

Consultancy in Teacher Education

Grenada

Teacher Training

OECS Education Development Project

Final Report

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EXECUTIVE SUMMARY

Based on a review of the literature and data from interviews with stakeholders at the Ministry of Education, the consultants noted that the teacher training system in Grenada is challenged with regard to the quality of teachers and teaching at all levels of the system. The most urgent problem is at the secondary level as efforts are made to move towards universal secondary education by 2008.

The need for more trained teachers at the secondary level will be crucial to support student learning. The problem is stated in terms of teacher qualification, as current levels are below what can be considered minimal to ensure quality of instruction, particularly now that more low-achieving students have access to secondary education, and will be the responsibility of under-qualified teachers.

The specific needs of both pre-service and in-service teachers were identified in desktop and field research. Many key sources at the Ministry of Education recognise that the current in-service teacher education modality is inefficient, as there are significant costs for teacher replacements during the period of training¹.

Besides that, there have been low success rates in recent years: only 27 of the 50 primary teachers were successful in their examinations for 2001.

Teacher training in Grenada is facing most of the same challenges and gaps that other developing countries are confronted with:

- Teachers having limited diagnostic and planning skills and tools
- Teachers focusing on the theory and with difficulties to translating it into practice

¹ According to documents provided by the Ministry of Education during desktop research in Grenada: ECD \$12 million will be required to train all primary and secondary teachers using the present formula of two-year full-time and one year full-time in-service training for primary and secondary teachers respectively.

- The need for training to help teachers deal more effectively with the challenges of large class sizes in a difficult teaching environment
- Remote regions having poor access to training
- Limited instructional materials

Pre-service training has been identified by the Ministry of Education as a priority for the years ahead, as a deliberate measure not only to alleviate the cost factor but to bring about a much quicker increase in the number of qualified teachers at the secondary level.

Reforming the current teacher education programme from a predominantly uni-dimensional in-service programme to a multi-faceted framework that incorporates pre-service and in-service, will be in line with both regional and international trends. These trends are that pre-service programmes are increasingly including early immersion in classroom practice, and that there is more connection between in-service practice and academic institutions.

Efforts are currently being made in Grenada to improve pre-service and in-service secondary level teacher training modalities. There is a need to review current activity to determine its efficiency and effectiveness in order to devise viable options for teacher upgrading at the secondary level. A programme of teacher upgrading, rooted in the Strategic Plan for Education Enhancement and Development (SPEED), is required to bring the number of qualified staff up to an acceptable level.

To improve teacher training programmes it is necessary to study the main issues and challenges in the area of teacher education, and offer recommendations that will inform policy formulation and investment options that may be suitable for addressing the challenges in the sector.

This report will assess current practices in teacher education in pre-service and in-service training, and evaluate these within the context of alternative options for improvement. The document contains recommendations to implement a Pre-service and In-service teaching training programme. Some of the main features of those programmes are: four components integrated by academic studies and teaching practice supported by learning material and technology; curriculum increased duration; no teacher replacement in the in-service programme; lower costs.

By the year 2008, in-service programme will be finished and resources multiplied. This situation will allow increasing the pre-service teacher training programme budget and to allocate resources to the professional development for primary and secondary teachers.

In chapter I, we describe Grenada's education system and we give an overview of the educational framework and its administrative structure. In chapter II, we synthesize the state of the art and recent research findings in teacher training, current demand, and possible scenarios for reform. In chapter III, we describe teacher training modalities and international trends in innovative programmes. In chapter IV, we offer recommendations and policy options, as well as some guiding principles, components and structure for a teacher training programme. Finally in chapter V, we give details about budget and costs for teacher training modalities.

I. OVERVIEW

1.1 General policy and education framework

As many national documents point out, the quality of learning and teaching are very important to the country's ability to face the challenges of globalisation and to underpin citizens' aspiration for social mobility. The government of Grenada, through the Ministry of Education, is making efforts to ensure that certain minimum levels of achievement are attained by all, that students are well prepared for the world of work, and that there is promotion and reinforcement of those values that lead to personal and societal advancement.

Six priority areas were outlined²:

- Provide universal access to education, particularly universal secondary, and increasing out-of-school opportunities and coverage at the tertiary level;
- Improve the quality of education and the achievement of pupils – with special emphasis on improved and effective teaching practices and learning conditions;
- Provide learners with relevant knowledge, attitudes and skills – so that all students would be functionally literate when exiting the school system, and be able to use information and communication technologies in the activities of daily life;
- Establish and strengthen relationships with partners in education – to meet the needs of societal and international imperatives, and enhance co-operation among those engaged in the provision of education;
- Improve the effectiveness of management and administration at Ministry and school levels – optimising scarce resources and engendering a culture of service, support and mutual trust;

² Strategic Plan for Educational Enhancement and Development 2002-2010 (SPEED).

- Ensure the consistent government financing of education, diversifying sources of funding and ensuring that resources are used efficiently – recognising the need for an inclusive framework for financing education.

1.2 Education overview

The formal school system in Grenada consists of four cycles, which cover:

- Pre-primary, for children aged from 3 to 5, offered mainly in small private institutions (not compulsory).
- Primary, for children aged 6 to 11 (compulsory).
- Secondary, for children aged 12 to 16. There is a vocational alternative to this secondary five-year cycle, the skills training centres, which offer three year courses, and the vocational training centres, which have a two year programme.
- Tertiary, with several options: courses for the General Certificate Examination (G.C.E), a technical and/or academic level examination at the T. A. Marryshow Community College (TAMCC); teacher education at the TAMCC and University of West Indies School of Continuing Studies. The University of St. George's is an American offshore campus that recently started offering scholarships to Grenadian citizens.

Children who are 11 will sit the Common Entrance Examination (CEE), which every year selects the 40 to 50% best performers for entry into secondary schools. Those who are not selected can continue for another three years in senior-primary sections of primary schools, and can sit the School Leaving Examination (SLE). This is administered to students in the 14+ age group, and allows those who pass a choice between three different options:

- An opportunity to go into secondary education, 'joining' secondary education in form 3;

- An opportunity to access technical and vocational education and training (TVET) in the TVET centres and the community colleges.
- Certification - for successful examinees who have passed in at least four (4) subjects including English language - to be eligible for entry into the job market.

At secondary level, like at primary level, there is an external examination at the end of the course. The examination bodies in question are either regional, namely the Caribbean Examinations Council (CXC), or international, the General Certificate of Education Ordinary Level (GCE-O level). Pitman's examinations in mathematics are taken by a small proportion of students.

1.3 Administrative structure

Grenada's education system functions on two levels: the Ministry of Education in St. George's, and schools around the country. The system is still centralised, there is little autonomy in decision making with regard to the resources and personnel given to schools, and despite current efforts at decentralisation, most decisions about finances and policies are still taken at the Ministerial level.

According to documents examined by consultants, the Ministry's structure has remained the same for the past ten years. The creation of the Project Management Unit and the computer centre are the only significant recent changes. The present organizational structure of the Ministry consists of the Minister of Education at the top and then the Permanent Secretary. At the next level are the Chief Education Officer, who is responsible for policy and planning, schools, curriculum development and maintenance of the physical plant, the UNESCO Secretary General, the principal of the T. A. Marryshow Community College, the director of libraries, and the senior administrative officer - head of administration. The CEO is assisted by four senior education officers, the heads of four major divisions: Planning & Development, Schools, Curriculum, and the Project Management Unit.

The education officers are in charge of supervising primary and secondary schools, and are the same as the corresponding officers in other countries. They have three main responsibilities:

- To control the functioning of the schools, both from an administrative (staffing, infrastructure and materials, time-tabling, record-keeping etc) and a pedagogical point of view (teaching/learning methods used, overall learning climate);
- To provide advice and support in the same two areas to schools, in order to improve overall management and teaching/learning practices;
- To act as liaison officer between schools and the Ministry of Education.

All schools in Grenada, both primary or secondary, are managed by the principal, senior staff, the school management board (SMB) (where these exist), the student council (where these exist), and the parents teachers association (PTA).

The main actor in school management is the principal, who is responsible for the organization and administration of the school.

Besides this type of actor, every primary and secondary school has a vice-principal and identified senior teachers who play several roles and are particularly important in secondary schools, where they act as heads of department.

The school management board (SMB) assists the principal in the overall management of the school and assists in proposing to the Ministry of Education a shortlist of candidates for the post of principal in the respective denominational/parochial schools. However, not all secondary schools have an SMB.

Some schools have student councils. Their role is limited to dealing with disciplinary problems and taking care of student welfare.

All schools have a parents teachers association (PTA). These play a minimal role in school management. In many cases, PTA meetings are only organised once a year, and they are more of an information meeting, in which parents do not play an active role, than a forum for discussion. According to consultants, it would appear that the degree of involvement of the PTA in management depends on the attitude of the school administration.

1.4 Access and quality of education

1.4.1 Pre-primary education

According to the Educational Statistical Digest (ESD)³, in 2002 Grenada had a total of 106 pre-school centres (74 public and 32 privately owned). While public schools are fairly equally distributed throughout the country, 25 of the 34 private ones are located in the parish of St George's. The gross enrolment rate (GER) remained constant at 75 to 80% between 1991 and 1996. The total number of children at early childhood centres decreased from over 3,900 to less than 3,200, but this paralleled a decrease in the population of three and four years olds.

1.4.2 Primary education

The education system provides for universal primary education, and the government is committed to a policy of full primary education for all children of compulsory primary school age, i.e. 5 to 11 years old. As was mentioned above, those students who are unsuccessful at gaining entry to secondary school at the end of grade 6 remain in the senior grades of primary school until the age of 16.

³ Educational Statistical Digest , past trends, present position and projections-2008. Ministry of Education, February 2002.

According to the ESD, there are 58 public primary schools, 41 of which are denominational, and 17 of which are government owned. In addition, there are 14 private schools.

Internal efficiency at primary level is high, and the numbers of both dropouts and repeaters are low. In 1997-98, the average repetition rate for grades 1 to 6 was 6% (two children out of a class of 33), but it was quite a bit higher for boys than girls. Pupil progression from grade 1 through to grade 6 of primary school is smooth, and completion rates are more than satisfactory. 94% complete grade 5 and enter grade 6, with the percentage for boys being about 1% lower than that for girls.

The pupil/teacher ratio has remained more or less constant over the years. In 2000/01 it was 25:1. Female teachers are in the majority in primary schools.

1.4.3 Secondary education

According to the ESD, there are at present 19 public secondary schools - nine of which are government owned, the other nine being denominational - and three private secondary schools.

At secondary level, the dropout rate is between 1-2% on average, somewhat lower in the early forms and slightly higher in forms three and four. These numbers have changed very little in recent years. Repetition rates are higher than at primary level, with males repeating more than females, and are especially high between forms four and five. One year the rate went as high as 28%. For the other grades, rates are around 10%. Secondary enrolment has been increasingly steadily since 1996, with an average annual growth rate of 4.4%

Access to secondary education remains low (only 60% of the age group) which means that about half of all young adults do not have any educational certificate.

As a result of the SPEED, the Ministry has declared a strategy of expanding access to secondary education and making it universal.

1.4.4 Technical and vocational education

Technical and vocational education classes are part of the general education offered in many secondary schools. Ten of the 19 secondary schools offer some form of training in one or more skills-based trade work.

The T. A. Marryshow Community College offers courses in refrigeration , hospitality arts, building construction, auto-mechanics, electrical installation, electronics, general mechanical engineering and plumbing. At the St Patrick's Multipurpose Training Centre, students can do courses in home economics, masonry, furniture making and design, building construction, auto mechanics, electronics and drafting . There are two non-formal training institutions: the St. David Skills Training Centre and a programme organised by a non-governmental organization, the New Life Organization (NEWLO). They offer programmes of a similar nature and train individuals for gainful employment.

1.4.5 Tertiary and higher education

At the end of the secondary education cycle, students sit external exams: the Caribbean Examination Council (CXS) and the General Certificate of Education (GCE). Students who perform well on these exams have the option of going into the job market or progressing to the tertiary level of education.

Tertiary education is offered in different institutions. The T. A. Marryshow Community College (TAMCC) offers advanced level GCE and CXS and associate degree programmes in arts and sciences. It is also responsible for teacher training, as well as technical and vocational education and training (TVET).

The School of Continuing Studies provides some first year courses for the University of the West Indies (UWI) as well as enrichment courses in general education. St. George's University has recently begun offering scholarships to Grenadian citizens.

1.4.6 Country capacity⁴

Grenada has a number of characteristics which offer the opportunity to develop a most effective and innovative education management system. It has the following assets and strengths:

- Grenada is small in size, and the Ministry of Education runs a limited number of schools;
- The schools are all quite easy to reach, and communication between the schools and the Ministry is straightforward since every school has a telephone;
- An increasing number of schools have a computer and staff competent to use it, and all secondary schools are being linked to the Ministry via a computer network;
- The Ministry is also well equipped with computers, and an internal network is already coming into operation;
- The analysis of examination and test results constitutes a rich source of information on student achievement;
- The statistics unit in the Ministry of Education has two full-time staff and the necessary hardware and software.

Ministry staff generally have a strong academic background and a lot of experience. Consultants were impressed with many people's competence and commitment.

The fact that the Ministry is a small organisation in a small country characterised by good communications can be an advantage. There are only 58 public and 19 private primary schools, 18 public and one private secondary school, and 107 small pre-primary institutions (73 public and 34 private). These numbers could make it possible for all staff to have a good idea of the problems experienced by teachers and by schools, and allow them to be solved quickly.

⁴ This topic is inspired in the document “Audit of the organization and management of Grenada Ministry of Education” prepared by the consultant Gabriel Carron.

II. TEACHER EDUCATION: STATE OF THE ART AND RESEARCH FINDINGS

2.1 Teacher training: current state and needs

At present, 68% of teachers at the secondary level are unqualified. Available data⁵ indicates that there has been a 5.3% turnover in the last decade, and average attrition is 11.3% (3.2% at the primary level).

Current teacher education modalities are largely in-service for both primary and secondary levels. In 2000⁶, there were 120 primary teachers undergoing training on an OECS primary teacher training programme separate from the UWI 2-year in-college programme. The UWI secondary teacher training programme was attended by 28 secondary school teachers (18 were successful, and the other 10 will be upgraded once they successfully complete the course). Currently (2003), 29 secondary teachers are being trained on the same programme.

In 2002, the Ministry of Education, through the Teacher Education Department of the T. A. Marryshow Community College (TAMCC), started a new initiative in teacher preparation: a pre-service teacher education programme, through which people receive training before being fully introduced into the classroom.

The programme has a duration of two years. The trainees are offered full-time training for one year and part-time training for the final year with an internship type programme which includes research and practice teaching requirements. At the end of the training, successful graduates will receive a UWI certificate in teacher education, effectively making them qualified teachers.

During interviews, consultants were told that at present there are 27 trainees enrolled in the programme to be trained in various subject-areas, focusing on

⁵ Charles, S. *et al.* Curbing the flow: Teacher Attrition in Grenada, 1999-2000. Ministry of Education.

⁶ Educational Statistical Digest , past trends, present position and projections-2008. Ministry of Education, February 2002.

strategies to teach each discipline. These subjects include mathematics, modern languages, English, information technology, geography, science, business studies and art. In addition, trainees will undergo training in basic teacher education courses such as classroom management, educational psychology, strategies for instruction, testing and measurement, and research methods.

Consultants have been told that pre-service training courses underwent an appraisal which indicated that their programmes helped trainees to a better understanding of adolescent behaviour, and gave them an insight into how to relate knowledge to working with students, how to use more varied teaching modes, and how to hold students' attention.

On the other hand, there were deficiencies connected to the need for better supervision of practice teaching, increased knowledge on the part of tutors in the content area of certain courses, and for tutors to attend classes and to give feedback. There is some difficulty in applying some of the skills and innovations learnt during the programme due to poor conditions in the schools for teaching practice. There is inadequate explanation of assignments to be done, and there is a need for a Spanish-specific focus in instruction in methodology.

Trainees recommend that a significant part of the individual study should be done during the first year of the programme, and that principals should be advised of the need to provide materials to support improved instruction.

2.2 Secondary schools overview and current and projected demand for secondary teacher education

2.2.1 Access to secondary education⁷

The transition of students from primary to secondary schools by way of the annual school leaving examinations (SLE) through bursaries and scholarships is determined by two factors (1) the students' age, which may not exceed sixteen, and (2) the students' ability to reach a passing grade in this examination, which is criterion referenced.

Transition rates for pupils sitting the common entrance examination (CEE) and for those sitting the SLE are very different. The number of SLE awards obtained is limited, ranging from 64 to 114 per year over the last five years, with a transition rate between 5.8 and 13.7%. These figures show a very small impact on the evolution of access to secondary education. On the other hand, the transition rate for those sitting the CEE is about 40%, and in fact every effort is made to ensure that the highest possible transition rate is attained for this category of primary school students.

The percentage of children admitted to secondary schools differs little between parishes. The main exceptions are the islands of Carriacou and Petite Martinique, where the transition ratio is much higher than the average. In the last year, the other parishes, in particular the rural parishes such as St Marks or St Patrick's, actually obtained higher award ratios than the average.

As to examination performance, there is a big difference between boys and girls. Girls have consistently gained a much higher number of awards, between 55 and

⁷ Data from Educational Statistical Digest , past trends, present position and projections-2008. Ministry Of Education, February 2002.

60 % of the total. This, of course, means that the enrolment of girls in secondary schools is much higher than that of boys.

Secondary school enrolment stayed at more or less the same level for the first half of the 1990s, but went up in the second half of the decade. In 1998-99, the gross enrolment rate was over 70%. However, the figures for 1999-2000 show a decrease from 72.2% to 67.7%.

Information on net enrolment rates and on the disparities between boys and girls is only available for two years. The difference between gross and net enrolment rates is about 16 to 17%, which shows that the proportion of over-aged students is high. The net enrolment rate of only about 50% indicates that half of all children between 12 and 16 are not in secondary schools. Quite a few are still in primary, but certainly about a third are out of school and without a formal certificate.

The difference between boys and girls in net enrolment rates is about 20 percentage points. About 60% of 12 to 16 years old are not in secondary school. They are either in junior primary school, after late entry or repetition, in senior primary school, after having failed to obtain a place in a secondary school and with little hope of ever entering secondary, or – and this is the case for most – out of school and looking for jobs that are open to adolescents without much formal schooling, which are scarce.

2.2.2 Projected demand for secondary teacher education

There are two types of demand for secondary teacher education. One is related to increasing the number of new teachers, and the other has to do with qualifying those who are untrained.

There are two reasons behind the educational system's need for new teachers: government determination to universalise secondary education by 2008, and the

increasing demand for secondary education. With secondary coverage currently at 70%, there is still considerable wastage of students in the senior-primary sections. These are mainly boys who are disillusioned and excluded from opportunities for further education at a level that is highly valued by society.

Table 1: Projections of Number of Teaching Position in Secondary Schools

Year	Enrolment Form 1 to 5	Student/Teacher Ratio	Teaching Positions
2000/01	9891	23	439
2001/02	10236	23	445
2002/03	10392	23	452
2003/04	10508	23	457
2004/05	10744	23	467
2005/06	10984	23	478
2006/07	11151	23	485
2007/08	11076	23	482
2008/09	11011	23	479

Source: Educational Statistical Digest

As shown in table 1, 40 new teachers will be needed to cover the 100% enrolment in secondary schools in 2008.

As explained above, in 1999 teacher attrition at secondary school was 11.3%. The projections for replacement needs due to retirement, death, drop-out or emigration are assumed to be 6% of the number of teaching positions in the previous year, considering the number of recently certified teachers.

Table 2: Projections of Shortages and Surpluses of Teachers in Secondary Schools (2000/01 to 2008/09)

Year	Teaching positions	Annual Shortages (-) Or Surpluses (+)	Replacement needs	Total Requirement
2000/01	439			
2001/02	445	-6	26	32
2002/03	452	-7	27	33
2003/04	457	-5	27	32
2004/05	467	-10	27	38
2005/06	478	-10	28	38
2006/07	485	-7	29	36

Year	Teaching positions	Annual Shortages (-) Or Surpluses (+)	Replacement needs	Total Requirement
2007/08	482	3	29	26
2008/09	479	3	29	26

Source: Educational Statistical Digest

As shown in table 2, 30 new teachers per year are required.

The other type of demand is to qualify those teachers who are untrained. Document analysis reveals that there is a need to place greater emphasis on the training of secondary teachers who are already employed, so that, in the next four years, the current proportion of trained staff at the secondary level may increase from the present level of about 30% to 100%. This means training about 320 teachers, including 59 teachers who have graduated and who only need pedagogical training. The other 261 also require subject qualification⁸.

Data from the Ministry of Education indicate there are 51 untrained teachers in mathematics, 93 in language and 70 in sciences.

2.2.3 The quality of resources in secondary schools

Large class size, lack of working space and lack of resources in secondary schools are among the main complaints of principals and teachers. There are also serious shortages of equipment and supplies to support teaching. Many schools lack the equipment to provide supplemental teaching materials or resource materials for teachers to improve their skills.

The physical condition of many of the schools in Grenada is poor since most were constructed in the 1950s, 60s and early 70s. Over the intervening period there has

⁸ Data from Education Statistical Digest, pag. 100, table 137.

been insufficient maintenance work on these facilities, so they are now in a state of disrepair.

The Ministry of Education provides some basic instructional materials, equipment and supplies. Parents meet the cost of books. Secondary schools receive grants that are supposed to assist in the procurement of basic supplies.

Limited infrastructure is directly attributable to the low proportion of the annual budget allocated to non-salary/direct school support, which, at present and over the last few years, is approximately 7%.

2.3 Pre-service and in-service programme: scenarios for reform

Based on a review of the literature and field work, consultants found that improved teacher training quality is necessary to:

- Upgrade the qualifications of those who are already in the system, and train those who are in the system but have not received any type of training
- Move towards a pre-service mode of teacher education
- Develop a more cost effective modality of training. Full-time training for all teachers who are in current employment is very costly because for every teacher who undergoes training, two salaries have to be paid during the training period.

According to documents analysed the Ministry of Education proposes to reform teacher education programmes in the following ways:

Pre-Service Training: full-time teacher preparation programme before introduction into the classroom to ensure that qualified teachers are employed. T. A. Marryshow can continue offering a full-time programme in teacher education at the Teacher

Education Department, leading to a UWI Certificate in teacher education at the secondary level after two years.

In-service Programme (Secondary): emphasis will be placed on the training of secondary teachers to rapidly improve the quality of teacher competence at the secondary level. Teachers who are permanent and have not yet been trained will be required to undergo training in the secondary programme that is currently in the planning stage.

2.3.1 Reform benefits

The Ministry considers that the reform will ensure the following benefits:

- There will be a full pre-service teacher programme to improve teacher performance and ensure that students have qualified teachers for improved learning;
- Students at the T. A. Marryshow Community College will actively consider teaching as a career when deciding which courses to take. This means that the practice of regarding teaching as just taking care of children until there is occupational mobility, will be minimized. Students will come to consider teaching as a career from the beginning of tertiary education.
- There will be significant savings in terms of government expenditure, that currently incurs costs with the present training system which is predominantly full-time in-service.

At the same time, the Ministry considers some priority areas:

- Providing the T. A. Marryshow Community College with funds to significantly improve its learning resources for teacher education, by providing the

textbooks, periodicals, journals and other teaching/learning resources needed to ensure the quality of the teacher education programme.

- Using funds to support the development of materials and training in remedial strategies for teachers and students at the primary and secondary level, to improve the attainment levels of slow learners.
- Developing a special education unit (SEU) within the Ministry of Education.

III. TEACHER TRAINING NEEDS

3.1 Introduction

Grenada is not alone in questioning the adequacy of its systems of teacher training. Teacher training programs are under fire the world over, blamed for poor student learning and unsatisfactory school system performance. There are currently a lot of experiments under way with radically new approaches to the content, duration and locus of teacher preparation.

Teacher training needs are related to different modalities and institutions. The state of the art in teacher training modalities, as well as some regional and international trends, are presented below.

3.2 Teacher programmes modalities and institutions

3.2.1 Pre-service programmes

Teachers working in schools in Latin America and the Caribbean region come from four types of professional background. These types are related to the kinds of institutions they attended for pre-service training:

Teacher Training High Schools. Secondary level institution, where students receive a high school diploma and professional teaching certification at the same time.

Tertiary Centres. Specialized centres for preparing teachers at pre-school, primary or secondary levels. The programmes last two years, and they usually have a practical component so students leave with some classroom experience.

University of Education. Studies last at least four years. Graduates receive a university degree. Less practical experience is provided, but there is more in-depth study of pedagogical issues.

Throughout Latin America and the Caribbean, education reform programmes for pre-service and in-service teacher programmes have undergone changes in recent years. The shift in pre-service teacher programmes from teacher training high schools to universities stands out as one of the most important reforms for enhancing teacher quality. With the exception of Guatemala, Honduras and Nicaragua, which continue to rely entirely on normal schools to meet pre-service training needs, the change to universities has become more the norm than the exception.

Although the university is seen as theoretical, more focused on strengthening the teachers' knowledge of content than on preparing them in classroom management skills and innovative methodologies, and often divorced from the reality of the school classroom, especially from schools in isolated and impoverished areas of the country, the shift to higher-level educational institutions for future teachers is generally acknowledged to have enhanced the quality of instruction at both the primary and secondary school levels.

Even though pre-service programmes might be improving at some levels, there are underlying problems that create an obstacle to reform and progress. These are the problems, often ignored, of candidates entering the field of teaching. In her study "The Preparation of Teachers in Latin America", Eleonora Villegas-Reimers⁹ identifies four common characteristics that define the majority of students:

- Poor academic preparation before entering the pre-service institution.

⁹ Villegas-Reimers, Eleonora. *The preparation of teachers in Latin America*. The World Bank, Human Development Department, 1998.

- Reasons for selecting teaching are usually not related to an interest in the profession.
- Candidates' profiles often do not meet the requirements to be a teacher.
- Drop in the number of candidates applying to training institutions.

3.2.2 In-service programmes

In-service teacher training continues to challenge the region's countries because of the large number of teachers in need of training, the cost of traditional training methodologies, and the need to define more effective methodologies and systems.

This model has proved to be highly ineffective. Most of the studies in the region point out that teachers generally do not apply what they have learned during in-service training, and this situation is even worse when teachers are not asked directly what it might interest them to learn. Besides this, the courses are too far away from the teacher's reality, especially in the rural areas. In-service programmes do not serve their purpose unless teachers are monitored and given classroom-level technical assistance for weeks and months after completing their training.

These perceptions of in-service training, along with the relatively high costs of travel, materials, lunches, hotel rooms, etc., have unfortunately contributed to the downsizing of many such programmes. As can be seen across the region, were it not for international donor contributions, few in-service programme efforts would survive. In fact, a number of countries have fully suspended in-service training, mainly because of budget constraints.

Nevertheless, with the use of distance education, in-service teachers can now benefit from the new training options made available through communication innovations, particularly the internet. Quality television programmes are available now in the region, and are used in distance education programmes.

Nowadays, new trends in in-service training are flourishing. These are based on the concept of developing a systematic approach to training, and grounded in the realities of the school as a whole, teachers as a professional body with specific policies that support professional development, and training as a continuous need throughout the professional life of a teacher. These new trends are rescuing approaches such as the "cascade", and improving them by involving a trainer of trainers as the main link between one group of trainees and another, as well as by providing training for the entire school as a system instead of just for individual teachers.

3.3 Innovative programmes and identifiable trends in Latin America

In order to arrive at a full and more comprehensive approach, recent research¹⁰ carried out in different Latin American countries will shortly be presented to illustrate how failures in training teachers may be of help in designing trends for what works in teacher training.

The deficiencies most commonly found in teacher training in the region are:

Failures in pedagogic methods used to teach teachers: Teachers being taught the latest constructivist approaches by frontal methods and learning by rote, isolated or individualistic training as opposed to team-based training, university-based teacher education as opposed to in-classroom and tutorial approaches.

Failures in the content of training: It is common to find a mismatch between subject areas where a clear shortage of quantity or quality of teachers is diagnosed (e.g., math, science and foreign languages), and the supply of training opportunities. Similarly, teachers that are likely to face disadvantaged or culturally diverse

¹⁰ Navarro, Juan Carlos and Verdisco, Aimee. *Formación Docente en América Latina: Innovaciones y Tendencias*. BID, Departamento de Desarrollo Sustentable, Serie Documentos Técnicos, [s.f].

student groups are often introduced to teaching techniques appropriate for relatively privileged or homogenous groups of children.

Failures in the impact of training: The effectiveness of many programmes vis-à-vis teaching practices or classroom activities has been extremely short lived. Trained teachers often quickly revert to old habits, and training activities have little effect on their motivation or ability to use the innovations or good practices they were exposed to in training.

Failures in integrating teacher training into the context of education policy: Teachers often receive training as a means of advancing in their careers or of satisfying a given legal requirement. Prevailing incentive structures lead teachers to accumulate diplomas or certificates, but not to acquire substantive education. There is little, if any, connection between the diploma or certificate received and the use of new skills or techniques in the classroom.

The research mentioned above describes trends in best practices:

Classroom-based training

The most basic trend shared by the cases surveyed appears to be that effective teacher training, pre-service or in-service, is classroom based. The correlation is direct: the sooner student teachers come into contact with real-life situations associated with professional practice, and the longer this contact is maintained, the more effective the training.

*Fe y Alegría*¹¹ in Venezuela provides a good example of the benefits of classroom-based approaches. Teachers are trained through teaching. Schools are perceived and utilized as learning environments, broadly defined, where teachers learn by

doing, and through examples provided by peers or experienced teachers and supervisors.

ESTIPAC, a pre-service programme in Jalisco, Mexico, trains teachers for rural schools. It includes classroom practice as early as the first semester of training. These experiences are videotaped and used as the foundation for group discussions and feedback.

The Programme for the Continuing Education of Teachers (PFPD) in Bogota, Colombia, similarly emphasizes classroom teaching and learning. The programme is centred around reflection on the practice of teaching rather than around abstract lecturing on teaching methods and pedagogy.

Effective teacher education as continuing education

Pre-service training tends to become shorter in duration. For example, the *Centros Regionales de Profesores*, CERPs (post-secondary institutions), a pre-service programme recently developed in Uruguay, trains middle and high school level student-teachers in three years, but rather than offering a programme of 20 hours per week stretched over many years, as the traditional system does, CERP is a 40-hours per week programme.

In-service training becomes longer. Rather than a single event, training is seen as a continuous process. Training is conceived and used as a means for developing teachers' capacities for self-reflection and professional decision-making in the classroom.

The PFPD in Colombia is an example. Training lasts for a minimum of one year, and teachers are required to enrol in a new programme every three or four years.

¹¹ *Fe y Alegría*, a private network of Catholic schools for the poor operating in more than a dozen countries in Latin America, has a long history of involvement in teacher training both pre-service

In much the same vein, training activities developed within the context of the *Microcentros* Programme in Chile is aimed at overcoming the lack of continuity in training, and doing away with the emphasis on the accumulation of meaningless diplomas that was part of traditional teacher training strategies.

Fe y Alegría, as described above, incorporates and implements similar types of activities, as does the PLANCAD in Peru. This programme emphasizes follow-up and support activities well beyond formal training courses. Teachers receive at least four individual classroom visits during the six months immediately following their training, and participate in two additional follow-up meetings with their peers in similar situations. These activities are expected to become permanent components of an integral system of teacher education in the future.

Applications of technology in the field of teacher training reinforce the trend toward continuous teacher education. The Educational Technology Programme in Costa Rica, first implemented in 1987 and still continuing today, provides a good example of such uses of technology. Conceived within a constructivist framework, the programme is in-service and computer based. Computers are used as tools "with which to think" and with which to structure and link intellectual tasks, technical competencies, and pedagogical skills. Training is provided through modules and adapted to the needs and abilities of the given target group; content difficulty and the intensity of technology increase progressively. Each training module integrates a variety of platforms and media. Information technology allows for constant communication among teachers and between teachers and facilitators. Facilitation and monitoring are usually delivered electronically.

The introduction of technology into the teaching-learning process changes traditional patterns of teacher training. Training is no longer bound to fixed schedules or physical spaces of instruction. Rather, teachers are free to enter into

and in-service.

training on their own and at their own convenience. They can receive training as often as they log on to their computers.

Group training and networking

These strategies are structured as teacher-to-teacher networks. They provide "critical friends" to examine and reflect on teaching, and opportunities to share experiences associated with efforts to develop new practices.

The *Fe y Alegría* system engages groups of teachers in the same school. In the Accelerated Learning (Brazil) and PLANCAD programmes, teachers participate in a range of networking activities, including follow up meetings, e-mail or regular mail exchanges and peer-directed meetings. CAPACITAR Programme 12 uses weekly teacher-directed, focused meetings to watch and discuss videos presenting good practices.

The *Microcentros* experience in Chile constitutes a particularly notable application of the group-training notion. In addition to the benefits network-based training brings to teachers, the programme serves to break the isolation of teachers in rural areas. Despite the fact that rural teachers face many of the same issues as their urban counterparts, many challenges - including multi-grade teaching, overage students and limited resources - are exacerbated by professional isolationism, which is a contributory factor in teacher absenteeism and high turnover.

The programme emphasizes training through communication. *Microcentros* are not physical locations but rather teacher-directed and focused seminars, held at the initiative of interested teachers and supervised by provincial representatives. The

¹² CAPACITAR, a distance education programme for teacher training created by the *Sistema Pitágoras de Ensino* in Brazil, is available, albeit at a cost, to teachers and schools participating in the Accelerated Learning Programme. CAPACITAR profiles high performance teachers in their classrooms. Through its 12 modules, supported by printed materials and tapes, CAPACITAR introduces a given topic, explains the pedagogy behind it, and provides a demonstration of its implementation in an actual classroom with students (see Oliveira, 1998).

forum established by *Microcentros* give rural teachers, many of whom work at single-teacher schools, an opportunity to exchange experiences and learn from each other.

Intensive use of pedagogic support and supervision

Supervisors play an active role throughout the training exercises, if this provides encouragement and constructive feedback.

Under the *Fe y Alegría* approach supervision is continuous, it is used to provide input into the teacher-learning process as well as into processes of school-wide planning. Supervisors responsible for facilitating (as opposed to directing) processes of training serve as pedagogical role models for teachers in service.

In the Accelerated Learning Programme (Brazil), supervisors are chosen from among participating teachers, and there is one supervisor for every ten teachers. Each supervisor makes a four-hour visit to every classroom every week, 40 times a year. In much the same manner as their *Fe y Alegría* counterparts, these professionals are trained to provide constructive feedback to teachers, meeting with those under their supervision twice a month. Such meetings are participatory and collegial in nature. Under guidance from the supervisor, teachers exchange ideas and experiences with each other. Therefore, supervision serves as a mechanism to train and coach teachers within a structured setting. Most teachers find that this is an effective strategy.

In the case of *Fe y Alegría*, they participate in the life of the school, providing input into annual planning processes and solutions to school-wide problems (e.g., malnutrition or learning disabilities in poor children, lack of resources, etc.). Supervisors also develop close links to local communities, providing an institutional link between teachers, administrators and interested parties outside the school walls.

Integration of training into teacher career regulations and incentives

A number of innovations are reviewing the role of incentives in teacher training programmes.

Under the PFPD Programme, teachers are awarded points only after completing a year-long training programme, pre-approved for content and relevancy.

Fe y Alegría has developed its training activities in a way consistent with the recruitment and selection practices of its school network. New teachers enter through a competitive selection process involving both a written exam and an interview with the school principal. If selected, they then receive a one-year appointment. During this time, novices are evaluated and observed. They also receive tutoring and strong support from supervisors and other pedagogic support personnel in the school. If, at the end of the first year, their evaluation is positive, a full contract is granted and novices, like the more seasoned teachers, continue to receive training through the *Fe y Alegría* system. This combined training/recruiting/selection procedure has gained considerable recognition. Employers in the public sector or other private schools consider it to be a strong indication of good teaching ability when seeking candidates for jobs in their own schools.

The CERP Programme in Uruguay provides one of the most striking illustrations of recent innovations linking training and career-oriented interventions. The strategy seeks to reform teachers' recruitment, remuneration and career patterns. Through a series of incentives, the programme makes teaching more attractive to talented youth, overcoming the syndrome of teaching as the last resort when choosing a career that prevails throughout the region. The CERPs offer full scholarships to half of the students, and food subsidies to an additional 20 percent. Upon graduation, students are assigned a school, in other words they finish pre-service training with

a guaranteed teaching position. This structure has produced notable results. It has drastically reduced dropout rates (which were in the order of 40 to 50% in Uruguay) to below 5% during the first year. These reductions, in turn, increase the cost-effectiveness of training. The per student cost of the new programme is estimated to be 20 times less than that of the old programme.

Training as a response to social and educational priorities at the local level

The *Microcentros* in Chile, the CERP Programme in Uruguay, and the Accelerated Learning Programme in Brazil, all share the common trait of being linked closely to their social and educational contexts. Their strategy has proved to be both an innovative approach to training and an innovative response to local circumstances.

Some of these pre-service programmes are residential. During their stay, students are completely immersed in the realities of rural life and the life of the community. This is a key component of the programme, as it allows students to face problems such as poverty, malnutrition, etc., that are reflected in and addressed through the curricula, linking the school with the community. Such preparation is also seen as a measure to reduce emigration to urban areas.

3.4 International trends in teacher training

The international state of the art in Teacher Training, based on the OECD¹³ countries, shows a consensus on the *goals* of teacher preparation; the production of a new kind of teacher, equipped not only with deeper and more flexible content knowledge but also a fuller understanding of child development and learning styles, a wider repertoire of teaching strategies and a new set of values, emphasizing respect for diversity, collaboration with peers and continuous reflection on teaching practice, and a capacity to lead change and communicate effectively. A typical

¹³ Organization for Economic Cooperation and Development.

articulation of these new goals is found in the OECD literature on teacher competencies.

The **location** of teacher preparation has shifted in most OECD countries from secondary-level or normal schools to higher-education institutions, either at independent institutes or departments in universities. There is a strong trend across the world for teacher preparation to involve an increasingly extensive practice/internship in schools. The most extreme example is England, where, based on the decision of local authorities, initial training may be up to 100% “on the job” in primary or secondary schools.

In terms of **design**, two different models dominate in the OECD. The concurrent model, used most commonly for primary teachers, exposes students simultaneously to the academic study of disciplines and pedagogical training for a minimum of 3 years. The consecutive model, mainly for secondary teachers, provides discipline-based training first, followed by pedagogical training. These programmes typically last for at least 4 years, and a number of countries have extended them to 5 years.

In terms of **curriculum**, a major focus of the best programmes is the integration of theory and practice through applied theory and problem-solving, embedded in action-research action on themes, issues and approaches. The complex issues facing teachers today require that they grasp the challenges of “learning for understanding” and “teaching for meaning”, and demonstrate adaptability. The new approach to practice universally involves closer links with schools and guidance from teacher/mentors and tutors. Teaching practice often accounts for 30-50% of training hours, and is often supplemented by videotaping student performance in the classroom for replay and analysis with the aid of peers and tutors back in the training institution. In many concurrent courses the weight given to educational/professional training, as opposed to academic subjects such as mathematics, tends to be around 40%.

In terms of **control**, in the past, teacher education structure, curriculum and financing, were entirely in the hands of either the national (or sub-national) government or of the teacher training institutes (where these were private). Today, in most OECD countries studied, teacher training institutes have greater flexibility over course design and delivery, but they are subject to government-set accreditation requirements and periodic accreditation reviews. In the UK and New Zealand, the institutes are subject to regular external inspection. In a relatively centralized country such as France, the newly created *Instituts Universitaires de Formation des Maîtres*, which are public institutions but have autonomy, are in a contractual arrangement with the regional education authorities for the delivery of programmes that meet certain criteria defined by the government as employer. In other countries, such as Australia and the U.S., professional teacher associations have developed advanced certification standards, in essence self-regulating the profession.

IV. PROPOSED PROGRAMME FOR PRE-SERVICE AND IN-SERVICE TEACHER TRAINING

4.1 Introduction

International and national desktop research reveals that pre-service and in-service teacher training programmes have important deficiencies in the implementation phase. Few teacher training programmes adequately prepare teachers to effectively achieve the goals they pursue.

The proposal we present in this chapter is an attempt to respond to these identified deficiencies. Its purpose is to offer some recommendations which can contribute to developing strategies for the improvement of pre-service and in-service teacher training programmes.

As we have already seen in chapter III, research carried out in European, North-American, Latin-American and Caribbean countries shows that there is a consensus on the *general goals* of pre-service and in-service teacher training programmes. The objective is to produce a new kind of teacher, equipped not only with deeper and more flexible content knowledge but also with a better understanding of child development and learning styles, a wider set of teaching strategies and a new set of values¹⁴, emphasizing respect for diversity, collaboration with peers and continuous reflection on teaching practice, and a capacity to lead change and communicate effectively.

In contrast to this ideal view, desktop research and interviews carried out by consultants in Grenada, reveal that at present, the country's educational system is challenged as to teaching quality at all levels but especially at the secondary, where 68% of teachers are unqualified and teacher turnover is about 5.3%. This

¹⁴ In this sense the SPEED points out the need for developing instruments related to the professional standards of the teaching service including a Code of Ethics.

situation is affecting the performance of students in all core subjects, but particularly in English, mathematics, social studies and sciences.

As was said in point 2.2.2, projected demand for secondary teacher education reveals that:

- The educational system requires 30 new secondary teachers per year because of replacement needs.
- 40 qualified new teachers will be required at the end of two years training to reach 480 teaching positions (student/teacher ratio = 23)¹⁵ as a result of the projected 100% enrolment in secondary schools in the year 2008.
- 70% (approximately 320) secondary school teachers are not qualified at the present time, and the goal is to reach 100% trained teachers in four years (2004-2008).

Pre-service training has been identified by the Ministry of Education as a priority for the years ahead, and as a step towards institutionalising the practice of providing trained teachers for schools and improving the status of the profession. The Ministry goal is also to mitigate the high costs that the current in-service model based on teacher replacement generates.¹⁶

This means reforming the current teacher education programme from a mainly in-service programme to a more varied teacher training system including both pre-service and in-service, following some of the international and regional trends which have proved to be more effective and efficient.

4.2 Efficiency and effectiveness in current practices

Student performance and assessment of teacher performance¹⁷ indicates deficiencies in teaching and learning in schools in Grenada. Knowledge about how

¹⁵ Taking into account the low population growth rate.

¹⁶ Actually, replacement means paying double for the same function.

¹⁷ According to Ministry of Education Units Reports

children learn has increased over the last ten years, but what teachers do and how they teach does not reflect this knowledge.

Over the last ten years there has been a high percentage of failure in internal examinations such as the Common Entrance Examination (CEE) and the School Leaving Examination (SLE). The same has happened with external examinations such as the Caribbean Examinations Council (CXC) and the General Certificate of Education Ordinary Level (GCE-O level). Results in recent years indicate a high number of unsuccessfully performances. This situation has been attributed to ineffective teaching/learning practices. Educational officers interviewed by consultants agreed about these poor practices of classroom teachers as well as their lack of motivation.

Key interviewees¹⁸ agree that the curriculum of secondary teachers pre-service and in-service training programmes is too content-oriented and not organised to facilitate the link between theory and practice. There is a need for a thorough analysis of the ways in which the curriculum is interpreted in the teaching/learning situation.

Many interviewees seem to feel that the pre-service and in-service curriculum is overloaded and does not focus on the important aspects of teacher training. They point out the need to equip trainees to be more reflective and innovative in classroom situations.

Findings about the curriculum of the current pre-service programme reveal that:

- Trainers in academic courses do not interact enough with teaching practice in schools,
- Trainees experience a relatively overloaded curriculum,
- There is a need for specialist in spanish language methodology,

¹⁸ Teachers, Principals, Educational Officers, Ministry of Education and TAMCC staff members.

- Principals in practice schools feel that their roles and responsibilities are unclear, trainees and tutors need to better understand what is required of them,
- More time should be spent on methodology and teaching skills for the subject disciplines,
- In many cases, arrangements for teaching practice are ineffective, which makes this situation a negative experience for trainees¹⁹,
- Absence of sufficient instances of appropriate modelling of good teaching practices for trainees,
- Need to improve tutors skills in supervising and involve them in guiding teaching practice,
- Need to involve educational officers in teacher training mentoring.

Findings about the current in-service programme reveal that:

- Training courses do not help teachers to develop strategies for dealing with diverse students' needs,
- Teacher training does not go deeply in designing subject disciplines units for effective instruction,
- Teachers enter the programme with widely varying levels of academic achievement and with different degrees of motivation,
- The lecture format used to teach teachers tacitly values the transmission of content²⁰.

Other findings are about positive aspects of pre-service and in-service programmes:

- Academic studies and teaching practices facilitate the use of a growing number of strategies to enhance student learning, and lead to increases in the student-centred approach,
- As teaching practice sessions progress, trainees feel better prepared for teaching and are better able to deal with the classroom situation,

¹⁹ It is necessary to point out that Form 1 to 3 ratio is 45 students/teacher, which makes difficult to improve teaching practices. Besides, current school facilities do not permit better conditions.

²⁰ This finding is related to Marryshow College poor facilities and space problems.

- Training courses allow trainees to have a better understanding of adolescent behaviour and the ways to relate that knowledge to working with students,
- Teaching practice lets trainees manage and exploit the time allocated for instruction.

4.3 Policy options

Desktop research and field work show that while there are many paths towards the goal of quality teaching for secondary students, any overall strategy would have to combine elements from four key policy areas:

- A teacher **quality** framework, to build coherence between policy decisions and classroom practice, enhance accountability and reduce dispersion in student outcomes,
- A new paradigm of continuous **professional development**, under which teacher growth is a lifelong process, oriented towards concrete student results, linked to whole-school improvement, contextualised, and informed by regular empirical evaluation,
- Better **incentives** to reward what makes a difference in the classroom, making schools more responsive to the central goal, and
- An enabling environment for more effective and efficient **teacher management** at the school and system levels.

Following these arguments, consultants recommend the strengthening of current policies already developed by the Ministry of Education²¹:

- Develop a multi-level career path with defined teacher promotion based on equity and merit, with appropriate incentives.

²¹ According to the SPEED.

- Provide relevant pre-service and in-service training, leading to a qualified secondary teaching service.
- Adopt a recruitment strategy that provides an increased number of motivated trainees.
- Use qualification criteria for entry into the teaching service, and a specified mandatory 2-year teaching period for new teachers, ensured by a contract.
- Improve the teacher supervision system, to provide support for professional development and enhanced teacher performance.
- Apply an improved incentive regime for the teaching service, with remunerative and complementary benefits.
- Improve resources and facilities in training centres.

4.4 Guiding principles for the programme

Taking the policy options into consideration, consultants suggest the following guiding principles for the pre-service and in-service programme:

- **Participatory process:** teachers, principals, educational officers and other stakeholders at the Ministry of Education have to play an active role in the pre-service and in-service process to ensure the relevance, efficacy, and efficiency of the teacher training programme;
- **Application of theory into practice:** apply theory to problem-solving by using action-research on themes, issues and approaches relevant to secondary schools;

- **Classroom-based approaches:** learn by doing and through examples provided by peers or experienced teachers and supervisors;
- **Use pedagogic support and supervision:** promote closer links between secondary school principals and tutors and educational officers;
- **Expand after demonstrating positive results:** pre-service and in-service programmes will be evaluated after the first year. Both programmes will scale up the number of teachers trained once training and materials have demonstrated positive results;
- **Focus on practices:** pre-service and in-service programmes will spread successful teaching methods to improve students' achievements in secondary schools;
- **Build on existing capacity:** integrate and reinforce the existing strengths in the country (TAMCC).

4.5 Pre-service and in-service programme components

Pre-service and in-service teacher training programmes will include four mutually reinforcing components: *academic studies and teaching practice* to develop subject specialities²² (area knowledge) and pedagogical skills²³; *learning materials* to support academic studies and teaching practices; *action research* to reflect on the teaching process; *technology* to support the linkages between institutions, training, materials and best practices. The main characteristics of the components are shown in figure 1.

²² Subject discipline courses

²³ General education Courses

Table 3: Pre-service and In-service programme components

Modality	Academic studies and teaching practice	Learning materials	Action research	Technology
Pre-service and in-service	Objectives: -Provide training that enables trainees to develop knowledge in subject specialities and pedagogical skills. -Reinforce and strengthen teachers' attitudes towards teaching. -Work to move the theoretical into practice.	Objectives: -Increase availability of pedagogical materials to support academic studies and teaching practices.	Objectives: -Enable teacher candidates to use research findings and simple research tools. -Generate and disseminate academic research that could be easily integrated into practice at the classroom level. - develop self-reflection	Objectives: - Provide training to more effectively use information technologies.

Even though pre-service and in-service have the same components, it is difficult to adequately meet the needs of both groups and it's recommended that the two be taught separately as suggested and explained below (see 4.7 and 4.8).

4.6 Management of pre-service and in-service programmes

Two alternatives were identified by consultants:

- a) Pre-service and in-service training programmes will be managed by the T. A. Marryshow Community College (TAMCC). The Ministry of Education will establish a Steering Committee to provide overall guidance as well as to monitor implementation. The Committee will also establish a Project Implementation Unit that will have executive responsibility for programme implementation.

- b) Pre-service and in-service programmes will be managed by the T. A. Marryshow Community College (TAMCC) and supported by the West Indies University.

We recommend the second alternative for to the following reasons:

- The network coordinated by the University of the West Indies (UWI), Schools of Education (SoE) at Mona (Jamaica), Cave Hill (Barbados) and St. Augustine (Trinidad), is a unique and strong inter-governmental institution, and it may be an important support organization.
- The University of the West Indies has been identified as having the greatest institutional capacity to support pre-service and in-service teacher training in the Caribbean countries. The institutional profiles of the teacher training institution systems serving the region is very satisfactory.
- The University of the West Indies is financed by the 12 Caribbean countries; Grenada is one of the contributing territories. The Ministry of Education may use the West Indies facilities to implement the programmes.
- UWI Schools of Education at St. Augustine (Trinidad) have already trained Grenada teachers in 1997 and 1998.

4.6.1 Steering Committee

The Steering Committee may be made up of :

- The principal of Marryshow College.
- One representative named by the Marryshow College Department of Education team
- One representative from the GUT appointed by the Ministry of Education and the Union.
- The Curriculum Development Officer.
- The School Administration and Management Officer.

- One representative named by the teacher candidates.
- One representative named by the principals of secondary schools.
- A representative of the West Indies University, if alternative (b) is preferred²⁴.

Members should remain at the Steering Committee for two years and can be re-appointed for 1 consecutive term.

4.6.2 The Programme Implementation Unit

The Programme Implementation Unit will be responsible for the implementation, coordination and support of the pre-service and in-service training activities, and for promoting innovative, inventive and creative approaches to achieving programme goals.

The Programme Implementation Unit may be made up of the following persons:

- A Programme Director assigned from the staff of Marryshow College, who will be full-time and will have overall responsibility for project implementation. The Programme Director should have competence and experience in secondary teacher education and research.
- A co-director of the West Indies University, if alternative (b) is preferred.
- A Programme Coordinator who will be full-time and responsible for the day-to-day coordination and implementation of the Programme. He or she should have competence and experience in secondary teacher education and management.
- One full-time specialist in each of the following subject areas: English, mathematics, social studies and sciences.

²⁴ As we recommend in 5.4

4.6.3 Pre-service and in-service programme staff

We present the roles and functions of the main figures to be included in the programmes staff:

- Tutors are specialist teachers in their respective fields, that assist trainees and mentor teachers and prepare the units of work. This involves identifying the objectives of the activity, deciding on content, reading material-learning materials and evaluating trainees. It is expected that tutors will coordinate among themselves, either in similar subject areas or in the general development of the programme.
- Principals, in coordination with the Implementation Unit, identify the mentor teacher(s) to whom the trainee(s) will be assigned. On acceptance of a trainee or trainees, a principal is committed to filling out a monthly evaluation form, in collaboration with the mentor teacher. The principal and the mentor teacher evaluate the teacher trainee's attitude to work, teaching competencies and skills, interest in teaching, habits and values.
- Mentor Teachers encourage and guide trainees in making lesson plans, and structuring the objectives in the cognitive, affective, and psychomotor domains. They are expected to model desirable teaching behaviour in the following: presentation of a lesson, questioning techniques, teaching of concepts, interpersonal skills, strategies in classroom management, use of resource materials and methods and uses of evaluation. As mentioned above, mentor teachers also evaluate trainees.

Consultants recommend a training course for mentors and tutors focused on competencies and abilities to improve their performance. This course will generate a support system and built capacity at the school level.

4.7 Main features of Pre-Service Programme

The PSP (Pre-Service Programme) will ensure that qualified teachers are employed and that trainees receive substantial training before they are introduced into the classroom. The Programme will develop and sustain trainees positive attitude towards teaching and learning.

As explained in point 4.6, the T. A. Marryshow College²⁵ will offer a two year full-time programme at the Teacher Education Department, leading to a UWI Certificate in secondary teaching.

The consultants recommend the following programme features :

- Maintain organisation into modules and units. This would allow for greater flexibility in the organisation and delivery of the main curriculum components: academic studies, teaching practice and electives/options.
- Trainees attend academic studies and teaching practice full-time²⁶ five days a week .
- Required entrance-examination²⁷ and an interview with the candidate²⁸.
- Teaching practice takes place in a classroom environment.
- Assisting trainees with monthly stipend of \$ 300 Caribbean dollars for the first year of the programme.

Consultants suggest increasing the current *pre-service programme duration to 1500 hours* over two years, distributed as follow: 1200 hours for academic studies, 240 hours for teaching practice, and 160 hours for learning materials and technology.

²⁵ In coordination with the West Indies University if alternative (b) is preferred.

²⁶ "Full time" is considered in a wild sense (academic courses, teaching practice, and supporting-activities).

²⁷ Based on pre-college course of study (maths and language)

²⁸ Interviews show that one of the problems related to the candidates entering the field of teaching was poor academic preparation and lack of motivation.

Also recommended :

- Appropriately equipped classrooms (computers, training tools, A.V. materials) in every secondary school to support teaching practice.
- Adequate infrastructure, equipment, teaching materials and bibliography to create a better training environment at the TAMCC College.
- Certified trainers from the TAMCC College (and UWI University).

Candidates for the Programme will be:

- Students successfully finishing secondary education.
- Every group of candidates should number 40.

Candidates will be assessed by:

- written examination and/or
- course performance
- teaching skills

The Programme will consist of academic studies and teaching practice and will be supported by learning material and technology. Below we will present the main features of these components.

4.7.1 Academic studies

The consultants recommend 700 hours for academic studies in the first year and 500 in the second year. The current curriculum may be made up of the following courses²⁹:

General Education Courses (480 hours): (Pedagogical topics)

- *Sociology of Education*: Foundation course focused in socio-economic context of education in Grenada, gender and education, in family, etc.
(60 hours)

²⁹ Other courses as moral values, health and family, education for life, and information technology should be integrated as transversal subjects in the academic courses.

- *Psychology of education*: Theories of human development, cognitive development, knowing and understanding all the complex facets of the adolescent learner's personality, behavioural and social learning theories of development, motivation, individual differences among students.
(60 hours).
- *Principles and Practice of Education*: The education system in Grenada, curriculum and instruction, teaching students with special needs and measurement and evaluation.
(120 hours).
- *Preparation for Effective Teaching*: Teaching and learning, instructional planning, lesson planning, the classroom environment, methods of teaching, use of learning resources. Testing and evaluation.
This is timetabled for 120 hours and 12 weeks of teaching practice.
- *Research Methods in Education*: Study reporting research into an educational problem, prepared in conjunction with teaching practice. (120 hours).

Core courses³⁰: 600 hours (subject disciplines): currently core courses are focused on mathematics, modern languages, English, information technology, geography, history, social studies, science, business studies and art. Consultants strongly recommend coordinating core courses with the proposed curriculum for secondary schools. Consistency between secondary education curricular needs and the pre-service teacher training programme is vital.

Elective courses 120 hours: consultants suggest offering elective courses depending on the availability and expertise of resource personnel. Students select one of the options to be done over the two-year period.

4.7.2 Teaching practice

³⁰ English language (reading and writing) as modules, will be integrated in curriculum subject disciplines.

Consultants suggest that pre-service trainees would need more field experience than the regular duration of practical teaching. A minimum 40 hours teaching practice is suitable in the first year and 200 hours in the second year³¹.

We propose two modalities of teaching practice:

- a) Twelve weeks teaching practice in a secondary school distributed as follows: three weeks in the second term, four weeks in the fourth term and five weeks in the sixth term. A weekly session is given to Preparation for Effective Teaching, designed specifically to prepare student teachers for their field experience.
- b) A twelve-week period of practice in a secondary school. The first year students engage in teaching practice in the first and second term for one half-day each week. Students may have the opportunity for joint preparation and observation of each other. In the second term they are teamed in pairs to prepare units and for teaching practice. There is no teaching practice in term 3.

Consultants recommend the first option because to concentrate practice hours allows trainees to reflect on educational situations. Focus on effective supervision will be needed to strengthen interaction with students.

In both alternatives, consultants suggest a total Programme length of 240 hours based on 20 hours practice per week at school.

4.7.3 Learning materials and technology

Consultants recommend provide trainees with learning materials and technology to improve their performance at academic studies and teaching practice.

³¹ Consultants suggest to increase these teaching practice hours at the pre-service programme by the year 2008 when in-service programme is finished and resources multiplied.

Materials will be adapted from existing ones - from Grenada, the Caribbean or elsewhere - or may be newly developed as needed. The aim is to generate low-tech, low-cost, practical materials that are quickly learned and applied. Training teachers to develop and use local learning materials will be necessary.

Materials will be packaged in "trainee toolkits" to ensure that the trainees effectively use the new or adapted materials for teaching practice.

Consultants suggest using technology resources for pre-service teaching training. The Implementation Unit will identify the websites that provide a place for sharing successful instructional materials and practices. The sites shall also include linkages to partner institution websites.

Trainees may use computers for accessing materials, training, keeping records and sharing results and practices.

4.8 Main features of the in-service programme

The ISP (In-Service Programme) will establish a two year training course to prepare unqualified teachers³² to improve their competencies and abilities in teaching at secondary schools. The PSP (Pre-Service Programme) will ensure that qualified teachers are employed and that trainees receive substantial training before they are introduced into the classroom. The Programme will develop and sustain trainees positive attitude towards teaching and learning.

As explained in point 4.6, the T. A. Marryshow College³³ will offer the in-service programme at the Teacher Education Department, leading to a UWI certificate in secondary teaching.

³²The Ministry of Education wants to increase qualified teachers from the present level of 30% to 90% in the next 7 years.

Consultants recommend the following guiding principles:

- In-service trainees attend courses during holidays and on some Fridays afternoon³⁴ in order to avoid being replaced by other non qualified teachers.
- The in-service programme will last two years.
- 120 teachers will start the programme in the first year, and 120 will follow in the second year.
- 59 graduate and untrained teachers will start their preparation during the first year³⁵.

Consultants suggest an *in-service programme duration of 1320 hours* distributed as follows: 720 hours for academic studies, 400 hours for teaching practice, and 200 hours for learning materials and technology.

Candidates for the Programme will be:

- Untrained and non-graduate teachers³⁶;
- Untrained and graduate teachers³⁷.

Candidates are assessed by:

- written examination and/or
- course performance
- teaching skills

Academic studies will focus on the same subjects as pre-service training³⁸ :

- General Education Courses (pedagogical topics) – 260 hours
- Core courses (subject disciplines) – 400 hours³⁹

³³ In coordination with the West Indies University if alternative (b) is preferred.

³⁴ Consultants recommend academic courses between 3 PM – 7 PM in order to permit teachers attendance from distant parishes. Principales should allow teachers to leave school earlier.

³⁵ The untrained and graduate teachers command content but lack the pedagogical knowledge necessary for effective instruction.

³⁶ At present there are 261 untrained and non-graduate teachers.

³⁷ At present there are 59 untrained and graduate teachers.

³⁸ See 4.7.1

- Elective courses – 60 hours

Due to the fact that teachers who enter in-service training are on the job, the training strategy must be adapted and cannot use the same model as the pre-service programme.

Consultants recommend the following:

- Vacation courses⁴⁰ – 8 weeks – 6 hours a day - 240 hours in one year,
- Friday afternoon courses - 30 Friday - 4 hours a day- 120 hours in one year,
- In-school mentoring period – 200 hours in one year, and
- Learning materials and technology - 100 hours in one year.

Vacation courses of 480 hours in two years: during the Easter/August vacation trainees attend an intensive course dealing with pedagogical topics and subject discipline. At the end of this segment, a comprehensive report is prepared on each trainee.

Friday courses of 240 hours in two years: these course classes are organised by the T. A. Marryshow College with the collaboration of the Educational Officers. The programme of work is determined by pedagogical courses and core courses tutors, and focuses on the following: preparing notes of lessons, preparing useful learning materials, teaching a lesson, nature of teaching in the secondary classes.

In school mentoring period of 400 hours in two years: placement with a mentor teacher in a secondary school where trainees first observe the mentor teacher for a period of six weeks. After this, they should teach two lessons per week under the

³⁹ The untrained and graduate teachers will be exempt from the core courses because they are already familiar with the content.

⁴⁰ Consultants recommend : two weeks at Christmas time, one week at Eastern and five weeks at summer vacations.

guidance of the mentor teacher. Both the principal and the mentor teacher are expected to evaluate the trainee.

4.8.1 Learning Materials and Technology

The in-service programme will use the same learning materials and technology model as pre-service teacher training⁴¹.

⁴¹ See 4.7.3

V. PROPOSED PROGRAMME COST

5.1 Pre-service programme

The proposal for the pre-service programme considers the following features:

- Two year programme
- 40 students per cohort
- During the first year it will be necessary to train two groups of 40 student-teachers each to cover the demand for new teachers needed to universalise secondary studies, and for the replacement of retiring teachers.

Table 4. Number of participants to be trained in pre-service per year

Cohorts (40 each)	2004	2005	2006	2007	2008
1 st	1 st year courses	2 nd year courses			
2 nd	1 st year courses	2 nd year courses			
3 rd		1 st year courses	2 nd year courses		
4 th			1 st year courses	2 nd year courses	
5 th				1 st year courses	2 nd year courses
6 th					1 st year courses
Number of teachers graduated from the programme:		80	40	40	40

- The students will receive a stipend of EE\$ 300 per month for the two years (EE\$ 3,600 per student per year).
- Need to increase hours of teaching, from the current 900 to 1,200, in academic studies (the first year from 450 to 700, and the second from 450 to 500). Need to diversify general education and core courses (about 50% of hours of teaching).

Table 5. Number of hours of teaching needs to develop the programme

Cohorts (40 each)	2004	2005	2006	2007	2008
1 st	450 on stock	450 on stock			
	250 new (complement)	50 new (complement)			
	350 new (diversification)	250 new (diversification)			
2 nd	700 new (complement)	500 new (complement)			
	350 new (diversification)	250 new (diversification)			
3 rd		450 on stock	450 on stock		
		250 new (complement)	50 new (complement)		
		350 new (diversification)	250 new (diversification)		
4 th			450 on stock	450 on stock	
			250 new (complement)	50 new (complement)	
			350 new (diversification)	250 new (diversification)	
5 th				450 on stock	450 on stock
				250 new (complement)	50 new (complement)
				350 new (diversification)	250 new (diversification)
6 th					450 on stock
					250 new (complement)
					350 new (diversification)
Number of new hours of teaching	1650	1650	900	900	900

- Improve TAMCC capacity and infrastructure

The principal acquisitions to improve TAMCC capacity will be made during the first year of the programme (2004). The subscription to bibliographical materials will be during the full programme period. The consultants recommend acquiring the following bibliographic materials and audiovisual and informatics equipment:

- Internet subscription to data base and journals

- Books (approximately 350 books per year)
- Computers (20)
- TV and Video (4)
- Data show (1)
- Printer-photocopier (2)
- Film equipment (1)
- Internet connection

The consultants don't have information to estimate the cost of improving and expanding TAMCC physical infrastructure.

- Material for semi presence modality

Each student will receive a copy of the material for semi presence modality that will be produced by the in-service programme. The material will be:

- Video (10 per year per student)
- CD-Rom (15 per year per student)
- Teacher's manual (5 per year per student; this material will be printed during the first two years of the programme to reduce the cost of printing)

5.2 Cost per year of the pre-service programme

MODALITY	TYPE OF RESOURCES	UNIT COST	N° OF RE- SOURCES	TOTAL COST	2004	2005	2006	2007	2008	2004-2008	
PRE-SERVICE (two years, 40 students per cohort)											
Each student receives a stipend or scholarship to give him an incentive to participate in a full-time pre-service teacher training	Stipend for candidates (scholarship)	Year									
		300 per month	2004	80	288.000	288.000					
		3600 per year	2005	120	432.000		432.000				
			2006	80	288.000			288.000			
		3.600	2007	80	288.000				288.000		
			2008	80	288.000				288.000	1.584.000	
- Needs to improve TAMCC capacity and infrastructure	Bibliography materials										
	- Internet subscription to data base and journals	30000 per year				30.000	30.000	30.000	30.000	30.000	
	- Books	30000 per year				30.000	30.000	30.000	30.000	30.000	
	Audiovisual and Informatics equipment										
	- Computers	3.000	2004	20	60.000	60.000					
	- TV and Video	1.500	2004	4	6.000	6.000					
	- Data show	9.000	2004	1	9.000	9.000					
	- Printer-photocopier	4.500	2004	2	9.000	9.000					
	- Film equipment	7.500	2004		7.500	7.500					
	Internet connection	6.000	2004		6.000	6.000					
	Infrastructure	??								397.500	
- Needs to increase hours of teaching:											
* TAMCC courses have 900 hours (450 hours per year) and it is necessary to increase this to 1200 hours (700 hours the first year and 500 the second year). The courses support an increase from 28 students to 40 students. Diversification of courses is needed (additional specific courses: 50% increase in hours of teaching)	Hours of teaching										
			2004	1.650	86.262	86.262					
			2005	1.650	86.262		86.262				
			2006	900	47.052			47.052			
			2007	900	47.052				47.052		
			2008	900	47.052				47.052	313.680	
- Materials for the semi presence modality											
Each student will receive a copy of the material for the semi presence modality that will be produced by the in-service programme	Video reproduction	3	2004	800	2.400	2.400					
			2005	1.200	3.600		3.600				
			2006	800	2.400			2.400			
			2007	800	2.400				2.400		
			2008	800	2.400					2.400	
	CDRom reproduction	3	2004	1.200	3.600	3.600					
			2005	1.800	5.400		5.400				
			2006	1.200	3.600			3.600			
			2007	1.200	3.600				3.600		
			2008	1.200	3.600					3.600	
	Teacher's manual print	30	2004	1.000	3.000	3.000					
			2005	1.000	3.000		3.000				
											39.000

MODALITY	TYPE OF RESOURCES	UNIT COST	Nº OF RE-SOURCES	TOTAL COST	2004	2005	2006	2007	2008	2004-2008
Total cost of pre-service teacher training					540.762	590.262	401.052	401.052	401.052	2.334.180

1. In-service programme

The proposal for the in-service programme considers the following features:

- Two year programme
- To train the non-graduate untrained teachers (approximately 260), and the graduate untrained teachers (approximately 60) in pedagogical topics
- 32 students per cohort
- 4 cohorts of non-graduate untrained teachers, and one cohort of graduate untrained teacher per two year programme
- 4 cohorts at Saint George and 1 cohort at another location, per two years programme

Table 7. Number of participants to be trained in in-service per year

Cohorts	2004	2005	2006	2007
1 st (32 non-graduate teachers)	1 st year courses	2 nd year courses		
2 nd (33 non-graduate teachers)	1 st year courses	2 nd year courses		
3 th (32 non-graduate teachers)	1 st year courses	2 nd year courses		
4 th (33 non-graduate teachers)	1 st year courses	2 nd year courses		
5 th (30 graduate teachers)	1 st year courses	2 nd year courses		
6 th (32 non-graduate teachers)			1 st year courses	2 nd year courses
7 th (33 non-graduate teachers)			1 st year courses	2 nd year courses
8 th (32 non-graduate teachers)			1 st year courses	2 nd year courses
9 th (32 non-graduate teachers)			1 st year courses	2 nd year courses
10 th (30 graduate teachers)			1 st year courses	2 nd year courses
Number of teachers trained by the programme:		160		160

- Training strategy
 - ♦ Academic studies

Non-graduate teachers

- Academic studies (Pedagogical topics, subject disciplines and elective courses)

Vacation courses (8 weeks – 6 hours a day): 240 hours per year

Friday courses (30 Friday – 4 hours a day): 120 hours per year

Graduate-teachers

- Academic studies (Pedagogical topics)

Vacation courses (4 weeks – 6 hours a day): 120 hours per year

Table 8. Number of hours of teaching needs to develop the programme

Cohorts	2004	2005	2006	2007
1 st	360	360		
2 nd	360	360		
3 rd	360	360		
4 th	360	360		
5 th	120	120		
6 th			360	360
7 th			360	360
8 th			360	360
9 th			360	360
10 th			120	120
Number of hours of teaching	1.560	1.560	1.560	1.560

Nearly 30% of the trainees that will attend courses live in locations different from those where the courses will be run. The programme will finance the travel, lodging and per diem expenses of these trainees (40 non-graduate teachers and 10 graduate teachers per year). The cost per year of each non-graduate teacher is the following:

- one round trip, per week on vacation courses (8 per year)
- one round-trip per week on Friday courses (30 per year)
- 5 days lodging per week on vacation courses (40 days lodging per year)

- 2 meals per day on vacation courses (8 weeks per year, 5 days per week: 80 meals per year), and 1 meal per day on Friday courses (30 Friday per year). Total 110 meals per year per trainee

The cost per year of each graduate teacher is the following:

- one round-trip per week on vacation courses (4 per year)
- 5 days lodging per week on vacation courses (20 days lodging per year)
- 2 meals per day on vacation courses (4 weeks per year, 5 day per week: 40 meals per year)

On vacation courses the programme will finance one meal per day for the trainees that live in the location of the course. (8 weeks per year, 5 days per week: 40 meals per non-graduate teacher per year, 90 trainees per year. 4 weeks per year, 5 days per week: 20 meals per graduate teacher per year, 20 trainees per year).

Table 9. Number of trips, days lodging and per diem for trainees to be financed by the programme.

<i>Item</i>	2004	2005	2006	2007
Trips (vacation courses)	$8 \times 40 + 4 \times 10 = 360$	$8 \times 40 + 4 \times 10 = 360$	$8 \times 40 + 4 \times 10 = 360$	$8 \times 40 + 4 \times 10 = 360$
Trips (Friday courses)	$30 \times 40 = 1.200$	$30 \times 40 = 1.200$	$30 \times 40 = 1.200$	$30 \times 40 = 1.200$
Total trips	1.560	1.560	1.560	1.560
Lodging (vacation courses)	$5 \times 8 \times 40 + 5 \times 4 \times 10 = 1.800$	$5 \times 8 \times 40 + 5 \times 4 \times 10 = 1.800$	$5 \times 8 \times 40 + 5 \times 4 \times 10 = 1.800$	$5 \times 8 \times 40 + 5 \times 4 \times 10 = 1.800$
Total lodging	1.800	1.800	1.800	1.800
Per diem (vacation courses) trainees from other locations	$2 \times 5 \times 8 \times 40 + 2 \times 5 \times 4 \times 10 = 3.600$	$2 \times 5 \times 8 \times 40 + 2 \times 5 \times 4 \times 10 = 3.600$	$2 \times 5 \times 8 \times 40 + 2 \times 5 \times 4 \times 10 = 3.600$	$2 \times 5 \times 8 \times 40 + 2 \times 5 \times 4 \times 10 = 3.600$
Per diem (Friday courses) trainees from other locations	$1 \times 30 \times 40 = 1.200$	$1 \times 30 \times 40 = 1.200$	$1 \times 30 \times 40 = 1.200$	$1 \times 30 \times 40 = 1.200$
Per diem (vacation courses) trainees the same location	$1 \times 5 \times 8 \times 90 + 1 \times 5 \times 4 \times 20 = 4.000$	$1 \times 5 \times 8 \times 90 + 1 \times 5 \times 4 \times 20 = 4.000$	$1 \times 5 \times 8 \times 90 + 1 \times 5 \times 4 \times 20 = 4.000$	$1 \times 5 \times 8 \times 90 + 1 \times 5 \times 4 \times 20 = 4.000$
Total per diem	8.800	8.800	8.800	8.800

One cohort will take the courses outside Saint George. The programme will finance the trips, lodging and per diem of the trainers. Three trainers per week on vacation courses, and one trainer per day on Friday - courses

Table 10. Number of trips, days lodging and per diem for trainers to be financed by the programme

<i>Item</i>	2004	2005	2006	2007
Trips (vacation courses)	$8 \times 3 = 24$	$8 \times 3 = 24$	$8 \times 3 = 24$	$8 \times 3 = 24$
Trips (Friday courses)	$30 \times 1 = 30$	$30 \times 1 = 30$	$30 \times 1 = 30$	$30 \times 1 = 30$
Total trips	54	54	54	54
Lodging (vacation courses)	$5 \times 8 \times 3 = 120$	$5 \times 8 \times 3 = 120$	$5 \times 8 \times 3 = 120$	$5 \times 8 \times 3 = 120$
Total lodging	120	120	120	120
Per diem (vacation courses)	$2 \times 5 \times 8 \times 3 = 240$	$2 \times 5 \times 8 \times 3 = 240$	$2 \times 5 \times 8 \times 3 = 240$	$2 \times 5 \times 8 \times 3 = 240$
Per diem (Friday courses)	$1 \times 30 = 30$	$1 \times 30 = 30$	$1 \times 30 = 30$	$1 \times 30 = 30$
Total per diem	270	270	270	270

- ◆ In-school mentoring

200 hours per year per group (non-graduate teacher and graduate teacher).

Each mentor attends a group of 10 trainees. Total mentors: 16 per year, 200 hours each. Total hours of mentoring per year: 3,200.

- ◆ Learning materials and technology

Audiovisual material and text books will be produced to improve the performance of trainees. The material to be produced will be:

- Video (10 videos per year)
- CD-Rom (15 CD-Rom per year)
- Teacher's manual (handbooks) (5 manuals per year)
- Setting up of web sites

The cost of producing the audiovisual material and text books was estimated in the following form:

- Video: 40 hours per video
- CD-Rom: 20 hours per CD-Rom
- Teacher's manual: 2 months full time (40 hours per week), total 320 hours per manual
- Setting up of web sites: 2 months full time (40 hours per week), total 320 hours

Each trainee will receive a copy of this material.

- ◆ Participation of trainers from WIU in the programme

To improve local trainer capacity, the participation of external trainers will be necessary. Consultants recommended that the programme be supported by the West Indies University. 6 international trainers from WIU per year will participate in the programme. Each international trainer will stay in Grenada for 15 days. The cost to the programme includes: travel, lodging and per diem expenses (trainer's salary will be financed by the WIU)

- ◆ Improve Secondary Schools capacity and infrastructure

To support teaching practice it will be necessary to equip a classroom per grade in every secondary school with the suitable computers, training tools and AV material. Also it will be necessary to upgrade the libraries and the infrastructure.

The consultants recommend acquiring the following equipment for each secondary school in the first year of the programme, taking into account that the Ministry may obtain finance from other sources to complete improvement of Secondary Schools capacity and infrastructure.

- Bibliography and materials:
 - Teachers toolkits (one set per course per group and per grade during the first year: 10 courses, 4 groups and 5 grades per secondary school: total 200 per school in the first year)

- Books (5 books per course per group and per grade during the first year: 10 courses, 4 groups and 5 grades per secondary school in the first year).
- Audiovisual and computer equipment:
 - Computers (one per classroom per grade per secondary school: total 5 per school)
 - TV and video (one per classroom per grade per secondary school: total 5 per school)
 - Data show (one per school)
 - Printer-photocopier (one per school)
 - Internet connection

The consultants don't have information to estimate the cost of improving and expanding the secondary schools' physical infrastructure.

The need for teacher toolkit replacement during the last three years was estimated at 10% per year. Book replacement was estimated at 30% per year, and materials and equipment replacement was estimated at 10% per year.

5.3 Cost per year of the in-service programme

MODALITY	TYPE OF RESOURCES	UNIT COST	NUMBER OF RESOURCES	TOTAL COST	2004	2005	2006	2007	2008	2004-2008
IN-SERVICE (two years, part-time, semi-presence modality)			Year							
- 260 teachers to be trained (130 the first two years, 130 the second two years, 32 teachers per cohort), 8 groups to attend the programme (4 groups each two years programme, 3 at Saint George, and 1 at other places)	Hours of direct teaching	52,28	2004	1.560	81.557	81.557				
			2005	1.560	81.557		81.557			
			2006	1.560	81.557			81.557		
			2007	1.560	81.557				81.557	
	Hours of mentors	52,28	2004	3.200	167.296	167.296				
			2005	3.200	167.296		167.296			
			2006	3.200	167.296			167.296		
			2007	3.200	167.296				167.296	995.411
- 360 hours of direct teaching per year per group: 240 hours during vacations: 8 weeks, 30 hours of teaching per week. And 120 hours during the academic year on Fridays (4 hours per Friday for 30 Fridays)	Trainees trips	120	2004	1.560	187.200	187.200				
			2005	1.560	187.200		187.200			
			2006	1.560	187.200			187.200		
			2007	1.560	187.200				187.200	
	Trainees lodging	60	2004	1.800	108.000	108.000				
			2005	1.800	108.000		108.000			
			2006	1.800	108.000			108.000		
			2007	1.800	108.000				108.000	
	Trainees per diem	30	2004	8.800	264.000	264.000				
			2005	8.800	264.000		264.000			
			2006	8.800	264.000			264.000		
			2007	8.800	264.000				264.000	2.236.800
3 local trainers per week and per group outside Saint George during vacations. And one trip per week and per group in the academic year (30 weeks)	Local trainers trips	120	2004	54	6.480	6.480				
			2005	54	6.480		6.480			
			2006	54	6.480			6.480		
			2007	54	6.480				6.480	
	Local trainers lodging	120	2004	120	14.400	14.400				
			2005	120	14.400		14.000			
			2006	120	14.400			14.000		
			2007	120	14.400				14.000	
	Local trainers per diem	30	2004	270	8.100	8.100				
			2005	270	8.100		8.100			
			2006	270	8.100			8.100		
			2007	270	8.100				8.100	115.920
6 International trainers from WIU per year for 15 days each: cost: travel, lodging and per diem (WIU to finance trainer's salary)	External trainers international trips	600	2004	6	3.600	3.600				
			2005	6	3.600		3.600			
			2006	6	3.600			3.600		
			2007	6	3.600				3.600	
	External trainers local trips	120	2004	6	720	720				
			2005	6	720		720			

MODALITY	TYPE OF RESOURCES	UNIT COST	NUMBER OF RESOURCES	TOTAL COST	2004	2005	2006	2007	2008	2004-2008
			2006	6	720			720		
			2007	6	720				720	
	External trainers lodging	120	2004	90	10.800	10.800				
			2005	90	10.800		10.800			
			2006	90	10.800			10.800		
			2007	90	10.800				10.800	
	External trainers per diem	180	2004	90	16.200	16.200				
			2005	90	16.200		16.200			
			2006	90	16.200			16.200		
			2007	90	16.200				16.200	
										125.280
- Materials for semi presence modality	Video production (10 videos per year)	52,28	2004	400	20.912	20.912				
			2005	400	20.912		20.912			
	CDRom production (15 CDRoms per year)	52,28	2004	300	15.684	15.684				
			2005	300	15.684		15.684			
	Production of teacher's manuals (handbooks) (5 manuals per year)	52,28	2004	320	16.730	16.730				
			2005	320	16.730		16.730			
	Setting up of web sites	52,28	2004	320	16.730	16.730				
			2005	320	16.730		16.730			
	Video reproduction	3	2004	1.300	3.900	3.900				
			2005	1.300	3.900		3.900			
			2006	1.300	3.900			3.900		
			2007	1.300	3.900				3.900	
Each trainee will receive a copy of the material for semi presence modality	CDRom reproduction	3	2004	1.950	5.850	5.850				
			2005	1.950	5.850		5.850			
			2006	1.950	5.850			5.850		
			2007	1.950	5.850				5.850	
	Teacher's manual print	30	2004	1.300	39.000	39.000				
			2005	1.300	39.000		39.000			
										257.110
- Needs to improve Secondary Schools capacity and infrastructure	Bibliography and materials									
	- Teachers toolkits	150		3.800	570.000	570.000	57.000	57.000	57.000	57.000
				19.00						
	- Books	30		0	570.000	570.000	171.000	171.000	171.000	171.000
	Audiovisual and computer equipment									
	- Computers	3000	2004	95	285.000	285.000	28.500	28.500	28.500	28.500
	- TV and Video	1500	2004	95	142.500	142.500	14.250	14.250	14.250	14.250
	- Data show	9000	2004	19	171.000	171.000	17.100	17.100	17.100	17.100
	- Printer-photocopier	4500	2004	19	85.500	85.500	8.550	8.550	8.550	8.550

MODALITY	TYPE OF RESOURCES	UNIT COST	NUMBER OF RESOURCES	TOTAL COST	2004	2005	2006	2007	2008	2004-2008
	Internet connection	1500	2004	19 28.500	28.500	2.850	2.850	2.850	2.850	
	Infrastructure	??								3.049.500
Total cost in-service teacher training					2.839.658	1.286.408	1.177.353	1.177.353	299.250	6.780.022

5.4 Programme Implementation Unit

Cost per year

<i>Item</i>	Unit cost	Number	Cost per year
Programme Director	66120	1	66.120
Programme Co-ordinator	59724	1	59.724
Specialist	40524	4	162.096
Assistant Project Coordinator	40524	1	40.524
Total			328.464

5.5 Summary of programme costs

PROGRAMME	Item	2004	2005	2006	2007	2008	TOTAL
PRE-SERVICE	Stipend for candidates	288.000	432.000	288.000	288.000	288.000	1.584.000
	Increase in hours of teaching	86.262	86.262	47.052	47.052	47.052	313.680
	Materials for students	9.000	12.000	6.000	6.000	6.000	39.000
	Improve TAMCC capacity	157.500	60.000	60.000	60.000	60.000	397.500
	TOTAL	540.762	590.262	401.052	401.052	401.052	2.334.180
IN -SERVICE	Hours of teaching	248.853	248.853	248.853	248.853		995.412
	- direct teaching	81.557	81.557	81.557	81.557		326.228
	- mentors	167.296	167.296	167.296	167.296		669.184
	Travel, lodging and per diem	619.500	619.500	619.500	619.500		2.478.000
	- trainees	559.200	559.200	559.200	559.200		2.236.800
	- local trainers	28.980	28.980	28.980	28.980		115.920
	- international trainers	31.320	31.320	31.320	31.320		125.280
	Materials for participants	118.806	118.806	9.750	9.750		257.112
	- materials production	70.056	70.056				140.112
	- material reproduction	48.750	48.750	9.750	9.750		117.000
	TOTAL	987.159	987.159	878.103	878.103		3.730.524
IMPROVE OF SECONDARY SCHOOLS	Materials and equipment	1.852.500					1.852.500
	Replacement		299.250	299.250	299.250	299.250	1.197.000
	TOTAL	1.852.500	299.250	299.250	299.250	299.250	3.049.500
PROGRAMME IMPLEMENTATION UNIT	TOTAL	328.464	328.464	328.464	328.464		1.313.856
TOTAL PROGRAMME		3.708.885	2.205.135	1.906.869	1.906.869	700.302	10.428.060

ANNEX 1

FIELD WORK - APRIL AND JUNE 2003

KEY INFORMANTS

Ministry of Education

Frederick Crispin	Permanent Secretary
Francis Sookram	School Administration and Management Unit Officer
Leon Charles	Project Coordinator
Alphonsus Gooding	Procurement Officer/ Project Management Unit
Mrs. Jean Brizan	Curriculum Development Officer
Margaret Belfon	Financial Analyst
Carol Ferguson	Administrative Officer (Finance)

T.A. Marryshow Community College

Pauleen Finley	Education Department
Ramsaroop Ramkhelawan	Education Department

School Administration and Management Unit

Patricia Felix	Education Officer
Delano Viechweg	Education Officer
Vincent Morain	Education Officer

Ministry of Carriacou and Petite Martinique Affairs

Mrs Gertude Niles	Education Officer
Mr. Cosmos Bristol	Hillsborough Secondary
Mrs. Cleopatra Lambert	Harvey Vale Govt.
Mrs Mary Noel	Mt. Pleasant Govt.
Mr. Henri Stiell	Hillsborough Govt.
Mrs. Rosalina Lendore	Bishop's College
Mr. Stalin Somerson	L'Esterre Rosary
Mrs. Bristol	L'Esterre Rosary

Grenada Union of Teachers

Member - Board of Directors

Visited Schools

St. George Government School
Urban Primary School
Davis Adams (Deputy Principal)

St. Rose Modern Secondary School (St. Marks)
Rural Secondary School
Mrs. Gemma De Allie (Principal)

Bonair Government School
Rural Primary
Mr. Peters (Principal)

Brothers College
Urban Secondary School (Teacher)

Grand Anse
Urban Primary School (Teacher)

Visited Community College

T.A. Marryshow Community College
Education Department

ANNEX 2

WORKSHOP

June 23 2003

A participative workshop took place at the Ministry of Education on June 23 as one of the activities of the Consultancy in Teacher Training. The team conducted the activity to validate a cost and effectiveness pre-service and in-service teacher training programme.

The workshop was based on a power-point presentation and three working groups with the following goals:

- To analyze report key points
- To list agreements and present alternatives .

The following persons participated at the meeting:

Alphonsus Gooding	Procurement Officer
Jenny Alexander	Project Secretary
Margaret Belfon	Administration
Julien Ogilvie	Education Officer
Patricia Felix	Education Officer
Jean Brizan	Senior Education Officer Curriculum
Ann Edwards	Supervisor Clothing-Textiles
Destine Baptiste	School Attendance Officer
Hermione Baptiste	Curriculum Officer HFLE
Allison Parke	Curriculum Officer Home Economics
Godrick Pierre	Curriculum Officer Technical
Bartolomew Grant	Curriculum Officer Technical
Dennis Bell	Curriculum Officer Mathematics
Maria Charles	Curriculum Officer Social Studies
Jervis Viechweg	Curriculum Officer Science
Andrea Phillip	Curriculum Officer English
Carol Antoine	Curriculum Officer Language-Arts-English
Myra Lewis	Guidance Counselor

OUTCOMES FROM WORKING GROUPS

Pre-Service Training

- Learning Materials – train teachers to develop and use local learning materials
 - Skills in identifying local sources to develop these materials
- Management
 - Alternative (B) with support, but not ownership from UWI

- Pre-service and in-service delivered by T.A.M.C.C. and supported by UWI.
- Entrance of Examination based on pre-college course of study – (Maths & Language)
- Technology – Provide the equipment and facilities.

In-Service Training

- Provide training that enables trainees to develop knowledge in subject specialties, pedagogical skills and moral values.
- Create, develop and sustain teachers' positive attitude towards teaching & learning.
- Application of the theory into practice
- Develop the art and determination for self reflection

Other

- Three representatives should be added to the Steering Committee.
 - One from the TAMCC's team
 - One from the Curriculum Development Unit
 - One from the GUT appointed by the Ministry of Education and GUT
 -
- Members should remain at the Steering Committee for two years and can be re-appointed for 1 consecutive term.
- Two alternatives were presented to support teaching practice:
 - Education & Curriculum officers would mentor and train teachers with tutors and mentor teachers
 - A system of teacher mentoring should be developed to build capacity at the school level
- Compulsory course in reading (literacy) should integrate pre-service and in-service curriculum
- Coordination between secondary education core courses and teacher training programmes

ANNEX 3

INTERVIEWS SUMMARY

ISSUES	STATEMENTS
A. CURRENT PRACTICES AT SECONDARY LEVEL	“Teachers spend too much time controlling the class, and don’t know how to manage time” “Teachers do not use a varied methodology (questioning, group exercises, attending individual differences).” “They are not innovative and creative. They do not influence changes in the curriculum.” “They’ve got the theory, they do the practice, they put on a very good show for their final exam, but in the classroom they don’t perform as expected.” “They use only one method of teaching, talking to the children and writing things on the board.” “Some teachers are working hard and doing their work in the right way, but they’re not very effective. They have no planning skills.” “Some young teachers just want to move fast. They’re just thinking about getting a few more dollars....”
B. CURRENT DEMAND FOR SECONDARY TEACHER EDUCATION	“More relationship between curriculum and competencies.” “We have too many subjects in the curriculum.” “We have syllabus in maths, social studies, and science...but must have

	curriculum in all areas.” “To be innovative and creative and influence changes in the curriculum.” “Teachers must improve the method of questioning. Many teachers ask a lot of questions and just allow a chorus response, everybody answers.” “The mode is not fit for individual differences: grouping is another problem area.” “Management of time: many teachers, especially at secondary schools, overrun the teaching time by 5 or 10 minutes.” “Trainers need a particular competence in specialized areas.” “Strengthen teams at district level.”
C. SUPERVISION	“We hope we can get an office so district officers can plan their work and have discussions with teachers.” “There is no program to train supervisors in management. Recently, a degree in educational administration was tried out. We don’t know... It’s part time..., it’s long. There’s a lot of discussion about it but...” “We have a few supervisors...” “It’s important that schools are supervised regularly, since this should be a moment of discussion and analysis, with the assessment of supervisors.”
D. PRINCIPALS	“Principals are the weakest point in the educational chain.”

	“They’re just not doing what they’re supposed to do: manage resources, supervise schools, monitor teachers and students performance...” “Principals want to be in good terms with teachers..., that’s a problem...” “If I’m trained and my principal is making use of my knowledge, I would feel better than if I go alone and nobody cares about what’s going on in the classroom.” “There was a program for principals.... But it’s not ours.” “We had a training strategy: we organised a department to train principals in management and supervision. It made no difference.” “We must change the way principals are selected.”
E. TEACHER TRAINING NEEDS	“More links between theory and practice.” “A system which combines pre-service with on the job training.” “We must focus on methodology. The content is not really a big problem in most cases.” “To use the module we designed for the in-service in the pre-service, it must be more defined in some points...It’s got a lot of information calling for reflection on the situation, while the pre-service programs are not expected to reflect.” “The college is considering a bachelor and master’s degree program to gain a

	sustainable training program.” “There’s need of infrastructure to deliver the right training on a sustainable basis.” “At secondary level, you need trainers that are specialised in fields. They have to have more than just a first degree. We need teachers specialised in teaching problems, in education. “Trainers must go to classes and be helpful, provide guidance.” “Many people who become teachers do not really want to teach.” “Not enough space for teacher training.” “We have a budget for 25 persons. We’re planning to have a budget for another group, next year”
F. INFRASTRUCTURE AND MATERIAL RESOURCES	“Infrastructure is one of the problems: We have physical limitations, lack of space, and bad working conditions.” “There are not enough available books for teacher students: text books are a limitation.” “Teachers do not have teaching materials, and pupils do not have text books.”
G. STRATEGIES TO STRENGTHEN TEACHER TRAINING QUALITY	“Focus on methodology, teaching techniques and assessment”. “There must be manuals for teachers and student learning materials.” “There should be more options to upgrade into the system.”

	“We have to increase the number of teachers. For that, you have to use university education.” “One of the reasons for people leaving this system is because they can not continue their studies. After training they feel that there’s nowhere to go.” “If you emphasise methodology and curriculum design on a first degree program, it would help to improve student teachers performances.” “There are several initiatives and issues to be considered, for example having learning centres. If we expand in terms of learning centres and decentralise the system, there would be more opportunities to improve the educational system.” “If teachers receive training and certification in Grenada, it would be a much cheaper option than going overseas.” “In a training program, teachers must have time to meet as a body, to discuss the problems and the findings, do research, share experiences...If you do not have time to stop and think...” “The teacher training department should be under the jurisdiction of the Ministry of Education, so they can have direct control.” “We need a magic formula to change the attitude.”
H. PRE-SERVICE PROGRAM	“It’s better for financial reasons”

	“I see that those who undergo the pre-service modality use new methods, more techniques...” “It’s important to have pre-service combined with “on the job training”. You do the pre-service, and then the training while you teach, with supervision and guidance.”
I. IN-SERVICE PROGRAM	“When all teachers were trained “on the job”, the impact was better.” “This is the way we should go: students attending the training would be supervised more often and that means they would always be alert.” “For the in-service program it is important to put students together once a week for formal classes, to discuss and analyse” “The only argument for on the job training not being the best modality, is because some people still require theory.” “When teachers go on training, they leave their classes unattended, and that is a problem.”
J. INCENTIVES	“When teachers on advanced courses, are finished, they do not receive a higher salary...” “The training is not reflected in their salary and that’s a big frustration.” “Teachers who have to travel to get tuition do not receive enough money to pay for that.”

	“Mobility is very limited but when you come into teacher training and go back to schools, you get a new salary; so that is an incentive.” “We’re hoping that if you attend a bachelor’s program, receiving some kind of incentive, the number of applicants would increase.”
K. POLICIES IN TRAINING TRAINERS	“People could study overseas, for example at the University of West Indies. Lecturers could also come here. They could be employed on a contractual basis as teacher trainers, teaching different disciplines.” “The advantage of sending local people abroad, is that when they come back, they use their knowledge relating it to the situation of the country. ...they relate to it when going through example situations.”
L. SPECIFIC NEEDS FOR ISOLATED AREAS	“Main center is Grenada” “There are no facilities for teachers” “Disadvantage of courses in Grenada – they receive 8 days training” “Budget is critical” Cost factor – ‘if not is impossible to implement’ “There are few learning materials for teachers” “Need of a training proposal for Carriacou (pre-service and in-service programs)”

	“The trainers training is not developed yet” “Perhaps universities can provide programs and scholarships for teacher training abroad” “Telephone (telecommunications) problems”
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ANNEX 4

BIBLIOGRAPHY

Baptiste, Martin (2002): *Private Education in Grenada*. St. Lucia: IIEP Regional Seminar.

Charles, S., Finlay P., Ollivierre, I.(n.d.): *Curbing the flow: Teacher Attrition in Grenada, 1990-2000. Extent, Influences, Reduction and Recommendations*. Grenada: Ministry of Education.

Eastern Caribbean Central Bank (March 2001): *Economic and Financial Review*. Volume 21 No 1. Central Bank: St. Kitts and Nevis.

Government of Grenada (February 2002): *Educational Statistical Digest. Past Trends, Present Position and Projections 2008*. Grenada: Statistical Division – Planning and Development Unit – Ministry of Education.

Government of Grenada (2003): *Estimates 2003*. Grenada: Ministry of Education.

Government of Grenada (January 2002): *Strategic Plan for Educational Enhancement and Development 2002-2010. SPEED*. Grenada: Ministry of Education. St. Lucia.

G.U.T. (February 2003): *The Mentor*. Volume 1. Grenada: Grenada Union of Teachers.

G.U.T. (April 2002): *18th Annual General Meeting*. Grenada: Grenada Union of Teachers. Co-operative Credit Union.

Meier, W. (April 2002): *Monitoring School Effectiveness: Selecting appropriate qualitative indicators*. Ottawa: Results-Based Management Group.

Organization of Eastern Caribbean States (April 2001): *Education Reform Unit. Strategic Plan: 2001-2010*. St. Lucia. OECS Secretariat.

Organization of Eastern Caribbean States (April 2001): *Fifth meeting of OECS Education Technical Committee. Teacher's Work and Education Reform*. St. Lucia. OECS Secretariat.

Organization of Eastern Caribbean States (April 2001): *Fifth meeting of OECS Education Technical Committee. Secondary Teacher's Training Programme. Status Report*. St. Lucia: OECS Secretariat.

UNESCO-IIPE (August 2000): *Audit of the Organization and Management of the Grenada Ministry of Education*. Paris: IIPE:

UNESCO-IIPE-Martin Baptiste (Nov. 1999): *A simulation model for the development of education in Grenada*. Paris: IIPE/TP.99/2.

University of Sussex Institute of Education, Keith Lewin (January 1999): *Counting the Cost of Teacher Education: Cost and Quality Issues*. Discussion Paper No 1.

World Bank. Miller, Jules, Armstrong (2002): *A Caribbean Education Strategy. Vision 20/20*.

General Bibliography

MOE, Statistical Department (1996): *Source: US National Commission on Teaching*.

Navarro, Juan Carlos & Verdisco, Aimee (n.d.): *Formación Docente en América Latina: Innovaciones y Tendencias*. IADB, Sustainable Development Department, Technical Documents.

OFSTED & The Standing International Conference of Central and General Inspectorates of Education (1998): *The Evaluation of Teacher Training*.

University of the West Indies. Faculty of Humanities and Education (2002): *Departmental Booklet 2002-2003*. Barbados: School of Education.

Villegas-Reimers, Eleonora (1998): *The preparation of teachers in Latin America*. The World Bank, Human Development Department.

