

TEACHERS' RESPONSES TO CURRICULUM INNOVATION

THE SIERRA LEONEAN EXPERIENCE

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This paper reports the views of primary school teachers as implementers of an innovative primary school curriculum in Sierra Leone, a reform initiated by the national government to repudiate the Eurocentric colonial education model; a model that was viewed not only as grossly inadequate but predominantly formal. Teachers confirm that substantial progress has been realized in an attempt to develop and implement a culturally and environmentally responsive curriculum. The success of the reform is attributed to factors such as the nature of the reform advocated, government commitment, external assistance, community-based actors, college lecturers and students, and school teachers. Some teachers were critical, and identified factors that impeded the reform. The study concludes that in spite of the progress realized, it will all be futile unless the national government demonstrates willingness and ability to sustain the reform with material support and continued emphasis on training and monitoring. The lessons learned from this study are not only crucial for the reform under investigation, but for similar planned educational changes in developing countries, including Trinidad and Tobago.

Introduction

This paper is an interpretive study of planned educational reform in Sierra Leone. The reform studied is the "National Dissemination of an Innovative Primary School Curriculum Adapted to the Local Environment," a project initiated in 1985 by the national government to repudiate the Eurocentric colonial education model. This model was viewed not only as grossly inadequate but predominantly formal, mainly directed toward grammar-type secondary education and, subsequently, the university (Sierra Leone Government, 1973).

The study's main objectives were to decipher teachers' perceptions of the innovativeness of the reform, and to determine the factors that foster and constrain implementation. Three main sources of information were used for the study. Theoretical and empirical literature on

educational reform in general, and the National Dissemination Project in particular, were analyzed. Interviews were conducted with elementary school teachers and lecturers of teachers' colleges involved in programme implementation. Concurrently, classroom activities were observed in 14 local elementary schools, as well as instructional forums in one teachers' college. The intent was to move to address the study problem articulated in the following section.

Situating the Problem

Sierra Leone is a small country on the west coast of Africa with an area of approximately 28,000 square miles. It is endowed with rich mineral deposits, fertile agricultural land, and an abundant amount of offshore fishing (Zac-Williams, 1993). In 1989, the population was estimated at 4 million comprising 15 ethnic groups (World Bank, 1989). Since the country's attainment of self-government in 1961, education has been a focus of social reform. Based on policy initiatives outlined in the national development plans of 1974/79 (Sierra Leone. Government, 1974) and 1981/86, the White Paper on Education Policy (Sierra Leone. Government, 1970), and the United Nations Development Programme (UNDP) country programme for Sierra Leone for 1973/76, there was a determined effort on the part of the government to provide alternative education programmes to repudiate the Eurocentric colonial model that was viewed as elitist and alien to the country's socio-economic realities. The shift from colonial ways of thinking to incorporating local culture in education programmes culminated in 1974 in the inception of the Bunumbu Pilot Project, "Training of Primary School Teachers for Rural Areas," to achieve the objective of rural transformation through education. This move was consistent with development in other parts of the continent and in developing countries in general.

Policy makers in many African countries had continued to express disillusionment with imported Western models of schooling, and sought to adopt alternative approaches designed to promote rural development, particularly the integration of agricultural, vocational, and technical training into general primary, secondary, and teacher education programmes (Nyerere, 1968). Tanzania took the initiative in 1967 with a new philosophy, "education for self-reliance," that served as a source of inspiration for several African countries. The 1970s witnessed educational reform in many African countries with the primary objective of rural transformation through teacher education.

Uganda joined the bandwagon with an educational philosophy, "Namutamba," which aimed to train teachers capable of assisting farmers to develop the idea of cooperative farming utilizing productive agricultural skills and techniques. "IPAR BEAU" in Cameroon was conceived and actualized with similar objectives in mind. Burundi, Kenya, Ethiopia, Liberia, and many other African countries propagated similar educational philosophies tailored to the needs of the rural sector.

The decades of the 1960s-1980s witnessed educational reform in other developing nations. In all these cases, interest in educational innovation stemmed from a genuine recognition of major deficiencies and weaknesses in the existing education systems. The attractive political symbolism of reform has undoubtedly led many countries, states, and international development assistance agencies to devote substantial resources to the promotion of innovative programmes in education (Bock & Arthur, 1991).

Between 1960 and 1990, the U.S. Agency for International Development (USAID) and the World Bank Group provided assistance to 315 educational projects in Latin America and the Caribbean, with a view to transforming the education systems to make them more relevant to the socio-economic needs of these nations (Valverde, 1994). In the 1980s, USAID, through the IEES (Improving the Efficiency of Educational Systems) Project provided technical assistance, and research and development resources to eight developing nations: Botswana, Haiti, Indonesia, Liberia, Nepal, Somalia, Yemen Arab Republic, and Zimbabwe (Bock & Arthur, 1991). Similar developments under the Overseas Development Administration (ODA) resulted in the inception of the Andhra Pradesh Primary Education Project (APPEP), which constituted the largest intervention in the provision and conduct of primary education in a developing country then funded by the ODA (Lacey & Cooper, 1993).

Arguably, the substance of these educational reforms appear remarkably similar. In general, they are characterized by common themes: a shift from the access and equity force in the 1960s and 1970s to a new concern with quality and excellence; an increasing call for educational decentralization and localization; and a growing stridency in the demand for reforms that actively seek greater efficiency in the allocation and use of educational resources.

The clarion call for quality and relevance in curriculum has been influenced, among other things, by the aggravated situation created by school-leaver unemployment. The dream of "qualified" school leavers to gain access to employment in the modern sector has remained unfulfilled. School-leaver dissatisfaction with lack of access to the work force has led to persistent questioning of the relevance of the school curriculum. It has also led policy makers to believe that the frustration of young people will be overcome, and their willingness to participate in the life and work of their home communities ensured, by the provision of more relevant programmes (Fafunwa & Aisiku, 1982; Sifuna 1991).

The question of relevance has generally been raised with regard to all levels of the education system, but with a stronger focus on the primary sector that provides schooling opportunities to a greater majority of the population. There have been repeated suggestions that the education delivered by the primary schools must be complete education in itself, and must not continue to focus on preparation for secondary school and, subsequently, the university (Fanon, 1968; Nyerere, 1968). The primary school is expected to abandon its traditional role of restricting itself to offering education in the basic skills of reading, writing, and arithmetic, and in general subjects required for the entrance examination to secondary school. It has to identify and satisfy the basic needs of the community; demonstrate the value of practical, vocational, technical, and community-oriented education and, in that way, counteract the alienation of learners from reality.

Dei (1993) points out that only few scholars today would deny that colonial education in Africa was Eurocentric, and ignored the achievements and contributions of indigenous populations and their ancestries. Colonial education, for the most part, did not cultivate the African student's self-esteem and pride. Dei (1994) further argues that Western education and research are alive and well, and continue to distort, misappropriate, and misinterpret African peoples' lives and their subjective experience; a situation that is adding to a long history of Euro-American dominance of what constitutes valid knowledge, and how such knowledge has been produced and disseminated internally and internationally.

Afrocentric and other forms of progressive discourse maintain that certain questions have to be asked about educational texts in Africa, the messages (images) being portrayed by the texts and instructors in

schools, and the current state of research being conducted on the continent (Asante, 1991; Dei, 1993, 1994; Watson, 1994). Certainly, in both Francophone and Anglophone Africa, virtually all books and technical and scientific journals are published in French and English, and the governments of the countries have opted for French and English as the official languages. Watson (1994) describes this as "linguistic imperialism," and concurs that there is little doubt that where the dissemination of information and knowledge, especially technical, comes through textbooks produced and controlled by Western companies, there is a form of knowledge dependency.

Banya (1991), Bockarie (1988), Lewally-Taylor (1993), and Smart (1993) take up the issue, pointing out that colonial education has continued not only to be irrelevant but also to alienate the learner from reality. The system is accused of failing to serve the needs of the people; rather, it perpetuates white, ethnic, and patriarchal hegemonies and class biases. The intent of colonial education was to provide Africans with basic knowledge and skills to enable them to earn a living in a European's world, and help sustain the colonial economy and administration (Banya, 1993; Erny & Wanjohi, 1981; Fafunwa & Aisiku, 1982). The education system has further been accused of helping to develop an elite group of Africans who have acquired attitudes, values, and interests consistent with those of the colonial masters (Amin, 1990; Nyerere, 1968; Watson, 1994). Since colonial education was tailored to a selected few, Quist (1994) has observed that illiteracy continues to be a major drawback to accelerated and balanced national development for West Africa in particular, and sub-Saharan countries in general. He asserted that the illiteracy crisis has continued to be a serious problem for all these countries. Attempts to reverse the situation through education, so as to aid and ensure sustainable national development have been futile due to insurmountable obstacles.

It is obvious that the rural areas are disproportionately affected (Fafunwa & Aisiku, 1982; Nyerere, 1968). With a comparatively higher population growth rate, rural areas continue to experience a phenomenal increase in school dropout. Quist (1994) points to the dropout phenomenon as an endemic problem among students in West Africa, which has continued to create disparities between the rural and the urban sectors. Although education facilities and accompanying job opportunities remain inadequate in the cities and towns, most of the rural communities that harbour a greater percentage of the populace

fare even worse. This persistent neglect has triggered rural-urban migration, with people converging on towns in search of jobs to escape from a life of deprivation, fraught with illiteracy and ignorance, disease, malnutrition, and poverty (Bockarie, 1988; Smart, 1993). This exodus of people is usually accompanied by social and economic repercussions, ranging from a high crime rate to drug abuse, prostitution, low agricultural production, congestion, and the perennial problem of unemployment. Banya (1986) observed that this rural-urban drift has created serious economic, demographic, educational, social, and political problems for the government of Sierra Leone. This nightmare situation has served to sensitize the government to the need to start thinking of solutions to the problems of the rural poor.

In spite of the seeming improvement in the illiteracy figures for some countries in recent years, the situation becomes striking when compared with European countries such as Germany, Switzerland, and Norway, and with Canada and Japan. This highlights the fact that while these countries recorded zero percentages for their overall illiterate population in 1990, the figures for West Africa and the sub-Saharan region were phenomenal. It is against this background that the Sierra Leone Government, in collaboration with UNDP/UNESCO, decided to initiate the Bunumbu Pilot Project, "Training of Primary School Teachers for the Rural Areas," to address the inadequacies of the education system, and to attempt to grapple with illiteracy and reverse the trend of increased rural-urban drift by improving the quality of life through education (Sierra Leone. Government, 1973).

The vision for the education system called for the training of a new breed of teachers who would serve not only in the classroom, but also as community developers and adult educators, sensitizing and empowering community members to be self-reliant (Rakotomalala, 1977). The reform had three components: teacher training, primary school curriculum development, and community and adult education. Community leaders and members were to attend teachers' college in order to acquire income-generating knowledge and skills by participating in community development workshops, adult education and outreach programmes, and pilot school-development programmes for the improvement of their living conditions. The project was launched with a three-year Higher Teacher Certificate programme that would run concurrently with the Teachers' Certificate programme already in progress.

Evaluating and monitoring reports (UNDP, 1983, 1984) reveal that the reform was a success. The successful implementation of the pilot phase of the reform encouraged the government to undertake nation-wide dissemination. Since dissemination commenced in 1985, the research base of the reform programme has been scant and no comprehensive research literature has emerged. The few studies by international "experts" commissioned by donor agencies, often unfamiliar with the goals of the reform, have used criteria that are exogenous to the circumstances of the reform. The problem is evident in the short-term visits to the study sites, the trivializing of the role of rural community-based actors (an important stakeholder group in the reform), and their heavy dependence on secondary data. The effect of all this is that the intended outcomes of the reform have not been fully researched and, without adequate monitoring of all its components, the reform is likely to fail. Pratt (1994) observed that curriculum and instruction could improve only if there is a flow of meaningful information about the programme available to those responsible for its revision and delivery. It was primarily to address this problem that this study was formulated.

Purpose

The study had two purposes. First, it discusses the perception of teachers about the innovativeness of the reform programme, and then it explores the factors that foster and militate against implementation.

Literature Review

The research drew on a large body of theoretical and empirical literature on implementation studies. This review touched on the contribution of material from a variety of fields including cultural studies, curriculum implementation studies, and sociological and anthropological studies so as to provide an understanding of the topic, and to illustrate how these materials are interrelated in the context of this study. Much of the material on the relationship between context appreciation and implementation has been drawn from research in cultural studies, with a view to understanding the role culture plays in the success or failure of educational reforms. Information on the teacher as a critical factor in educational reform has been drawn from the field of curriculum studies, and that on the role played by environmental factors in learning outcomes has been drawn from studies in sociology.

In establishing the relationship between culture and educational innovation, Geertz (1973) makes the case that the need for cultural awareness in implementation studies has been widely documented. Lortie (1975) and Sarason (1982), however, maintain that in spite of the abundance of information, educational planners tend to neglect the potency of cultural factors in fostering or inhibiting implementation programs. They hold the view that culture is nearly always lacking in the discussion of curriculum studies, as well as any kind of systematic attempt to analyze the cultures before a solution is prescribed. These scholars postulate that an understanding of culture and reality is an important first step in curriculum planning and implementation. Lawton (1983) underscored this view, stating that what is put forward as cultural analysis turns out to be no more than an individual's idiosyncratic judgement about the most worthwhile activities on which schools should concentrate.

Olson (1985) has argued that in order to be adopted, a practice must be seen as consistent with the receiver's personality and way of doing things. This view is emphasized by Wojciechowska (1989), who wrote that all educational change is cultural change, and that the fact that educational institutions have not changed significantly in relation to the technological culture can be explained by examining the situation through cultural lens. These scholars believe that to assume that an innovation is transparently clear to all is to fail to appreciate the cultural embeddedness of meaning, and the extent of difference between the cultures to which innovations and teachers usually belong. The culture of society is a central factor in determining how new ideas will fare. There is consensus in the literature that the degree of rejection or adoption of an educational innovation depends on whether it is consistent with or alien to the receivers' culture.

Apple (1990), Argyris (1982), Giroux (1989), Goodlad (1984), and Sarason (1982) suggested that these cultural characteristics of school must be considered when attempting to implement innovations. They argue that insight into the nature of culture sensitizes an innovator to cultural influences on implementation. Education itself, they believe, is unquestionably a cultural process; an instrument by which cultures survive and develop. Because of this, an innovator's understanding of the processes involved in learning a cultural tradition (enculturation), and of modification of one culture as it comes in more or less continuous contact with another (acculturation), are vital to the success or failure of an innovation. Although these assertions sound logical, these

scholars have failed to identify the specific cultural elements that need to be addressed when planning educational reform. Nonetheless, they rightly stress the importance of cultural knowledge as a prerequisite for the success or failure of an innovation.

Drawing on implementation research from curriculum studies, Fullan (1991), for example, states that there are 15 crucial variables that most influence implementation, a neglect of which would impair the change process. He identified these variables as follows: needs and relevance of the change, clarity of the change, complexity of the change, quality and practicality of the programme, the district's history of innovative attempts, the adoption process, district administrative support, staff development and participation, time-line and information systems (evaluation), board and community characteristics, role of the principal, teacher-teacher relationship, teacher characteristics and orientations, government agencies, and external assistance.

Critics of the Fullan model, including Apple (1990), argue that the model reflects a systems approach that is highly bureaucratic. Earlier publications, Lortie (1975) and Sarason (1982), advocated another approach that has dominated implementation studies. The ecological discourse takes a more sensitive view of teaching conditions and of how teachers' situations determine what they do. They stated that if one properly appreciated the complex social and technical situation of teachers, one would be in a position to make good policies for change. In the ecological discourse, environmental factors that constrain teachers should be altered to allow them to achieve their potential. Critics of the systems and ecological views see teachers controlled by external factors--in the first case, by plans of the system and, in the second, by environmental factors that shape behaviour. Pointing to the flaws, they identify an alternative: the reflexive conception that retains the moral agency of the teacher in the process of change, and addresses the sensitivity to the practical dilemmas faced by teachers. This view assumes that teachers act rationally and generally tend to effectively resolve problems that confront them, but are not always conscious of how they do these things. Connelly and Clandinin (1988) used the term "personal practical knowledge" to emphasize the teacher's knowing of a classroom. Also, the works of Elbaz (1983), Munby (1986), and Olson (1980) provide valuable insight into the role of teachers as reflexive experts. Although the reflexive theory sounds logical, it can be criticized on the grounds that it is reductionist and narrow in outlook,

failing to take into cognizance other situational variables that are crucial to reform projects.

Since the 1960s, the diffusion model has been applied in a wide variety of disciplines such as education, public health, communication, marketing, geography, general sociology, and economics. Diffusion is the process by which an innovation is communicated through certain channels, over time, among the members of a social system. Diffusion is a special type of communication concerned with the spread of messages that are new ideas. The four main elements in the diffusion ideas are the innovation, communication channels, time, and the social system (Rogers & Scott, 1997).

The essence of these theoretical approaches is their exploratory powers as heuristic devices for understanding change processes, not only in developed countries but in developing nations as well. In search of theoretical approaches to understanding educational innovations, this study considered the Fullan model as the framework for understanding the process of innovation. The research was designed as an interpretive study, and interviews, observations, and documents were selected as appropriate data sources. I felt that qualitative methods were best suited to capture the lived experiences of teachers of the reform. While documents and observations served as appropriate data sources, the study relied heavily on interviews.

Sampling and Selection of Participants

Participants selected for the study were mainly primary school teachers. Purposive sampling--a strategy to choose small groups or individuals likely to be knowledgeable and informative about the phenomenon of interest (McMillan & Schumacher, 1989)--was used in selecting teachers for interview; all heads of departments were included. A total of 112 teachers (53%) were identified for the study from 14 elementary schools with teachers who are graduates of the reform.

Interviews

Interviews were conducted in a variety of settings with each interview lasting for about an hour. Some of the interviews were conducted in the schools of the participants, but because of the interruptions during school hours it became appropriate to conduct the interviews at home.

The majority of participants were interviewed on two different occasions in order to further clarify issues that remained unresolved during the first interview. All of the interviews were audio-taped. Most of the interview questions were open-ended in order to solicit frank and honest opinions from participants. After each interview was completed, some time was devoted to transcribing the information as an initial data analysis procedure.

Documents

Key documents that outline the philosophy of educational reform in general, as well as the reform under investigation, were identified, collected, and analyzed. The main project office in Freetown, the Institute of Education, the University of Sierra Leone, and personal collections of project staff were the major sources for these documents. I spent a few hours each weekday with the staff of the project pilot schools who have been involved at different stages in project planning and implementation. These project personnel were useful in identifying relevant documents for the study and these included: project proposals, position papers, evaluation reports, speeches by key project personnel, seminar papers, and so on.

Data Analysis

As a first step in the analysis, I listened to and made notes on the interview data. Some of the interviews were transcribed while I was still in the field. The data transcribed by hand were transferred on to floppy computer disks, which made for easier access and manipulation. The transcripts of interviews were coded, categorized, and ordered to decipher emerging themes and patterns.

Analysis consisted of moving data from category to category looking for commonalties and differences within the categories. The data were arranged and rearranged until some measure of coherence became evident. At this stage, all the categories were brought together to identify links that existed between them. From time to time, I drew back from the analysis in order to reflect upon it. After some time had lapsed, I returned to the analysis with a fresh outlook. Kirby and McKenna (1989) wrote, "this is the time to be objective about your subjectivity." As the categories became clearer, themes and patterns emerged from the data and these were merged together under appropriate headings.

Findings

The study's findings were in the area of the innovative features of the reform, and the factors that foster and militate against programme implementation. Teachers' perception of the innovativeness of the reform are organized according to the features they mentioned: content matter acquisition, skill development tasks (SDTs), student practicum and school-community integration, and integration in task operation. Other participants were critical and identified several factors that are impeding the reform. Interestingly, the participants perceived the extent of the innovativeness of the reform differently.

Content Matter Acquisition

Observations in the field revealed that the training of teachers took various forms. In addition to the field exposure component, both at the Teachers' Certificate and Higher Teachers Certificate levels, college-based learning through lectures, tutorials, and individual and group task engagements were observed to be taking place. Some teachers perceived the content of the training programme as culturally attuned and, therefore, innovative, while others were sceptical about this attribute. Fatty (for the sake of anonymity, all participants' names in this study are pseudonyms) sees the content matter as innovative:

Before now, students learned about the Queen of England, the polar bear, the London Bridge and these had no bearing on their lives. The reform has ensured that students learn things that are relevant to their society and has utilitarian value.

Fatty's perception of innovation is based on the reform's local content. Provision in the curriculum for local consideration and cultural familiarity was a significant factor in determining the respondent's perception. Several other participants expressed this view. However, other participants viewed this attribute negatively because they failed to see the relevant and potential usefulness of the reform. Joe, a Class 3 teacher of the reform holds the view that:

The reform serves the interest of elites in the Ministry of Education who are working to develop an underprivileged class of rural people by providing them with an education to serve as

Europe's small farmers. I'll prefer my child to go to university and become a doctor rather than work on farms and dig wells.

The contradictory views clearly show the mixed feelings with which the reform is perceived. It is evident that Joe, like many other participants, failed to relate to the cultural issues portrayed by the reform and, rather, sees a hidden elitist agenda.

Skill Development Tasks

Another attribute of the reform that some teachers perceived as innovative was the skill development tasks (SDTs). In teacher training, it was the major focus of the first year. SDTs were undertaken to remedy weaknesses in students and most of the tasks were oriented towards manual work. Some participants of this study viewed SDTs as meeting the reform's intent of enhancing both the practical experience of students and the concept of manual work and productivity. Allie, another participant stated:

The project designers thought of the relationship between the project graduate and the labour market. They made sure that trainees acquired skills that will be useful to them if they were self-employed. Subjects such as practical arts, physical and health education, home economics, agriculture, community development studies were made part of the curriculum.

Allie reveals the practical and manual work orientation of the reform. Many of the participants reported that the introduction of courses like agriculture, practical arts, and community development was to underscore the concept of manual work. Curriculum of this type is believed to be required for training teachers for the rural areas to enable them to be productive and self-reliant.

Student Practicum and School-Community Integration

Key project documents reported that the reform was originally designed to train teachers as community developers. Student practicum in project communities was, therefore, an important aspect of their training programme. To accomplish this intent, students engaged in a host of community development activities. Commenting on this aspect of the reform, Alpha, a Standard 5 teacher said:

Teachers are trained to develop skills that would be used in the primary schools as well as for community development. They are supposed to be engaged in the teaching of adults to read and write. They teach them new farming skills, introduce them to improved livestock, fishing techniques and initiate community development projects. They are expected to serve as links between the communities, development agencies, and government.

Several other participants of the study viewed the teacher-training programme as adequately preparing teachers for their multi-faceted roles. They agreed that the project is aimed, among other things, at training teachers who will not only function in the classroom but also serve as social development workers. There was also some commonality as to the demands the project makes of the teacher. The multi-faceted functions expected of the teacher in community reconstruction were perceived as an innovation in teacher education.

Integration in Task Operation

The study also found that the college programme had adopted a unique approach of integrating interrelated subject matter. This approach ensures that areas of common ground in the various disciplines are treated as an integrated whole. In each instructional unit, there are indications of the bearing each unit has on the other. Dialogue with Kofi, a project implementer revealed that:

This is one of the beauties of the project. The curriculum does not only deal with topics that are relevant to society, but also ensures that subjects are taught as interrelated disciplines because in real life situations, one has to deal with issues in an interrelated manner. The curriculum ensures that links are established.

While there appeared to be agreement among some participants about the integrated nature of the reform, others expressed scepticism about its implementation. Some participants raised concerns about the difficulty of integration, which forced them to adopt alternative strategies such as team teaching, mixed ability group activities, and tutorials. The practicality, viability, and potential usefulness of these suggestions were very striking. However, the difficulties associated

with integration have the potential of influencing successful accomplishment of project outcomes.

Leadership Orientation

Leadership training is perceived as one of the innovative aspects of the reform. In addition to their classroom practice, pre-service teachers and project graduates are expected to assume leadership roles in the schools and communities. Lahai, a graduate of the reform shared his views as follows:

The programme was designed to train teachers who will, among other things, lead and direct the schools and communities. Students are trained to become master teachers to provide assistance to fellow teachers to improve their classroom performance. This is considered one of the paramount activities in the training programme.

Lahai, like other participants of the study, perceives the reform as leadership oriented. They revealed that student's activities during training, both on campus and in the communities, reflect this attribute. This is indicative of the roles they play as group leaders, secretaries, initiators, planners, and directors.

Factors Fostering and Inhibiting the Reform

Another significant finding related to the personnel, organizations, and factors that contribute to the reform and how the participants perceive them. While some participants perceived these institutions as adequately contributing to the enhancement of the reform, others were critical of their roles.

Government of Sierra Leone

Some participants perceived the Government of Sierra Leone as an important stakeholder institution in the life of the reform. The Ministry of Education, the Institute of Education, and the University were perceived as the institutions of government that were providing for the sustenance of the reform. Emma had this to say:

Apart from international donors, the government, through the Ministry of Education, has provided the bulk of the finances to sustain the reform. In fact, the project is the baby of government and it has done every thing it could to see it grow

Emma's views about the government of Sierra Leone were shared by many of the participants of this study. The provision of financial and material support, and the constant training and monitoring of project activities were perceived as prerequisites for the sustainability of the reform. However, others were critical of the government, as Joe's interview illustrates.

Government bureaucracy is adversely affecting project implementation. Its inability to meet its commitments on time has caused considerable delays in accomplishing a number of the intended outcomes.

Joe was not alone in perceiving bureaucratic government procedures as an impediment to project implementation. Some participants made reference to the activities of critics of the reform within the Ministry of Education who drag their feet on project matters. Jabbie, another schoolteacher, also raised the issue:

Some Ministry of Education authorities in urban and semi-urban areas consider the content of the programme demoralizing and inferior for their children. They feel the school system should be left as it is and they continue to oppose the philosophy of the reform.

Jabbie reveals that in addition to delays by the government in fulfilling its commitment, some officials are not receptive to the philosophy of the reform. This unfavourable disposition on the part of some government officials accounts for the lukewarm reception accorded the reform in some government quarters. This is striking because government commitment is essential for the success of a reform of this nature.

External Donors

Project documents and interviews revealed that since the inception of the reform, assistance has come from a number of external sources. UNDP and UNESCO have not only provided project personnel but they

were also instrumental in the formulation of the reform. Some participant of this study had a favourable perception of external donors for their assistance although others were critical of their role. Commenting on the role of external donors, Sammy, a Standard 3 teacher said:

Assistance has come from a number of external sources such as the CRS, British Council, World Bank, and African Development Bank. . . but the UNDP/UNESCO is second to none. Continued interest and support from these groups puts the project in an advantageous position.

Sammy's extract points to donor agencies as adequately assisting with project implementation. In addition to financial and material support, expatriates give advice and provide direction to the reform. Although several donor agencies were perceived as catalysts in the reform, UNDP and UNESCO were unquestionably the key players. However, others hold the view that donor agencies were adversely affecting the implementation of the reform. Sam, another participant commented:

The goals of the reform are still not clear to some of its implementers. Each Chief Technical Adviser has brought his biases to the project. Individuals at different times have affected the reform differently depending on their orientation. Therefore, the reform has not received uniform development across all fronts.

Sam problematizes the role of expatriates as adversely effecting project implementation. Because each expatriate comes with different conceptual baggage, this gave different directions to the reform thereby affecting implementation in a holistic manner. Other participants expressed concern about the frequency with which expatriates were replaced and the cost of their services. Participants pointed out that some expatriates had to be recalled almost as soon as they arrived, and their exorbitant salaries and remuneration was viewed as a drain on project resources.

Community-Based Actors

Since the reform is rural transformation, students interact with the community on a regular basis. Community leaders, members, and craftsmen provide assistance to students with their practicum and

research activities. These actors were perceived favourably by the participants of this study. Betty, a student teacher, testifies that:

Community leaders and members have been a driving force in the accomplishment of the reform. In the initial stages of the reform, they were involved in needs assessment and their contributions were marvellous. They provided free land and labour for the construction of new school buildings. They are a part of the life of the project.

Community-based actors were perceived as adequately contributing to the enhancement of the reform. Their contributions were considered enormous and, therefore, a moving force in the successful implementation of the project.

College and Pilot School Teachers

Teachers' College lecturers and pilot project school teachers were also perceived favourably by participants of this study. Commenting on their roles, Sally, another student teacher said:

College lecturers and pilot school teachers should be commended for their dedication, patience, and commitment to the reform. Their sacrifice is enormous considering that the rural areas is not the best of places to live.

Sally, like many other participants I spoke to, views college lecturers and pilot school teachers with favour. They were perceived as an important link whose roles range from classroom teaching to participation in community development activities.

Competing Curriculum Materials

The study found out that the curriculum package provided to the project schools competed with other curriculum materials already in use in these classrooms. The distribution of textbooks by the World Bank and the British Government (IDA/ODA) influenced the use of the project package. It appeared that the project materials were losing ground, as expressed by comments from Musu, an elementary school teacher:

We use project materials together with other materials for teaching. Since the arrival of the ODA books, we have

concentrated on their use because they have beautiful pictures and objects followed by the names.

This view was prevalent among the staff of the pilot schools, and the uneven distribution of project instructional units to the pilot schools compounded the problem. It was observed that an insufficient supply of instructional materials in some pilot schools appeared to have militated against implementation. Teachers' commitment to using other materials was dictated by the unavailability to project instructional materials in the schools and the appealing nature of the competing packages.

Greater Professional Demands on Teachers

Teachers reported that the highly diversified curriculum demands a lot from them. Some teachers expressed concern about insufficient time for meeting the demands of the reform. According to one teacher, Adu:

The time allocated for arts and crafts cannot allow a full session to be organized. If the timetable is adjusted, the pupils will perform well because more time is necessary as the units involve experiments, fieldwork, writing, etc.

Adu, like most of the teachers in this study, sees a mismatch between the teaching load and the time available. For teachers to operate effectively, there is need for balancing between the increased workload and the amount of time required to accomplish project objectives.

Incentive to Teach

The salaries of teachers in the pilot schools were unreasonably low. Even more alarming, however, was the irregularity in salary payment, about which teachers complained bitterly. In some cases, salaries were in arrears for months. As a result, some teachers reported indifference to the reform and reported being engaged in other income-generating activities to supplement their income. As one teacher reported:

Since I started teaching in this school, I have not been paid for close to five months. I'll quit teaching at the close of this term.

Most other teachers in the study claimed that teaching is not a lucrative profession and complained about salary delays. This

situation, which was prevalent in the schools, affected the amount of time teachers devoted to project activities.

Inadequate Training of Project Personnel

The study also found that the participants viewed inadequate training of implementers as an impediment. Jusu, a Class 1 teacher reported that:

Some of the implementers have little or no formal training to enable them to effectively implement the new ideas. Most of the project implementers are products of the elitist education system and for them to be effective, they should receive in-service training in project implementation. However, some have not had such training at any time.

The need for adequate training of project personnel is viewed as inevitable for effective implementation. The data confirmed that although this is done, some project implementers require further training and/or in-service training if they are to adequately contribute to project implementation. Respondents also expressed concern over the dogmatic resistance by university professors who serve as external examiners to receiving orientation on the reform. Participants of this study viewed the paternalism and sheer sense of arrogance displayed by the professors with disfavour.

Rebel Crisis

Participants perceived the rebel incursion into Sierra Leone from neighbouring Liberia as the most devastating episode in the life of the reform. Dissatisfied with the Economic Community of West African States for sending a peace-keeping force from Sierra Leone into Liberia, where civil strife had raged for more than one year, the Liberian dissidents, under the leadership of Charles Taylor, decided to destabilize the West African sub-region. Against this background, the eastern and southern provinces bordering Liberia were reportedly invaded. One of the student participants, Kobina, commented on the effects this crisis has had on the reform:

The rebel activities are unprecedented. Since the invasion started, life has been at risk. We understand that the rebels use

the college campus as camp. This had completely devastated project activities.

Implications of Findings and Recommendations

This study revealed that substantial progress has been realized in the attempt to develop and implement a culturally and environmentally responsive curriculum. Some participants viewed the reform as innovative and successful, and they attributed success to factors such as the nature of the reform advocated, government commitment, external assistance, community-based actors, college lecturers and students, and pilot school teachers. Other participants were critical, finding several factors that militated against implementation.

Literature on implementation indicates that implementers have often been influenced in their activities by the nature of the reform. If they do not see the need for the change that is being advocated, are not clear about what they ought to do differently, and find the materials either impracticable or unavailable, the extent of implementation will be affected (Fullan, 1982, 1991). The data in this study revealed that some project personnel are convinced about the need for change because of the nature of the reform that is advocated: its cultural responsiveness, manual work orientation, integrative nature, and leadership orientation. As the data show, this positive attitude toward the reform is believed to have emanated from lack of confidence in, and dissatisfaction with, the earlier educational practice that was perceived as elitist and far removed from the problems of society. The discrepancy between the earlier practice and the reform under investigation constitutes a major factor dictating change. The fact that some of the participants viewed the reform as pertinent and the objectives as clear, positively influenced their ideas about change.

The participants seem to carry high expectations of the reform because of its culturally oriented nature. The study suggests that the reform serves to provide answers to the problems of education in Sierra Leone. The success accorded the reform could be found, amongst other things, in the nature of the package and involvement of teachers on curriculum development committees, an idea Fullan (1991) described as helpful but not sufficient. He wrote that: "Perceived relevance of products is correlated significantly with extent of implementation. Implementation is more effective when relatively focused or specific needs are identified." Moreover, some participants of this study agreed

that the goals were clear. It is obvious that if curriculum reform is to be successful, clarity of goals to implementers is a necessary prerequisite. The study found that clarity of intended outcomes is germane to the success or failure of an educational innovation. Fullan's view that the nature of a reform and clearly defined goals are important prerequisites for educational innovation is upheld by the data from this study.

The data pointed to a number of societal forces affecting project implementation. The Sierra Leone Government's Ministry and Institute of Education, and the University of Sierra Leone were perceived as the main institutions through which specific policies and programmes are proposed. Since the Government of Sierra Leone conceived the reform, it was the view of the participants that the chances of success and the sustainability of the reform came to depend on how supportive the Ministry and Institute of Education were in providing guidelines for implementation. There is ample evidence from the study to determine commitment on the part of these institutions of government to sustain the reform. Reference was made to the provision of financial, material, logistical, training, and monitoring activities. However, the data increasingly pointed to government bureaucracy as adversely affecting project implementation. It was confirmed by some of the participants that tedious delays by government in fulfilling its commitment, coupled with the unfavourable disposition to project philosophy by some government officials, proved counter-productive to the outcome of the reform. For instance, respondents mentioned irregular payment of salaries, allowances, and remuneration. These delays, the participants confirmed, had triggered teachers' strikes on numerous occasions. Fullan (1982) described such practices by government officials as "dogmatic resistance to change." He further stated that the chances of success of innovations in education depend, among other things, on how supportive the Ministry is in providing guidelines for implementation. It is appropriate to conclude that government support is crucial for the success of educational innovations.

Participants in the research identified other external organizations that have had significant impact on the reform. Although the role of the University in providing examiners and evaluators was acknowledged by some participants, others expressed scepticism and perceived this role with disfavour because of the resulting itinerant supervisory function that allowed examiners to see only disjointed segments of the programme, and because of their reluctance to receive orientation relevant for an innovation of this nature. Fullan (1991)

warned of this when he wrote that evaluation and monitoring progress is probably one of the most difficult and complex strategies for change to get right. It is frequently misused or not used (p. 87).

External donor agencies like UNDP, UNESCO, the African Development Bank (ADB). The World Bank, and the British Council were endorsed as having discernible effects on implementation. These donor agencies were perceived as providers of material and financial support, training, and monitoring that were considered useful to allow implementers to achieve their potential. However, the data revealed problems associated with such assistance. The study points to the frequent replacement of expatriates, coupled with their biases and limited strategies and knowledge about the overall objectives of the reform, as counter-productive.

Participants favourably perceived the role of college lecturers and pilot school teachers. Data from the study revealed their commitment to, and interaction with, each other in their pursuit of project objectives. College lecturers and teachers were reportedly involved in a host of activities ranging from classroom teaching to community development activities. Their contributions were reportedly beneficial to students and the reform in general. They were viewed as a crucial link in the reform because of the important roles they played in the chain of activities. Connelly and Clandinin (1988) endorsed the significance of teachers in implementation programmes when they wrote that change involves resocialization and interaction between and amongst teachers, which is the primary basis for social learning. New meaning, new behaviour, and new skills depend significantly on whether teachers are working as isolated individuals or exchanging ideas, support, and positive feelings about their work. However, when teachers were subjected to critical scrutiny, the result was that their crucial role in the life of the reform demanded constant training and retraining to provide them with the right frame of mind to effectively contribute to implementing project objectives. It was discovered that some of the implementers were inadequately prepared for the complex roles of the reform, and some required in-service training to upgrade their professionalism.

Fullan (1991) stresses staff development as a central theme related to change in practice. He maintained that the amount of training of staff is not necessarily related to the quality of implementation, but it can be if it combines pre-implementation training with assistance during

implementation, and uses a variety of trainers. One-shot workshops prior to and even during implementation are not very useful. Research on implementation has demonstrated, beyond a shadow of a doubt, that these processes of sustained interaction and staff development are crucial regardless of the intent of the change.

A serious problem identified by the study is the high mobility of project graduates to urban centres in search of better opportunities. Since no policy has been formulated to retain graduates in rural schools, there is evidence to suggest that some of the teachers prefer taking up appointments in the cities and towns, which is contrary to the overall objectives of the reform. It is extremely important that for innovations of this nature to be effective, attention should be given to the retention of project graduates.

Rebel incursion from neighbouring Liberia, which was triggered by Sierra Leone's effort to put an end to the civil strife in that country, was perceived as a serious impediment to the reform. There was concern among participants as to the devastating effects of this crisis on project implementation. Most of the project activities were reported to have come to a temporary halt. This unseen crisis was perceived as the most serious problem encountered by the reform. Social and political stability, therefore, is essential for the success of an education innovation.

Research findings indicate that substantial progress has been made by the reform. The "grassroots approach" to curriculum development employed by curriculum designers was found to be particularly useful for programme implementation because it made use of local considerations. This approach rendered the reform meaningful and, therefore, earned credibility among implementers. The implication of this approach is the importance of getting implementers involved in curriculum design early in the process rather than relying exclusively on officials from the Ministry of Education, the university, or some exogenous curriculum design team. This practice indicates that if curriculum reform is to be given the desired attention, implementers should be involved early in its design.

To sustain the viability of the reform, teachers underscored the need for continued government support by way of financial and material resources, and continuous training and monitoring. The study revealed that more attention should be given to the provision of quality teaching

materials and aids to allow for successful implementation. Continuous revision of curriculum materials and training in their use was seen as critical for the overall success of the reform. In sum, curriculum reforms are likely to succeed if adequate attention is given to the provision of resources and training in their use.

The study also discovered that the reform is innovative and utilitarian in value. Emphasis on rural technology, skill development tasks, and practical arts was viewed as an innovative and useful feature of the reform.

It was confirmed that a great deal of sensitization and awareness have been created among the schools and communities. Indicators of this progress were observed through students' practicum in project communities and schools. Through these activities, the concept of school-community relationship has been fostered, and there is evidence of acceptance of project ideas and practices. Positive attitudinal and behavioural changes were manifested in integrated school-community development projects. These were found to have crystallized into school-community activities where college students, lecturers, pupils, and community actors collectively undertake development projects based on the felt needs of their respective communities. These activities have demonstrated to the communities that in unity there is strength.

However, the research has demonstrated that to minimize the dilemmas of implementation in this type of reform, certain conditions are deemed necessary:

1. The national government should be willing to sustain the reform through moral and material support, and constant training and monitoring. In order to accomplish this, the lingering interest and scepticism of the societal elite reflected in bureaucratic government procedures and red tape should be abandoned in favour of a concerted effort to allow for timely delivery of materials and resources, and punctual payment of teachers' remuneration.
2. The study found that the reliance on international expertise for technical and professional advice should be redefined and treated with caution. While the usefulness of expatriates cannot be underestimated, there is evidence to suggest that their services are not only expensive, but that their training is far removed from the

realities in the field in which they are expected to operate. Serious consideration should be given to understanding the implication of the role of expatriates in programme implementation.

3. Successful implementation of curriculum reform of this type requires that the package be environmentally and culturally attuned. There is evidence to suggest that implementers of the reform can function better if the package portrays these attributes.

The study confirms that the most critical factor in implementation of innovation is the school teacher. Changes will take place only to the degree that teachers perceive a potential for deriving personal satisfaction from responding to their new roles. The lessons learned from this study are not only valid for the reform under investigation, but for similar planned educational changes in developing countries, including Trinidad and Tobago.

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