

International Bureau of Education

THE DEVELOPMENT OF EDUCATION

National Report of Barbados

by

**the Ministry of Education, Youth Affairs and Culture
Barbados**

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NATIONAL REPORT ON THE DEVELOPMENT OF EDUCATION IN BARBADOS

Introduction

Barbados is a small developing country with a wide range of educational institutions, from nursery to university. As a result there is a high literacy rate in excess of ninety percent. The wide range of educational institutions has contributed to the balanced economic development the country has achieved since independence.

During the past ten years the country has experienced many innovative developments, placing it amongst those countries that have sought to restructure their education systems to meet the new technological era of the twenty-first century. Barbados' success in following this path since the 1980s is the result of its optimal access at both the primary and secondary levels of education.

1.1 The Legal Framework

In 1981 a modern Education Act was passed which still governs the education system. The Act spells out the particular functions of the Minister, the Chief Education Officer and the various Special Committees. It mentions the stages of education – primary, secondary and tertiary – and the kind of management structure in place at each level. The Act makes provision for private education, compulsory attendance from five-plus to sixteen-plus, the inspection of educational institutions and the method of granting scholarships/bursaries. Accompanying the Act is a set of regulations, which deals specifically with the day to day working of the system. From time to time,

changes are made to the Act as dictated to by special circumstances. The Minister of Education is responsible for all matters relating to education.

Organisation and Management

The Minister determines the overall policy of the Ministry of Education. The execution of that policy is effected by (a) the Chief Education Officer who is the Chief Technical Officer of the Ministry and (b) the Permanent Secretary who is the Chief Accounting Officer.

In 1995 there was a streamlining and reorganisation of the Ministry of Education, resulting in the following sections: (a) Human Resource, (b) Records Management, (c) Finance, (d) Supervision and Management, (e) Student Affairs, (f) Testing and Measurement, (g) Curriculum, (h) Planning, Research and Development, (I) Higher Education and (j) Management Information Section.

Structure

(a) Primary

The education system is three-tiered. The first stage consists of pupils from three plus to eleven plus and is referred to as the primary stage. This section is further subdivided into early childhood education three plus to seven plus and a junior section ranging from seven plus to eleven plus. At the three plus to eleven plus, the curriculum is geared to the development of oral language skills to allow the young children to develop oral competence in Standard English. It is also aimed at seeking to develop the natural curiosity of

children and pave the way for them to be critical and creative thinkers from an early age.

At the 7-11 level, the pupils move into more formal, structured programmes, with a curriculum that seeks to engender an interest in basic numeracy and literacy, and a sense of being part of a wider social group. The subjects of the curriculum are language arts, mathematics, information technology, science, social studies, visual arts, music, physical education, health and family life education, religious education and conversational Spanish.

(b) Secondary

At the secondary stage (11+ to 16+) students are prepared for their adult roles and concomitant responsibility as citizens in a society. Students move from the primary to the secondary stage by way of the Barbados Secondary School Examination (BSSE) in Language Arts and Mathematics. The curriculum at this level comprises history, geography, biology, physics, chemistry, agricultural science, integrated science, foreign languages, technical and vocational education, mechanical drawing, home management, entrepreneurial and business studies, information technology, and physical education. At the end of fifth form (14+) students sit the Caribbean Examination Council examinations at the basic and general proficiency levels. From September, 2001 students at the sixth form level will be sitting the Caribbean Advance Proficiency Examination (CAPE).

(c) Tertiary

Tertiary level education is regarded as post-secondary education and is shared across three major government institutions, namely, Erdiston Teachers' College, the Samuel Jackman Prescod Polytechnic and the Barbados Community College.

(1) Erdiston Teachers' College

This tertiary level institution is charged with the responsibility of training teachers at all levels of the education system. At the primary level teachers go through a full-time, two-year training programme at the end of which they gain a teacher's certificate endorsed by the University of the West Indies. A one-year Diploma in Education is awarded to those who teach at the secondary level. Erdiston College also offers short-term courses in specific areas such as information technology and early childhood education.

(2) Barbados Community College

The Barbados Community College is designed to offer training in a wide range of skills at the technical para-professional, middle management and pre-university levels. The College provides courses in commerce, computer studies, fine arts, general and continuing education, health sciences, physical education, science and technology. The Barbados Language Centre and the Hospitality Institute are other divisions of the College. The College awards Bachelor Degrees, Associate Degrees, Diplomas and Certificates.

(3) Samuel Jackman Prescod Polytechnic

The Samuel Jackman Prescod Polytechnic offers programmes, which develop occupational competencies and trade skills up to the level of skilled craftsman. Programmes are offered in agriculture, building trades, commerce, electrical engineering, mechanical engineering, general studies (english, general science, etc.), graphics, human ecology and leathercraft. Students who complete courses are awarded certificates by the Polytechnic, Caribbean Examination Council or overseas bodies (City and Guilds of London, etc.)

(d) Private Institutions

In addition to the public controlled schools, there are also several privately owned establishments. There are approximately thirty-five nursery/primary schools and nine (9) approved secondary ones. At the tertiary level, there is the Barbados Institute of Management and Productivity, the Barbados Workers Union College and other such institutions providing technical and vocational education.

Evaluation Policies

The evaluation process of the system is twofold and ongoing. There is the evaluation that is carried out by the Ministry of Education and that which is school based. The Ministry monitors the system by the use of its Supervision and Management unit. The education officers that make up the unit pay periodic visits to all primary and secondary schools to ensure that the institutions are well managed and that the curriculum is adhered to. In addition, there is the national examination – the Caribbean Examination Council – which is taken at the secondary level, either to prepare students for entry into the world of work or for admission into university. The results of these examinations give some indication of the quality of work being done in the schools. At the school-base level, the evaluation takes the form of termly and annual examinations set by the schools.

Objectives of Current and Forthcoming Reform

The Ministry of Education has successfully provided educational opportunity for all its citizens between the ages of five-plus to sixteen- plus since the 1980s. As a result, according to the White Paper on Education Reform:

“the major challenges, which are in part the result of changes in the economy and the labour market, remain the improvement of educational quality and the reduction of the lag in the reform of the educational system to keep pace with economic and technological change”. The Ministry has therefore embarked on a holistic reform process that has as its objectives the following:

- (1) preparing citizens for the responsibility of nation-building;
- (2) revaluing the role of education in the sphere of national development;
- (3) reinforcing the concept that learning is a continuous, life-long process;
- (4) developing a workforce that is equipped to adapt to a rapidly-changing environment, and that is readily retrainable;
- (5) ensuring equity in the delivery of education and equality of opportunity in the access to education;
- (6) enabling students to develop enquiring and creative minds;
- (7) helping the population develop positive attitudes, values and beliefs to enhance the individual and his/her position in the family, community and nation;
- (8) revaluing the role of teachers;
- (9) sensitising teachers to the importance of catering to the individual needs of students;
- (10) fostering a greater partnership between the school, the home and the community; and
- (11) strengthening the capacity of the Ministry of Education, Youth Affairs and Culture to plan, manage and evaluate the education system more effectively.¹

1.2 Major Achievements

As stated earlier, one of the major achievements of the Barbados education system has been the full access of students at the primary and secondary levels. There is, too, a relatively high level of participation in post-secondary/tertiary education in Barbados. More importantly, this education is free, except for those who are students at the private, primary and secondary institutions.

1. ACCESS

(a) Early Childhood Education:

Early Childhood Education (ECE) has been expanding rapidly ever since the 1987 government policy which stipulated that if primary schools had the space they could establish nurseries for three-plus and four-plus children. Complementing this initiative have been the private nurseries which were pioneers in Early Childhood Education. To date, some 72% of children, three-plus to four-plus, now access the ECE programme. (see Table 1 and Table 2).

TABLE 1**Enrolment in Pre-Primary Education**

	Male	Female	Total
1990/91	1,859	2,102	3,961
1991/92	2,119	2,090	4,209
1992/93	2,126	2,006	4,132
1993/94	2,501	2,460	4,961
1994/95	2,449	2,644	5,093
1995/96	2,734	2,790	5,524
1996/97	3,021	3,023	6,044
1997/98	2,901	2,903	5,804
1998/99	2,914	2,830	5,744
1999/00	2,729	2,751	5,480
2000/01	2,628	2,732	5,630

TABLE 2**Pre-Primary Gross Enrolment Rates**

	Male	Female	Total	Ratio of F:M Rates
1994/95	62%	68%	65%	1.10
1995/96	68%	70%	69%	1.04
1996/97	75%	77%	76%	1.02
1997/98	73%	75%	74%	1.02
1998/99	74%	74%	74%	0.99
1999/00	70%	73%	72%	1.03
2000/01	70%	73%	71%	1.04

(b) Primary Education

The country has already attained universal access to primary education. In the 1999/00 school year, enrolment in primary education was 24, 460 (See Table 3) and the preliminary 2000/2001 enrolment figures for public and private schools including pre-primary students total 27,642.

TABLE 3
Enrolment in Primary Education

	Male	Female	Total
1990/91	13,443	12,763	26,206
1991/92	12,905	12,579	25,484
1992/93	11,273	11,599	22,872
1993/94	13,014	12,588	25,602
1994/95	11,967	11,802	23,769
1995/96	12,287	11,713	24,000
1996/97	12,365	11,743	24,108
1997/98	12,625	11,976	24,601
1998/99	12,649	12,130	24,779
1999/00	12,502	11,958	24,460
2000/01	12,194	11,792	23,986

(c) Secondary Education

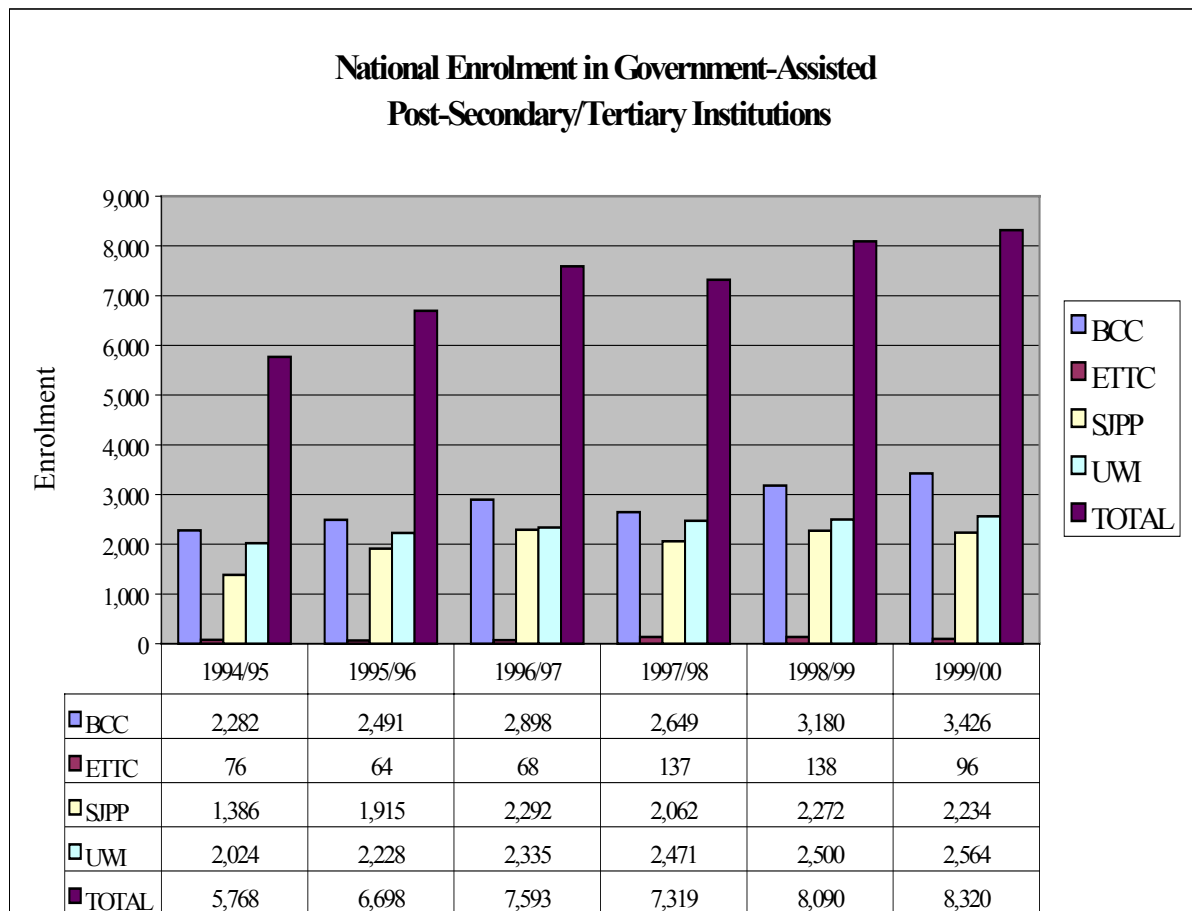
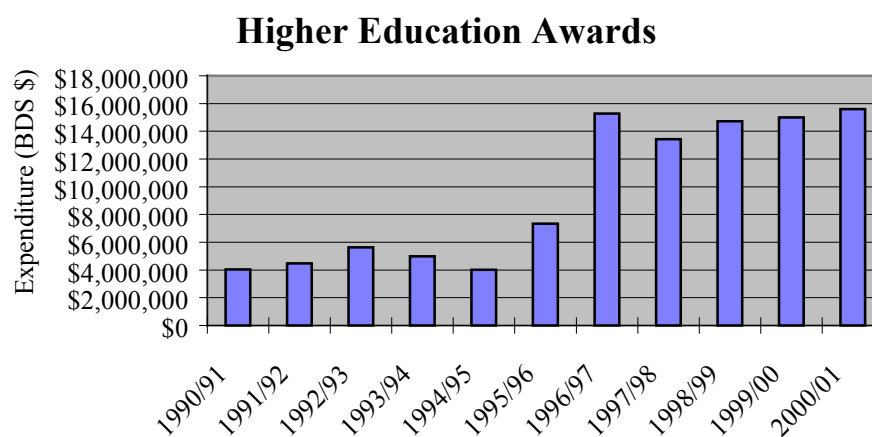
As at the primary level, full coverage has also been achieved at the secondary level. There were approximately 21,535 students enrolled in secondary education in the 2000/2001 school year (See Table 4).

TABLE 4
Enrolment in Secondary Education

	Male	Female	Total
1990/91	11,095	12,286	23,381
1991/92	11,401	12,194	23,595
1992/93	11,393	11,734	23,127
1993/94	11,154	11,800	22,954
1994/95	11,384	11,594	22,978
1995/96	11,630	11,807	23,437
1996/97	11,398	11,948	23,346
1997/98	11,283	11,745	23,028
1998/99	11,102	11,486	22,588
1999/00	11,742	11,010	21,752
2000/01	10,817	10,718	21,535

(d) Tertiary Education

At the post secondary/tertiary level participation is facilitated by the fact that full-time Barbadian students are exempted from paying the economic cost of tertiary education up to the point of delivery.

Figure 1**Figure 2**

* 1999/00 and 2000/01 figures represent revised estimates and estimates respectively, not actual expenditure.

Table 5: Ratio of Females to Males at Public Post-Secondary/Tertiary Institutions

	1995/96		1996/97		1997/98		1998/99		1999/00
BCC	1.79		1.87		1.77		1.87		2.12
ETTC	1.29		1.52		1.78		1.78		2.00
SJPP	0.55		0.63		0.60		0.70		0.55
UWI Cave Hill	1.57		1.69		1.69		1.83		1.83
TOTAL	1.21		1.30		1.28		1.42		1.42

2. EQUITY

In Barbados, there are no barriers to educational achievement based on colour, class, or religion. The educational system is free to all. There is no gender discrimination, as girls enjoy the same right to educational opportunity as boys. In fact, any child with the necessary intellectual aptitude can move from public/private nursery to university, unimpeded.

TABLE 6
Primary Gross Enrolment Rates

	Male	Female	Total	Ratio of F:M Rates
1994/95	99%	98%	99%	1.00
1995/96	103%	100%	101%	0.97
1996/97	104%	100%	102%	0.97
1997/98	106%	103%	105%	0.97
1998/99	107%	104%	105%	0.98
1999/00	105%	103%	104%	0.98
2000/01	104.5%	105.5%	105%	0.97

TABLE 7
Secondary Gross Enrolment Rates

	Male	Female	Total	Ratio of F:M Rates
1994/95	106%	109%	108%	1.03
1995/96	109%	111%	110%	1.02
1996/97	107%	113%	110%	1.05
1997/98	108%	112%	110%	1.04
1998/99	108%	112%	110%	1.04
1999/00	106%	109%	108%	1.03
2000/01	101%	99%	100%	0.97

Overall, equitable access to primary and secondary education for males and females is facilitated by the prevalence of co-education in the system. This policy has been widely instituted since the late 1970s and early 1980s. As a result, school places are equitably accessible to both males and females. There are presently only three single-sex public primary schools, one all-boys school and two all-girls schools, while at the secondary level, there are two single-sex public schools – one for males and females respectively.

Quality and Relevance of Education

With the arrival of globalisation and trade liberalisation, several institutions are being put in place to improve quality and relevance of the education system. These initiatives are all part of the Education Sector Enhancement Programme. The Programme has four major components:

- a) Physical Rehabilitation of schools;
- b) Technological infrastructure;
- c) Curriculum Reform; and
- d) Human resource development
 - i) Teacher Training
 - ii) Institutional Strengthening.

Many of the elements of the Programme, as well as other Ministry initiatives outside of the project, are to promote equity and diversity in the education system and in the society as a whole. Moreover, through these initiatives, the Ministry aims to prepare the nation for successful adaptation to globalisation, while strengthening the cohesiveness of the society.

Physical Rehabilitation of Schools and Technological Infrastructure

Under the Programme there will be refurbishment of *all* public primary and secondary schools, as well as certain private schools, over a seven-year period. Special schools also benefit from this component of the Programme. For example, the Irving Wilson School for visually and hearing impaired students has been refurbished and equipped with a variety of assisting devices.

All public schools, along with some private schools, will be equipped with computer hardware, software and technical infrastructure. At the primary level, all classrooms for Classes 1-4 will be equipped with 5 pupils computers, and there will be one computer laboratory for schools with less than 500 students, and two laboratories for schools with more than 500 students. At the secondary level, each classroom for Forms 1-3 will be equipped with six student computers. Each secondary school will have 8 specialist subject rooms outfitted with 10 to 30 computers and other information and communications technology,

as well as a computer laboratory equipped with 30 computers. In addition, all classrooms in public primary schools, as well as secondary will be outfitted with a media centre for use by teachers.

Measures such as these should address the issue of inequities in distribution of public educational resources across the system, as all schools will have adequate, well-maintained facilities and will be equipped with the same technology. Moreover, the technological component of the programme will allow for the widespread integration of technology into the teaching/learning process. This will not only stimulate student interest, but will also help students to develop the technical skills necessary to function effectively in the Information Age.

One important innovation is the NETSchools pilot project, involving four (4) primary schools and two (2) secondary schools in the first two phases of the Programme. Under this project, all the students at the schools involved will have Study Pro laptop computers. The specific technical characteristics of these computers allow for information and communication links, including the Internet, which will enhance the teaching/learning process. Teachers, students and parents will have received training in the use of the StudyPro computers as part of the project.

One of the aims of the NETSchools project is to address issues of economic and social justice, by ensuring that students and families in the lower socio-economic brackets will not be disadvantaged by inadequate access to technology. The NETSchools project will therefore be closely monitored, both in terms of its education impact and its socio-cultural impact on the students' households.

Curriculum Reform

The curriculum reform component is the bedrock of the entire reform effort and serves as an important vehicle for effecting system-wide change in various areas. The curriculum reform effort, which dates back to 1996, represents a landmark in the development of education in Barbados.

The process takes into account the emergent trends of the global economy, as is evident in its theme “*Living, Learning and Doing Business in the Twenty-First Century*”. In terms of promoting equity and diversity, the curriculum reform effort will improve the provisions made for individual students within the system, since the reform is based on the facts that children:

- (a) learn at different rates;
- (b) have different learning styles;
- (c) respond to a variety of stimuli; and
- (d) learn best what interests and is meaningful to them.²

Content

The subject areas included in the content of the revised curricula represent the wide range of skills and knowledge areas that will be necessary in the new global environment. Therefore, the new curricula include areas such as Aesthetics Studies, Health and Family Life Education and Technology, and reinforces the traditional core subjects – Communication, Literacy and Language Development, Numeracy and Mathematics, Social Studies and Natural Sciences.

Given the present information-intensive environment, the technology component of the curriculum reform is vital. It includes the introduction of basic technology mastery in both primary and secondary schools in the first group of schools in the reform Programme. In addition, information and communication technologies will be systematically integrated into the teaching and learning process to ensure that learning becomes exciting and enlightening for students.

The socialisation of students also plays a major role in the curriculum content, and as such, in addition to the Health and Family Life Education syllabus, injects specific Social and Emotional Learning skills into the various learning areas of the revised curricula. It is hoped that through this effort, students will develop the necessary social and emotional skills to enhance their own development and integrate well into society.

The content of the revised curricula also addresses the imperative to preserve and affirm local culture and to bolster national identity in the face of increasing cultural invasion. Heritage conversation is therefore one of the topics included and teachers are encouraged to emphasise authentic, local experiences in their teaching.

There is, a drive to create and utilise indigenous materials as teaching and learning aids for the new curricula. The Shell Antilles & Guianas Software Review Centre is conceptualised as a cradle for the development of indigenous software. Teachers, assisted by relevant professionals, will be able to create and review educational software there. Some teachers have already been trained in the creation of teaching aids such as puppets under the Government of Barbados/Inter-American Development Bank Primary Schools Project, and are expected to contribute significantly to the materials production effort. It is

envisaged that the Audio Visual Aids Department of the Ministry will play an important role in this effort, by providing support for teachers in materials development and by producing a variety of materials including readers, journals and texts. Preparations are therefore being made to effect the necessary internal restructuring to allow the department to execute this important function.

Assessment

The curriculum reform effort also includes a fundamental change in the assessment mechanisms used in primary and secondary schools. The revised curricula represent a shift from traditional, product-based assessment modes (pencil and paper tests) to more authentic assessment models based on a combination of process and product methods, including orals, interviews, peer and self-assessment, performance assessment, exhibitions, portfolios, project-based work, written achievement tests and norm reference tests.

These changes should allow students to become active participants in the process of assessment. As students become responsible for their own learning and assessment, the process transforms into a tool for learning. In addition, the new assessment methods should foster the development of valuable higher order learning skills, including critical thinking skills. The new assessment methods give all students, over the continuum of learning abilities and style, a better opportunity to excel in school.

Profiles

Beginning September 2001, the Ministry will introduce the Basic Skills Assessment Battery (BSAB) to measure pupil readiness to begin the curriculum in the first grade of primary school. These assessments will be mandatory for all public school pupils on entry to Reception. In addition, criterion-referenced tests have been introduced at the end of Infants B and Class 2 to identify the skill areas in Language Arts and Mathematics. The profiles produced as a result of this testing will be forwarded to the secondary schools to be used by teachers in the formulation of appropriate programmes of study. In addition, secondary students will be tested within six weeks of their entry into secondary school, and the results from these tests will form the students' Entry Profiles. Mechanisms such as these will help teachers to better track the progress of students and cater to their individual needs.

Primary-Secondary Transfer

The changes in assessment will also be reflected in the method of transfer from the primary to the secondary level, and in the certification offered in secondary schools. The traditional Barbados Secondary Schools Entrance Examination will no longer be the sole means of assessment for school placement. Instead, school based assessment including oral examinations will comprise 40% of the overall transfer marks. This should enhance the fairness of the transfer as students will receive credit for achievements made throughout their primary school careers (from Class 1 to Class 4) and will improve the prospects for students who do not excel in paper-based assessments.

Secondary Certification

The Cabinet of Barbados has agreed to the establishment of a Barbados National Diploma of Secondary Education (BNDSE) at the secondary level. This will in effect level the playing field for students, as unlike other examinations, all students will be required to take it. Students will have independent indicators of their achievement, and will gain credit for their multiple skills and activities, including involvement in specified extra-curricular activities. Once a programme is put in place for this national certificate to receive wide acceptance, it is expected that there will be enhanced employment and educational opportunities for those students who do not excel in the traditional examinations, with the attendant positive implications for income generation and social mobility.

As even these changes in assessment and certification cannot accommodate all students, there has been provision for special students in the curriculum reform. Schools will modify the curriculum by developing Individualised Education Plans for students with unique learning needs. These plans will detail the goals and objectives for the education of each child, with a view to building on their existing skills. Special curricula are being developed for severely challenged students and a comprehensive guide for teachers has been produced which emphasises the development of independent living skills and augmentative communication.

Attainment Targets

Another innovation in the curriculum reform is the introduction of an Outcomes-Based Education approach. This strategy will focus on the development of attainment targets which will outline specific student outcomes for each module to be covered in the different subject areas. They will be used as guides for the development of national standards, and copies will be provided for parents. One major benefit of this system is that parents will now be better able to monitor their children's progress, which should lead to heightened participation of parents in the education of their children.

Human Resource Development

Teacher Training

Teachers are seen as the major change agents in the implementation of the curriculum reform and of the reform process, as their participation is required to operationalise the new curricula and to foster the development of the required skills and competencies in their students. As a result, Teacher Training is a major part of the Human Resource Development component of the Programme.

In light of the importance of technology in the Programme, Technology Mastery courses are offered to teachers. These courses are aimed at equipping teachers with knowledge and technical skills to understand and utilise technology effectively. In addition to this general technical training, Microsoft Certified Professional Training is provided under the Programme. This advanced technical training is mandatory for those teachers serving as Information Technology Co-ordinators at their respective schools, in order to ensure that they have the requisite skills to successfully manage the integration of technology in their schools.

Teachers receive two levels of Pedagogical Training. This training focuses primarily on teaching methodology, and is therefore aimed at helping teachers to successfully employ various teaching methodologies and to effectively integrate technology into the teaching/learning process.

The Ministry is committed to the preparation of teachers to adapt successfully to the reform process since it is cognisant of the fact that the Programme represents a fundamental shift from the status quo in education. As

a result, teachers benefit from training in the Management of Change.

Institutional Strengthening

Under the Institutional Strengthening sub-component of the Programme, Ministry Officers and personnel from the Ministry-based Programme Co-ordinating Unit benefit from ongoing training relevant to the implementation of the project. The training topics range from specific technical areas such as curriculum development and assessment methods, to project management skills and tools.

The Ministry also contracts the services of the Education Evaluation Centre under the Institutional Strengthening sub-component of the Programme. The Centre is based at the University of the West Indies, Cave Hill, and is responsible for conducting an independent evaluation of the project throughout its seven-year duration. The periodic information received from the Centre is to be utilised in the “test-and-fix” approach to programme implementation.

It should be noted that although the central administration of education is to be strengthened under the reform Programme, there is a trend towards greater devolution of responsibility to the school level. As a result, school Programme teams comprising a team leader, information technology co-ordinator and a curriculum co-ordinator are in place to manage the reform process at their respective schools. These teams are granted nine (9) months of leave to plan for Programme implementation in their schools and to receive training.

It should also be noted that Programme planning and administration does not simply involve the Ministry and the schools, but includes the involvement of various stakeholders who function as members of different Programme committees. These stakeholders include members of the private sector, education-sector professionals, union representatives and parents. In addition, direct private sector involvement in the process of educational change has been demonstrated by some businesses. For example, Shell Antilles Ltd contributed materials and equipment to the establishment of the Ministry of Education Media Resource Centre; A D M Mills donated a half million dollars; and PRT made a commitment of technical expertise in the development of software.

1.3 Approaches, Successes, Difficulties of the Reform Process

The reform process in Barbados was preceded by a document titled: “White Paper of Education Reform: Preparing for the Twenty-first Century”. The document was put together after a series of area meetings with the stakeholders in education. Discussion has remained a critical element in the propagation of the reform policies especially with regards to teacher appraisal and curriculum reform. These discussions were led and chaired by the Minister of Education and the Chief Education Officer.

The next stage in the further development of these initiatives was the publication of written materials. After several meetings between the stakeholders, an appraisal document was agreed upon titled: A Guide to Teacher Appraisal in Primary and Secondary Schools in Barbados. It is anticipated that after the piloting of the appraisal scheme, further inputs will be made, to guarantee its acceptability by teaching fraternity.

Similarly, the curriculum process has been captured in another document:

Curriculum 2000, Barbados: Rationale and Guidelines for Curriculum Reform in Barbados. Other supplementary documents have been the revised syllabuses for Infants and Class 1s throughout the primary schools, together with attainment targets for the same age groups and Class 2.

Training for teachers in information technology has been an ongoing process. This training was done at the country's lone teacher training institution, Erdiston College. Teachers have been given differing levels of training consistent with the level at which their schools have joined the EduTech programme. Principals, too, have been trained in information technology and the management of the new technology and the change that this involves. Principals were given an opportunity to visit technology rich schools abroad.

The refurbishing of buildings to suit the specific requirements of the Education Sector Enhancement Programme also demanded a careful approach. Those schools which needed major repair work and which necessitated the removal of pupils to temporary locations, required prior discussions with staff and particularly parents. It is important to note that every effort was made to effect major works during the summer vacation.

The most significant difficulty in the entire reform process has been the civil works component of ESEP. More often than not, the work on very old structures took more time than was anticipated. Deadlines had to be set back which resulted in some anxiety among teachers and parents.

Perhaps the most important lesson to be learnt is that the goals and objectives of EduTech should be clearly articulated at all times. The vision must always be reinforced to ensure that the path to specific targets are understood and accomplished. Since educational change takes time, the challenge has been, and

will be, to continue to maintain focus, especially for teachers, who may experience difficulty in absorbing the changes.

1.4 Major Problems and Challenges

The economic demands of globalisation require that the education system become as cost-efficient as possible. To this end, the Ministry is committed to the rationalisation of education at all levels. At the primary level, the Ministry is committed to continuing the process of the rationalisation of the school plant and facilities, through amalgamations and closures where feasible.

At the secondary level, the Ministry is undertaking a pilot project to rationalise the technical and vocational resources at secondary schools. Under this project, different schools will be designated as centres for a particular technical/vocational area. The necessary scheduling arrangements will be made to allow students from other schools to take classes in the subject area at the school centre.

With respect to post-secondary/tertiary education, the Ministry of Education is seeking to widen access at this level. At the moment, there are a number of persons who are qualified, but are unable to gain access. Every effort is being made to streamline present tertiary level institutions to meet this excess demand.

Apart from initiatives to increase cost efficiency, the Ministry has a variety of other programmes related to globalisation. Given the growing relationship between Barbados and its Spanish-speaking neighbours in Latin America and the Caribbean, the Ministry is committed to continuing the teaching of Spanish in primary schools in order to foster a greater interest among children to speak a foreign language. In addition, the Ministry is

expanding the language laboratory at the Barbados Community College with the aid of funding from the European Union, in order to maximise on economic, social, political and cultural links in the hemisphere.

The Ministry also plans to capitalise on emerging opportunities in the areas of arts, culture and sport, through the provision of enhanced programmes at the secondary level. The Ministry is presently working on the establishment of an Academy of Excellence in Sports and Arts (AESA) for talented secondary students at the secondary level.

At the tertiary level, the Ministry has supported the recent establishment of the Centre for International Services (CIS) at the University of the West Indies - Cave Hill Campus - in order to provide necessary professional training in the important services sector. As well, an Industry Services Unit has been established at the Barbados Community College to work closely with businesses and industries to identify needs and to facilitate the provision of customised training, research and technical services to those businesses and industries on a fee-for-service basis. The Government also plans to invest larger sums of money in learning technologies and other related equipment to meet the training needs of business, industry and software development.

Finally, the Ministry is working to establish the Barbados National Accreditation Agency (BNAA). This is in response to the proliferation of providers of post-secondary/tertiary education, and more importantly, to the challenges posed by liberalisation in the movement of labour, especially as a result of the decision to establish the CARICOM Single Market and Economy. The proposed Barbados National Accreditation Agency will provide the regularised accreditation, equivalency and articulation systems needed to assure the quality of education and to facilitate the acceptance of a variety of

qualifications from regional and international service providers. Greater cost efficiency in the labour market will also be an anticipated benefit of the establishment of this agency.

Vision for the 21st Century

The Ministry hopes to build on Barbados' past achievements in the sector, and to effect far-reaching positive changes, both within the education sector and in wider society once its various initiatives and reforms have been successfully implemented

The Ministry is committed to ensuring equitable access to quality education for all citizens. All those with special needs will be able to obtain the maximum benefits from their education, and will therefore be able to contribute to the development of the nation. Education and the delivery of education in Barbados will be dynamic and diverse, culturally based and technologically driven. Education will be viewed as a lifelong process, with virtually unlimited opportunities for continuous learning available at every level of the system for all citizens, according to their aptitude and the needs of the country.

At the institutional level, there will be improved organisation and management of the system, at both the school/institution and Ministry levels. Teachers and school administrators will be empowered with the requisite skills and authority to successfully implement and manage change in their respective environments. At the same time, there will be greater productivity and efficiency within central administration. In addition, there will be system-wide involvement of private sector and civil society partners. All educational institutions will have adequate, well-maintained facilities, with all schools having sufficient resources to function effectively. There will be efficient

utilisation of information and communications technology at all levels of administration in the system. Moreover, the use of communication technologies will facilitate school staff and make resources more accessible beyond traditional hours.

There will be symbiotic relationships between the school, home and community, with parents and members of the community participating actively in the education system. This central involvement of parents and communities in the educational process will provide support for students to improve their academic and personal development. Moreover, it will foster the building of trust and reduce the number of children feeling alienated and marginalised by the system.

With respect to teaching, the well-trained staff will employ varied teaching methodologies, integrate technology and multimedia materials into their work, and demonstrate an enhanced capacity for diagnosis and remediation of students. This will enable them to better cater to the needs of individual students. There will be a deliberate shift from a didactic, teacher-centred methodology to a child-centred approach, which will promote the development and enhancement of student skills. The curriculum will be relevant and meaningful, and will give students the necessary foundation for successful living. It will include the use of indigenous teaching and learning aids, and students will therefore have a greater understanding and appreciation of their local context and culture.

Students will be creative, critical thinkers demonstrating technological, analytical and problem-solving skills. Barbados will thus be able to reach full employment, with the workforce operating at a high level of productivity. A significant proportion of this workforce will function in high-level positions within the service sector, and as entrepreneurs and innovators in all sectors. Citizens at all levels will have the necessary foundation to be flexible in their employment options, being readily re-trainable at any stage of their development.

At the social level, students will have enhanced self-concepts and will exhibit positive characteristics, attitudes and behaviours including industry, discipline and self-confidence. Their inter-personal skills will be highly developed and will promote collaboration and team building. The system will inculcate an understanding and appreciation of the rule of law and will promote tolerance and a sense of responsibility to the self, family, community, country and region. As a result, common core values and attitudes will bind society into a cohesive unit, and govern acceptable norms of behaviour.

The net result will be that Barbados will have well-rounded, capable citizens who contribute significantly to the sustained high level of social and economic development of the country.

2.1 CURRICULUM DEVELOPMENT, PRINCIPLES AND ASSUMPTIONS

(a) The Decision-Making Process

The Minister of Education has ultimate responsibility for making decisions on curriculum matters. She consults with senior officers in the Ministry of Education who provide technical advice that informs policy decisions. Provision is made for discussions with stakeholders such as the business community, teachers' unions and parents. From time to time, town hall meetings provide opportunities for members of the community to be informed of proposed reforms, seek clarification and feedback. The Chief Education Officer and her management team carry the responsibility for ensuring that policy is implemented.

Decisions about curriculum content are guided by the prevailing curriculum reform philosophy as outlined in the White Paper on Education Reform (Ministry of Education, Youth Affairs and Culture, 1995), EduTech 2000 Master Plan (Ministry of Education, Youth Affairs and Culture, 1997) and the Curriculum Reform 2000 documents (Ministry of Education, Youth Affairs and Culture, 2000). This philosophy places the student at the centre of the teaching/learning process and emphasises the integration of various technologies across the curriculum.

Decisions about the implementation of the curriculum at the school level are made by each school principal who, as chief instructional leader, provides specific guidelines about the manner in which the curriculum is to be implemented. However, the leadership style, the ethos of the school, staff morale, and socio-economic status of the students and their parents are factors

that impact on the actual delivery of the curriculum. There are some variations from one school to another.

In several schools, teachers collaborate as they plan in teams for the implementation of the curriculum. The insights gained from the interaction and exchange of ideas in such planning sessions help to enhance the quality of lesson delivery. This collaboration also builds collegiality among practitioners who would normally deliver instruction in isolation. At the classroom level, individual teachers make further decisions that reflect their individual teaching styles as they adapt the delivery of their lessons to meet the needs of students. While there are teachers who would rather work in isolation, the numbers are decreasing as the benefits of teamwork and higher levels of trust become evident.

Through lesson observation and conferences with teachers, school principals, assisted by senior teachers and departmental heads, are able to monitor and evaluate the implementation of the curriculum. In addition, classroom teachers conduct formative evaluation of student learning to monitor students' progress and determine the effectiveness of instruction. This feedback is valuable for informing the teacher's instructional decisions about scope and sequence of content, and attainment targets. The results of internal examinations at the end of the term or academic year also help teachers to assess the progress made. The summative feedback informs teachers about the students' coverage of the curriculum and the effectiveness of their teaching methods.

Feedback from parents in parent-teacher conferences, year level meetings and regular Parent Teacher Association (PTA) meetings also assist the principal

and teachers in the evaluation of the curriculum. These inputs influence subsequent decisions that are made about the attainment targets, scope and sequence of content, and assessment procedures.

(b) Curriculum Planning and Design

The White Paper on Education Reform emphasises that, “Curriculum reform will be a major initiative of the strategic plan period from 1995 – 2000.”³ The White Paper on Education Reform also identifies the need to provide citizens with the knowledge, skills and attitudes that will facilitate the social and economic development of Barbados in a technology driven society. To this end, the Government of Barbados has embarked on a major thrust to reform the curriculum at the primary and secondary levels.

The objectives of Curriculum Reform are to:

1. prepare students who are creative, numerate, literate, well trained and readily retrainable at any point in their development;
2. ensure that all students understand the necessity of being able to live and work harmoniously with other persons in their environment;
3. increase the efficacy of the teaching/learning process by encouraging teachers to shift to the child-centred and more collaborative forms of learning in their classrooms;
4. prepare students for life in a technologically-advanced society by ensuring that all students who leave school in the twenty-first century have a good knowledge of, adequate skill in, and favourable attitudes towards the use of information technology.⁴

To this end, the National Council on Curriculum Development consisting of persons from Government, the private sector, unions and educators, was mandated to advise the Minister on updating, revising and evaluating all levels of the National Schools' Curriculum. The Council's responsibilities included giving direction to subcommittees, deciding on core subjects, setting attainment targets, and on-going review of the curriculum.

The Curriculum Section of the Ministry of Education, Youth Affairs and Culture undertakes curriculum design and planning (1) once the curriculum policy guidelines are determined by the Minister, and (2) after consultations with the Curriculum Development Council are completed. This Section is headed by a Senior Education Officer (Curriculum), who currently supervises eight Curriculum Officers whose responsibilities include the supervision of the development and implementation of the curriculum in assigned subject areas. Each Officer co-ordinates a committee of teachers who collaborate on the design and development of the curriculum. Officers visit schools to monitor implementation and provide support and guidance to teachers. The Section is currently assisted by eight peripatetic teachers.

The Master Plan suggests that, since the "major policy decisions affect all schooling levels and all areas, ... co-ordination and support committees should be involved in all levels and stages of planning and implementing."⁵ All parties affected by the curriculum should be involved in deciding its nature and purpose. In this regard, current syllabuses were developed by a number of committees whose members included education officers, teachers and school principals.

At the primary level, the new curriculum is organised around the seven (7) learning areas. For students to see the inter-relatedness of all knowledge, these seven learning areas are to be integrated. Thus, Social and Emotional Learning (SEL), Information and Communications Technologies (ICT) and the Cultural Arts are embedded in the seven learning areas.⁶

The initiative to reform the curriculum has now reached the implementation stage at Reception and Classes 1 and 2 in each primary school. Classroom teachers provide valuable feedback on the suitability of the curriculum content, attainment targets and suggested assessment procedures. This feedback helps to inform decisions about ongoing improvement of the curriculum.

A number of workshops are were introduced at the Teachers' College during the 2001-2002 Easter Vacation to support the reform initiative.

Plans are in effect for reforming the secondary school curriculum as well. It is proposed that, beginning in September 2001, each student at the secondary level will be allowed to progress based on his or her performance.

“Secondary education will be determined by the needs of the society to be served, the character of the individuals to be educated, and the knowledge of education theory and practice available.”⁷

At the secondary level, “The focus will be the student’s interaction with the curriculum rather than the curriculum dictating the pace of learning.”⁸ This curriculum is undergirded by the constructivist philosophy and child-centred methodologies. Though it will include attainment targets for each subject

discipline, the curriculum will be flexible, allowing students to pursue compulsory core subjects, foundation courses and electives. Credits will be given for enrichment activities, which complement the compulsory core.

The following learning areas comprise the compulsory core:

Communication – Language and Literatures in English – compulsory to Level V

Numeracy and Mathematics – compulsory to Level IV

Natural Sciences, including Integrated Science – compulsory to Level IV

Social Studies, including African Heritage Studies and Citizenry – compulsory to Level IV

Modern Languages, either conversational Spanish or French – compulsory to Level IV

Physical Education – compulsory to Level V

Moral and Religious Education – compulsory to Level III

The secondary school programme will be broken down into six levels. Level I is intended to bridge the transition from primary to secondary school while students who have demonstrated competence at the primary level will access Level II. At Level III, students are expected to consolidate what they have learnt at Level II. Level IV ends the junior stage of secondary school and provides the opportunity for students to write the exit competency tests of the Barbados National Diploma of Secondary Education (BNDSE) in three of the core areas. Students will be required to write the BNDSE at Level V in Mathematics and Language Arts and two electives. It is at this level that the final assessment for the Enrichment Programme will take place. Level VI marks the end of the secondary programme and facilitates those students who will be writing the Caribbean Examination Council's (CXC) General Proficiency Examination. It prepares students for access to post secondary

examinations such as the Caribbean Advanced Proficiency Examination (CAPE).

To complement the core from Levels I to III at the secondary level, students will be expected to study at least one of the following subjects under Foundation Studies:

- Social Studies
- Visual Arts
- Performing Arts
- Information and Communications Technology
- Design Technology
- Woodwork
- Metal Work
- Technical Drawing
- Home Economics

In addition, students at Levels IV to VI will have an opportunity to choose Electives from the following options:

- History
- Geography
- Biology
- Physics
- Chemistry
- Agricultural Science
- Integrated Science
- Foreign Languages
- Visual Arts
- Performing Arts
- Technical and Vocational Education

- Autotronics
- Electronics
- Mechanical Drawing
- Home Management
- Entrepreneurial and Business Studies
- Physical Education/Sports
- Comparative Religions
- Tourism

Students will also be able to select one activity from a list of Enrichment Activities designed to develop their special skills and abilities. These include:

- Athletics, sports and games, including board games
- Clubs – academic, social, religious and service
- Voluntary organisations
- Semi-disciplined organisations (Brownies, Cub Scouts, Girl Guides, Cadets, Rangers)

As at the primary level, Social and Emotional Learning will be integrated across the curriculum.

(c) Teaching and Learning Strategies

Under the theme, “Each One Matters: Quality education for all,” the White Paper emphasises the intention of making sure that the curriculum caters to the learning needs of each student. The general principle undergirding the reform initiative is that the student should be placed at the centre of the teaching-learning process. The teacher is no longer a dispenser of all knowledge. He becomes a facilitator of students who are active participants in their own learning. Classroom delivery of the new syllabuses should therefore reflect student-centred, constructivist teaching/learning strategies.

Constructivist approaches emphasise that students develop meaning from their learning experiences by engaging in manipulating and reshaping information. Teaching strategies therefore emphasise hands-on, collaborative learning activities. To facilitate students' active participation, teachers are expected to plan and implement lessons that are authentic and engaging, requiring students to think analytically and creatively as they search for solutions to real world problems. To construct their own learning, students need to have the capacity to refer to past experiences, analyse new information and then internalise knowledge after active consideration and collaboration with peers.

To sensitise educators to the desired changes, the Ministry of Education, Youth Affairs and Culture held meetings with principals and teachers. Teachers were exposed to professional development sessions conducted by Education Officers from the Ministry and Tutors of Erdiston College. This training was further enhanced by school visits designed for on-site monitoring of the curriculum implementation process.

(d) Assessment Policies and Instruments

At each school the principal, in consultation with the teaching staff, has the responsibility for organising, implementing and evaluating the curriculum at each level. Within this context, teachers tailor instruction to meet the needs of the students under their care. The assessment procedures are designed to document the progress made by students. These can range from informal classroom and homework exercises to formal end of term examinations. The

results of end of year examinations are used as criteria for determining the class to which students will be promoted.

In addition to internal examinations, all primary schools are required to prepare students for the Barbados Secondary Schools Entrance Examination (BSSEE), also known as the Eleven Plus or Common Entrance Examination (CEE). The BSSEE provides the opportunity for students to demonstrate whether they have acquired the knowledge and skills needed for entry into secondary school.

The BSSEE is taken at one sitting and consists of two papers: English and Mathematics. This Examination was formerly prepared and administered by the Ministry of Education but, commencing 2000-2001, CXC was given responsibility for the Examination. Instead of being offered in May as in the past, it was scheduled for June in 2000-2001. Parents have the opportunity to submit, in order of preference, a short list of the secondary schools that they would like their children to attend. However, the BSSEE score obtained by the child is the major factor determining the school to which he/she gains access.

The White Paper, the Ministry of Education postulates *“that the “Common Entrance” Examination should remain as a measure of what children have attained at the end of primary schooling since it is perceived as the “fairest” way by which children’s attainment levels can be assessed.”*⁹

Many teachers and members of the public have criticised the one-shot, high stakes nature of the Examination for the negative outcomes associated with it. The curriculum reform initiative seeks to address this and other related issues. Beginning in September 2005, the BSSEE score will account for 60% of

the final assessment. The other 40% will include continuous assessment, which is to be accumulated over the four-year period from Classes 1 to 4 as follows: Class 1 – 5% points; Class 2 – 12% points; Class 3 – 15% points and Class 4 – 8% points.¹⁰

At the secondary level, students will be required to write the BNDSE in Levels IV and V. Level VI students will take the CXC at the General Proficiency Level and be prepared for access to CAPE. The curriculum and examination procedures are currently being developed.

Changing and Adapting Educational Content

2.2 Factors Motivating Curriculum Reform

Barbados has traditionally had a sound educational system facilitating social mobility for its population. However, the once very high standards have been deteriorating over the last decade. This was due to some very noticeable negative attitudes (to self, family, the environment, law and the society in general), persistently poor academic performance and absence of mechanisms to adequately reflect the attainment of students of the success or failure of methods used in the delivery of education.

At the 1997 CARICOM Heads of Government Summit in Montego Bay, Jamaica, there was a call for Caribbean nations to prepare themselves to meet the challenges of the twenty-first century. Heads of Government accepted that economic and technological change continued to present new variables and that

this meant that education and training would need to be on the cutting edge of impending reform.

At this meeting, it was determined that the quality of Caribbean people would dictate the level of response to global issues. It was felt that there needed to be a transformation in Caribbean society that would allow for the evolution of a “new Caribbean person”. It was envisaged that such a person should possess certain positive attributes and embrace positive values and morals that would lend to harmonious living, respect for cultural heritage, appreciation of family and kinship, responsible behaviour and the ability to think critically and logically.

Education has a vital role to play in the attainment of regional, national and personal goals. The Ministry of Education, Youth Affairs and Culture has, therefore, accepted the challenge to design a curriculum that engenders learning activities, learning experiences and content-relevant subject matter that cater to the fulfilment of its established objective. This curriculum seeks to enable ALL young people to be knowledgeable and creative and to develop positive attitudes and requisite skills. It is felt that in this way society should be assured of citizens who can achieve in any sphere of life, work co-operatively, make decisions about social and health practices, resist negative peer and media influences and be retrained at each stage of their development.

Principal Participating Institutions, Organisations and Individuals

The last major revision of the National Schools’ curriculum took place in 1977. Since then, attempts have been made to review and update certain aspects

of that curriculum, but there has been no general overhaul. Given the current societal changes and emerging pedagogical trends, the time was considered ripe for a fundamental revision of the National Schools' curriculum. The Ministry of Education, Youth Affairs and Culture along with other major supporting educational and business agencies has embarked on a multi-faceted approach to reforming the educational system to meet the challenges of a global society.

The nation's students and parents are key players in the curriculum change process and both parties were invited to be involved from the outset. Students' participation was assured when officials from the Ministry conferred with members of secondary schools in a series of scheduled meetings. Parents made their contribution through the National Council of Parent Teacher Association and Town Hall meetings.

The critical role of principals of both primary and secondary schools has been constantly emphasised. Principals are viewed as instructional leaders and it is they who can determine organisational climate and lend support to those persons involved in change.

Erdiston Teachers' Training College has become a major player in the training and retraining of teachers to meet the demands of the revised curriculum. The critical nature of the reform process demands that teachers lend more assistance than mere participation on advisory committees. For implementation to occur many teachers will need to experience skill-training workshops. Likewise, professional development must take place to truly have educational reform

Education officers and tutors from Erdiston Teachers' Training College have been charged with the monitoring of the implementation process. Their

reports to the Curriculum Department of the Ministry of Education have been critical to the whole process.

New/Revised Disciplines and Priority Issues

The revised curriculum includes subject areas which represent the wide range of skills and knowledge that will be necessary in the new global environment. It addresses the needs of Early Childhood, Primary, Secondary and Special education.

As part of the Communication Studies, Literacy and Language Development programme, it is expected that there will be a bridging of the gap between the local dialect and Standard English which will serve to develop students who can communicate competently in Standard English. This programme encompasses a conversational foreign language in both the primary and secondary schools. At the primary level that language is Spanish, while at the secondary level there is the option of pursuing French or Spanish.

Social Studies is one of the key areas that has undergone revision. Through this programme students will have a better understanding and appreciation of national and regional heritage. The sub-topics that fall under this heading relate to self, family community, country and environment. Religious and moral education has also been included to ensure a firm grounding in Christian values.

In a world where sedentary lifestyles have been found to be major contributors to the decline in the health of the population, the importance of a Physical Education programme cannot be overstated. The Physical Education programme, which is distinctly different from a Sports programme, seeks to

encourage participation in regular and enjoyable physical activity so that students will learn to value its effect on life-long health, and well-being. It incorporates the study of movement, diet and nutrition, and social relationships. Through this programme students will be expected to improve their physical skills and to develop positive attitudes towards self and others.

A major feature of the curriculum reform is the inclusion of Aesthetic studies. Visual and Performing Arts help to develop children's natural creativity while allowing them to explore multi-faceted aspects of their own culture as well as the culture of others. This area of the curriculum seeks to promote the creative aspects of the child's personality and helps to develop cultivated behaviours.

Greatly enhancing/ complementing the Aesthetic Studies programme is the PEACE Programme. This programme is part of the new Curriculum 2000 in which a more integrated approach to learning is being adopted. The programme utilises the Performing Arts to empower students through creative education. The PEACE Programme also focuses on the values which are taught while imparting knowledge.

The nature of the programme, which is issue-focussed, can be used in HIV and AIDS education. The structure of the PEACE Programme is based on trust, confidence, self-assurance, self-discipline, self-reliance, and self-worth. All these attributes foster healthy living and positive values. The development of negotiation skills and decisions making exercises are important life-skills which aid in personal and social development and should produce behavioural and attitudinal changes.

A programme called Technology has been added to allow students to develop the capacity to positively alter their environments by making changes to materials existing in their surroundings. It is also designed to examine the impact of technology on society and will encourage students to take advantage of the technology to access and expand their knowledge. Emphasis will not only be placed on execution but on design as an attempt is made to move society from one of consumers to one of producers.¹¹

Strategies Regarding Curriculum Design, Implementation and Evaluation

The source of direction of Barbados' educational reform programme is the sound philosophical and psychological principles which guide it. Philosophical issues have always impacted schools and society. Contemporary society is changing, much more rapidly than in the past. Schools, therefore, should be subjected to a continuous process of appraisal and reappraisal which calls for a philosophy of education that influences, and determines educational decisions, choices and alternatives.

Barbados' design decisions are consonant with the basic beliefs concerning what people should learn and how they should learn. Curriculum committees, set up by the Ministry of Education have been keenly aware that the design of the curriculum involves not philosophical, but theoretical and practical issues. This has provided them with the framework for broad issues and tasks, such as determining the goals of education, the content and its organisation, the process of teaching and learning, and in general what experiences and activities need to be stressed in schools and classrooms.

No effort, then, has been spared in providing the kinds of programmes which allow students to operate at different levels within the classroom;

experience multiple methods of learning and assessment; think divergently; and apply the knowledge gained to real-life situations.

A major innovation has been the introduction of an Outcomes-based Education approach. Outcomes-based education seeks to link teaching and learning strategies more directly to student performance.

The curriculum reform also includes changes in the modes of assessment. This means that the traditional tests which are primarily product-based (pencil and paper, norm-referenced tests) will form only a part of other authentic assessments which are based on a combination of both process and product methods (orals, interviews, peer and self-assessment, performance assessment exhibitions, portfolios, project-based work, written achievement tests and norm-referenced tests).

Dissemination of the new primary school curriculum has been the sole responsibility of the Ministry of Education. The method used is based on the Centre-periphery model which embraces the idea that the process is centrally controlled and managed; that the innovation is planned and prepared in detail prior to its dissemination and that the process of dissemination is one-way. This approach relies on the strength of central resources and the ability to effectively project from the centre in a manner that would reach all interest groups.

Collaboration among teachers and the Principals' support of teachers have been encouraged at every step of the process to bolster the implementation process. Where there has been overwhelming difficulty encountered with the curriculum, the Ministry of Education has established a communication link via a telephone hotline to facilitate interaction between teachers and Central Office.

Direct communication lines with respect to curriculum issues have come in the form of education officials from the Ministry of Education and the Erdiston Teachers' Training College making regular visits to schools. The monitoring of the curriculum implementation process is being done in a manner that fosters collegial relationships between the implementer and evaluator. The monitoring exercise has been so executed as to ensure that teachers receive support during the pilot phase; evaluate the school's resources in relation to curriculum needs; identify strengths and weaknesses in content taught, methodology, assessment and pedagogy as they relate to student needs; address training needs through in-service, school based sessions; and assess the physical environment and its impact on the instructional process. It is expected that the information fed back to the Ministry of Education as a result of these visits will be invaluable.

Curriculum reform in Barbados is at an early stages. Among the accomplishments of the curriculum reform initiative is the fact that the new curricula have now reached all of the public and private secondary schools. What is more, every school has been assigned personnel to aid in the support of its efforts to implement the new programmes. The teams comprise curriculum officers, tutors from the Erdiston Teachers' Training College, officers from the Audio-Visual Aids Department of the Ministry of Education and Officers responsible for school supervision and management. Each group has been assigned a specific responsibility. There is, also, a Special Needs officer who, along with other key personnel is assigned to supervise activities at the Special Schools.

Along with the sensitisation sessions held for the benefit of principals, teachers and the general public, the Ministry of Education published a

comprehensive document that outlines every single facet of the curriculum reform. This document is accessible to anyone who is keen to know the details of education reform in Barbados.

Achievements and Solutions

The child-centred approach, working with curriculum and thematic webs and relinquishing the position of the most informative resource will need to be addressed. A lack of resources, has been pinpointed as a major inhibitor in the execution of some of the activities identified in the various curricula. Limitations of the physical plant have also proved to be problematic.

Some teachers have not become familiar enough with curriculum documents to inform their planning and thus there have been instances where there has not been adequate correlation between attainment targets and chosen themes. Principals have to assume instructional leadership and create the climate necessary to facilitate curricular change.

To overcome some of the difficulties, Erdiston Teachers' Training College has tailored a series of workshops to address many of the needs highlighted by the teachers. There have been a number of in-house workshops at schools identified to be in dire need of assistance. Schools whose practices reflect much of what is required in the new curriculum have been singled out to act as models for other schools that seem to be floundering with respect to implementing the new syllabuses. A special workshop has been designed to get teachers working with machinery found in the technical/vocational class to attend to the problem of limited resources. Teachers stand to produce cost-effective materials and will not have to rely solely on commercially produced goods.

Educational reform cannot be successful without the recognition that teachers are an integral part of the process. As a consequence, it has been deemed necessary to empower teachers and to regulate the teaching/learning environments to allow teachers reasonable scope in performing their duties. The package of strategic actions proposed by the Government to bolster empowerment will include terms and conditions of service, leadership and teacher training, teacher recognition and teacher appraisal and acknowledgement of their contribution to the nation-building process.

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