highlight the close interrelationship between the demands of the economy (experienced through the job market), and the viability of vocationalisation. In effect, the problem for which vocationalisation is offered as solution, may lie well beyond the boundaries of formal education.

Both parents and students see education as an avenue for social and economic mobility and invest in the kind of education that is judged appropriate for this purpose. In Ghana, as elsewhere, academic education is perceived to hold this key to success and any other form is unacceptable as being lower in status. Consequently, vocational education stands a very poor chance against the academic. Even where access to academic education is very limited, students would go through vocational courses as a preparation for more effective competition into the grammar schools. The modern secondary schools in Ghana in the 1950's and 60's for example, ended up, as was reported, offering a purely academic course which provides only a 'polishing' of the education received at the primary school. Bacchus <sup>[13]</sup> reported a similar practice in Guyana amongst students of non-elite schools where vocational subjects were supposed to be taught: students only go through the course so as to prepare better for later access to what is seen as a more valid form of education.

This represents the realities of the aspirations of school leavers and their parents in terms of occupations and in relation to the

curricular offerings of schools. Whereas the goals of vocational education generally may emphasise orientation to jobs in the rural locality, school leavers and their parents, aim at access into the modern sector that offers higher incomes. This economic perception of the students has been argued by Foster <sup>[36]</sup> in relation to Ghana. Refuting the white-collar job syndrome, he asserted that:

The operative fact here is not that graduates [of schools] will not accept certain types of employment but rather that the schools (irrespective of what they teach) have been shrewdly used as the gateway into the 'emergent' sector of the economy. The schools themselves can do little about this. So long as parents and students perceive the function of education in this manner, agricultural education and vocational instruction in the schools is [sic] not likely to have a determinative influence on the occupational aspirations and destinations of students. Aspirations are determined largely by the individual's perception of opportunities within the exchange sector of the economy, destinations by the actual structure of opportunities in that sector <sup>[36]</sup>.

Clearly both aspirations and real economic activity, influence what the students wish to learn. Citing another example, Anderson described a similar experience in Kenya with the establishment of the 'Jeanes Schools' where the clients became disenchanted because they found the course to be offering 'second class' education which only led back to hard manual labour instead of offering access to the wealth and technical advantages of Western life they saw displayed by Europeans.

It is now generally accepted that access to better jobs, higher wages, higher social status and living standards lies in higher qualifications, preferably at tertiary level. Attempts at vocationalisation are thus continuously being reconstructed by the clients to serve perceived individual economic aspirations.

The following extract from one of the researcher's interviews illustrates this point:

It is amazing that the thing has been running for over ten years and it is only in its fifth year that I am beginning to understand it. Now the emphasis is to orientate the child to be able to use his hands to help himself, be able to understand the machines that surround him in his world. We had wrongly thought initially that the emphasis was on acquisition of employable skills.

This quotation dates from an interview with the researcher early in the fifth year of the implementation of the JSS reform. The Director of Education clearly presents the doubts and difficulties that were being experienced in getting the concepts of JSS understood at the highest echelon of the implementation subsystem some five years after the programme was supposed to have commenced. Further evidence presented below shows the varying degrees to which the ideas and assumptions of the National Policy on Education (NPE) appear to have been clearly understood and correctly interpreted at different levels.

### **Conceptualisation at the National System Level**

The NPE made the following provision in its section on the JSS:

The Junior Secondary School will be both pre-vocational and academic; it will ... teach all the basic subjects that will enable pupils to acquire further knowledge and develop skills <sup>[25]</sup>.

This specification seems clear enough in establishing the nature and purpose of the JSS reform. However the Joint Consultative Council (JCC) Reference Committee on Junior Secondary Education had long held a different view and stated the aims of the JSS reform in a report in 1985 as follows:

The aim is to make him/her achieve some level of competence in the chosen vocation that will make him immediately employable at the end of the years of JSS education <sup>[27]</sup>.

This position seems in direct contradiction to the 1986 NPE position. It may be that the definition of objectives was still evolving in 1985. The view in the 'Blueprint for Implementation' suggests this when it insists that:

Students at JSS level cannot be expected to acquire skills with which they can immediately find a job. Instead, they would at this level build up a wide base of vocational understanding and knowledge from which they can later on select a more specialised direction <sup>[26]</sup>.

The seeds of some confusion seem to have been sown early on in the development of the policy. In June 1988, a national workshop on 'Introductory Technology' was organized by the Implementation Committee. The Honorable Secretary of Education, and the Director of Planning in the Ministry of Education each addressed the workshop and each restated the aims and objectives of the JSS reform <sup>[10]</sup>. Their interpretations confirmed the specifications as outlined in the NPE and the Blueprint. Nothing could be clearer than the statements of these officials in the highest decision-making level at the MOE, that the curriculum would be pre-vocational in character.

## **CONCLUSION**

This study set out to investigate the fierce debate that erupted at the introduction of the JSS educational innovation in September 1987 in Ghana and in September 1985 in Nigeria. The data indicated that the JSS structure has not worked as it was intended. There is a need to study more carefully the aspirations of parents and children via the realities of the socio-economic world. With a better knowledge of what is actually available a more reasonable plan could be reached.

In the end its findings have confirmed that there are indeed genuine reasons for concern. The challenge for the researcher has been to identify and explore strategies which while immediately capable of resolving the dissonance of this specific innovation, has potentials for application with satisfactory results in other similar educational innovating contexts.

The overall picture is that the introduction of the JSS as a universal component of education in Ghana has not been successful, except in that the innovation has contributed to the realization of the new and current thrust toward universal basic education under FCUBE. Whether its incorporation in FCUBE will assist the realization of the access and objectives of the JSS reform of 1987 is not yet clear.

## REFERENCES

1. Acheampong O. Education Reform What Reform? 2009.
2. Adams RS and Chen D. The Process of Educational Innovation Kogan Page, The UNESCO Press. 1981.
3. African curriculum organization. Report of Conference Proceedings of the African Ministers of Education, Lagos. 1976.
4. Bacchus MK. Education for Development or Underdevelopment Guyana's Educational System and its Implications Wilfrid Laurier University Press. 1980.
5. Ball S. Participant observation with pupils in R. Burgess (edn), Strategies of Educational Research, London: Falmer. 1988.
6. Ball S. Imperialism, social control and the colonial curriculum in Africa. Journal of Curriculum Studies. 1983; 15: 237-263.
7. Callaway A. School leavers and the developing economy of Nigeria. Centre for International Studies. MIT. West Africa. 1961.
8. Delamont S and Michael Stubbs. Explorations in Classroom Observation. London: John Wiley. 1976.
9. Dore R. The Diploma Disease. Allen and Unwin Ltd, London. 1976.
10. Eshun FM. The 2007 Educational Reform. Contract Research org. 2007.
11. Federal Republic of Nigeria. Implementation committee for the national policy on education. Lagos: Federal Government Press. 1979.
12. Federal Republic of Nigeria. National Policy on Education (Revised). Lagos: Federal Government Press. 1981.
13. Foster P. Education and Social Change in Ghana. Routledge and Kegan Paul. 1965.
14. Foster P. "The vocational School Fallacy in Development Planning" in Education and Economic Development edn. Alnord Anderson and Mary Jean Bowman, Chicago: Aldine. 1965.
15. Ghanaian Times. JSS Reform Accra. 1989.
16. Guardian Nigeria. A Survey of the JSS Innovation. Lagos. 1986.
17. Government of Ghana. Report of Education Commission on Basic Education Accra: Government Printer. 1986.
18. Government of Ghana. Report of Education Commission on Junior Secondary School Education Accra. Government Printer. 1984.
19. Government of Ghana. Committee Report on Junior Secondary School Education Accra. Government printer. 1985.
20. Handy CB. Understanding organizations. Penguin Books Ltd. 1976.
21. Havelock RG. The Change Agent's Guide to Innovation in Education. Educational Technology Publications. 1973.
22. Havelock RG and Huberman AM. Solving Educational Problems. UNESCO, Paris. 1977.
23. Helbling LA and Sacchi S. Scarring effects of early unemployment among young workers with vocational credentials in Switzerland. Empirical Research in Vocational Education and Training. 2014; 6:12.
24. Lillis K and Hogan D. Dilemmas of Diversification: Problems Associated with Vocational Education in Developing Countries. Comparative Education. 1983; 19: 89-107.
25. Nwakoby F and Lewin K. Vocationalising secondary education: a study of the junior secondary schooling innovation in Nigeria, In: K. M. Lewin & J. S. Stuart, (edn), Educational Innovation in Developing Countries, London: Macmillan. 1991.
26. Ministry of Education. Education and Training Policy of Ghana Accra: MOE. 1984.
27. Ministry of Education Anambra State. Report of the Committee on the Implementation of the National Policy on Education in Anambra State with respect to Technical Education in Junior Secondary School System. 1981.
28. Ministry of Education Nigeria. Report of the Investigation of Vocational Education in Eastern Nigeria. Government Printer. 1962.
29. O'Dwyer LM, et al. Teaching for conceptual understanding: A cross-national comparison of the relationship between teachers' instructional practices and student achievement in Mathematics Springer Open Journal. 2015; 3: 1.

30. Osei GM. Issues Arising from an Examination of the Junior Secondary School Reform of 1987 in Ghana. *Educational Studies*. 2003; 29: 141-177.
31. Osei GM. The 1987 Junior Secondary School Reform in Ghana: Vocational or Pre-Vocational in Nature? *International Review of Education*. 2004; 50: 425-446.
32. Osei GM. Teachers in Ghana: issues of training, remuneration and effectiveness. *International Journal of Educational Development*. 2006; 26: 38-51.
33. Osei GM. Vocationalising secondary education: the junior secondary schooling of 1987 in Ghana. *Educational Review*. 2007; 59: 71-85.
34. Patton MG. *Qualitative evaluation and research methods*. Beverly Hills, CA: Sage. 1980.
35. Peil M. Ghanaian education as seen from an Accra suburb. *International Journal of Educational Development*. 1995; 15: 289-305.
36. Stake RE. *The Art of Case Study Research* Sage Publications. 1995.