

A PROPOSAL FOR A NATIONAL CURRICULUM POLICY FOR THE GRENADA EDUCATION SYSTEM

FINAL REPORT

Submitted by

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Consultant

**The World Bank/Japanese-funded Secondary Curriculum
Reform Project**

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The principals and a staff member from primary and secondary schools

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The representative from the Anglican Board of Management

INTRODUCTION

The main purpose of the consultancy was to contribute to the ongoing education reform process by developing a policy for curriculum development in general and, more specifically, to propose a policy to guide the development and delivery of the core curriculum.

Interviews, focus group discussions, and document analysis were the main sources of data. The findings in this report are presented under seven sections.

Section 1 provides background on the country – the first step usually taken in policy making. Section 2 provides a definition of policy and the factors which make inputs into its development are examined. In Section 3, features of a general policy to guide curriculum development efforts are presented. Section 4 deals in detail specifically with policy requirements for the core curriculum. Section 5 provides a formula for the scheduling of the core curriculum. Section 6 focuses on policy for literacy and numeracy. In Section 7, policy for the diffusion and implementation of curriculum innovations from the reform is examined and proposals made. Section 8 contains conclusions on the ways in which the implementation of the proposed policy will transform the education system in Grenada. It makes suggestions on the way further forward.

EXECUTIVE SUMMARY

TERMS OF REFERENCE

The overall aim of the consultancy is to assist the Ministry of Education to continue, at the secondary level of the system, the reform process begun in the recently completed Basic Education Reform Project (BERP), which focused on improvement at the primary level. More specifically, the purpose of the consultancy is to advise the Ministry on a draft policy for curriculum reform in general and a policy for the core curriculum in particular. The terms of reference also include several other subsidiary objectives of the consultancy. The work of the consultant is to help facilitate the implementation of the Ministry's Strategic Plan for Educational Enhancement and Development (SPEED). The following is the scope of services that the Consultant is required to provide:

- Review the progress to date on on-going local and sub regional curriculum reform.
- Assess the situation in each secondary school, including the number of subjects taught at lower secondary, the number of hours for each subject, teachers' qualifications, use of learning materials and methodology, instruments used to evaluate student progress for each subject and an overall assessment of the issues linked to the broad range of subjects offered.
- Develop a draft policy related to the core curriculum and optional subjects, streamlining the curriculum and establishing content for specific subject areas, including cultural areas and the introduction of business courses or the acquisition of these entrepreneurial skills.

- Propose a master timetable outlining the minimum number of hours required for each subject area in the core curriculum for lower secondary.
- Define the requirements for the effective implementation of the core curriculum, including staffing, training and materials needs and evaluation instruments.
- Propose the phasing for this process (four-year and ten-year plans).
- Develop a comprehensive draft policy to guide curriculum development in the system in general.
- Develop a policy for the core curriculum that takes account of the views on the issue expressed by the OECS ministers of education and staff from the OECS Education Reform Unit.
- Establish cost scenarios, including recurrent costs of all activities to be funded.

In pursuing the goals of the consultancy, the following stakeholders were consulted:

- Senior officials from the Ministry of Education
- Members of the Curriculum Development Unit and the School Administration and Management Unit
- Representatives from principals' and teachers' organizations
- Principals of primary and secondary schools
- Parents and students
- Some members of the public who were former professionals in the field of education.

Also, the following types of documents were examined:

- Several publications put out by the OECS Reform Unit on the progress of education reforms in the sub region and projections for the pursuit of new initiatives to 2010.
- Several substantial planning documents put out by the Ministry of Education
- Papers prepared by Ministry personnel on sub-components of the Reform Project.

The Achievement of the Objectives of the Consultancy

The following objectives were achieved:

- A review of the ongoing local and sub regional curriculum reform efforts which provided focus for the task of developing the draft policy;
- A situation analysis of the political, economic, social and other relevant scenarios to serve as a backdrop for the proposals;
- A thorough analysis of the weakness of the system as a basis for proposing solutions;
- The development of a framework for identifying societal concerns and students' needs and interests that should determine the knowledge, skills, attitudes, and values that should be catered for in the core curriculum.
- The development of a formula for putting into the same cluster, subject areas which are germane to dealing with particular societal concerns and students' needs and interests.
- The provision of a rationale for proposing a core curriculum with eight broad subject areas.

- The enunciation of a comprehensive policy to guide the development and implementation of the core curriculum.
- Formulation of a policy on curriculum development, implementation and evaluation in general.
- Formulation of a comprehensive policy on literacy and numeracy.
- Preparation of a comprehensive strategy for the diffusion and implementation of the curricula that will come out of the reform.
- The scheduling for the implementation of the curriculum reform.

It was shown that the new core curriculum proposed has implications for policy on the provision of physical infrastructure to accommodate some subjects, e.g. dance, drama and music, under the umbrella of the Creative and Performing Arts. The new curriculum also has implications for guidelines for assessment since this process could no more be confined to the use of the traditional paper and pencil tests. Subjects proposed under the new core will require students to be assessed in doing authentic tasks in authentic settings.

A master timetable was not proposed in this phase of the consultancy since it seemed premature to do so, prior to acceptance of the composition of the proposed core curriculum by those concerned. However, a detailed procedure was recommended for use to come up with a scheduling of the core subjects that will satisfy the criterion for both coverage and equitable distribution of time.

Another significant outcome of the consultancy was the development of strategies for achieving the policy outcome of moving part of the locus of control for work in curriculum development, delivery and evaluation, from the centre (the Ministry of Education) to the periphery (the schools in the district).

SECTION 1. COUNTRY BACKGROUND

The tri-island state of Grenada, Carriacou and Petite Martinique, a former British colony, gained its independence in 1974. The total land mass is 342 km². In 1999, the population was estimated to be 100,100 and is increasing at a rate of 0.6 % per annum.

The form of political organization in the country is based on the concept of liberal democracy adopted from the former mother country, Great Britain. All the features associated with this form of political organization are discernible in the practice of governance in the country.

Agriculture, once the mainstay of the country's economy has been replaced by tourism and activities in the goods and services sector. The major activities within the services sector are construction, transportation, communication and financial services. Construction is benefiting from an increase in the demand for both residential and hotel accommodation. Growth in the goods sector, i.e. agriculture, manufacturing, mining and quarrying, is sluggish. Activities in the manufacturing sector have expanded to include components production, data processing and telemarketing. However, local firms lack the resilience and competitiveness to wrest their fair market share in competition with better-run companies from the more developed CARICOM countries and international business enterprises. The bottom line is that, lacking the calibre of human resource needed for successful growth in an increasingly competitive regional and international business environment, local firms are not competing on a level playing field.

With respect to the social context, poverty is a matter for grave concern. In a poverty assessment report on Grenada, prepared by KAIRI Consultants Ltd. (1999), the phenomenon was defined as "*the inability to*

*maintain a minimal standard of living, a definition similar to one used in a 1990 World Development Report.” A measure of poverty is the indigence line. A household that lacks the wherewithal to maintain a healthy existence has slipped below the poverty line. This means that the household cannot provide the “*minimum food requirements for existence and survival*” (KAIRI Consultants 1999, p. xiii). Statistics quoted by KAIRI Consultants indicate that 32.1 % of the inhabitants of Grenada are poor in that they cannot afford the annual minimum expenditure of EC \$3,262.00 to avoid being so designated. 12.9 % of the population is extremely poor.*

According to the authors of the *Grenada Education Sector Diagnosis* (2000), the hardest hit by poverty are those who are eligible to benefit from education offered at one of the four levels in the structure of the formal education system. 56 % of those living below the poverty line are under twenty-five (25) years of age and 51 % are below the age of twenty (20). 41 % of the poor consists of children under fourteen (14) years of age. This means that poverty adversely affects learners at all the levels of the system: pre-primary, primary, secondary and tertiary.

UNEMPLOYMENT TRENDS

The authors of the *Grenada Education Sector Diagnosis* (2000), place the current unemployment figure at 12.5 %. An analysis done by KAIRI Consultants Ltd. (1999) of unemployment trends in the nineties shows that those that tend to be most adversely affected are adolescents in the 15 – 19 age range, followed by young adults from 20 – 29. Mature adults ranging from 30 – 39 years of age fare just as badly. In all of the ranges there is a much larger percentage of unemployed females than males. In almost all cases the percentage of unemployed females is more than one and a half times that of males.

EDUCATIONAL PROVISIONS

Data taken from the Government of Grenada (2002) *Education Statistical Digest* indicate that currently education is provided by a number of public and private institutions at the different levels of the system. These include day-care centres, pre-schools, primary schools, special education centres and secondary schools. The following table summarizes the numbers of these types of facilities, their enrolment figures, staffing and pupil-teacher ratios.

Table 1. Enrolment by Institution, Staffing and Pupil-Teacher Ratio

Type of Educational Institution	Number	Enrolment	Teachers	Pupil-Teacher Ratio
Day-care centres	22	361	-	-
Pre-schools	106	2784	147	19:1
Primary schools	58	19,134	765	25:1
Secondary schools	19	9891	439	23:1
Special education	3	147	20	7:1

In addition to the institutions in the table above, there are three (3) skills training centres, with enrolment of 650, which equip students for direct entry into the world of work. Also, the T.A. Marryshow Community College (TAMCC) offers a variety of courses in occupational areas of both the academic and technical and vocational types. The TAMCC is also responsible for the professional preparation of teachers for the primary sector and has begun to assume the responsibility for equipping staff for the secondary sector. There are twenty-seven (27) private primary schools with an enrolment of 891 students.

SECTION 2. THE MEANING OF POLICY AND FACTORS THAT INFLUENCE ITS DERIVATION

POLICY: A DEFINITION

The literature is replete with definitions of policy. However, the meaning of the concept that will apply in this assignment was informed primarily by the work of two authors, viz. Haddad's (1997) *The Dynamics of Education Policy-Making* and Heidenheimer et al. (1990) *Comparative Public Policy*. The following is the definition of policy used in this assignment:

Decisions, which set out directives, guidelines, rules or procedures, which guide the taking of further decisions and actions aimed at improving an existing situation or solving an urgent problem.

Several factors are considered in the formulation of any type of policy. In the case of policy for education and its subset curriculum, at least the following factors must be examined.

1. The values and philosophy espoused by the majority of the members of the different vested interest groups in the society.
2. The vision for the development of the society envisaged by the political directorate and explicitly or tacitly supported by the majority of stakeholders.
3. The notion of the ideal person who must be developed to live in the society.
4. The goals of education which capture the attributes of the ideal person and which the curriculum should aim to achieve.

5. A consideration of all the weaknesses in the total system thrown up by a situation analysis and which the policy should target in order to achieve efficiency and effectiveness in the functioning of the system.

All the above factors make inputs into curriculum policy and into its application to develop and implement the curriculum and measure its impact. In the process leading up to the actual enunciation of a curriculum policy, all the above factors are usually treated sequentially in the order in which they appear.

Below, each one of the factors is examined briefly in order to highlight the features which will inform the curriculum policy to be proposed and which users must be aware of in going about their curriculum work.

It must be noted that a vast amount of information about all the factors exists in several documents put out by regional organizations and planners from Grenada, including some from the Ministry of Education. In this preamble to the curriculum policy to be proposed, an attempt is made to collate these multiple perspectives in one document to make them readily accessible to prospective users.

PHILOSOPHY

Philosophy reflects the preferred beliefs espoused by individuals or institutions in any field of endeavour to guide their decision-making and actions. Gift (2000) defined it as: *“a coherent body of knowledge, values and beliefs or a master plan to facilitate wise decision-making in designing the curriculum for use to develop the **good person** to live the **good life** in the **good society**.”* (p 39)

The beliefs, which are reflected in an individual's or an institution's philosophy focus on such issues as:

- The current and foreseeable social, economic, political and other realities with which education should prepare citizens to cope;
- The features of the preferred society to be developed;
- The knowledge that is of most worth and how it should be acquired and transmitted;
- Bases for good or morally and ethically acceptable behaviour;
- The “beautiful” and the “nice”: experiences of good taste that should be enjoyed over others.

The Philosophy of the OECS

The tenets of a philosophy enunciated by the Organization of Eastern Caribbean States (OECS) are set out below. Understandably a good deal of the philosophy reflects the remit that was given to the Organization by their Ministers of Education in 1990. That was to develop a strategy for education that would foster a regional outlook and engender a spirit of cooperation as the basis for the national development of each country. The following tenets of a philosophy, with the emphasis on regional cooperation and harmonization were extrapolated from the publication, *Foundations for the Future: OECS Educational Reform Strategy* (1991).

- The reform of education in the region should take account of the wider Caribbean perspective of which the OECS is part.
- The reform of education must seek to devise a framework for inspiring noble visions of Caribbean society and the Caribbean

person within the context of a global vision of human civilization and humanity.

- Education must be a civilizing force and reforms in education must seek to position the region to contribute to advancing civilization.
- The reform efforts should aim to achieve the harmonization of the education systems of the OECS and promote functional cooperation within the sub-region.
- Pooling of resources within the sub-region should enable the countries of the OECS to overcome some of the limitations of their small size and strengthen their regional capacity to negotiate with external funding agencies.
- Linking as group will satisfy the criteria of scale, which each country, bargaining separately, will be too small to meet.
- The harmonization of the educational systems of member states and the pooling of education resources will help to ensure the sustainability of efforts at reform.
- The principle of consultation and participation in decision-making will provide a good foundation for the reform efforts in the region.
- The harmonization of the education systems of the OECS will lead to significant improvements in the quality of education delivered.

The OECS also stated philosophy specifically for primary and secondary education.

Primary Education - should be designed to meet both *essential learning* needs/skills (literacy, oral expression, numeracy, problem solving) and *basic learning content* (knowledge, skills, values and attitudes). These essential learning skills and basic content are required

to enable human beings to survive, to develop their capacities, to live and work in dignity, to participate fully in development, to improve the quality of their lives, to make informed decisions and to continue learning (p. 78).

Secondary Education

- It should cater to the personal development of adolescents.
- It assumes the mastery of some basic functional standards at the primary level as a prerequisite for learning at this level.
- It is not terminal but intermediary, therefore its main function is not preparation for entry to the world of work but to fit learners for further education in job skills provided in a tertiary institution.
- Secondary education must be of a general nature in a wide range of fields while catering for specialization in a particular field based on aptitude, achievement, interest and aspiration.
- Secondary schooling should be the instrument for fashioning the new social order.

A new document put out by the OECS, *Pillars for Partnership and Progress* (2000) reiterates the philosophical stance taken in the preceding policy document, *Foundations for the Future*, particularly with respect to the harmonization of the sub-region's school systems and cooperation.

Pillars for Partnership and Progress identifies two new areas, which were not the focus of attention in the previous document. These areas are Information And Communication Technology and Urgent Social Imperatives. Philosophy to inform curriculum policy in these two new areas is clearly articulated.

INFORMATION AND COMMUNICATIONS TECHNOLOGY

- Information and communications technology is ubiquitous in its application to modern life being a tool of work, learning, entertainment, communication and management.
- It is a symbol of modernization and progress.
- It is a means of communication and cooperation among peoples with a common destiny but separated by expanses of water.
- It should be viewed also as a tool for learning, teaching and management.
- It has ushered in the knowledge society and could facilitate the acquisition and dissemination of knowledge by schools and colleges.
- As valuable resources in schools and colleges, information and communications technology should be accessible to the community members for training.

URGENT SOCIAL IMPERATIVES

The philosophy articulated for this concern is as follows:

- A major concern of education should be the mobilization and equipping of people to construct their future, build their personal lives and cope with dynamic forces currently at work, e.g. forces that require training in disaster preparedness, health and safety, gender inequities, high boys' dropout rate and delinquency among parents.

The Education Policy Document, put out by the Ministry of Education and Information in 1992, contains the following statement of philosophy:

“Education is one of the main vehicles through which a country attains national development. It is a necessary condition for genuine personal, economic and social development. As such it is the Government’s belief that all citizens of Grenada should have a right to education so that they could become productive members of the society and develop the competence and ethos that will enable them to manage change effectively in an ever-changing world.” (p. 2)

THE VISION OF THE TYPE OF SOCIETY TO BE DEVELOPED

The type of society to be fostered as envisioned by the political directorate informs education policy and its subset, curriculum policy. In fact, the government of the day has more responsibility than any other vested interest group to provide a vision of the kind of society it plans to foster under its watch. In fact, it is largely on the basis of such a vision that it would have been elected to office and which would have informed the planning of its development programme. Since education has a major role to play in bringing the government’s plan to fruition, knowledge of the characteristics of the society favoured by the political directorate is indispensable to the formation of curriculum policy.

An examination of the philosophy of the government of the day gives a good insight into the type of society it wants to develop. Characteristics include:

- Freedom, justice, democracy and prosperity, with equal opportunities for all;
- Honesty and integrity among public officials, especially politicians;
- Independence of the judiciary;

- Right to ownership and enjoyment of property;
- Sovereignty of the country within the OECS group;
- Satisfaction of the basic, social, economic and other needs of citizens;
- Full employment;
- Improved management, accountability and efficiency;
- Self sustainable growth;
- Retention of the patrimony of the country by Grenadians;
- Ownership of the majority of Grenada's assets by the people.

Numerous other documents examined by the consultant point to the kind of preferred Grenadian society which education should foster. Principal among them is the *Education Act 21* of 2002. It envisages that the society should reflect the “*spiritual, cultural, moral, intellectual, physical and social development,*” to be brought about in individuals by education (p 286). This should conduce to the economic development of the country.

The Act leaves no doubt that the preferred form of governance it endorses for the country is strengthened democracy in which all citizens, regardless of age, have a role to play. This is evident from the provisions in the Act for the participation of a wide cross section of stakeholders from among both service providers and service receivers in the work of various bodies. These bodies include: The National Advisory Council to advise the Minister; boards of management for public and private schools and student councils. By assisting in running schools, students will receive hands-on practice in functioning as citizens in a democratic setting.

In the document entitled *Foundations for the Future: OECS Education Reform Strategy* (1991), the sub-regional body stated some clear expectations for its members. One of these is fostering an outlook of belonging to a larger political entity. Each member of the sub-regional body must accept and preserve its own national identity. However, membership in, and identity and solidarity with, the sub-regional body, must be indelibly etched in the consciousness of Grenada.

Closely linked to this concept of membership in a political union is the notion of collaboration. The view should be cemented that, as part of the sub-regional body, Grenada will not be alone when the occasion arises to treat with economic and political groupings, which today are common features of globalization and trade liberalization.

Cooperation with its members is another feature, according to the document, that should characterize Grenada as part of the OECS group. The view should be nurtured that sharing of human and other resources is essential. The reason is that, with the limited resources at its disposal, pooling resources is the surest way for Grenada to provide good quality services in education at affordable cost.

With respect to the type of economic development envisaged for the country, the goals included in the *Grenada Medium Term Economic Strategy Paper 1998 – 2000* (1998) are geared to “*accelerated and balanced economic growth, economic diversification and public sector efficiency*” (p 1). There are also expectations for the creation of a robust private sector and a public sector with strengthened management and altogether a diversified economy.

Volume 1 of the KAIRI Consultants Ltd. *Poverty Assessment Report on Grenada* depicts a society with the following characteristics resulting from macro economic policy implementation:

- Transformed and diversified economy;
- Equitable distribution of the proceeds from growth and development;
- Evidence of sound social and infrastructural development from wise use of deliberately created fiscal surpluses;
- A policy environment conducive to private, domestic and foreign investment;
- A peaceable political and industrial relations environment that is conducive to the pursuit by the citizenry of their goals;
- An adequate safety net for the vulnerable to reduce or prevent poverty;
- Acceptance and promotion of the view of empowered females, and males socialized to accept women as equal partners.

IMAGES OF THE IDEAL PERSON TO BE DEVELOPED BY THE CURRICULUM

Integral to the formation of the kind of societies we choose are the attributes that the curriculum should inculcate in citizens who must live in those societies. It follows, therefore, that an image of the type of person which education should aim to develop is an essential input into policy.

Caribbean thinkers, regional organizations, and education and other planners in Grenada have provided a range of images of the citizens who must be nurtured to meet the challenges of living in the society envisaged by the different advocates. Selected versions of these images of the ideal person, which should inform policy, are presented below.

THE IDEAL CARIBBEAN PERSON

The ideal Caribbean person should be someone who, among other things:

- ✓ Is imbued with a respect for human life since it is the foundation on which all the other desired values must rest;
- ✓ Is emotionally secure with a high level of self confidence and self esteem;
- ✓ Sees ethnic, religious and other diversity as a source of potential strength and richness;
- ✓ Is aware of the importance of living in harmony with the environment;
- ✓ Has a strong appreciation of family and kinship values, community cohesion, and moral issues including responsibility for, and accountability to, self and country;
- ✓ Has an informed respect for our cultural heritage;
- ✓ Demonstrates multiple literacies, and independent and critical thinking; questions the beliefs and practices of past and present, and brings this to bear on the innovative application of science and technology to problem solving;
- ✓ Demonstrates a positive work ethic;
- ✓ Values and displays the creative imagination in its various manifestations and nurtures its development in the economic and entrepreneurial spheres in all other areas of life;
- ✓ Has developed the capacity to create and take advantage of opportunities to control, improve, maintain and promote physical, mental, social and spiritual well-being and to contribute to the health and welfare of the community and country;

- ✓ Nourishes in him/herself and in others, the fullest development of each person's potential without gender stereotyping and embraces differences and similarities between females and males as a source of mutual strength.

Source: Caribbean Community Secretariat (1989). *Creative and Productive Citizens for the Twenty-First Century*. Georgetown, Guyana: The Secretariat.

Image of the Ideal Caribbean Person That the Curriculum Should Target

1. Critical thinking, creativity and problem solving.
2. Numeracy, literacy and communication skills.
3. Aesthetic qualities (capability to create for others to enjoy and to enjoy what others create).
4. Knowledge about work and capability to lead a productive life in a sociocultural milieu.
5. Openness to new experiences and ability to cope with change.
6. Technological literacy.
7. Ability to think logically and to base opinions formed on facts.
8. Moral and spiritual development and the ability to act responsibly.
9. Respect for the rights and dignity of others.
10. Self-worth – understanding of, believing in, and caring for self.
11. Sensitivity to the fragility of the environment, the finiteness of natural capital, and the need to prevent environmental degradation.

12. Self-reliance – confidence in one’s ability to solve problems by exerting influence over one’s environment.
13. Inter-cultural sensitivity.
14. Sense of a Caribbean cultural identity.
15. Health and physical fitness.

Source: Gift, E. (1996). “Responsive Curriculum Development for Small Developing Caribbean States.” *Caribbean Journal of Education*, Vol. 18, No. 2.

Notion of the Ideal Citizen of the OECS

- A. Possess literacy and numeracy skills that allow them to:
 - (i) Read with comprehension, newspapers or magazines, and health, disaster-preparedness or agricultural bulletins;
 - (ii) Write legible letters in Standard English to a friend, prospective employer or government bureau;
 - (iii) Express views in an articulate and logical manner;
 - (iv) Handle important basic computations in everyday financial transactions.
- B. Know how to find information through the use of libraries, directories and encyclopaedias, maps and charts, and modern electronic devices.
- C. Demonstrate positive habits and good interpersonal skills in interaction with family, community, and visitors and in-group relationships generally.
- D. Demonstrate reasonable understanding and appreciation of scientific and technological processes as these pertain to nature, the environment and everyday life.

- E. Demonstrate a working knowledge of, and functional capacity in, at least one foreign language.
- F. Have an appreciation for a wide range of music, art, dance, dramatic expressions, and have some practical competence in expressing oneself in at least one of these areas.
- G. Possess functional knowledge and skills to facilitate entry into the world of work or to continue formal education.
- H. Possess functional knowledge and skills needed for civic participation:
 - (i) As citizens of a democratic state,
 - (ii) As participants in civic organizations,
 - (iii) As members of the Caribbean community.
 - (iv) Hold to a value system that espouses a noble vision of Caribbean society and of Caribbean people and high principles pertaining to personal integrity, honesty, truthfulness and goodness.

Source: *Foundation for the Future: OECS Education Reform Strategy 1991.*

THE GOALS OF THE CURRICULUM

Another important input into policy is the goals of the curriculum derived from the espoused philosophy, the features of the type of society envisioned, and the image of the ideal citizen to live in the society. The following statement of goals was taken from the *Grenada Education Policy Paper 1992* as emerging from the philosophy stated by the Ministry:

- i) Promotion of justice and equity (gender, rural/urban, social class, ability range, age);

- ii) Achievement of more mature humanitarian relations among our people;
- iii) Ability to select and prepare for an occupation;
- iv) Ability to realistically pursue economic independence;
- v) Development in individuals of intellectual skills/excellence necessary for civic competence;
- vi) Promotion of a harmonious, democratic, national, critical and creative approach;
- vii) Enhancement of individual capacity for independent thought and critical analysis;
- viii) Creation of a scholarly atmosphere in all our schools at all levels;
- ix) Expansion of our store of knowledge through research and scholarship;
- x) Increased awareness of the broad range of needs in the Grenadian society;
- xi) Development of appropriate attitudes, values and behaviours that are consistent with the ethos of Grenada;
- xii) Development of an appreciation of our cultural heritage, national and Caribbean, and an awareness and understanding of the culture of other societies.

SOME WEAKNESSES IN THE SYSTEM

What are the weaknesses in the system that curriculum policy should address if the goals of education are to be achieved and the society, which was envisioned, is to be created? Despite the best efforts of the government and the Ministry of Education, situation analyses have

thrown up numerous shortcomings. These have been identified in several documents

- *Strategic Plan for Educational Enhancement and Development 2002 – 2010 (SPEED)*
- *Audit of the Organization and Management of the Grenada Ministry of Education July 2000*
- *Grenada Education Sector Diagnosis 2000*
- *Curbing the Flow: Teacher Attrition in Grenada 1990 – 2000*
- *An Assessment of the Laboratories in Public Secondary Schools in Grenada and Carriacou.*
- *Subjects Taught at the Secondary Schools in Grenada, Forms 1 - 3*
- *Poverty Assessment Report Grenada (Volumes 1 & 2) 1999*
- *Education Statistical Digest 2002*
- *School Library Development in Grenada* and many others.

Additional data about weakness in the system came from:

- Senior administrators from the Ministry of Education
- Curriculum officers and school administration and management officers
- Representatives from the National Parent Teachers Association, the Grenada Union of Teachers and the Executive of the Secondary Schools Principals' Association
- School principals
- Principal and representatives of the Teacher Education Department of the T.A. Marryshow Community College (TAMCC)

- Secondary school students

Circumstances allow for only a summary of the weakness of the system to be presented.

1. Vast variation in number of subjects taught across secondary schools in forms 1 – 3

The number of subjects taught in form 1 varies from a high of fourteen (St. Mark's Secondary) to a lower figure of nine (Grenada Boys' Secondary). Form-3 students can choose five from eight in one school while, at another, they can select nine from eighteen.

2. Low achievement levels

Achievement levels are unsatisfactory for the internal examination (the Common Entrance, the School Leaving Examination, and the Minimum Competency Test at the primary level), and the CXC and GCE Ordinary and Advanced Levels in the secondary sector. Not more than 50 % of Common Entrance students score satisfactorily and the success rate in the School Leaving Examination is abysmally low – 16 %.

3. Teacher quality

A few teachers in secondary schools have university first degrees (32 %) and very few of these have received professional training. Just about 50 % of primary teachers are trained. The quality of teaching at both levels leaves much to be desired and there is a corresponding low level of achievement among students. The latter were particularly severe in their criticisms of teacher performance.

4. Teacher attrition

An average of about forty-five teachers leaves the secondary sector annually. The number for primary teachers is twenty-five. The exodus signals that something is wrong with teaching as a profession and panics others to follow suit.

5. Curriculum

The curriculum is overburdened with irrelevant and inappropriately designed courses. One consequence is the failure to produce the calibre of labour force necessary to take advantage of new employment opportunities. The curriculum is not properly organized to provide general education in forms 1 – 3 with prospects for later specialization for entry to the world of work.

6. Teaching Facilities and Equipment

Science laboratories in secondary schools have many defects e.g., poorly designed; inadequately equipped; poorly ventilated; subjected to inappropriate multipurpose use; unsafe outlets; lack of fire extinguishers; inadequate provision for waste disposal; no protective gear or storage for same; inadequate provisions for storage of flammable materials or dangerous chemicals; insufficient furniture.

Schools lack facilities for teaching the performing and expressive arts, and physical education – no music room, art studio, gymnasium, etc. Students are not encouraged to develop their talents in these areas.

7. Learning Resources

Too few schools possess adequate library facilities, not to mention learning resource centres with up-to-date materials and equipment and trained personnel to help users.

8. Poverty

Thirty-one percent of Grenadians live below the poverty line and, of these, some are very poor. The children in this category are least able to access opportunities for education and suffer most from this. The highest percentage of the poor who are unemployed is in the age range 15 – 30. Obviously, inability to access education and training at that critical period of their lives renders them unemployable.

9. The Disadvantage of Specially-Abled Learners

The number of specially-abled students enrolled in schools is 138. Given that 10% - 14 % of any school population tends to suffer from a disability, it is obvious that a substantial number from the 19,000 plus primary schools students have disabilities that go undetected. This is because provision for identifying those with mild handicapping conditions in mainstream schools is absent.

10. Effect of Cultural Imperialism

The push towards harmonization and globalization has placed Grenada's cultural identity under threat. The challenge for the curriculum is to maintain the spiritual, material, intellectual and emotional features that characterize the society.

11. Male/Female Disparity in Performance

Girls are out-performing boys at the primary level thereby being more able to access more opportunities for education at all the higher levels. The result: males are at risk.

12. Parental Responsibility

There is too great a lack of parental involvement in the running of schools. There is need for parental education to sensitize them about their role in the education of their children.

13. Inappropriate Student Behaviour

The incidence of student indiscipline is increasing. Girls are catching up with boys in exhibiting inappropriate behaviours.

14. Staff Development

Principals lack the expertise to function as curriculum leaders. Teachers need induction in curriculum planning and delivery and in the use of modern techniques of assessment. There are too many untrained teachers in the system, especially at the secondary level.

15. Orientation for Common Entrance Students

The system loses many successful common entrance students from their first day at school when they are overwhelmed by the sudden change from a friendly primary school classroom to a hostile secondary school environment. They need to be assisted to make the transition.

SECTION 3. A GENERAL CURRICULUM POLICY TO GUIDE THE REFORM EFFORT

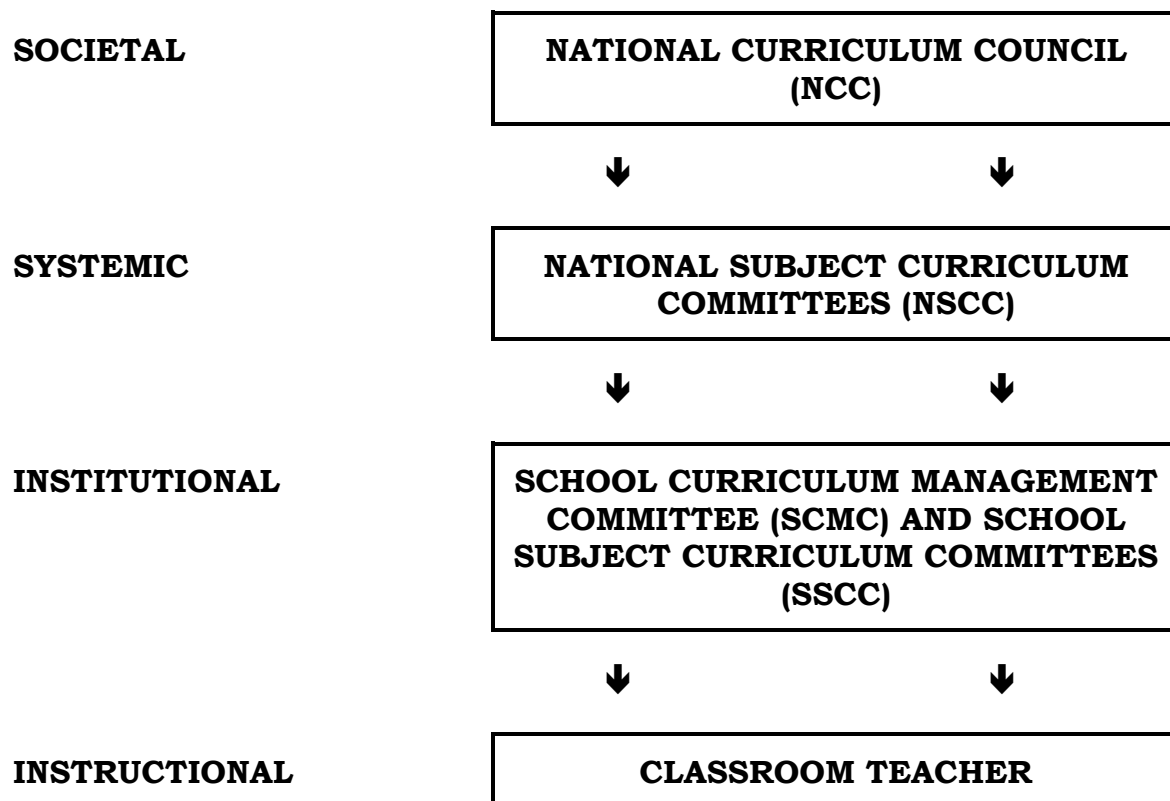
Recall that, in a previous section, policy was defined as *decisions which set out directives, guidelines, rules or procedures, which guide the taking of further decisions and actions aimed at improving an existing situation or solving and urgent problem*. The factors that make input into policy were also examined. This section of the report deals with the application of these factors to derive the policy to guide the curriculum reform.

The major policy objective of the curriculum reform being pursued is the achievement of qualitative as against quantitative improvement in the education system. This objective cannot be achieved unless a proper administrative structure is created to manage the inputs, processes and outputs by which the curriculum is produced and evaluated for its impact. The first order of business, therefore, in enunciating a policy for curriculum reform should be a statement that:

- i) *The administrative structure established by the Ministry of Education for the purpose will be responsible for the efficient conduct throughout the system of functions concerned with curriculum development, dissemination, delivery and evaluation.***

The models in Figures 1 and 2 are offered as mechanisms that capture the type of structure alluded to in the policy statement above. The notion captured in the figures is that curriculum development is a collective responsibility and therefore different agencies or bodies will be involved in the exercise at various levels of the hierarchy of the system.

Figure 1. Hierarchical Relationship Among Agencies in a Curriculum System



A second policy statement to guide the impending curriculum reform should be:

- ii) ***Curriculum reform is most likely to succeed if it is a collective effort. It is therefore a requirement for provisions to be put in place for the involvement of a wide cross section of stakeholders and vested interest groups in the curriculum development process at the different levels of the education system.***

Figure 1 defines the levels in the system at which the policy makes provision for curriculum development to take place, and the agencies or bodies that will be operating at these levels. Figure 2 identifies the members of the different bodies/agencies, defines their mutually supporting roles, and identifies their actual outputs in terms of their contribution to the curriculum development effort.

A number of policy statements could be made to guarantee that the responsibility intended to be carried out by the functionaries at the different levels in the system in Figure 2 are in fact performed. These policy statements follow:

- iii) ***Representatives from a cross section of vested interest groups comprising of the National Curriculum Council will produce or endorse the philosophy and aims/goals that should guide the development of the curriculum.***

Note: Until a National Curriculum Council is established, this function could be carried out by the Education Advisory Council provided for in the Education Act, since its membership also includes a wide cross section of stakeholders.

iv) *National subject curriculum committees for each subject in the schools programme and headed by curriculum officers will be responsible for using the philosophy and goals produced by the National Curriculum Council to prepare curriculum guides for use at the school level.*

v) *In addition to preparing curriculum guides, national subject curriculum committees will be responsible for:*

Production of print and non-print materials

Piloting the new curriculum guides

Dissemination of information about the new curriculum

Ensuring quality control

Staff development of school personal to function as implementers.

vi) *Each school, under the leadership of the principal, must assume responsibility for:*

The in-house management of the development, implementation, and evaluation of its curriculum, under the supervision of curriculum officers.

Further developing the curriculum from the Ministry's guides to suit the needs and circumstances of students and the local conditions of the school.

For these functions to be performed, the policy requires that:

vii) School curriculum management committees and school subject curriculum committees be established. In addition to the duties outlined in above, policy requires the School Curriculum Management Committee to perform the following functions: diagnosis of needs of the setting served by the school; provision of in-school support infrastructure; development of an inventory of community resources; creation of a collaborative school culture; deployment of senior teachers to function as opinion leaders and in-house trainers; creation of teacher networks for joint planning; peer coaching and peer evaluation.

As Figure 2 shows, policy also provides for the empowerment of the teacher to play his/her role in the shift of the locus of responsibility for the development and delivery of the curriculum towards the school.

It is not sufficient for policy, intended to guide the reform of the curriculum, to deal only with the formation of an administrative structure and its functions. Policy must also cater for adding value to the outputs from those functions by providing guidelines on how decisions and actions should be taken to address the myriad issues thrown up by the situation analysis. Also, the policy must indicate the precise actions which need to be taken on the imperatives set for the curriculum from philosophy, stated goals, the vision for the development of the society, and the articulated image of the ideal Caribbean and Grenadian person. Accordingly, the following additional aspects of policy are enunciated:

- viii) *The design and delivery of the curriculum must be informed by the plans of the political directorate for the social, economic and other types of development for the country and sub region, and must lead to creation of the kind of society envisioned.***
- ix) *Curriculum design and delivery must aim expressly to inculcate the attributes captured in the image of the ideal Caribbean person.***
- x) *There should be the proper alignment of the curriculum from activities of the different individuals/agencies operating at the different levels of the system to produce and deliver the curriculum. That is, there should be a visible linkage between the following: the vision of the political directorate; the philosophy and goals stated by the National Curriculum Council/the Education Advisory Council; the goals used by national subject curriculum committees to develop curriculum guides; the goals and general objectives used in the school to produce the modified curriculum; and the actual lessons delivered by the classroom teacher in his/her units of instruction.***
- xi) *With the increase in access to secondary schools, students inevitably come from a much broader catchment area, resulting in the need to cater for a much wider ability range. Diagnostic tests will be administered to all students on entry to identify gaps in their knowledge and skills that will hinder them from benefiting from secondary education. Internal efficiency measures such as remediation will be provided in each school.***

- xii) *The rapid rate of the accumulation of knowledge makes it unnecessary and impractical for the emphasis in curriculum delivery to be on the transmission of information. The new requirement is that students must become more oriented toward problem-solving; develop the ability to source information as needed; engage in cooperative learning; and be encouraged and supported to use constructivist approaches to learning.*
- xiii) *The induction in the use of available learning resource centres and the expanded concept of the library must become an integral part of curriculum delivery strategies.*
- xiv) *The alleviation of poverty, by the economic empowerment of people through schooling, calls for a policy of zero tolerance towards non-achievement or underachievement of the objectives of the curriculum. This requires that measures be put in place to raise the achievement levels of all students. The latter include those who are in special schools as well as those in mainstream schools who have special needs, i.e. those with mild handicaps not easily detected by the untrained person. Available assessment tools for detecting the latter group of students should be used in mainstream schools by teachers trained for the purpose. The guidelines for developing Individual Educational Programmes (IEPS) for these students should be followed.*
- xv) *The development and delivery of a good quality curriculum requires good quality instructors. Teachers are therefore expected to access the following opportunities for training*

made available by the Ministry of Education and the Teacher Training Division of TAMCC:

- a. Orientation course for new recruits***
- b. Full-fledged training for career teachers***
- c. Ongoing staff development for permanent teaching staff (primary and secondary).***

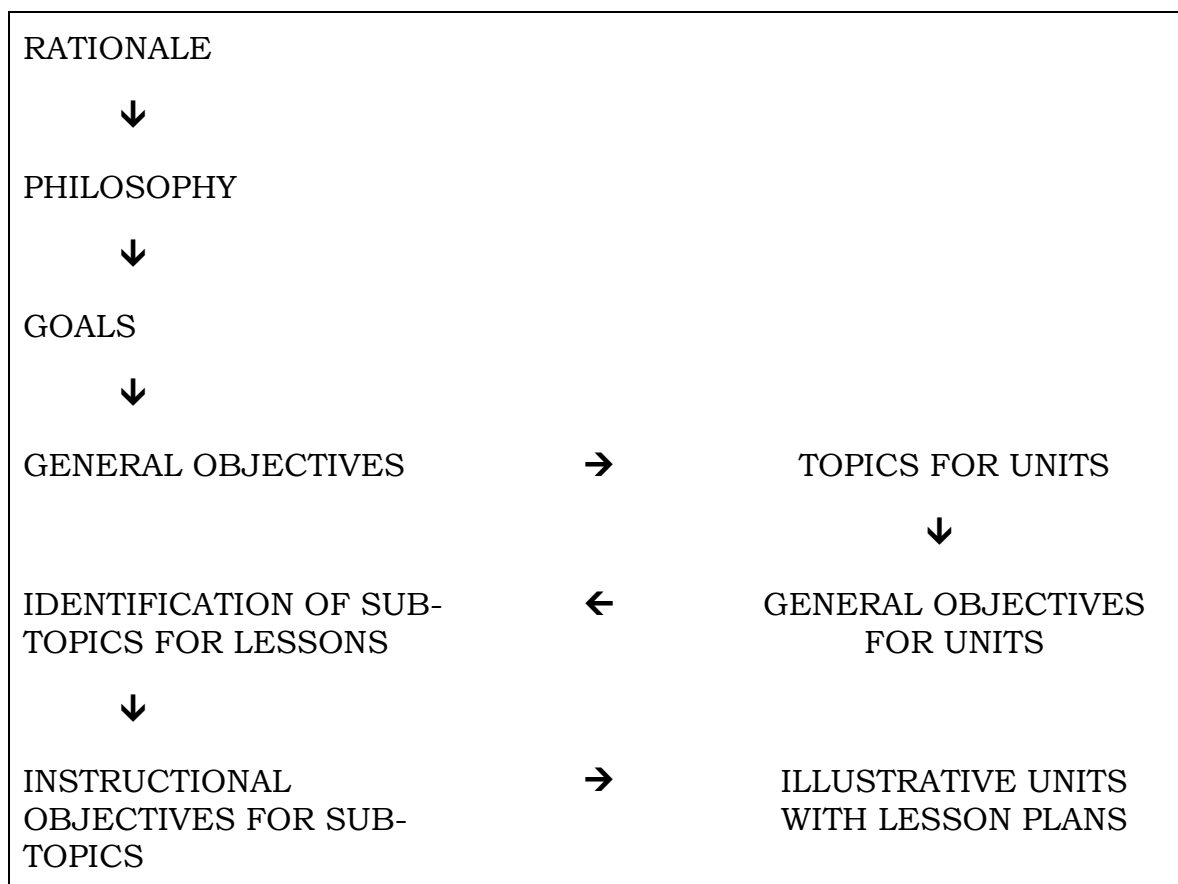
xvi) Principals are required to implement from their training, an integrated, strategic management structure including the use of EMIS in their management of the new curricula.

xvii) Teachers are expected to use to their advantage the reconfigured learning environment in the school to accommodate features of the new curriculum and new teacher behaviours – the new environment reflects learner centeredness, learner friendliness and health promoting classrooms among other positive improvements.

It is necessary for the curriculum alignment, referred to earlier, to be achieved. For this to happen, however, there will have to be some minimum conformity to accepted practices in deriving the component parts of the curriculum, among those responsible for its development at the different levels of the system. A format for this process is provided. It is to be followed by national subject curriculum committees in preparing curriculum guides, and by school personnel in producing versions of the curriculum adapted from the guide to suit any peculiarities of the school and the unique requirements of the students. A curriculum document such as a guide should consist of the following components:

- Rationale for the curriculum in the subjects or discipline
- Philosophy underpinning the curriculum
- Goals of the discipline or subject
- General objectives for the subject
- Topics from the discipline or subject consisting of the major concepts and generalizations (big ideas) to be taught.
- Subtopics from breaking up the topics into smaller segments for manageable classroom delivery, say in a lesson.
- Some sample units or all the units of instruction with lesson plans for teaching the subtopics

Figure 3 below sets out the components and shows the sequence in which they are derived.

Figure 3. Model for Developing a Curriculum Guide

Each unit will have the following details:

- Topic of the unit
- General objectives for the unit
- Subtopics into which the unit is divided for treatment in individual lessons or teaching-learning encounters.
- Treatment of subtopics in separate lessons as follows
 - i. Title of subtopic
 - ii. Instructional objectives (cognitive affective and psychomotor)

- iii. Resources - materials, equipment (print, non-print, technology, tools etc)
- iv. Learning activities
- v. Evaluation procedures.

The curriculum for a subject will be produced by following the format provided and by filling out the details for the model.

In preparing this draft-policy, reference was made several times to two types of curriculum documents. The first is a *curriculum guide* prepared at the national level by national subject committees headed by curriculum officers. The other is a *school curriculum* prepared by school personnel using the official guide for the purpose for which it was intended, that is, as a guide. It may be helpful to differentiate between the two curriculum documents.

DEFINITION OF A GUIDE

A curriculum guide is a device for use to assist workers in the field in the development, or further development, of a course of study. As such, a guide is not a fully developed course of study, but a set of principles, guidelines, and a list of resources and illustrations to assist the curriculum worker at the institutional level in the development, implementation, and evaluation of a full-fledged curriculum programme. A curriculum guide, therefore, serves as a source of ideas for teachers, for example, to use their creativity to prepare, deliver, and evaluate their own units of instruction that constitute a course of study. It gives the staff of the school, including the classroom teacher, a big stake in the curriculum development and implementation process.

The second curriculum document produced by personnel at the institutional level has all the components of a guide listed above but, in

addition, contains all the units of instruction on all the topics which comprise the content of the course for a subject. The essential difference then in the two documents is that, while the guide normally contains only sample units, the curriculum produced in schools contains the total number of units on all the topics to be taught.

Now there are cases where the guide is prepared as a full-fledged, teacher-proof, curriculum containing all the units on all the topics. This is done when the users for whom it is prepared lack the expertise to use it to produce their own modified curricula. If this is the situation in Grenada, then there is a policy dilemma. Should the curriculum guides to be developed in the reform effort be teacher-proof curricula?

The policy option chosen should aim to empower school staff to function as professionals. Policy should stipulate that principals and their staff would be given the responsibility to use curriculum guides to produce local versions of the curriculum to suit the peculiarities of their locations. Therefore, staff development plans to equip school personnel for this responsibility should be an integral part of the curriculum reform effort.

4. POLICY ON THE CORE CURRICULUM

PRINCIPLES THAT DETERMINE THE CORE CURRICULUM

The consensus in the literature on the meaning of the core curriculum is that it should be viewed as the best mechanism for the provision of general education (Ornsstern and Hunkins, 1993; Doll, 1996; and Tanner and Tanner, 1980). This general education should serve as a prerequisite for further learning and, in particular, as a basis for choice by the learner of an area of specialization at the subsequent, appropriate stage. This purpose of secondary education was emphasized in *Pillars for Partnership and Progress* as follows: “*secondary education must be of a general nature in a wide range of fields while facilitating the initial stages of specialization based on individual aptitude, achievement interests and aspiration*” (p. 31). This should be the purpose of secondary education especially from forms 1 – 3.

Accordingly, the following principles are proposed as underpinning for the core curriculum and should serve as guidelines for its development:

- The core curriculum should be seen as a vehicle for general education;
- The concepts, skills, attitudes, and values which it imparts should be the minimum exposure to the curriculum which all learners must have;
- It should be student-centred addressing the learner’s needs, interests and problems;

- The skills which students are required to employ in the study of the core curriculum should be generic, transcending subject or discipline barriers;
- The core curriculum should cater, not only for learners to master discrete content and skills in academic subjects from tasks structured by the teachers, but it should also provide scope for learners to begin to display, within the walls of the school, competencies required for actual societal roles including how to earn a living;
- What should be the policy in determining the actual knowledge, skills, attitudes and values to be taught in the core curriculum? The answer is that first; curriculum developers must identify shortcomings in the system by carrying out an analysis of the international, sub regional and local situation with emphasis being placed on the sub region and Grenada. Alternatively, they could utilize findings from investigations already completed.

A situation analysis in a sense is a needs assessment which points to **gaps** between an existing state of affairs and a desirable one. It is the difference between any present condition and an acceptable norm or standard.

Grenada is very fortunate to have available a very large database with copious information about shortcomings in the system from analyses already completed. Individual interviews, participant observation, and focus group discussions employed by the consultant added to this store of information.

PROCEDURE FOR DERIVING THE POLICY FOR THE CORE CURRICULUM

The policy advocated for developing the core curriculum is that situation analyses be used to identify the content and skills to be acquired by students. The following procedures should be observed:

- Verify, from the situation analyses, the challenges that citizens are facing now, and are likely to face in the foreseeable future.
- Place in broad categories or clusters the various types of competencies all citizens will require in order to cope and which the curriculum should address.
- Use as guidance the categorization of clusters of competences, approved by officials of the OECS and cited in *Pillars for Partnership and Progress* as those that should be the goals of general secondary education. The list is as follows:
 - i. Problem solving
 - ii. Creativity and imagination
 - iii. Independent judgment
 - iv. General technical skills
 - v. Interpersonal skills
 - vi. Self-understanding

It may be worth considering another classification of competencies below. There are items in the list that are similar to some in the OECS document. Other items point to some additional areas of competence. Here is the second classification:

- i. Preparation for citizenship responsibilities
- ii. Competence in communication

- iii. Critical thinking, creativity and problem solving
 - iv. Aesthetic creation, expression and enjoyment
 - v. Personal development, understanding of, believing in, and caring for self
 - vi. Technological literacy and competence
 - vii. Occupational awareness; orientation to preparation for transition to work
- Determine the precise knowledge, skills, attitude and values to be acquired in the cluster of competence chosen for the common curriculum.
 - Determine which subject from among the nine (9) listed in *Pillars for Partnership and Progress* (p. 33), as the ones to provide general education, is best suited to impart each of the cluster of competencies chosen.

Note: the nine subjects are:

- i. English Language and Literature
 - ii. Mathematics
 - iii. Integrated Technology
 - iv. Social Studies
 - v. Foreign Languages
 - vi. Physical Education
 - vii. Religious and Moral Education
 - viii. Creative and Performing arts
 - ix. Integrated Science
- Revamp the existing curricula in the nine subjects above and eliminate inappropriate subject matter and method. Reconstitute

to cater for learning outcomes captured in the cluster of competences derived from the situation analysis.

- All the areas to be covered in general education should be catered for without the number of subject exceeding the nine approved by OECS officials. Preferably, the maximum should be eight (8). To avoid exceeding this number of subjects, it may be necessary to reconfigure the content of some of the traditional subjects and combine two of them into one where it is feasible. For example, English Language and Literature could be combined with Foreign Languages under Literacy and Communication. This new subject consisting of the three components can be offered over the three years from form 1 – 3. An adequate number of periods from the timetable will need to be allocated to this reconfigured subject in order to complete the programme.
- The strategy recommended for dealing with English Language and Literature and Foreign Languages without increasing the number of subjects should be applied in other areas of study. A modularized programme in Art, Drama, Music and Dance can be offered under the umbrella of the Creative and Performing Arts. This programme, like the one above labelled Literacy and Communication, could be sequenced and integrated to be completed over the three-year duration of the students' tenure in lower secondary school.
- In *Pillars for Partnership and Progress*, the OECS experts proposed a new subject, Integrated Technology, to replace Home Economics, Industrial Arts and Computer science. This is the trend in several developed countries and it should become policy in the OECS and definitely in Grenada. Moves are already afoot to implement this recommendation through the CARICOM

initiative to develop a curriculum in Technology Education for upper primary and lower secondary school students. The curriculum is currently being piloted in eight (8) CARICOM territories including four (4) from the OECS. It should become policy in Grenada that the programme in Integrated Technology/Technology Education be implemented in the schools.

The area of study called Occupational Awareness: Orientation to Preparation for Work was not catered for in *Pillars for Partnership and Progress*. This area of exposure should form part of the core curriculum and modules on it should be accommodated under Integrated Technology/Technological Education. The technologies dealt with in this subject include transportation technologies, communication technologies, production technologies and biotechnology. They deal with how technology is created and used to solve human problems. They could provide students with significant exposure to what goes on in the world of work in a variety of industrial and commercial settings. Integrated Technology/Technology Education could therefore point to career and entrepreneurial opportunities. Communication technology, as one of the fields in the subject, provides exposure to information and communication technology as a versatile tool for use in intellectual pursuits as well in design work geared to producing tangible products.

In *Pillars for Partnership and Progress*, Physical Education is tacked on to the Creative and Performing Arts and no reference is made to sport. Physical Education should be de-linked from Creative and Performing Arts and a subject that brings together Physical Education and Sport should be established in its own right.

PROPOSAL FOR THE CORE CURRICULUM FROM A MINISTRY'S TEAM

A proposal put forward by a team from the Ministry of Education should also be examined. In this proposal, a core is recommended specifically for forms 1 and 2 and another for form 3. The first should consist of the following subjects:

- Mathematics
- English A and B
- Integrated science
- Modern languages (French and Spanish)
- Social studies
- Moral and spiritual education
- Integrated technology (home economics, computer science, industrial arts, home management, building technology and electronics)
- Physical health education
- Creative and fine arts (music, drama, art and craft, dance and singing)

The core for form 3 will consist of:

- History
- Geography
- Physics
- Biology
- Agricultural Science
- Chemistry

The Consultant wishes to express the following views on the proposal for the core put forward by the Ministry's team.

1. What is listed is a great deal to cover to any depth in forms 1 and 2 alone.
2. Listing as integrated technology the industrial arts/specialized craft courses it was intended to replace may be sending the wrong signal that these subjects will continue to be offered in their present form. What should happen is that integrated technology should draw from the subject matter and methods of these subjects. Additionally, the resources employed to teach them (workshops, laboratories, tools and equipment) should be deployed in the service of integrated technology. How all of this could be accomplished has been clearly demonstrated in the CARICOM technology education curriculum project.
3. Limiting the core to strictly academic subjects from as early as form 3 might be premature. The foundation might not have been laid as yet for students to successfully tackle, in forms 4 and 5, options from CXC technology offerings and electives from the specialised crafts.

It is important to remember that the core has a dual purpose. One is to provide a sound academic foundation for further lifelong learning required for survival in the globalized economy of the 21st century. The other is to sensitise students to the possibilities for career choices while not necessarily preparing them for direct entry into the world of work. What appears to be the exclusive focus on academic subjects from as early as form 3 may militate against the realization of the dual purpose alluded to above (see Figure 4. General Education With Orientation For Transition To Work, below).

However, the proposal from the Ministry's team is a worthwhile one. Consideration should be given to the concerns raised by the

Consultant and the required adjustments should be effected. This will bring the proposal closer in line with the version recommended by the Consultant.

THE SUBJECTS THAT SHOULD FORM THE CORE CURRICULUM

The OECS document identifies self-understanding as an area of focus for the core curriculum but does not say in which subject it should be dealt with. The appropriate place for it is Health and Family Life Education and a slot should be found in the core curriculum to include this subject. The following subjects appropriately reconstituted should comprise the core curriculum for forms 1 – 3.

- i. Literacy and Communication (English language and literature and a foreign language)
- ii. Social Studies (including moral and spiritual education and civic responsibilities)
- iii. Mathematics
- iv. Integrated Science
- v. Creative and Performing Arts (dance, drama, music, art)
- vi. Physical Education and Sport
- vii. Integrated Technology / Technology Education (including modules on orientation to work)
- viii. Health and Family Life Education (personal development; self understanding; problems and issues facing children and youth)

It should be a requirement that the implementation of the new core curriculum be uniform in all schools. No school should offer more or less than the number of subjects recommended above for inclusion in the new core curriculum.

ASSESSMENT STRATEGIES FOR THE CORE CURRICULUM

The inclusion in the new core of some of the subjects listed in the eight above represent a break from when the core consisted only of broad clusters of academic subjects. In some of the subjects in the new core, students will be engaging in practical activities, creating artefacts, compiling investigative reports, developing and using design briefs, and generally solving problems. *The policy should be that performance in all the subjects should be assessed and students' report cards should be adjusted to allow for presentation of information on this assessment.*

The policy should also be that implementers should be trained to use a range of assessment tools. These will include the traditional paper and pencil tests as well as procedures capable of assessing students' performance in authentic settings. Figure 4 sets out the range of assessment strategies from which instructors are required to choose.

Figure 5. Continuum of Assessment Strategies for Student Assessment

Formal or 'Objective' End of Continuum	➔	➔	➔	➔	➔	➔	➔	Informal or 'Naturalistic' End of Continuum
	Forced Choice	Essay (Extended and Restricted)	Short Written Response	Oral Reports	Performance Tasks	Instructor Observation	Student Self Assessment	
F E A T U R E S	Objective tests, e.g., true-false, completion, multiple choice, etc.	Informational, thinking, reasoning and communication exercises	Mini essays on mainly information presentation	Oral presentation of essay material, e.g., reasoning, thinking and communication skills	Students' creations/ constructions, e.g., projects, artefacts	1. Informal observation for non- achievement factors, e.g., effort. 2. Formal observation with checklists and rating scales practicums	Co-grading with instructor keeping portfolios and journals	

5. POLICY OPTIONS FOR SCHEDULING OF THE CORE CURRICULUM TO ACHIEVE EQUITABLE DISTRIBUTION AND EFFICIENT AND EFFECTIVE USE OF TIME ACROSS SUBJECTS

Teachers and curriculum supervisors argue for more time for their subject in school timetables. In introducing the core curriculum, this fierce competition for periods in the timetable is sure to surface. A strategy such as the one below will be employed to achieve an equitable distribution of time across the subjects that will comprise the core curriculum.

- Each national subject curriculum committee should state general objectives for the subject in the core for which it is responsible. The general objectives will capture the standards which learners are expected to attain in content and skills mastery (declarative and procedural knowledge) by the completion of their study of the core curriculum.

Note: This exercise will be informed by the learning outcomes developed by the OECS-OERU for the harmonised curriculum.

- The standards declared will be used to identify the essential concepts necessary for achieving the benchmarks linked to the standards. The curricula in the different subjects will be limited to topics that embody these essential concepts.

The topics selected will be submitted to panels of expert judges – subject matter experts – for consensus. Criteria for essential concepts of subjects will also be drawn from the work of such experts as Kendall (2000). His team of researchers identified the

essential concepts of several subjects that could comprise the core curriculum.

- Once the judges reach consensus that the topics identified embody the essential concepts, the general objectives for each topic will be stated. These general objectives for the topic will contain benchmarks. The achievement of benchmarks for topics, cumulatively, will lead to the attainment of the standards for the subject as a whole.
- Units of instruction will be formed by dividing each topic into sub-topics, each of which is to be presented in a lesson or a teaching-learning encounter.
- The competent authority will establish the total number of slots available in the school's timetable per term and per year for the delivery of the core curriculum.
- The slots in the timetable will be allocated to the various subjects in the core curriculum according to need.

It is recognised, however, that in the standard school year of 180 days of 5.5 hours each, there may not be sufficient slots in the timetable to allow for teaching to attain all the standards stated for all the subjects in the core curriculum. In such a situation, solutions such as the following will have to be attempted:

- Topics with their essential concepts will be arranged on a scope and sequence chart from forms 1 to 3. This will make it possible to avoid unnecessary repetition.
- Topics that will serve as prerequisites for others will be scheduled at lower forms. This will pave the way for more rapid progress at the upper levels, thereby saving time.

- There will have to be some preferential treatment given to subjects according to the perceived importance of those areas of study. In view of the negative impact of the lack of competence in literacy and numeracy on learning in general and on the normal functioning of individuals, literacy and communication and mathematics will have to be allocated the most time in the school's timetable.
- The overview form the scope and sequence chart will enable educational personnel to judge whether the standards for some of the subjects are too numerous to be accommodated in the time available in the schedule. Committees of persons, competent in those subjects, will undertake to reduce the number of standards, without neglecting the essential subject matter concepts and skills in those areas of study.

It is helpful in formulating policy on the scheduling of the core curriculum in Grenada to draw on the findings of the *Report of the National Education Commission on Time and Learning* (1994). The Commission distinguishes between the “academic day” and the “school day”. The school day includes the academic day and provides the time for students to study the core subjects and also engage in extracurricular activities, e.g., practice for sports, rehearsal for carnival shows and engaging in club activities.

- The time available during the academic day is to be jealously guarded and reserved exclusively for the study of the core subjects. The school day will have to be lengthened by almost an hour to accommodate extracurricular, non-academic activities. This course of action was recommended by the group for the Ministry of Education, which submitted the proposal for the core curriculum.

OTHER ISSUES RELATED TO THE USE OF TIME AND THE IMPLICATION FOR POLICY OPTIONS

So far the issue has revolved around insufficient time available to students to study the academic core subjects and to engage in extracurricular and non-academic activities. The solution that was recommended was the lengthening of the school day. However, the problem is bigger than the insufficiency of time. It also has to do with using the time available differently so that productivity and quality will improve. Using increased time to operate in the way we have been accustomed to will not result in the development of the competencies which the core curriculum is expected to bring about in today's larger cohort of heterogeneous students. The following additional policy options are proposed to deal with the problem of scheduling the core curriculum.

- ▶▶ Recognizing that students come to the learning situation unequally prepared and that they learn at different speeds, learners' unique circumstances will determine the time allowed them to complete learning tasks.
- ▶▶ More time will be made available to struggling students and they will be guided to use it wisely to avoid failure and dropout.
- ▶▶ Scheduling will allow for exceptional students to realise their potential while the needs of the average students are being addressed.
- ▶▶ To provide the additional time which lower achieving students need to attain the set standards and benchmarks, both government-sponsored and private tutoring, out-of-school learning opportunities will be provided after school, on

weekends and during the vacation. These programmes will be carefully monitored for quality and part of the expenditure will be met by charging fees based on parents' ability to pay.

- ▶▶ Students will be inducted into recognizing that time has value and there are rewards attached to using it wisely and assiduously. Promotion from one form to the next and graduation from high school will result only from higher achievement through increased, productive use of the time available.
- ▶▶ Teachers will be given the time they need besides that spent in front of the class. Teachers need time for retooling to keep up with developments in their disciplines and their delivery, to help in reforming their schools; to interact with their peers and plan together; to interview parents and talk to students; to assess students' projects; to master the new learning technologies that could help students to progress at their own pace.

6. POLICY ON LITERACY AND NUMERACY

Concern has been mounting over students' unsatisfactory performance in public examinations written at the primary and secondary levels of the system. Deficiencies in literacy and numeracy skills have been identified as the main cause for students' unsatisfactory showing. To guarantee a good yield from the tremendous amount of resources that are currently being invested in curriculum reform, it is necessary that policy should be enunciated expressly to deal with the problems of literacy and numeracy in the curriculum.

LITERACY

Literacy is essential for effective learning in all subjects at all levels of schooling, and for all citizens to live effective and successful lives. The Ministry of Education subscribes to the view that all learners must develop proficiency "*to read well, listen attentively, speak clearly, write legibly and spell accurately*" (Sheppard and Ragan, 1990), during their attendance at school.

Literacy: A Definition

Several definitions of the concept were considered. The one chosen to inform this policy was agreed to by State and Federal Ministers of Education of Tasmania and incorporated into the Literacy Policy of the Department of Education. The definition is as follows:

Literacy is the ability to read and use written information and to write appropriately in a range of contexts. It also involves the integration of speaking, listening, viewing and critical thinking with reading and writing and includes the cultural knowledge which enables the speaker, writer or reader to recognise and use language appropriate to

different social situations. (Department of Education, Tasmania, 2003).

The definition points to several aspects of the curriculum in reading and writing which a policy on literacy should address. One of these is comprehension which the ASCD *Curriculum Update* (Summer 2000) identified as “*the main affliction of most struggling readers in middle schools and high schools*” (p. 2). This inability to make meaning of what is read is due to several factors including lack of fluency in reading, limited vocabulary, or background knowledge or limited interest in the material itself. The obvious implication of this for policy will be stated later in this section.

The aspect of the definition dealing with the ability to operate with a range of texts is very applicable to lower secondary students. The range of subjects which students in forms 1 – 3 in Grenada must study spreads from as high as 14 in one school to the lower figure of 9 in another. Nowadays, texts for some of these subjects, e.g., social studies, and science and mathematics, are highly visualized. Not only must students be able to interpret the printed words, but also the pictures, maps, colour charts and diagrams used as illustrations. Policy should stipulate that instruction in literacy should include exposure that will equip students to interpret the visuals in texts. To fail to do this will be demotivating for students since, outside of the school, they are bombarded with messages through image-oriented, electronic media that are becoming ever more popular.

Multiple Intelligences and Literacy

A part of the definition above speaks of the integration of speaking, listening, writing, viewing, critical thinking, etc., in the demonstration of literacy. This is supported by recent research findings about the

connection between the structure and function of the brain and the ability to read and write. The acts of reading and writing could involve some or all of the eight intelligences identified by Gardner (1993). Policy on literacy instruction cannot ignore these groundbreaking research findings. The following excerpt taken verbatim from Armstrong (2003) describes how the process takes place:

The person who reads and writes is doing far more than simply linguistically encoding data. She is also looking at the visual configuration of the letters. Thus, *spatial intelligence* – the intelligence of pictures and images – must first be brought to bear on the printed letters. Then she must match these visual images with sounds. In doing this, she must draw upon her wealth of knowledge concerning musical sounds (*musical intelligence*), nature sounds (*naturalist intelligence*), and the sounds of words (*linguistic intelligence*) in order to make the proper letter-sound correspondences. In addition, she brings in information from her body (*bodily-kinesthetic intelligence*) to ground these visual and auditory sensations into a structure of meaning. [...] the physical body is integral to processing the shapes of letters and the meaning of words and text. Once she begins to organize the information into grammatical units, she draws upon deep intuitive syntactic structures that employ logical-mathematical transformations [...]. As she reads meaningful information, she may visualize what she reads (*spatial intelligence*), experience herself actively engaged in a physical way in the text (*bodily-kinesthetic intelligence*), have emotional reactions to the material (*intrapersonal intelligence*), attempt to guess what the author or characters intend or believe (*interpersonal intelligence*), and think critically and logically about what she is reading (*logical-mathematical intelligence*). She may decide to take action as a result of her reading and writing, either in a

physical way (*bodily-kinesthetic intelligence*) or perhaps within some larger social context (*interpersonal intelligence*). In each of these cases, our reader is bringing to bear different intelligences upon the multi-layered processes of reading and writing.

Our awareness now that all the intelligences are involved in the acquisition of literacy skills has important implications for policy. These intelligences do not work in the same way for all individuals. Difficulties that people have in trying to read and write are not all the same. Students who have difficulty with the visual configuration of letters are said to be suffering from *deseidetic dyslexia*; those who have difficulties with sounds of words are diagnosed with *dysphonetic dyslexia*. Again, some learners have problems with the grammatical-logical structures of sentences, while others are unable to visualize what they read (Armstrong, 2003). There are also diverse ways by which students learn to read. Policy should address all these realities, and measures must be put in place to diagnose students' strengths and weaknesses and identify their unique learning styles. This should be the basis on which to develop remedial programmes and those geared expressly to building competencies in language and literacy.

POLICY AND CREOLE-INFLUENCED VERNACULAR SPEAKERS (CIVS)

A curriculum policy on literacy cannot ignore the status and needs of Creole-influenced vernacular speakers. Craig (1999) defined a vernacular as a language that differs significantly in grammar and idiom from the official language, e.g., Standard English, with which it co-exists, though both languages share a considerable amount of the same vocabulary.

This is the language spoken by a large proportion of Caribbean students on entry to primary school, especially in rural settings. A World Bank report (1993), from a comprehensive study of education in the Caribbean, noted that the quality of primary education in the region was low, particularly in reading, writing, and numeracy. Everywhere in the region, rural children performed more poorly than their urban counterparts.

That this observation is applicable to Grenada is supported by data on students' performance in public examinations contained in the *Education Sector Diagnosis*, put out by the Ministry of Education. Performance in the Common Entrance is undoubtedly the high point of students' sojourn in primary school. Based on the results, the authors of the *Education Sector Diagnosis* identified underachievement in literacy as a major cause for concern. They observed that, in 1999, there was no improvement over the previous year in pupils' weakness in the written part of the examination "*arguably the most valuable element to check on their learning achievement*" (p. 53). Candidates for the school-leaving certificate examination, written at age 14 at the point of exit from the final phase of primary school, fared no better than Common Entrance students. Over a five-year period to 2000, the pass rate never exceeded 25 % and deficiency in language and literacy skills was given as the main cause of the unsatisfactory performance. Craig (1999) observed that the improved levels of literacy that are customarily associated with high-income countries continue to elude those Caribbean societies that are in the high-income category. He attributed this state of affairs in the Caribbean largely to the Creole-influenced vernacular language situation.

This is an issue on which policy needs to be unequivocal. It should not encourage the neglect or abandonment of the home language, the vernacular, in favour of a second language, English. The policy should give guidance on how the vernacular could be managed and

exploited for its potential while easing learners into competence in the official language. Attention to the vernacular is necessary because it plays a major role in structuring learners' thinking processes and aids their cognitive development. This process comes to a stop or is reversed when students are immersed into Standard English to the neglect of their home language. Due to learners' lack of facility in Standard English, there is no compensatory cognitive development for that which was lost from being deprived of the opportunity to use CIV.

There is an undesirable outcome resulting from the absence of policy to deal definitively with the role of CIV in the development of competences in language and literacy. It is that the deficiencies from which students suffer during the primary phase of schooling are carried over into the secondary phase where failure in English language and literacy continues to mount. Policy to give direction, therefore, to deal with this crisis is a necessity.

POLICY OPTIONS

From the foregoing review, the following policy options for a literacy programme are to be implemented by employees of the Ministry of Education. These policy options should underpin and improve the Literacy Enhancement and Achievement Programme (LEAP) proposed by the Ministry of Education

Research

Literacy instruction will be informed by data from ongoing research reported in the literature about how people learn to read and write. Also, action will be guided by findings from basic action research conducted in each school by Ministry personnel and teachers as one aspect of monitoring and assessment.

Diagnosis

It should be taken as a given that not all students are up to the required reading level on entry to secondary school. Teachers will be required, therefore, to access the training opportunities put in place by the Ministry in the use of appropriate tests to diagnose students' reading and writing difficulties and the unique learning styles of each new intake of learners.

Remediation

Teachers are required to use the remedial reading intervention strategies developed under the aegis of the Ministry to correct reading deficiencies in students at the lower secondary level. Alternatively, use could be made of suitable, commercially produced, remedial programmes approved by the Ministry. Students should be grouped according to their proficiency levels determined by the diagnosis, and exposed to programmes customized to suit their unique needs and problems.

The Learning Environment

The classroom setting for remedial exercises will reflect the features of the reconfigured learning environment referred to earlier. Characteristics such as student centredness, teacher sympathy and understanding, and absence of attempts by teachers to belittle students will encourage learners to admit their shortcomings and facilitate their participation in remedial programmes.

Monitoring and Assessment

Curriculum officers will set national literacy outcomes and benchmarks for achievement for post-primary and for each cohort of lower secondary students. There will be monitoring on a school-by-school basis for evidence of the achievement of the benchmarks.

Delivery Practices to Achieve Literacy

Teachers will instruct deliberately to achieve the goals of literacy by:

- Planning learning experiences based on a diagnosis of students' needs and problems;
- Clear explanations, the use of proper illustrations and provision of ample opportunities for students to practise the literacy behaviours;
- Relating the literacy topics and materials used to students' background and experience;
- The use of a wide variety of print and non-print resources;
- Monitoring student progress

Literacy Learning Support Infrastructure

School Subject Curriculum Committee for Literacy

This committee will be formed in each school. One who has specialized in the teaching of English will head it. Other members will include the teachers of the language arts as well as instructors from other disciplines or areas of study. Using curriculum guide documents, e.g., LEAP, put out by curriculum officers, the Committee will develop the school's literacy programme and monitor its implementation.

The Facilitating Role of the Principal

The principal will oversee the development of the school's literacy programme and facilitate its implementation by sourcing the required human and material resources.

Teaching and Learning Resources

Each school will establish a library or a resource centre with the range of print and non-print materials that both teachers and students could access to promote literacy learning.

Emphasis on Comprehension

Since comprehension is a major bugbear for secondary school students, specifically, teachers of the language arts must employ multiple strategies to assist learners to overcome this difficulty. Students must be provided with opportunities, not only to interpret the printed word, but also to visualize concepts using examples from across the curriculum. Thus, the repertoire of materials used by the teacher of literacy must include examples from texts from different disciplines. The purpose is to make students aware that each discipline or subject has its unique vocabulary, concepts, writing style and visual representation, all of which must be understood for comprehension to take place.

Literacy Across the Curriculum

The Ministry supports a multi-pronged approach to the improvement of literacy. Consequently, it should be taught across the curriculum. All instructors in the various subjects in the curriculum must teach reading for comprehension as well as writing in offering their specializations.

Broad Range of Reading Materials

In addition to prescribed textbooks, the Ministry supports the use of a variety of both fiction and non-fiction reading materials with information about experiences in everyday life that lower secondary students are expected to understand. These materials could include: advertisements, literature from the pharmacy, income tax return forms, travel brochures, autobiographies, diaries and the like. The objective of the exercise is to illustrate the actual use of language in certain circumstances.

Also, exercises in language and literacy instruction and materials used should relate to the real world experiences of learners, e.g., their

involvement in community service, solving environmental problems, popular entertainment and local festivals.

A Literature-Based Programme

To talk about using a variety of printed materials in addition to one or two prescribed texts to teach language arts is to endorse the *literature-based* approach. A student literacy programme using this approach is underpinned by the *whole language* philosophy. Started at the primary level, it entails surrounding learners with a rich supply of authentic literature to provide the context in which students develop the skills of writing and reading for comprehension.

Literature-Based vs. Skilled-Based Strategy: Balance and Flexibility

The skilled-based approach to teaching literature should not be neglected or abandoned in favour of the literature-based strategy. The policy is that a programme must be balanced and flexible, drawing on the best from each strategy (ASCD Curriculum Update, 1994).

Removal of Deficiencies and the Acceleration of Student Proficiency

At the point of entry to secondary school, immediate steps will be taken to fill gaps in students' language and literacy skills that developed during the primary phase of schooling. With the removal of these shortcomings by the end of form 3, students will be ready to embark on preparation for matriculation examinations at form 5.

Teacher Professional Preparation

The Ministry of Education endorses a very professional approach to dealing with the problem of literacy in the system. Accordingly,

teachers are required to access the available opportunities for training to teach literacy.

Secondary Level

A cadre of teachers with the appropriate academic background will be inducted into the subject matter of literacy and the various methodologies for its delivery in the classroom.

Training of Generalists

Since all teachers are required to contribute to developing literacy in learners, the TA Marryshow Community College must prepare to offer a basic course in the teaching of literacy across the curriculum to all teachers.

Strategic Alliances

Collaborative groups should be formed in each school between teachers of language arts and literacy and those responsible for other subjects so that the former group could assist the latter (akin to literacy committees recommended in LEAP).

POLICY OPTIONS TO DEAL SPECIFICALLY WITH PROBLEMS CAUSED BY CIV IMPACT

Focus on Both Standard English and the Vernacular

Alternately with the study of Standard English, learning opportunities in the vernacular will be provided in order to build self-awareness and a sense of self-worth and engender confidence. The ultimate goal of the literacy programme, however, is for the learner to develop competence in Standard English. The vernacular is one of the enabling agents for achieving this goal.

Emphasis on Mastery in the Use of Language

The emphasis in literacy instruction is on the use of language, whether the medium is Standard English or the vernacular. However, it cannot be over-emphasized that the objective, in the final analysis, is mastery in the use of Standard English.

A Strategy to Mediate the Ill-Effects of CIV and Accelerate Student Progress

Teachers will aim to remove weakness in language and literacy competences that militate against improving behaviours in areas such as listening, speaking, reading and writing. Also, attention will be given to developing relevant capacities besides language, e.g., potential for cognitive development, sensitivity to, and experience with, objects and events in the learners' environment, and awareness of the implications of competence in the use of language for social status.

NUMERACY: A DEFINITION

To be numerate is to have, and be able to use, appropriate mathematical knowledge, understanding, skills, intuition and experience whenever they are needed in everyday life – whether at home, in paid work or participation in community and civic life. Numeracy is more than just being able to manipulate numbers. The content of numeracy is derived from five strands of the mathematics curriculum – space, number measurement, chance, data, and (pattern and) algebra. As students become more numerate, they should increasingly be able to:

- Use what they have learned as a basis for further learning;
- Add to the variety of situations in which they can use what they have learned;
- Recognise how and when mathematics is being used to influence and support arguments;
- Consider their own and others' use of mathematics;

- Communicate their mathematical ideas to others.

Source: Department of Education, Tasmania. (2003). *Connections: strategic planning frameworks*. Tasmania: Department of Education

ENUNCIATION OF THE ACTUAL POLICY FOR NUMERACY

What the definition of policy above is calling for is the laying down of the conditions that must be present for improvement in students' numeracy to take place. In policy statements, these conditions are usually stated as imperatives or mandates. Where these mandates refer to the responsibilities of individuals and institution, the active auxiliary '**will**' is used to indicate that a functionary has no choice but to carry out the directives.

In keeping with the definition above, the policy on numeracy that follows sets out the conditions that must be present in the system as a whole, and in each school, for students' improved performance in numeracy to take place. It states clearly the guidelines that agencies in the system and personnel employed in them must do to carry out the mandate of the Ministry to decrease students' deficiency in numeracy and improve performance levels.

POLICY OPTIONS

Research: Coming to Grips With the Problem

To meaningfully address any problem being experienced in the education system at the school level, there must first be an analysis of the extent of the problem. The data collected through such research will serve as the basis of any action to be taken to resolve such a problem.

- ▶ The relevant departments within the Ministry of Education will undertake necessary research to determine the attainment levels

in mathematics at specific grade levels in both primary and secondary schools.

- ▶▶ The MOE will publish the results of all research done in schools.
- ▶▶ The Testing and Measurement Unit will conduct national assessment in mathematics at grades 2, 4 and 6 of the primary school cycle, and at form 3 of the secondary school cycle.
- ▶▶ Teachers, with help from the Curriculum Officer, Mathematics, and members from the Testing and Measurement Unit, will do action research within their classrooms to investigate phenomena associated with the learning of mathematics.

Diagnosis

To determine the point at which to begin instruction, teachers must first find out what pupils already know and what difficulties they are experiencing with the subject matter. In addition, they should also know what might be hindering the pupil from benefiting from instruction. Teachers will:

- ▶▶ Engage in diagnosis as a regular component of the teaching process;
- ▶▶ Use appropriate diagnostic exercises to determine pupils' learning needs in relation to mathematics;
- ▶▶ Use available, professionally developed instruments to diagnose pupils' deficiencies in mathematics.

Remediation

The purposes for assessment are varied. One of the major purposes is diagnosis. Diagnosis should inform future instruction. Two

key inputs after diagnosis are enrichment and remediation. Teachers will:

- Give regular feedback to pupils regarding their achievement;
- Engage in remedial instruction after any assessment exercises;
- Address both common weaknesses and individual difficulties;
- Employ alternative teaching methods during remediation activities.

The Learning Environment

The environment in which formal learning of mathematics takes place is the school. The conditions that exist in the school are directly related to the amount of learning that takes place. It is therefore of extreme importance that all schools strive to provide the best conditions for pupils. Schools will provide a working environment that promotes the valuing of numeracy and mathematics. Schools will:

- Provide appropriate timetabling;
- Deploy staff in a manner that will facilitate the effective teaching of mathematics;
- Seek to acquire technological devices that will enhance the teaching of mathematics;
- Provide teachers with the necessary material resources that will facilitate the effective teaching of mathematics;
- Appoint subject leaders for mathematics who will act as resource persons within the school to coordinate and manage the whole schools' numeracy programme;
- Ensure that the mathematics classroom is attractive and visually stimulating.

Assessment, Monitoring and Reporting

Assessment is at the heart of instruction. To maintain and monitor standards, special attention should be given to assessment. The results of assessment should be carefully recorded and analysed if assessment is to be of any use. The whole process of teaching mathematics should be carefully monitored at various levels. Mathematics instruction should be monitored at the level of the classroom, the school, the district and nationally. Likewise, assessment results should be reported so that the stakeholders can keep track of progress.

- ▶▶ The school will develop an assessment policy for mathematics.
- ▶▶ The school will develop an assessment schedule.
- ▶▶ The classroom teacher will be responsible for the continuous assessment of pupils' performance.
- ▶▶ The classroom teacher will report on the pupil's performance to the pupil, the principal and the parent.
- ▶▶ The MOE will assess mathematics performance at grades 2, 4, and 6 of the primary school and form 3 of secondary school.

Teacher Delivery Practices to Achieve Numeracy

- ▶▶ The teacher will differentiate instruction to cater for varying abilities.
- ▶▶ The teacher will cater for different learning styles among pupils.
- ▶▶ The teacher will, at all times in the delivery of the numeracy programme, apply the knowledge and skills acquired from professional development programmes offered at TAMCC and elsewhere.

Numeracy Learning Support Infrastructure

School Curriculum Committee on Numeracy

There will be a curriculum committee on numeracy in each school headed by a leader whose specialization is mathematics and numeracy. The numeracy curriculum leader will be responsible for:

- ▶▶ Providing leadership in the fields of mathematics and numeracy in the development of the curriculum in those areas;
- ▶▶ Planning and conducting professional development exercises for fellow teachers.

The principal will be responsible for:

- ▶▶ Providing leadership in the development of the school's numeracy plan as part of her whole school curriculum development responsibility;
- ▶▶ Providing the numeracy leader with release time and training opportunities to facilitate the proper discharge of the responsibilities of the position;
- ▶▶ Working with senior personnel in the Ministry to procure resources and address professional development needs of school staff;
- ▶▶ Establishing procedures for monitoring and assessment of the numeracy programme in the school and preparing reports periodically;

The School Administration and Management Unit and the Curriculum Development Unit, with assistance from the Testing and Measurement Unit will be responsible for:

- ▶▶ Monitoring numeracy system wide;
- ▶▶ Assisting individual schools to develop their monitoring strategies;

- Supplying schools with resource materials.

Initiatives in Teacher Preparation (Pre-service, in-service and ongoing refresher programmes for career teachers)

- The Human Resource Division of the Ministry of Education will ensure, in its planning, that there is an uninterrupted supply of qualified teachers in mathematics to facilitate the implementation of the policy on numeracy.
- The Teacher Training Division of the TA Marryshow Community College will prepare and deliver professional development programmes in numeracy and mathematics to prospective teachers, using the most up-to-date methods and resources.
- Tutors at TAMCC will work with the Curriculum Development Officer, mathematics and classroom teachers to develop the numeracy programmes in schools and to produce support materials.
- From following the professional development programme, teachers will:
 - ✓ Understand the process of numeracy development for students in the age cohort for which they are responsible as instructors;
 - ✓ Be able to employ teaching techniques that reflect the numeracy requirements of their subject and satisfy students' numeracy needs;
 - ✓ Provide students with abundant opportunities for mastering numeracy skills by doing the following: clearly explaining numeracy concepts and modelling and illustrating as appropriate; providing frequent opportunities for students to

apply newly acquired knowledge and skills; and keeping track of students' progress to ensure that their needs are being met.

7. POLICY ON THE DIFFUSION AND IMPLEMENTATION OF THE CURRICULAR PROGRAMMES FROM THE REFORM EFFORT

SOME IMPORTANT CONSIDERATIONS

The expectation no doubt is that the curriculum programme that will result from the ongoing reform efforts will be accepted by implementers and used throughout the system. The Ministry is aware, however, that the installation of a new curriculum in a system cannot be an effort that is haphazard or left to chance. It is a series of activities that must be willed and deliberately planned for. There are several considerations that should inform a policy on the diffusion and implementation of new curricula. The more important ones among them include:

- Getting new curricula accepted is bringing about change and fundamental change at that;
- There is need for careful preparation and validation of the new curriculum package;
- The change that actually occurs in individuals and organizations is a long, painstaking process that is often traumatic, not a one-shot, happy-go-lucky event;
- The process by which a new curriculum is accepted and used is an interactive one involving collaboration and cooperation among many stakeholders;
- There are features of a new curriculum that conduce directly to its acceptance and use;
- There are other key factors that facilitate the successful introduction of new programmes into an education system;

- Models/strategies from which to select for use to induct stakeholders, and especially would-be implementers, into their roles.

Each of the above considerations will be examined briefly as the basis for setting out the policy options.

CURRICULUM INNOVATION IS FUNDAMENTAL CHANGE

It is important to recognise that the successful attempt to get a teacher to accept and use a new curriculum requires that fundamental changes be effected on the several dimensions indicated below:

- Acceptance of new or revised teaching materials (e.g. the agreement by the teacher that the new curriculum and technologies will replace the old);
- New teaching/learning approaches (behavioural changes for both teachers and learners);
- Alteration of beliefs and values (changes in the previously held assumptions and philosophy of implementers to make way for new ones on which the acceptance of the new programme and accompanying pedagogical practices will be anchored);
- Environmental changes (changes in physical classroom arrangements to facilitate the new approaches to teaching and learning);
- Organizational changes (changes in scheduling, staff deployment and in-house administrative leadership arrangements. Also, alterations are required to the school and classroom culture to make it more change-friendly).

Change must occur in all these dimensions for a claim to be substantiated that a new programme was successfully introduced into a

school system. Policy should set out the conditions for the changes to succeed.

PREPARATION AND VALIDATION OF THE NEW CURRICULUM PACKAGE

An innovation in curriculum is really a curriculum package consisting of at least the following:

- Written curriculum complete with a rationale, philosophy, aims, goals, objectives, content, teaching/learning activities, and evaluation strategies;
- Resources – equipment, print and non-print materials, and supplies.

The new curriculum package is really the proposed solution developed to solve the various problems in the system referred to in Section 1 on Country Background, and examined in more detail under Weaknesses of the System, in Section 3.

The basis for the validation of the curriculum is triangulated data collection on how different aspects of the new curriculum worked during the tryout and field-testing. Information is generated on how well teachers and students were able to cope. Policy should provide direction on the efficient and effective conduct of the curriculum validation exercise.

EFFECTING CHANGE IN INDIVIDUALS AND ORGANIZATIONS

The decision of an individual teacher or another unit of adoption, e.g., a school, to accept and use an innovation in curriculum does not happen suddenly or by reflex action. It is a conscious activity involving the use of cognitive skills and the effecting of attitudinal changes. These

intellectual and emotional experiences occur in stages over a well-defined time sequence. Rogers (1995) referred to this activity as the ***innovation-decision process*** and defined it as:

... the process through which an individual (or other decision-making unit) passes (1) from first knowledge of the innovation (2) to forming an attitude towards the innovation (3) to a decision to adopt or reject (4) to implementation of the new idea (5) to confirmation of this decision. (p. 161)

The decision by a prospective implementer to accept and use a new curriculum is not a one-shot ***event*** but a ***process***. Policy should lay down procedures, therefore, which change agents should follow in taking implementers' concerns into consideration and skilfully managing the attitudinal and other changes required for the support of new curricula.

FACTORS WHICH CONDUCE DIRECTLY TO THE ACCEPTANCE AND USE OF NEW CURRICULA

Several factors could be deliberately created or manipulated to have a positive effect on would-be adopters of new curricula. Policy could be formed to help this process. Some of these factors are examined below to see more clearly the implications for policy.

The Perceived Attributes of the New Curriculum Which Make it Appealing to Adopters

Certain features, if built into the curricula to be developed, will remove barriers to the acceptance of these new programmes. In fact, the biggest asset with which the change agents in the system will have to work are the self-selling features of the innovation – the new curricula. One such feature is that the innovation must have demonstrable relative

advantages, that is, it must be perceived to be better than the idea it supersedes. Since additional expertise may be needed to implement the new idea, another relative advantage is the professional improvement of the teacher.

Other features include: compatibility – the extent to which content and delivery strategies of the new curriculum are consistent with the existing values, past experiences and needs of the potential adopter; trial-ability – the degree to which the new curriculum provides scope for the adopter to experiment with it on a limited basis; and, adaptability – when the new curriculum provides the adopter with some scope to make some alterations to suit local conditions and students' unique needs. This gives the adopter some sense of ownership of the new curriculum and facilitates its acceptance and use. Policy should direct that features such as those above should be built into the new curricula to be developed so that they could find favour with prospective implementers.

The Communication of Information about the New Curricula to Stakeholders

The key to the acceptance of the new curricula by stakeholders is effective communication. The reason is that it is by communication that members of vested interest groups create and share information with one another in order to reach mutual understanding. The two most popular communication channels are the mass media and interpersonal communication. Policy should direct how these two channels for transmitting information could be effectively mobilised to diffuse information about the new programmes. Policy should ensure that this is done in such a way as to establish common ground among service providers and service receivers about the philosophy, goals, objectives, content, delivery strategies, and evaluation of student outcomes.

A Supportive Social System to Facilitate the Adoption of Innovations

A social system is a set of interrelated units that are engaged in joint problem solving to attain a common goal (Rogers, 1995). The whole education system run by the Ministry of Education is a social system. So is the school or classroom for that matter. It is absolutely essential for all social systems to have some standard features in order for the goal being pursued to be achieved. When these features are present, the social system is described as a healthy organization. Policy should ensure that the conditions necessary for the achievement of the goal of the planned curriculum reform are present in the macro system and also in the school.

The Pivotal Role of Change Agents

Several office holders at the different levels of the hierarchy of the system will need to function as change agents during the reform initiative. Their role will be to influence the behaviour of all the Ministry's clients in the desirable direction, that is, to provide support for the new programmes. The office holders include: curriculum officers and school administration and management officers from the Ministry. In the school, the principal is expected to function as the institutional curriculum leader. Also, the vice principal, heads of department and senior teachers are expected to serve as change agents during some stage of the curriculum reform process. Policy should cater for the definition of the role and responsibilities of change agents, training to discharge their duties and the formal assignment of the roles.

CURRICULUM REFORM – AN INTERACTIVE, COLLABORATIVE PROCESS

The stakeholders who usually have a vested interest in a curriculum reform effort can be grouped under three main categories as follows:

- ▶▶ Service receivers – students, parents and employer representatives from the public and private sectors and the communities at large;
- ▶▶ Service providers – Ministry of Education officials, school personnel, teacher educators and suppliers of educational materials;
- ▶▶ Other interest groups – professional associations, NGOs, representatives from academic institutions with an interest in, and knowledge of the area of the innovation.

Since the support of the members of all these groups is essential for the success of the reform effort, policy should ensure that their representatives are consulted and given an active role in facilitating the development and piloting of the new curricula. Training should be provided for those who require it in order to function effectively. Cases in point are: parents who need to be properly briefed about the philosophy, goals and content of the new curriculum in order to assist their children with homework assignments; teachers who require induction into the use of the new materials; and students who should be informed about the objectives of the curriculum and the behaviours required of them for its study.

MODELS/STRATEGIES FOR CURRICULUM DIFFUSION AND IMPLEMENTATION

A strategy has been defined, by Hall et al. (1982), as “*all the procedures and techniques used by individuals and groups at different levels of the educational system to reach desired objectives*” (p. 277). Perhaps the three best-known strategies to disseminate the curriculum innovations that will come out of the reform are: power-coercive, normative re-educative, and empirical-rational. There are variants of these. All have features to commend them, except perhaps power-coercive. Policy should guide the distillation of the positive features from all of them which, when applied, will yield the best results.

An illustration follows on the working of policy, based on empirical-rational and normative re-education strategies in an eclectic approach. Now, according to the empirical-rational model, humans are rational beings and will respond favourably to proposals for change, the merits of which are backed up by supporting evidence. Policy should dictate, therefore, that the purpose of the piloting of the curriculum should be to collect empirical data about how well it is working, to be presented to doubtful prospective implementers. Simultaneously, the normative-reeducative strategy could be employed to tap the feelings and inner thoughts of would-be implementers as a basis for them to voluntarily modify their values and beliefs to accommodate those that underpin the innovation. Here the motivation for change is intrinsic; hence it is more likely to be sustainable. A policy to convince implementers to accept and use the new curriculum could be effective if it is based on a combination of the empirical-rational and normative-reeducative models for change.

A SUMMARY OF POLICY OPTIONS FOR THE DIFFUSION AND IMPLEMENTATION OF THE CURRICULUM INNOVATIONS

From the foregoing review, the policy options are proposed:

Curriculum Innovation as Fundamental Change

Officers designated as change agents, will function on behalf of their client, the Ministry of Education, to ensure that all aspects of the change intended by the introduction of a new curriculum are understood by implementers, accepted by them and implemented. The substance of the change which change agents will do their utmost to impress on the consciousness of implementers include:

- ▶▶ New curriculum content;
- ▶▶ New teaching and learning approaches;
- ▶▶ Alteration of beliefs and values;
- ▶▶ Environmental and organizational changes.

Preparation and Validation of Curriculum Packages

Piloting the New Curriculum

Before a new curriculum is installed in the whole system, the complete package will be duly piloted. Piloting will take the form of a tryout, followed by a field trial. The former entails the testing of small portions of the preliminary curriculum under actual classroom conditions in a limited number of schools. Field trial takes place after the flaws thrown up by the limited tryout have been removed. Field trial involves widespread testing of the whole curriculum in a sizeable sample of schools under conditions that will apply in large-scale implementation.

The purpose of the tryout and field trial is to ensure that the curriculum is suitable for its intended purpose. The criteria that will be

used to judge the suitability of the curriculum package include, among others:

- Whether is it addressing societal problems and satisfying students' needs;
- Whether teachers can cope with the demands of its delivery;
- Whether learners can cope with the proposed learning approaches;

Other criteria deemed appropriate by change agents will also be used.

Data Collection Instruments

The approach to data collection during the pilot will be a triangulated one to increase the validity and reliability of the exercise. Instruments should be selected from the following list depending on the feedback being sought and from whom it is sought:

- Judgemental – for use with curriculum officers and implementers to collect information about the general features of the new curriculum;
- Observational data collection tools – rating scale for teacher classroom behaviour;
- Unstructured or semi-structured interview schedule for collecting qualitative data;
- Achievement tests for pupils;
- Performance tests for students;
- Questionnaire for parents, other service receivers and community members;
- The focus group discussion.

All curricula will be revised based on the findings of the pilot before large-scale implementation.

Achieving Consensus Among Stakeholders

The Ministry recognizes the value of receiving the full cooperation and support of all the stakeholders with a vested interest in the impending curriculum reform. The policy then is to involve all of these stakeholders in the process of developing and implementing the curriculum. Accordingly, Ministry personnel are directed to arrange for all the different categories of stakeholders to participate in the curriculum reform effort in whatever capacity they are willing and able to serve.

The Role of Intellectual and Emotional Factors in Effecting Change in Individuals and Organizations

The Ministry's approach to altering the outlook of reluctant, prospective implementers is informed by existing knowledge about how change occurs in individuals and organizations. Prior to the large-scale implementation of any new curriculum, teams of Ministry personnel will work with a set plan to take those who will be responsible for implementing the programme through the innovation-decision stages. The aim is to remove, over a reasonable time period, any barriers to the acceptance and use of the new curriculum.

The Use of Factors That Could Be Exploited to Facilitate the Installation of a New Curriculum in a System

Self-Selling Features of the Curriculum Innovations

The National Subject Curriculum Committees and the School Subject Curriculum Committees will deliberately build into the

programmes that they develop features that will encourage implementers to use them. These features will include: scope for experimentation; some freedom for instructors to make alterations and share some ownership for the new programme; compatibility between the philosophy and values underpinning the programme and those of the would-be adapter; and some demonstrable advantages to the adopter, e.g., professional improvement, economic advantages from access to cheaper materials or prospects for bulk purchase and social prestige status from adopting the innovation.

The Important Role of the Change Agent

The Ministry expects that personnel from the Curriculum Development Unit and the School Administration and Management Unit, and school administrators will function as change agents to ensure a positive yield from the reform effort. To become equipped to perform this important role in a professional manner, the personnel alluded to will access the training opportunities provided by the Ministry for the purpose.

The Use of the Two Major Channels of Communication

It is the policy of the Ministry to keep its stakeholders, as partners, informed about its plans and projects for the development of education in Grenada. The Ministry will employ the two major channels of communication to transmit information to its publics about the impending curriculum reform. The same means of communication will be utilised to receive feedback and suggestions.

The mass media is one of the communication channels that the Ministry will employ, viz. radio and television and various literary forms, e.g. newspapers, newsletters and curriculum documents themselves.

Advantage will also be taken of the increasing availability of computer technology.

The other channel of communication that will be tapped is interpersonal. This will involve face-to-face communication on a one-to-one basis, as well as meetings of larger groups such as PTA meetings, town meetings, focus group discussions and consultations.

Features of a Supportive Social Structure to Facilitate Curriculum Adoption

The Ministry will ensure that the conditions necessary for curriculum reform to be successful are present in each of the three social systems that will be the arenas for the piloting and implementation of the new programmes. The three arenas are the whole system, the school and the classroom. The conditions mentioned refer to the features of a healthy organization. Organizational health is critical for getting the staff of a school to adopt a new curriculum.

Ministry personnel are mandated to establish in each school the organizational health that will make it into a fertile environment in which curriculum reform will thrive. The indicators of organizational health will conform to criteria set out by Miles (1965) and others. The following are examples of the criteria:

- Goal focus – clear understanding by the staff members of the goals of the reform;
- Communication adequacy – horizontal and vertical distortion-free communication about the new programmes;
- Optimal power equalization – ideas could flow in any direction; top-down or bottom-up. Superiors, as well as subordinates, could influence the course of events;

- Human resource utilization – fully exploiting the potential of staff without overburdening them to the extent of making them impotent;
- Cohesiveness – winning the loyalty of teachers and administrators to norms and values of the school and a commitment to the pursuit of its goals;
- Morale – feelings of well-being, satisfaction, and pleasure by the staff due to the manner in which their emotional upheaval, when confronted with the new programme, was dealt with. The opposite feelings are discomfort, unwished for strain and dissatisfaction;
- Innovativeness – the creative capacity to invent solutions such as making alterations to the proposed new curriculum without changing its essence;
- Adaptation – is the quality of self-renewal or the capacity to adapt to new challenges posed by the environment. This quality conduces to sustainable curriculum development initiated from the grassroots of the system, the individual school. When this quality is part of a school's culture, a curriculum will not lose its effectiveness due to irrelevance. Action will be taken once new demands begin to be made on the school.
- Problem Solving Adequacy – similar to adaptation above: the ability to sense a problem, invent a solution, implement it and evaluate its effectiveness.

The Ministry will actively promote the features outlined above, as well as others, in order to make schools involved in the curriculum reform exercise into healthy organizations with attendant benefits.

ENDORSEMENT FOR THE USE OF EMPIRICAL-RATIONAL AND NORMATIVE RE-EDUCATIVE STRATEGIES

The Ministry expects that its senior personnel, functioning as change agents, will not use coercive measures to win the support of school staff for the new programmes. Instead, they will appeal to the rational qualities of implementers by providing empirical evidence from the piloting exercise or any other source, to back up their claims for the merit of the innovation.

As part of improving the organizational health of schools, the Ministry will empower staff to become more creative and more problem-solving oriented and less defensive and conservative. These attributes will emerge if would-be adopters and implementers are given the opportunity to explore their needs and feelings as a basis for getting them to substitute the values which underpin the proposed change for their own values. In this way, the motivation for the change that they undergo is intrinsic, not extrinsic. As such, their transformation is more likely to endure.

QUALITY CONTROL

During the large-scale implementation of the new curricula, following the tryout and field testing, Ministry officers will take full responsibility for achieving and maintaining quality control. This is ensuring that the effectiveness of the new programme does not deteriorate. Ministry personnel will be on the lookout for signs of deterioration such as when the curriculum begins to become ineffective or inappropriate for the purpose for which it was intended. Other signs of deterioration include when staff lack the competence to deliver the programme, or when schools' organizational climate, which once conduced to effectiveness, change. Data collection will continue during

full-scale implementation to uncover evidence of deficiencies that are adversely affecting the quality of the programme.

CONCLUSION

The policy options proposed in the foregoing on the diffusion and implementation of new curricula should prove advantageous in several ways. They will equip school staff to assume considerable responsibility for curriculum matters, thereby allowing them to develop their self-reliance. There will be an improvement in the level of professionalism resulting from the staff development exercises that must be mounted for the policy options to be implemented. The process of curriculum development and implementation throughout the system will become more systematic and less haphazard. There should be an increase in the yield from the tremendous outlay in human, financial, and other resources invested in the reform. With healthy school climates and staff imbued with new values and attitudes, the reform is more assured of being sustainable.

8. CHANGES THAT WILL RESULT FROM THE IMPLEMENTATION OF THE PROPOSALS FOR A CURRICULUM POLICY

INTRODUCTORY STATEMENT

Normally this section of a report of this kind would contain recommendations. However, the numerous policy statements contained in the various sections of this report could be viewed as recommendations. The number of policy statements is so large that it is unnecessary and impractical to reproduce them here. The reader could go to the relevant sections of the report and peruse the policy statements on the different issues. In this section of the report the Consultant summarizes the changes in the operations of the education system in Grenada that will result when the policy to guide the curriculum reform effort is implemented.

SUMMARY OF CHANGES

The proposals contained in this report are change oriented in that they aim to remedy defects in the education system identified in several investigative reports. These include the *Grenada Education Sector Diagnosis*, the KAIRI Consultants' study on poverty in Grenada and the UNESCO/IIEP report entitled *An Audit of the Organization and Management of the Grenada Ministry of Education*. Also, account was taken of the numerous deficiencies pointed out by interviewees and their recommendations for removing them.

The proposals also capture the ring of urgency for change in the Strategic Plan for Educational Enhancement and Development 2002-2010 (SPEED). The aim of SPEED is to drastically transform the way the education system in Grenada is currently run. Strategies are recommended in this report that will conduce to achievement of the

major and sub-strategic objectives of SPEED. Some of the changes that will occur should these proposals be implemented are outlined below.

1. Improvement in Overall Student Achievement Due to Attention to Literacy and Numeracy

The implementation of the policy on literacy and numeracy in a serious manner should at last point to the solution to underachievement in schools. The reason is that competence in literacy and numeracy is the foundation for all learning and is the sine qua non for achievement in all the subjects in the school curriculum. Wastage caused by underachievement and the phenomenon of dropout should be greatly reduced with the improvement in literacy and numeracy skills.

2. School Culture

The recommendation that each school should aim to develop an healthy organizational climate, if followed, will undoubtedly provide the conditions for maximising performance. It should lead to a profound change in the culture of each school. In institutions with an healthy organizational climate barriers are broken down and staff no more operate in isolation. They become acutely aware of the ethos of the school, i.e., its values and beliefs that are shared by all members. An example of these values is captured in Miles' ten dimensions of organizational health, viz. goal focus, communication adequacy, optimal power, equalization, resource utilization, cohesiveness, morale, autonomy, adaptation and problem solving. When values such as these become part of the ethos of the school, the clear message goes that this is the way we operate around here; there is a high degree of collaboration and teamwork. As a result, mutual benefits accrue to the institution and its members.

3. Expansion in the Principal's Leadership Role

Up to now, the principal's leadership role is largely administrative. The policy recommended adds the portfolio of curriculum leadership to his/her responsibilities. As head of the School Curriculum Management Committee, s/he will have to oversee the use of the curriculum guides put out by the Curriculum Development Unit, to develop curricula in the various subjects, customized to suit conditions in the school and learners' unique needs and interests. A particularly important role has been given to the principal with respect to the implementation of the policy on literacy and numeracy.

4. Need for a New Breed of Teacher

Teachers will need to be operating from a much stronger professional base due to new responsibilities, such as the following, which they will have to assume:

- Curriculum Development. It will no more be appropriate for them to accept outlines of topics in the guides as the curriculum. Instead, they will have to actively participate in curriculum development at the school and classroom levels. The task will become more challenging since not only must they be able to develop the normal curriculum, but also programmes to effect remediation in literacy and numeracy.
- New Methods of Assessment. Teachers will have to move away from using only the traditional paper and pencil tests to assess students' achievement to carrying out assessment of performance in non-academic subjects in authentic settings. This will require the preparation and use of such devices as rubrics, and the design brief in the case of integrated technology/technology education
- Involvement in Action Research. Teachers will have to conduct classroom action research in collaboration with curriculum

development officers and testing and measurement officers. Thus they will develop the habit of asking and answering questions about their own practice.

- **Teaching for Student-Centred Learning.** The proposals call for a change in teaching style. There will be a de-emphasis on frontal, expository teaching and a shift to student-centred instruction, informed by some aspects of constructivist learning theory. Focus will change from the sheer acquisition of information to learning how to find information and use it as required.

Teachers will be required to become reflective practitioners taking decisions on what and how to teach and assuming some responsibility for those decisions.

5. The Achievement of Curriculum Alignment

At present, in most territories of the region, there is no deliberate attempt to align the goals of curriculum policy enunciated at the top of the administrative hierarchy with the implementation of the curriculum at the classroom level. Now, with the operationalization of the model for the curriculum system recommended for Grenada, teachers will become more aware that they should not be operating in vacuo, but that what they do in the classroom was intended to be part of an overall plan, a grand design to develop the human resources in order to realise the vision and mission for the social, economic and other types of development envisaged for the country by the planners.

In fact, curriculum alignment should be easily discernible to all the stakeholders involved in curriculum development. They will see a connecting thread running through the curriculum for each subject from the highest level of the school system to the lowest. The philosophy, goals, and policy enunciated at the national level will inform the

development of curriculum guides by the Ministry's technical and professional staff. The curriculum guides in the different subjects will, in turn, provide direction for planning courses at the level of the school. These courses of study will be used by teachers to plan teaching units for actual classroom instruction. Curriculum practice at all the levels in the hierarchy of the system will become more professional.

6. Greater Involvement of the Citizenry in Education

What is highly desirable is more involvement of all stakeholders in the planning and delivery of education to the Ministry's clients. The mechanism that has been recommended to produce the curriculum will allow for representatives from different vested interest groups to make inputs into the philosophy, goals and content of new curricula programmes. Some service receivers will provide assistance in disseminating information about the new curriculum to win acceptance for it. Parents, after induction, will assist in instructing their children.

Some of the subjects in the new core curriculum, e.g., the creative and performing arts and integrated technology/technology education, are heavily action or performance-oriented. Some of the classes will need to be held on sites outside the school, especially to sensitise students to possibilities for future careers. These ventures will require resource persons, and parents could serve in this capacity or help the school to access resources in the community. Wider involvement of the citizenry in the enterprise of education was called for in the Education Act and the proposals in this report will certainly help to achieve it.

7. New Major Goal of the Curriculum: The Development of Students' Critical Thinking and Problem-Solving Skills

The proposals counsel that the emphasis in teaching and learning should shift from the acquisition of information primarily for regurgitation, to problem posing, and resolution by the students themselves with the teacher functioning as facilitator. The solution of problems will result by the students sourcing information from libraries or resource centres. This should develop the students' critical thinking and problem-solving skills. With such abilities, learners will be better equipped to carry out their civic responsibilities.

8. Zero Tolerance for Failure: A Success-For-All-Students Perspective

As in any developing country, there is an uncomfortable level of poverty in Grenada. The poor are caught in a vicious circle. Poverty leads to the inability to take full advantage of opportunities for schooling, which breeds failure and dropout, which renders the poor unemployable, which further exacerbates poverty. A dent in this problem could only be made if teachers adopt a perspective that they must teach for all learners to succeed.

To be successful, the proposals suggest that there are many things that teachers did previously which they must do differently now. They must turn the self-fulfilling prophecy on its head by setting high expectations for low achievers, specially-abled and under-privileged learners. They must diagnose learning difficulties and learning styles and use appropriate remedial measures. They must use the outcomes-based instructional model of "teach-test – reteach-retest" to identify those students who did not master all or most of the objectives and therefore need additional instruction. Finally, they will need to broaden the

curriculum and teaching practices to meet today's very diversified student population.

9. A Changed Culture for Developing New Education 'Products' and Installing Them in the System

The proposals will foster an outlook to developing new programmes and implementing them in the system. The approach is less haphazard and more scientific and akin to the research and design strategy used in business and industry. In these areas, steps are taken to ensure that a product is tailored to suit the problem it was created to address. It has features that will commend it to prospective users and carefully designed strategies are used to influence clients to invest in it.

From here onwards, the proposals require curriculum development personnel to use a similar strategy. They must carry out a needs assessment; develop a solution (new curriculum) to meet the needs identified; test the new curriculum by piloting it; and make the necessary revisions, taking care to include features which will make it easy for implementers to adopt and use. But its acceptance and installation in the whole system is not left to chance. A skilfully mounted campaign is planned and executed to win the support of would-be implementers for the new programme. This campaign takes into account the process by changes individuals and institutions takes place, especially the intellectual and emotional experiences of implementers that must be delicately managed.

10. New Role for Teacher Education and Training Institutions

Undoubtedly, the numerous proposals in this report call for many fundamental changes in the operation of the education system in Grenada. Professional staff from the Ministry of Education at all levels

and school personnel will further hone the knowledge and skills they already possess and acquire new expertise in many areas. It is a big challenge to the Teacher Training Division of the TA Marryshow Community College to equip Ministry personnel to discharge their new responsibilities. The proposals in this report require that some very essential modifications must be made to teacher preparation programmes offered at the TAMCC if its clientele is to be properly equipped to discharge their new responsibilities in the system.

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APPENDIX I

STAKEHOLDERS CONSULTED

1. Ministry Officials

Mr. Crispin Frederick	-	Permanent Secretary, Ministry of Education
Mr. Martin Baptiste	-	Chief Education Officer, Ministry of Education
Mr. Alphonsus Gooding	-	Project Coordinator, Project Management Unit
Mr. Julien Ogilvie	-	Education Officer, Schools Administration
Mr. Leo Cato	-	Education Officer, ICT
Mr. David Hajjar	-	Peace Corps volunteer in special education attached to the Ministry of Education
Mrs. Jean Brizan	-	Senior Education Officer, Curriculum and counterpart to the Consultant

Members of the Curriculum Development Unit.

2. Other Stakeholders

- Mr. Samuel Webster, representative, National Parent Teachers' Association
- The executive of the Secondary Schools' Principals' Association
- Members of the executive of the Grenada Union of Teachers
- Principal and a member of staff of St. Joseph's Convent, St. George's
- Principal of Presentation Brothers College
- Principal of the Anglican High School
- Students of the Anglican High School
- Mr. Jerome McBarnette, representative, Anglican Board
- The principal and members of staff of the Teacher Education Department of TAMCC.

APPENDIX II

DRAFT ACTION PLAN FOR THE IMPLEMENTATION OF THE POLICY ON CURRICULUM REFORM IN THE GRENADA EDUCATION SYSTEM, SEPTEMBER 30 2003 –JANUARY 1 2008 AND BEYOND

Objectives	Activities/ Strategies	Resources	Person(s) Responsible	Timeframe	Performance Indicator
Brief stakeholders on curriculum policy and receive feedback	Meetings with different categories of stakeholders. Also, a national consultation	Document on curriculum policy; Ministry personnel; school staff; Consultant	Staff of Curriculum and School Admin. & Management Units	Complete by September 30, 2003	Acceptance of policy with modifications
Consult key stakeholders on composition of core curriculum	Meetings with representatives of vested interest groups	Excerpts on the core curriculum from policy document; staff of Curriculum Dev. Unit; stakeholders.	Senior Education Officer, Curriculum; and staff	Complete by November 30, 2003	Agreement on the composition of the core curriculum with appropriate modifications
Establish national subject curriculum committees on each cluster of the core curriculum	Selection of the head and members of committees and provision of remit	Subject specialists from the Curriculum Development Unit; school staff	Senior Education Officer, Curriculum; and staff co-opted from other units	Complete by February 28, 2004	Committees on the different clusters of subjects for the core curriculum

Objectives	Activities/ Strategies	Resources	Person(s) Responsible	Timeframe	Performance Indicator
Start development of core curriculum in different clusters	Construct curriculum guides for core curriculum	Document on curriculum policy; other Ministry planning documents; OECS documents; members of subject curriculum committees	Heads of national subject curriculum committees	Complete by July 31, 2004	Completed draft curriculum guides for all the clusters of core subjects
Validate subject-matter concepts of core curriculum	Submission of content of core curriculum to expert judges for independent opinions via questionnaire responses	Subject matter experts; questionnaires	Staff of the Curriculum Development Unit	Complete by October 2004	Decision on concepts that should comprise the content of the core curriculum based on consensus among expert judges
Consult stakeholders on the draft curriculum guides for core curriculum	Consultation with various vested interest groups and also a national consultation	Draft core curriculum documents; members of the different core curriculum committees	Staff of the Curriculum Dev. Unit	Complete by November 30, 2004	Constructive feedback from consultations for use to revise draft programmes

Objectives	Activities/ Strategies	Resources	Person(s) Responsible	Timeframe	Performance Indicator
Revise draft core curriculum	Members of curriculum committees use feedback from consultations to revise draft programmes	Feedback from consultations	Members of national subject curriculum committees	Complete by February 28, 2005	Satisfactory version of the core programme approved for piloting
Identify schools for piloting the core curriculum	Assign subjects to schools for piloting based on suitability for the task in terms of availability of resources	School equipped to pilot particular subjects; the curriculum; teachers amenable to induction	Staff of the Curriculum Unit; school administrators	Complete by March 31, 2005	Availability of schools equipped for the piloting; qualified staff
Establish school curriculum management committees and subject curriculum committees in pilot schools	Form subject curriculum committees in areas of the core that will be piloted in a particular school	Principal; teachers of the subject to be piloted; one qualified to serve as leader	Staff from Curriculum Unit; principal	Complete by April 30, 2005	School subject curriculum committees with clear understanding of their remit

Objectives	Activities/ Strategies	Resources	Person(s) Responsible	Timeframe	Performance Indicator
Induct pilot teachers to, and acquaint parents and students with, the new curriculum. Construct data collection instruments	Hold workshops for teachers of pilot schools on procedures for piloting. Brief/coach parents to participate	The core curriculum in different subjects; instructors from the Curriculum Unit; tutors from TAMCC; materials on the dissemination of innovations	Staff from Curriculum Unit and other co-opted personnel	Complete by July 31, 2005	Teachers equipped to pilot the curriculum' parents willing to participate; students aware of what is expected of them; data collection instruments
Establish pilot monitoring committee	Formation of a team with representation from each national subject curriculum committee for the core programme	Members of national subject curriculum committees; members of Test and Measurement Unit	Heads of national subject curriculum committees	Complete by July 31, 2005	A monitoring team with well-worked out procedures for the task
Pilot the core curriculum	Teachers try out portions of the core curriculum; data collection on suitability of curriculum and teachers and students' ability to cope	The curriculum data collection tools; members of the pilot monitoring committee	Principal; assessors from the Curriculum & School Admin. & Management Units, and Test & Measurement Unit	Complete by March 31, 2006	Data on how the curriculum has worked; ability of teachers and students to cope; useful information for revising the curriculum

Objectives	Activities/ Strategies	Resources	Person(s) Responsible	Timeframe	Performance Indicator
Analyse pilot data and revise curriculum	National subject curriculum committees make adjustments to the curriculum based on feedback	The data from the pilot; members of the Pilot Monitoring Committee	Staff from the Curriculum Dev. Unit	Complete by July 31, 2006	Revised curriculum; teachers deficiencies to be remedied; identified; infrastructure needed in schools for implementation of core
Set up core curriculum scheduling committee	Use of principles of timetabling the core curriculum to allocate the requisite amount of time each subject needs to teach its major concepts and achieve its important benchmarks	Principals from primary and secondary schools; literature on the scheduling of the core curriculum	Members of Curriculum and School Admin. & Management Units	Complete by July 31, 2006	A standard timetable in which there is an equitable distribution of time across subjects based on needs
Present final version of core curriculum to stakeholders	Convening of a national consultation for presentation of refined version of curriculum	The curriculum; stakeholders; Ministry personnel; school staff	Ministry officials	Complete by Sept. 30, 2006	Approved final version of core curriculum

Objectives	Activities/ Strategies	Resources	Person(s) Responsible	Timeframe	Performance Indicator
Prepare for phased, large-scale implementation	• Induction of teachers • Use of diffusion strategies to win support for curriculum • Put curriculum support infrastructure in schools (teaching areas, equipment, materials, personnel) • Induct cadre of change agents for multiplier effect	Personnel from Curriculum and other units	Senior Ministry personnel	Complete by Dec. 31, 2006	Teachers equipped; change agents inducted into diffusion strategies; school equipped with all resources to facilitate implementation of the curriculum
Implement final version of curriculum and monitor for quality control	Data collection to uncover deficiencies to prevent curriculum from becoming ineffective	Staff from Test & Measurement Unit; curriculum personnel	Senior Education Officer, Curriculum; and co-opted personnel	Commence by Jan. 1, 2008	Programme that continues to be effective and relevant
Establish appropriate teacher education and training programmes	Develop programmes to equip teachers with expertise to deliver new core curriculum	TA Marryshow Community College; workshops mounted by Ministry personnel; and change agents	Staff of Teacher Training Unit; TAMCC; change agents in schools and district offices	Complete by July 2004	A programme for teacher training customized to equip teachers to implement the new curriculum

