

**EDUCATION FOR ALL IN THE CARIBBEAN: ASSESSMENT 2000
MONOGRAPH SERIES**

Series Editor: Lynda Quamina-Aiyejina

**Education and Work
Case Studies of Trinidad and Tobago, Jamaica, and Barbados**

Samuel Lochan

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FOREWORD

Education for All in the Caribbean: Assessment 2000 is a remarkable output, which is the culmination of intensive collaborative efforts between the countries of the Caribbean sub-region, the Regional Advisory Technical Group and the EFA Forum Secretariat, and relevant agencies and institutions.

The Country Reports, Monograph Series, and Case Studies highlight and pinpoint, in an extremely effective manner, some of the issues and concerns that drive education policy and action in the Caribbean. At the same time, the documentation presents a balanced and informed overview of the rich and varied educational and cultural experience of the sub-region; a knowledge which is critical to the understanding of the unfolding social and economic developments.

UNESCO is pleased to have been associated with this endeavour, particularly through our regional office in Kingston, Jamaica which, as co-ordinator of the Regional Advisory Group for the Caribbean Sub-region, was integrally involved in every aspect of the exercise. We look forward to continued collaboration with the Caribbean on activities of a mutually rewarding nature as the consequences and implications of the EFA Assessment become manifest.

Colin Power
Deputy Director-General for Education
UNESCO

SERIES INTRODUCTION

At Jomtien in 1990, member states of the United Nations adopted the *Framework for Action to Meet Basic Learning Needs* and created the International Consultative Forum on Education for All (EFA Forum). One decade later, the EFA Forum embarked on an assessment of this initiative, intended to assist member states in examining their education provisions to inform the formulation of policy. Once the Caribbean EFA Regional Advisory Group had embarked seriously on the assessment, it was quickly realised that it would be difficult to capture, in any one place, an assessment of all that had transpired in education in the Caribbean during the period 1990-1999. Moreover, the technical guidelines constrained assessors to specifics within quantitative and qualitative frames. However, because it was felt that education in the Caribbean is too dynamic to be circumscribed, the idea of a more wide-ranging monograph series was conceived.

Researchers, education practitioners, and other stakeholders in education were invited to contribute to the series. Our expectations were that the response would be quite moderate, given the short time-frame within which we had to work. Instead, we were overwhelmed by the response, both in terms of the number of enthusiastic contributors and the range of topics represented.

Caribbean governments and peoples have invested in the *hardware* for education--buildings, furniture, equipment; in the *software*, in terms of parent support and counselling services; and they have attended to *inputs* like books and other teaching/learning resources. They have wrestled with ways to evaluate, having gone through rounds of different national examinations, and modifications of ways to assess both primary and secondary education.

But, as the efforts to complete the country reports show, it has been more difficult to assess the impacts, if we take the eventual aim of education as improving the quality of life--we have had mixed successes. That the sub-region has maintained relative peace despite its violent past and contemporary upheavals may be cited as a measure of success; that the environment is threatened in several ways may be one of the indicators of how chequered the success has been.

Writers in the monograph/case study series have been able to document, in descriptive and analytic modes, some of the attempts, and to capture several of the impacts. That this series of monographs on Education for All in the Caribbean has been written, edited, and published in nine months (from first call for papers to issue of the published titles) is itself an indication of the impact of education, in terms of human capability and capacity.

It reflects, too, the interest in education of a number of stakeholders without whom the series would not have been possible. Firstly, the work of the writers is acknowledged. All worked willingly, hard, well, and, in most cases, without material reward. The sterling contribution of the editor, who identified writers and stayed with them to the end of the process, is also recognised, as is the work of the printer, who came through on time despite the severe time constraints. The financial contribution of the following agencies also made the EFA assessment process and the publication of the monograph/case study series possible: Caribbean Development Bank (CDB), Commonwealth of Learning (COL), Department for International Development (DFID), International Labour Organization (ILO), Sub-Regional Headquarters for the Caribbean of the United Nations Economic Commission for Latin America and the Caribbean (UNECLAC), United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), The University of the West Indies, Cave Hill; the World Bank, and the UN country teams based in Barbados, Guyana, Haiti, Jamaica, and Trinidad and Tobago.

We invite you to peruse individual titles or the entire series as, together, we assess Caribbean progress in education to date, and determine strategies to correct imbalances and sustain positive impacts, as we move towards and through the first decade of the new millennium.

Claudia Harvey
UNESCO Representative and Coordinator, Regional Technical Advisory Group (RTAG)
EFA in the Caribbean: Assessment 2000

CONTENTS

Foreword
Series Introduction
Acknowledgements
List of Tables
List of Figures
List of Acronyms and Abbreviations
Abstract

Section 1. Introduction

- 1.1. Purpose of Monograph
- 1.2. Research Tasks
- 1.3. Research Method
- 1.4. Organization of Monograph

Section 2. Technical Vocational Programmes: Case studies of Trinidad & Tobago, Jamaica, and Barbados

- 2.0. Introduction
- 2.1. Trinidad and Tobago - John S. Donaldson Technical Institute (JDTI) and San Fernando Technical Institute (SFTI)
 - 2.1.1. Programmes Offered
 - 2.1.2. Accreditation and Entry Requirements
 - 2.1.3. Financing and Resourcing
 - 2.1.4. Selection of Staff
 - 2.1.5. Management
 - 2.1.6. Delivery Mode
 - 2.1.7. Output and Outcomes
 - 2.1.8. An Assessment of the Situation
- 2.2. Trinidad and Tobago - SERVOL
 - 2.2.1. Summary of SERVOL's Operations
 - 2.2.2. Financing and Resourcing
 - 2.2.3. Organization and Management
 - 2.2.4. Strengths of SERVOL's Programme for Preparation for the World of Work
- 2.3. Jamaica - HEART Trust/NTA
 - 2.3.1. The Corporate Mission Statement and Strategy
 - 2.3.2. The Organizational Framework
 - 2.3.3. The National Training Agency (NTA)
 - 2.3.4. The National Council for Technical and Vocational Education and Training (NCTVET)
 - 2.3.5. HEART Trust/NTA Training Institutions and Skill Areas
 - 2.3.6. The Vocational Training Development Institute (VTDI)
 - 2.3.7. The Vocational Training Programme Division
 - 2.3.8. Community-Based Training
 - 2.3.9. On-the-Job Training
 - 2.3.10. The Challenge
 - 2.3.11. Some Related Issues

- 2.3.12. A Review of Two Corporate Plans: 1996-2000 and 1998-2002
- 2.3.13. Financing
- 2.3.14. HEART Trust/NTA: To Decentralize or not to Decentralize?
- 2.4. Barbados - The Samuel Jackman Prescod Polytechnic (SJPP)
 - 2.4.1. Background
 - 2.4.2. The Vision
 - 2.4.3. The Mission
 - 2.4.4. The Offerings
 - 2.4.5. Organization and Management of the SJPP
 - 2.4.6. Organizational Arrangements
 - 2.4.7. Stakeholders' Involvement
 - 2.4.8. Human Resources
 - 2.4.9. Qualifications and Experience
 - 2.4.10. Staff Training and Development
 - 2.4.11. Mechanisms for Staff Evaluation
 - 2.4.12. Mechanisms for Evaluation of Programmes
 - 2.4.13. Evaluation of Student Performance in the Workplace
 - 2.4.14. Instructional Capability
 - 2.4.15. Certification
 - 2.4.16. State of Educational Technology Used in the Delivery of Programmes
 - 2.4.17. Enrolment Statistics
 - 2.4.18. Teacher-Pupil Ratio
 - 2.4.19. Examination Results, 1998-1999
 - 2.4.20. Employment Rate of Students after Graduation
 - 2.4.21. Financial and Physical Resources
 - 2.4.22. Conclusion
 - 2.4.23. Sustainability and Replicability

Section 3. Summary and Conclusions

- 3.1. SERVOL
- 3.2. Samuel Jackman Prescod Polytechnic, John Donaldson Technical Institute, and San Fernando Technical Institute
- 3.3. HEART Trust/NTA
- 3.4. Conclusion
- 3.5. Recommendations

References

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LIST OF TABLES

1. Course Offerings at JD TI
2. Occupational Certification – National Vocational Qualifications of Jamaica (NVQJ) – Levels of Award
3. HEART Trust/NTA – Key Performance Areas
4. Income and Expenditure Account – HEART Trust/NTA (J \$'000)
5. Enrolment by Student Status in SJPP, 1998-1999

LIST OF FIGURES

1. Tree Diagram of the Role of SERVOL Life Centre Within the Community
2. HEART – Central HQ with Regional Offices

LIST OF ACRONYMS AND ABBREVIATIONS

ADP	Adolescent Development Programme
BTEC	Business and Technology Education Council
CBO	Community-Based Organization
CEE	Common Entrance Examination
CIDA	Canadian International Development Agency
CLC	Caribbean Life Centre
CP-TVET	Comprehensive Plan for TVET
CSEC	Caribbean Secondary Education Certificate
CXC	Caribbean Examinations Council
ESD	Entrepreneurial Skills Development
GCE	General Certificate of Education
GOJ	Government of Jamaica
HEART	Human Employment and Resource Training
HND/C	Higher National Diploma/Certificate
IDB	Inter-American Development Bank
JDTI	John Donaldson Technical Institute
MIC	Metal Industries Company Limited
MOE	Ministry of Education
NCTVET	National Council for Technical and Vocational Education and Training
NEC	National Examinations Council
NGO	Non-Governmental Organization
NTA	National Training Agency
NVQJ	National Vocational Qualification of Jamaica
PROGIS	Professional Guidance Information System
SERVOL	Service Volunteered for All
SFTI	San Fernando Technical Institute
SJPP	Samuel Jackman Prescod Polytechnic
SL-TOPS	School Leavers Training Opportunites Programme
STG	Special Target Group
TVET	Technical and Vocational Education and Training
TVET RC	Technical and Vocational Education and Training Resource Centre
UK	United Kingdom
UTECH	University of Technology
VTC	Vocational Training Centre
VTDI	Vocational Training Development Institute

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ABSTRACT

It is now firmly accepted that the wealth of nations is determined by the knowledge and skills of their human resources. The great strides in information technology and telecommunications, along with the liberalization of world trade, have produced a global village which makes it possible for countries with highly-skilled human resources to attract and participate in knowledge-driven industries such as microelectronics, new materials science, and computer-related services. If the knowledge and skills of the workforce will determine the wealth of nations in the future, then education and training will become key determinants of the wealth of nations. The “New World” of work, as it is emerging, will require workers who have the skills for experimentation, data gathering, problem solving, group work, decision making, and risk taking. Workers may find that there might be a great deal of work but few jobs, so that they might have to think like entrepreneurs and become flexible and multi-skilled. Self-employment may be the eventual goal of the worker in this brave new world of work.

At the turn of the 21st century, it is timely to consider how Caribbean countries are faring in terms of preparing students for the world of work. This will certainly assist as the region plans the way forward. That way forward will have to be conditioned by: (a) changing ideas on technical/vocational education, as the emphasis shifts away from job-related skills to employability at the secondary level; (b) greater emphasis on flexibility and diversity in educational provision; (c) special provision for minority groups and uneducated females; (d) greater involvement of private stakeholders; and (e) the need to reconceptualize the entire education system in order to produce people with a critical thinking capacity. In addition, it is necessary to consider that the brave new world of work may not come to pass for all, if more diversified development of the economies in the region does not occur. Without meaningful diversification, embracing more people in the mainstream of economic life, it would only be possible to provide meaningful employment for some, while significant numbers may only have the option of unemployment or becoming security guards, store attendants, fast food attendants, bellboys, and waitresses. This is the essential challenge of development facing small countries today, in the content of a liberalized world order with some, like the three countries in this monograph, retarded by a colonial heritage.

SECTION 1

Introduction

1.1. Purpose of the Monograph

This monograph sets out to document and assess effective educational schemes that promote employment through education preparation for the 15-24 year-old youth cohort in the Caribbean. It will focus on organizations and/or programmes which display innovative practices, and make recommendations for future policies.

In the interest of time, and given other constraints such as the closure of educational institutions during the period of the study (most institutions were on vacation at the time the study was undertaken), the decision was taken to focus on those institutions which deal specifically with technical/vocational education. This decision was also based on the fact that these institutions are most explicitly identified/dedicated to training for employment. The institutions examined in Trinidad and Tobago were the John Donaldson Technical Institute (JDTI) and the San Fernando Technical Institute (SFTI), and SERVOL (Service Volunteered for All); the Samuel Jackman Prescod Polytechnic (SJPP) in Barbados; and the Human Employment and Resource Training (HEART)Trust /National Training Agency (NTA) in Jamaica.

1.2. Research Tasks

For each organization, an attempt was made to describe and assess:

1. The mission of the organization.
2. The organizational structure and management.
3. The approach to selecting and training human resources.
4. Arrangements for accountability and quality control.
5. The instructional capability.
6. Physical and financial resources.

These areas of focus help to determine the sustainability and viability of these organizations. SERVOL was chosen because it is a non-governmental organization (NGO) model aimed at poor and marginalized groups. The two technical institutes in Trinidad and Tobago and the polytechnic in Barbados were chosen because they are the major institutions in these countries involved in technical/vocational education. HEART Trust/NTA in Jamaica was chosen as an example of a national training agency in operation.

1.3. Research Method

Data were collected through interviews with personnel from the organizations, as well as from secondary sources such as reports and documents.

1.4. Organization of Monograph

This monograph is presented in sections: Section 1 provides an introduction to the report and details the research tasks to be undertaken and the methods for achieving same; Section 2 details three country studies of institutions dedicated to technical/vocational education, that is, the cases of the JD TI, SFTI, and SERVOL in Trinidad and Tobago; the HEART Trust/NTA in Jamaica, and the SJPD in Barbados; Section 3, which presents the summary conclusions and recommendations, attempts to distill, from the preceding sections, policy conclusions which could inform the crafting of educational programmes to enhance productive capabilities among the youth cohort.

SECTION 2

Technical Vocational Programmes: Case Studies of Trinidad and Tobago, Jamaica, and Barbados

2.0. Introduction

This section summarizes the technical/vocational programmes offered by institutions in Trinidad and Tobago, Jamaica, and Barbados respectively. The institutions to be reviewed in the respective countries are (a) the John Donaldson Technical Institute (JDTI), the San Fernando Technical Institute (SFTI), and SERVOL; (b) the HEART Trust/NTA; and (c) the Samuel Jackman Prescod Polytechnic (SJPP).

2.1. Trinidad and Tobago - John Donaldson Technical Institute (JDTI) and San Fernando Technical Institute (SFTI)

Technical/vocational education in Trinidad and Tobago at the tertiary level is spearheaded by the two government-run and financed technical institutes – one situated in Port of Spain (in north Trinidad), the other in San Fernando (in south Trinidad). The JDTI was built in 1961, while the SFTI began operations around 1947 but was finally located to its much-improved premises around 1980.

The original intention of the two institutes was to prepare students for employment, with preparation for higher institutions of learning as a secondary goal. At their inception, around the onset of self-government and independence, preliminary objectives included self-sufficiency, economic growth, and alleviation of the unemployment problem through the application of technology, reduction of the dependence on other countries, and, generally improving the living conditions of the people of Trinidad and Tobago.

2.1.1. Programmes offered

At JDTI, there are eight departments: Civil Engineering, Mechanical Engineering, Electrical Engineering, Technical Teacher Training, Telecommunications Engineering, Applied Sciences, Business Studies, and Graphics and Applied Arts. SFTI has fewer departments and a smaller enrolment. It only has five departments: Mechanical Engineering, Civil Engineering, Electrical Engineering, Business Studies, and Applied Sciences. Statistics from the Central Statistical Office for the 1996-1997 academic year (Trinidad and Tobago, 1998) show the total enrolment at both institutes for technical courses as 2,618, of which 1,743 were male and 875 were female. Total enrolment for craft courses was 1,603, of which 1,191 were male and 412 were female. For both technician and craft courses, part-time enrolment was greater than full-time enrolment. In the case of technician courses, part-time enrolment constituted 52%, while for craft courses part-time enrolment constituted 62%. This suggests heavy use of the institutes by working people.

Females, as a percentage of total enrolment at both the craft and technician levels, constitute approximately 33%. Gender distribution by programme is very skewed. Women dominate, by far, in home economics and commercial programmes, while men dominate significantly in craft and engineering programmes. Courses are in high demand. At the SFTI, for example, where the annual intake consists of 400 full-time and 600 part-time students, the institute receives 8,000 applications per year.

The most recent initiatives at both institutes has been the introduction of short courses which provide training and retraining opportunities to members of the wider community, and the business and industrial

sectors. Many of these courses are specifically adapted to address demand for skills in a variety of occupational areas. They are delivered in modules over a limited period, 35-40 contact hours spread over a 7-8 week period. Most of the candidates would not normally be able either to pursue a full-length programme or qualify for entry. These short courses are a result of the initiative of the individual departments and they are popular in the areas of information technology, applied sciences such as home economics and catering, and supervisory management.

2.1.2. Accreditation and entry requirements

The recognized body for technical/vocational accreditation in Trinidad and Tobago is the National Examinations Council (NEC), therefore, students at the technical institutes sit the NEC examinations. There are two levels within the accreditation system in most fields--a craft level which is more skills oriented, and a technician level which is both skills and theory oriented. The latter level may be comparable to first year university level.

Table 1 shows the main course offerings and the duration of courses at the JDTI. The situation is fairly similar at SFTI. Almost all programmes are offered at both craft and technician levels, and all are offered both full-time and part-time, with the majority being of two to three years duration. Entry to the craft level is determined by an internal exam, while entry to the technician level is determined by passes in the Caribbean Examinations Council (CXC) or General Certificate of Education (GCE) examinations.

Admission to all programmes is free of charge, in keeping with the policy of the institutes and the Government. However, due to financial constraints, both institutes recently instituted registration fees for all students, as well as user fees for labs in order to survive.

Table 1. Course Offerings at JDTI

Full-Time Course Offerings	Duration In Years
Mechanical Engineering Technician	3
Auto & Diesel Craft	2
Electrical/Electronics Engineering Technician	2
Electrical Installation Craft	2
National Technician Diploma in Building & Civil Engineering	2
Construction Carpentry & Joinery Craft	2
Telecommunications Engineering Technician	2
Business Management Technician	2
Executive Secretary Technician	2
Dietary Technician	2
Science Technician	2
Process Plant Operator	1
Food Plant Operator	2
Tailoring Craft	2

Part-Time Course Offerings	Duration In Years
Mechanical Engineering Technician	3
Auto & Diesel Craft	2
Machine Shop Craft	3
Welding Craft	3
Electrical/Electronics Engineering Technician	3
Electrical/Electronics Engineering Technician (Special Options)	1
Electrical Installation Craft	2
Plumbing Craft	3
Telecommunications Engineering Technician	3
Science Technician	2
Process Plant Operator	1
Food Preparation Craft	2
Tailoring Craft (Level 1)	2
Tailoring Craft (Level 2)	1
Intermediate Dress Design & Craft	1
Basic Dressmaking & Design Craft (accelerated)	1
Advanced Dressmaking & Design Craft	2
Part-Time Day -Intermediate Dressmaking & Design Craft	1
Camera Operating & Copy Preparation Craft	2
Offset Printing & Plate Making Craft	2
Jewelry Craft	2
Business Management Technician	3
Accounting Technician	2

1.1.3. Financing and resourcing

The upgrading of plant and equipment has been a tremendous problem for the institutes. The cost of equipment for engineering training is exorbitant, with single pieces of equipment costing millions of dollars. Over the last 10 years, the approved budget for capital expenditure for the institutes has been negligible. The mechanical equipment used by JD TI is over 50 years old--a donation by the Americans after the closure of their trade school at Chaguaramas. As such, the institutes are unable to acquire the cutting-edge technology required to teach some of their programmes.

In addition, the state subvention for recurrent expenditure is insufficient, resulting in the establishment of registration fees and user fees for labs. It is to the credit of the staff of the institutes that they have been able to generate funds through the mounting of the short courses. These funds have ensured the survival of the institutes. The state has continued to pay the salaries of all full-time and part-time staff at the institutions.

JD TI has 76 full-time members of staff, 44 of whom have university degrees while 32 have qualifications at the craft and technician diploma levels. SFTI has 61 full-time members of staff, 40 of whom have degrees while 21 have craft and technician qualifications.

2.1.4. Selection of staff

Applications for teaching positions at the institutes are made through the Teaching Service Commission and the Ministry of Education (MOE). Prospective candidates are then interviewed by the Principal and the relevant Head of Department at the institutes. The final decision on recruitment, however, is made by the Ministry authorities, with the institute having an advisor on the Selection Board. For some departments, it is difficult to attract quality staff with the necessary working experience, since the compensation package at the institutes does not compare favourably with what is offered in the private sector. For the delivery of theoretical components, working experience is not considered a necessary prerequisite. A degree is considered necessary for teaching at the technician level, while craftsman and technician qualifications suffice for teaching at the craft level.

2.1.5. Management

JD TI is administered by a Principal, Vice Principal, and eight appointed Heads of Department. Other key personnel include the Librarian, Bursar/Registrar, and Placement Officers. The teaching staff is assisted by 43 members of the ancillary civil service staff. There are very small differences between the two institutes in administrative structure and personnel.

Both technical institutes are decentralized, to the extent that each department is seen almost as a separate school with its own facilities, students, and secretarial staff. The Principal and Heads of Department meet to set policy for the institute, but members of each department may not be aware of the affairs of other departments.

There is no direct private sector involvement in the policy making and management of the training institutes, and there is no in-built mechanism for responding to private sector needs. The direction each department takes is determined, to all extents and purposes, by the departments themselves in conjunction with the Principal.

2.1.6. Delivery mode

The technical institutes operate on a work-study principle. While each programme or course may have theoretical and practical components, arrangements are made to allow students to do internships during the vacation period. The work experience, therefore, is a separate component. While the practical components of the programme easily lend themselves to actual performance and manipulation, the theoretical components require skillful teaching. There has been no heavy investment in instructional

media and, as such, pedagogy in the theoretical areas is dependent on the initiative of individual lecturers using traditional media--chalk and blackboard. The actual internship aspect of the programme has become more difficult with the demise of the National Training Board, which usually facilitated the placement of interns.

2.1.7. Output and outcomes

Examination results vary between the craft and technician levels. However, both institutes agree that the pass rate at the craft level could fluctuate between 30-40% of the candidates, while the success rate at the technician level could vary from 50% to almost 100% at times. Part-time students do not perform as well as full-time students. These patterns hold for both institutes. The explanations offered are: (a) the part-time students are working, married, and have more personal difficulties; and (b) the lower pass rate at the craft level is due to the entry-level requirements and the need to make that level available to a wider cross-section of individuals. With respect to employability, administrators and lecturers interviewed at both institutions strongly contended that their graduates get jobs--of course, some fields do so more quickly than others, for example, engineering. Even students who fail are said to get jobs.

2.1.8. An assessment of the situation

In order to prepare for the world of work, which is now characterized by rapidly-changing technologies, the institutes would have to adjust to provide more cutting-edge skills, instructional technology, and training. However, the present dependence on the state for funding retards the ability of the institutes to do so. An increase in capital expenditures is obviously necessary, but the state seems to lack the required funding.

The separation from industry has reduced the necessary synergies which would facilitate dynamism in the curriculum. Increased private sector input with respect to staffing would ensure improved relevance of programmes and teaching. Even though the institutes have made efforts to generate income, this is not sufficient for serious upgrading of the facilities. Although the institutes have served well in the past, and have afforded students free access to an alternative to the grammar type of education, the basic model seems fundamentally flawed for future needs.

At present, the future of the technical institute seems to be unclear. A community college has been established which includes the institutes in a continuous Associate and Bachelor Degree structure. The intention is to make them into fee-paying institutions and to broaden the curriculum by adding a general education component. These measures may mean that access to technical education will not be available to the economically disadvantaged. In addition, a different type of student may be attracted by the addition of the general education component. However, there is no plan which addresses the need for a closer arrangement with the private sector, in order to generate greater curricular relevance and dynamism.

2.2. Trinidad and Tobago - SERVOL

The mission statement of SERVOL reads as follows:

Servol is an organization of weak, frail, ordinary imperfect yet hope-filled and committed people seeking to help weak, frail, ordinary, imperfect, hope-drained people become agents of attitudinal and social change in a journey which leads to total human development. It does so through respectful intervention in the lives of others and seeks to empower individuals and communities to develop as role models for the nation. (<http://Community.wow.net/servol/>)

SERVOL was founded in 1970, and has as its primary focus, the empowerment of poor individuals and families in Trinidad and Tobago, as well as assisting other countries desiring to emulate the SERVOL Programme. SERVOL is an indigenous, non-profit, non-religious, and non-political organization which resulted from an initiative started by Fr. Gerard Pantin, a Catholic priest from Trinidad and Tobago, and Wes Hall, a renowned West Indian cricketer. Since its establishment, the organization has had an enormous impact on the theory and practice of helping poor people become self-sufficient in all aspects of their lives.

The philosophy which underlies SERVOL is based on the premise of “respectful intervention,” which means that:

no matter how convinced people and organisations are that their ideas on helping poor people are right, they must put aside the cultural arrogance which encourages the belief that they have a monopoly on truth and be prepared to listen attentively to the views of the people they are trying to help. Furthermore, they must not formulate plans and implement programmes without the active participation of those they are intended to benefit.

[\(http://Community.wow.net/servol/\)](http://Community.wow.net/servol/)

Flowing from this philosophical view, the entire SERVOL programme is a process of empowerment; the empowerment, first, of individuals and families followed by the empowerment of their communities.

Some of the defining features of the internationally-recognized SERVOL operation are:

1. Its programmes are aimed at poor and marginalized groups.
2. Dropouts from the formal education system form its main clientele.
3. It is dedicated to a philosophy of self-support and people empowerment.
4. Its programmes emphasize the wholeness of the individual by focusing on intra- and inter-personal relations.
5. The importance of home-school relations and community-school relations.
6. Its flexibility and creativity in responding to the needs of different communities.

SERVOL, therefore, is a unique conception of alternative education and community development in an integrated framework. In examining any aspect of SERVOL’s operations, these defining characteristics are observable in its pattern of implementation. Figure 1 provides graphical representation of the integrated nature of SERVOL’s network.

2.2.1. Summary of SERVOL’s operations

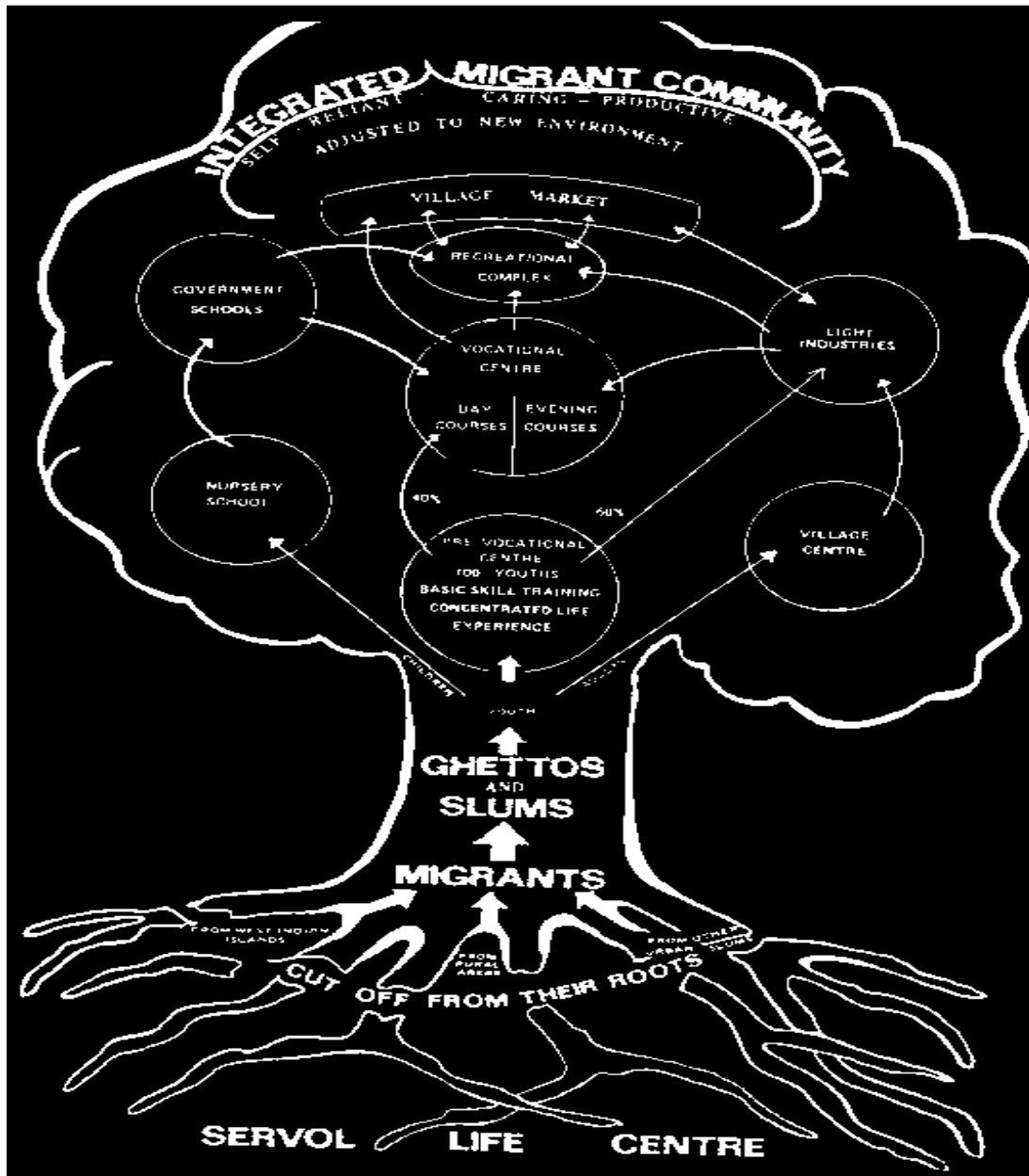
At present, SERVOL has 21 Life Centres throughout Trinidad and Tobago which offer different kinds of technical/vocational training and medical services. It also runs 10 Junior Life Centres catering to post-primary students in need of educational assistance. At the level of early childhood education, SERVOL has been appointed by the Government of Trinidad and Tobago to manage all state-assisted early childhood centres. It administers 188 of these centres throughout Trinidad and Tobago and an equal number in 10 other Caribbean territories. Fund Aid, a lending agency established to assist “grassroots” businessmen is also managed by SERVOL.

For the purposes of this monograph, the relevant areas of focus are (a) the Adolescent Life Centres, (b) the Junior Life Centres, (c) the Hi-Tech Centres, and (d) the training of early childhood educators.

Adolescent Life Centres

Life Centres were the main institutions developed by SERVOL for the training of youth for the world of work. The effectiveness of a Life Centre cannot be represented by a mere description of programmes

Figure 1. Tree diagram of the role of SERVOL Life Centre within the community.



and structures. Consistent with the basic tenets underlying the institution, each Life Centre became a learning village following core SERVOL principles, but developing in ways relevant to the community in which it was located.

The story of the building of the first Life Centre at the Beetham Estate, as told in 1979 by Fr. Gerry Pantin, the Director of SERVOL (Pantin, 1979), gives a graphic picture of the way in which the Life Centre was financed, resourced, and organized. Some unique learning conditions were structured for the adolescents at the new Centre.

The following is a summary of four programmes offered at these Life Centres:

1. **Adolescent Development Programme (ADP)** – This programme lasts 3½ months and is specially designed to address any negative conditioning that may have occurred in the life of the adolescent. The aim of the ADP is to build self-esteem and confidence and the programme is based on the SPICES (Spiritual, Physical, Intellectual, Creative, Emotional, and Social) curriculum.
2. **Adolescent Parent Programme** – This programme provides the opportunity for the adolescents to be exposed to enlightened parenting practices through visits to nurseries and early childhood centres. These visits are intended to ensure that the adolescents do not repeat, with their own children, the mistakes made by their parents.
3. **Skill Training Programme** – This programme lasts for 12 months and involves on-the-job training to enable the adolescents to learn a marketable skill. Among the skills offered are welding, plumbing, carpentry, masonry, catering, child care, tailoring, and electrical wiring.
4. **Computer literacy Programme and Advanced Electronics** – This programme involves further personal enhancement courses to prepare the adolescents to face the new technological environment. The programme also assists the trained adolescents to find a job or to become micro-entrepreneurs through the provision of loans to purchase equipment to set up a micro-enterprise.

Junior Life Centres

In April 1994, the Junior Life Centre Programme was born out of the desire to meet the needs of a significant number of children (approximately 5,000 each year) who are unsuccessful in securing places in the secondary school system, based on the results of the Common Entrance Examination (CEE). Not only is there no alternative form of education available to them but their self-esteem is also seriously battered. Many of these students come from disadvantaged homes and abusive situations, a possible causative factor in their "failure" in the CEE. They come, predominantly, from the lowest rung of the socio-economic ladder and their chances of acquiring any kind of further education are minimal, if not virtually non-existent. These students are, therefore, classified as "the children at risk," for it has been observed that not only is the crime rate increasing in Trinidad and Tobago, but that there has been a considerable increase in crimes committed by young adolescents (ages 13-16). It is against this background, and besieged by concerned parents, that SERVOL approached the MOE with a proposal for establishing the Junior Life Centres. After much debate and dialogue, the MOE agreed to the proposal but stipulated that the cycles should be of two years duration.

SERVOL, with assistance from the MOE, has been able to provide 10 Junior Life Centres. At present, these centres house more than 50 students and 4 trained instructors per centre, and function efficiently with assistance from their Community Boards of Education.

Philosophy and objectives of the Junior Life Centres

The underpinning philosophy of the Junior Life Centres is the same as all other SERVOL programmes, that is, respectful intervention, employing a methodology that speaks through listening to

people and eschewing cultural arrogance. The objectives are to rebuild self-esteem, to equip students with life skills, and to produce students who are, at minimum, functionally literate, through a holistic educational programme built around the SPICES curriculum.

One of the primary requisites of any educational programme, and more particularly one as sensitive as the Junior Life Centre programme, is adequate and quality training for its facilitators. To this end, one of the first areas addressed was the setting up of a training programme suited to the needs of the early adolescents on whom the programme would impact. This programme would, of necessity, address the imperatives of sensitizing teachers to both the cognitive and affective needs that are so necessary to the mending of shattered souls and the rebuilding of self-esteem.

The SERVOL Hi-Tech Centres

As the Caribbean moved swiftly into the technology era, SERVOL soon realized that unless the young people who came to their programmes were computer literate, they would find it more difficult to find employment, and would forever remain "hewers of wood and drawers of water."

In 1994, SERVOL approached the Inter-American Development Bank (IDB) for a grant to set up three Hi-Tech Centres to provide programmes in computer literacy, electronics, and digital electronics as advanced courses to its skills training programme. These centres have now been established in Barataria, Chaguanas, and La Romain, and cater for all SERVOL trainees who have completed their ADP and skills training programme. The courses provided include computer literacy, basic bookkeeping and small business training, electronics, computer repairs, and digital electronics. These courses have been certified by the University of Cambridge and students obtain Certificates in Information Technology and Electronics.

In addition, the programme offers enhancement sessions to help prepare students for the world of work, and a job-training programme where all students enter the workplace for a period of six months. During this time, their performance is monitored by Job Training Officers. Many students obtain full-time employment through this programme. SERVOL keeps close to the world of work by keeping in touch with employers and their needs through one-on-one contact and through seminars for business people. These serve to make sure that their curriculum and training are continually adjusted to prepare the student for employment.

The training of early childhood educators

The training of early childhood educators for Trinidad and Tobago, as well as the rest of the Caribbean, takes place at the Caribbean Life Centre (CLC) in Port of Spain. The pre-school teacher training course lasts three years: one year full time at the CLC and two years supervised internship in pre-schools. The only academic requirement for the programme is a pass in English at CXC/GCE O' Level.

The CLC has evolved a programme for the education of pre-school children which is indigenous, and which emphasizes learning through play, language development, good work habits, and a healthy self-concept. Early childhood educators are trained in the delivery of this curriculum. Community Boards, which manage the pre-schools, nominate members of the community who are serving at the pre-schools in the district for training. Students may also enter the programme on their own initiative. The programme is accredited by Oxford University. Recognition for the programme was not forthcoming initially, but the programme has proved itself by the performance of its graduates.

2.2.2. Financing and resourcing

Over time, SERVOL has developed many techniques for garnering financial, physical, and human resources. These include:

1. Grants from numerous organizations including the IDB, the Bernard Van Leer Foundation, and the Canadian International Development Agency (CIDA).
2. Innovative fund-raising such as an annual "Poor-Man's Dinner" sponsored by the Trinidad Hilton.
3. Secondment of soldiers and sailors to SERVOL.
4. Voluntary workers from various professions.
5. Subventions from the state.
6. Small fees charged to students.
7. Donations of materials and resources from the community.

Finally, SERVOL functions on a modified version of the factory model of training. Trainees are actually involved in performing the service or making the commodity for sale. As such, departments are encouraged to be self-sufficient.

2.2.3. Organization and management

SERVOL, as an organization, eschews bureaucracy, since the spirit of the organization is about flexibility and creativity in responding to the immediate needs of people in a community. Each Life Centre has a coordinator with a committee charged with the management of that Centre. These coordinators, together with the Executive Director, form an executive committee, which oversees the entire operation of SERVOL. A Board of Directors consisting of various people in the business community helps in determining overall policy. This loose structure aims at preserving the initiative and independence of the individual Life Centres, which must provide solutions to their problems.

2.2.4. Strengths of SERVOL's programme for preparation for the world of work

It is clear that the success of the Life Centres does not only involve the mere exposure to skills of child care, carpentry, or masonry. Other important features which contribute to success include: (a) the emphasis on personal development, through the ADP component, as a prerequisite for all vocational training; (b) the involvement of the community and society in the projects; (c) the perception of the centres as Learning Villages and parent-substitutes for the trainees--a supportive atmosphere is created which links being, doing, and learning; (d) the emphasis on learning by doing--the trainees are involved in projects for which SERVOL is hired; and (e) as far as possible, tutors are chosen from the community. These are some of the key strengths in the SERVOL approach to education of young people from poor communities who have not succeeded in the formal school system.

2.3. Jamaica - HEART Trust/NTA

The HEART Trust/NTA was established in 1982, consolidating other pre-existing agencies (Knight, 1992). It is responsible for supervising, consolidating, and coordinating Jamaica's technical/vocational system and other non-formal education.

2.3.1. The corporate mission statement and strategy

The HEART Trust/NTA mission statement reads as follows:

To enable the provision of technical and vocational education in both the public and private sectors so as to sustain a competitive workforce consistent with the need for economic growth and development and to promote quality, relevance, efficiency and equity in the training system. (Heart Trust/NTA, 1999b)

Its current corporate strategy has as its two lynchpins: (a) emphasizing the modern economy while ensuring social equity, and (b) using partnerships with employers, national agencies, and communities to improve training and employment opportunities (Knight, 1992).

These two elements represent the present emphasis of management as well as a continuation of its established and stated desire to supply market-driven training offerings with a human face. There is also the suggestion that HEART Trust/NTA's management has accepted the proposition, evident in the literature, that the market is strong on coordination and optimization but weak on issues of equity and justice. In summary, the strategy aims to increase HEART Trust/NTA's relevance as a national institution by:

- Adjusting capacities to maintain an appropriate balance between the economic and social imperatives.
- Producing a much higher proportion of Level 2 workers with certification.
- Expanding and deepening partnerships with all of the social contract partners.

HEART Trust/NTA currently operates seven main types of programmes. These are:

1. Academies
2. Special Programmes
3. Vocational Training Centres (VTCs)
4. Jamaica/German Auto School
5. School Leavers' Programme
6. Apprenticeship Programme
7. Vocational Training Development Programme

2.3.2. The organizational framework

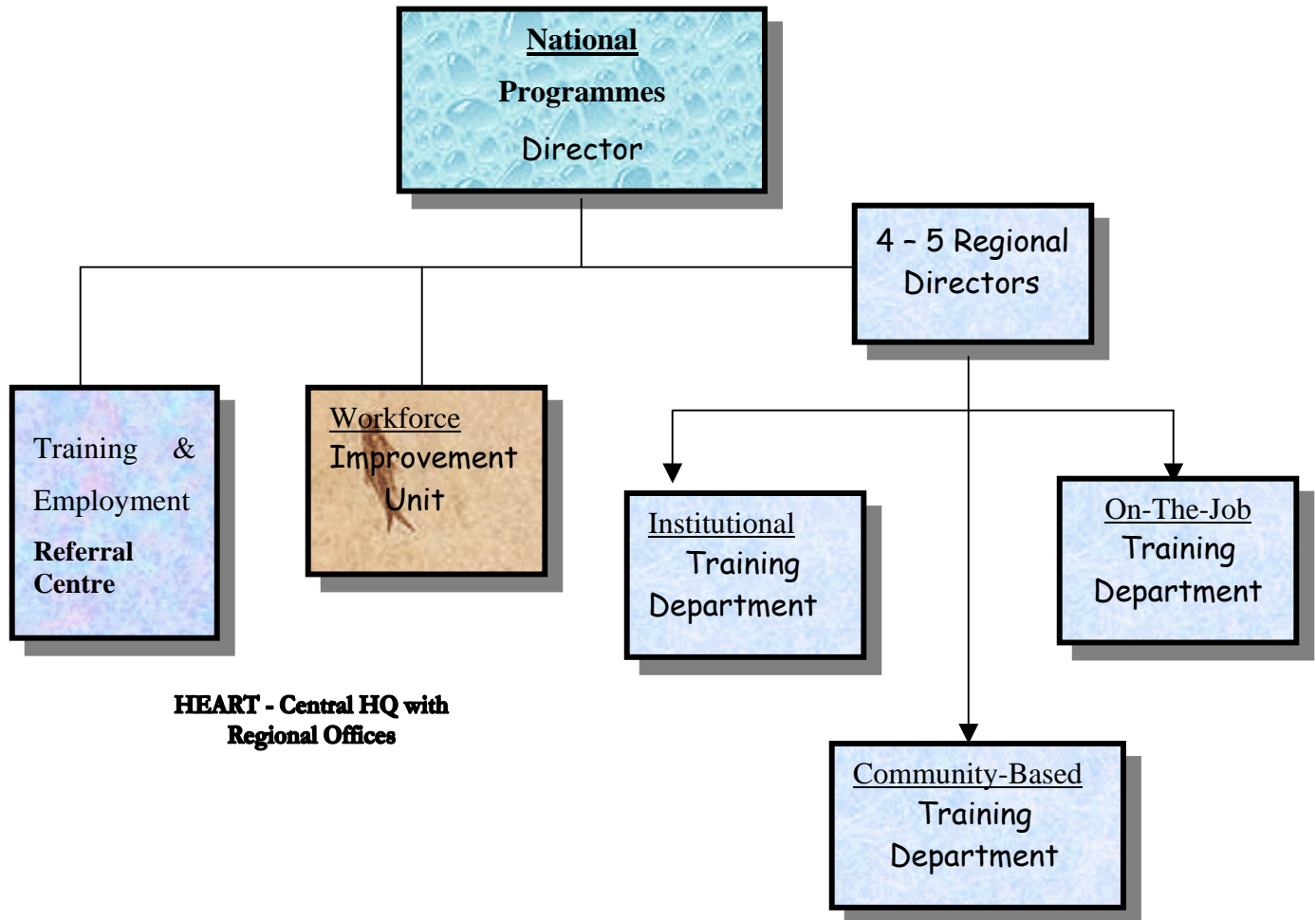
The technical and vocational education and training (TVET) system under HEART Trust/NTA includes the following parts:

- HEART Trust/NTA as coordinator and financier.
- The network of training institutions and providers including academies, VTCs, community-based training, TVET in secondary schools and at the University of Technology (UTECH), and in private, proprietary training institutions.
- Training programmes located in firms.
- The National Council for Technical and Vocational Education and Training (NCTVET) as the standards-setting, accreditation organ.

The system is a component part of a larger structure, which includes the school system with its primary, secondary, and tertiary levels. HEART Trust/NTA falls under the auspices of the Ministry of Education (MOE).

The objective of HEART Trust/NTA is to deliver training and training-related services effectively, efficiently, and equitably. In its attempt to deliver such training, the organization has acknowledged that it needs to establish a more integrated approach that would involve altering existing organizational arrangements. The new arrangements are aimed at improving teamwork and improving the work flow process. The reorganized training delivery structure is represented in Figure 2, which shows cross-functional teams driving sectorally-defined activities geared to delivering training, which is effective, efficient, and equitable.

Figure 2. HEART - Central HQ with regional offices.



2.3.3. The National Training Agency (NTA)

The NTA was conceived as a coordinating body that would facilitate the free flow of information among numerous ministries and other bodies involved in training. This coordinating function was expected to facilitate decision-making. The Agency includes representatives from the MOE, training institutions, industry, the public and private sectors, trade unions, and the community. In other words, representation comes from all members of the social partnership.

The NTA's main function is the coordination and management of TVET. In keeping with the strategy proposed by CARICOM (CARICOM, 1990), the NTA coordinates and manages the following activities:

- Identification of training needs.
- Establishing and monitoring training standards and monitoring the delivery of training.
- Testing and certification.
- Harmonization activities in education and training systems at both formal and non-formal levels.
- Monitoring manpower and demand and supply.
- Monitoring and gathering occupational information.
- Evaluating the training system in terms of efficiency and effectiveness.
- Publishing.
- Monitoring and advising on curricula activities.
- Advising on the use of available resources.
- Coordinating and executing promotional and motivational programmes.
- Monitoring teacher/instructor training.
- Orienting training programmes in keeping with the Labour Market Information System.

2.3.4. The National Council for Technical and Vocational Education and Training (NCTVET)

In the three years between the two corporate plans produced by HEART Trust/NTA, NCTVET grew even more quickly than was anticipated (Heart Trust/NTA, 1999a, p. 18). Its main concerns are certification and accreditation, and its operations are financed by HEART Trust/NTA.

The scope and scale of the work confronting NCTVET is indicated by the following points:

- 120 institutions are in need of accreditation.
- Approximately 30,000 people pursue occupational certification through institutional training.
- 37 institutions are presently pursuing the requirements for accreditation.
- 8,300 people have been awarded formal occupational certification.

NCTVET is staffed by a small team of technical specialists and regularly employs the services of contracted specialists who undertake competence assessments of trainees. Recently, the Council underwent a shift in orientation, with emphasis now being placed on the certification of highly-skilled individuals rather than focusing on entry level trainees. NCTVET's approach to the certification of already-employed workers is very different from the testing approach of the institutions.

The fact is that, increasingly, occupational standards are becoming global in character as opposed to local/national. Occupational standards in hospitality, automotive services, information technology, apparel manufacturing, electronics, and industrial maintenance are now of a global nature. The intention is that the training system will integrate its programmes into widely-recognized international certification, so that trainees can obtain the benefits of internationally-recognized competencies while, at the same time, obtaining NCTVET certification. It is worth noting that, at present, trainees in SKILLS 2000 (a special programme organized for under-achieving school leavers) cannot be certified within the NCTVET frame of reference, as the entry requirements for national certification are based on a Grade 9 level of education which the majority of the individuals in Skills 2000 do not currently possess. Further,

on-the-job trainees often receive training within narrow-range skill areas which are not certifiable under existing NCTVET arrangements. Lastly, and this is a point made by Pantin in his 1996 study of HEART, many trainees prematurely terminate their training so as to take advantage of any opportunities which exist in the job market. These trainees, therefore, obtain no recognition from the formal system of vocational training.

According to the 1998-2002 plan, NCTVET faces a challenge with respect to the certification of the formal on-the-job trainee and groups of existing workers. More recently, a scheme has been devised whereby on-the-job trainees have been brought into the assessment process--a number of trainees from the School Leavers Training Opportunities Programme (SL-TOPS) have now been certified on-the-job.

2.3.5. HEART Trust/NTA training institutions and skill areas

There are three main types of HEART Trust/NTA training institutions:

- The Academies
- The Vocational Training Centres (VTCs)
- Other Institutions

The academies are relatively homogenous institutions. The VTCs operate pre-vocational programmes which combine skills training with remedial education. There are approximately 650 trainees in these programmes. In addition, HEART Trust/NTA contracts schools to provide remedial education programmes for 1,320 recruits per annum. These recruits are applicants who did not pass the entry-level test and were referred to these centres for remedial instruction. These programmes seem to be an obvious response to previous studies which had highlighted the plight of under-qualified youth with no access to secondary education. The "other institutions" category is a diversified category which, in the main, has resulted from the equity focus of HEART Trust/NTA.

2.3.6. The Vocational Training Development Institute (VTDI)

VTDI is to be merged with UTECH's Technical Education Department. Presently, both programmes train individuals for the TVET system, therefore, it makes sense to combine the two. VTDI is also planning to integrate the new initiatives in Entrepreneurial Skills Development (ESD) and career development into its programmes. Training programmes in occupational assessment and testing may be implemented through VTDI.

During the period 1989-1999, HEART Trust/NTA doubled trainee output. Growth was augmented by expansion in the capacities of hospitality, commercial, and construction skills training. In 1998-1999, HEART Trust/NTA achieved enrolment targets of over 30,000 trainees.

2.3.7. The National Programmes Division

Training programmes in Jamaica are delivered through HEART Trust/NTA's National Programmes Division within the following organizational framework: the Workforce Improvement Programme operates 10 academy and institute programmes; the Training Employment Referral Centre operates 16 vocational centres; the Community-Based Training Programmes Division operates more than 80 programmes; The School-Leavers Apprenticeship Programme operates on-the-job training programmes; and the Regional Services Office encompasses recruiting and placement functions both centrally and regionally.

This organizational arrangement has evolved gradually over the 17-year life span of HEART Trust/NTA. The School Leavers Programme was the first programme to be introduced and staffed, followed by the academies. This is an organizational arrangement based on training offerings, but there are alternatives. Training could be organized around geographic or sectoral lines. Geographic

organization would entail the creation of self-contained units on a regional basis, while sectoral organization would mean the classification of programmes by industry type (construction, manufacturing etc.). Re-organization along regional lines is under consideration.

HEART Trust/NTA finances and monitors the following institutionally-based skills training programmes:

- 35 community-based training units offering Level 1 training.
- 35 Skills 2000 locations (pre-Level 1).
- 7 small institutions operated by the MOE (mostly pre-vocational).
- 6 programmes and projects targeted at specific sectors operated by private sector entities.
- 6 specialized institutions focusing on special target groups.

Institutionally-based training programmes offer skills training packages in areas which are sectorally defined:

- agriculture
- apparel and sewn products
- automotive skills
- beauty services
- commercial skills
- construction skills
- hospitality and tourism
- industrial maintenance
- information technology

These programmes are offered by level of competence, which approximates to levels of employment in the relevant skill area (see Table 2). In the main, programme offerings are concentrated in the Level 1-3 range. The institutions offer approximately 4,000 training programmes. Institutional training can also take place in community-based programmes operated by community-based organizations (CBOs) and NGOs.

Table 2. Occupational Certification - National Vocational Qualifications of Jamaica (NVQJ) – Levels of Award

Level 1: Entry-level: Apprentice, supervised worker

Including competence in a significant range of varied work activities performed in a variety of contexts. Work activities range from simple and routine to more complex and non-routine involving some individual responsibility and autonomy. Collaboration with others through work groups or teams may often be a requirement. Substantial supervision is required especially during the early months, evolving into more autonomy with time.

Level 2: Journeyman: Technical/specialized independent worker (Licensed, etc.)

Recognized competence in a broad range of complex, technical or professional work activities performed in a wide variety of contexts and with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and the allocation of resources is often a requirement. The individual is capable of self-directed application, exhibits problem-solving, planning, designing, and supervisory capabilities.

Level 3: Technician/supervisor

Recognized competence in a broad range of complex, technical or professional work activities performed in a wide variety of contexts and with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and the allocation of resources are often a requirement. The individual is capable of self-directed application, exhibits problem-solving, planning, designing, and supervisory capabilities.

Level 4: Master craftsman/managerial/entrepreneur

Recognizes competence which involves the application of a significant range of fundamental principles and complex techniques across a wide and unpredictable variety of contexts. Very substantial personal autonomy and often significant responsibility for the work of others and for the allocation of substantial resources, as well as personal accountabilities for analysis, diagnosis, design, planning, execution, and evaluation.

Level 5: Graduate, professional, and/or managerial

Recognizes the ability to exercise personal professional responsibility for the design, development, or improvement of a product, process, system or service. The award recognizes technical and managerial competences at the highest level and may be confined to those who have occupied positions of the highest professional responsibility and made outstanding contribution to the promotion and practice of their profession.

Source: HEART Trust/NTA. Corporate plan 1996-2000.

2.3.8. Community-based training

CBOs and NGOs generally provide and operate institutional training programmes which are located in the community. Occasionally, they provide specialized training which is directed at a particular industry, operated by a sectoral organization, specialized institution, or firms themselves. This community-based training includes, and is not limited to:

- Level 1 training provided through NGOs and CBOs for approximately 1,500 people at any one time, and approximately 3,000 per annum.
- Pre-Level 1 training under the Government of Jamaica's (GOJ) National Poverty Eradication Programme, through Skills 2000. NGOs and CBOs can operate these programmes and provide training spaces for approximately 1,000 people at a time, and twice that number on an annual basis.
- Specialized programmes delivered by specialized sectoral interests at the Level 1 standard. On an annual basis, 650 training spaces (300 at any one time) are available.
- Special Target Group (STG) programmes which accommodate approximately 2,000 a year, and about 1,500 at any one time.

These programmes are operated in all 14 parishes of Jamaica, and have provided additional capacity for the system as a whole. For the most part, sponsors provide most of the equipment and the venues. HEART Trust/NTA is responsible for any recurrent expenditure and for the provision of technical support.

2.3.9. On-the-job training

The School Leavers Programme and the (traditional) Apprenticeship Programme (transferred to the Trust from the Ministry of Youth in 1994) make up HEART Trust/NTA's on-the-job training programmes. The agency monitors and oversees these two very different on-the-job training programmes with different justifications: The School Leavers Programme uses the Skills Development Report to document training content and duration, while the Apprenticeship System uses a Trade Order.

The School Leavers Programme was the first to be introduced by HEART Trust/NTA after its formation in 1982. It is now called the School Leavers Training Opportunities Programme (SL-TOPS). It provides training for those who have achieved Grade 11 (secondary level) and who are 17 years of age and over. The programme responded to the need to provide on-the-job experience for first-time job seekers. Empirical research in the 1980s indicated that lack of job experience was a major barrier to entry into the labour force for qualified job seekers. It is no surprise, therefore, that the programme was conceived as a work- or job-experience programme.

With respect to content, the TVET Resource Centre (TVET RC) and NCTVET would be the entities charged with developing and introducing uniform standards. This would then mean that on-the-job training would use the standard curricula of its institutional training programmes.

Total enrolment in these programmes in 1998-99 was 5,000 (1,200 in the Apprenticeship scheme and 3,800 in SL-TOPS) (HEART Trust/NTA, 1999). Apprenticeship offers 17 skill areas and SL-TOPS offers 34 skill areas. In gender terms, 73% of the trainees on SL-TOPS programmes were female and 97% on Apprenticeship type programmes were male.

2.3.10. The challenge

On-the-job training needs to be integrated into the standards-driven, competency-based occupational framework developed by TVET. This poses an enormous challenge with respect to the need for

legislation, programme development, and changes in organizational practices. HEART Trust/NTA training institutions are challenged on two related fronts: (a) the training delivery institutions face a major challenge in trying to create a comprehensive system that would enhance the trainees' ability to make the transition from school to work. Labour market data indicate that the demand for skilled labour is not being met; these institutions need to raise their capacity to generate enough output to satisfy the demand coming from the employers; (b) the need to inculcate notions of employability/work ethic, along with an appreciation of the need for a continuous/lifelong commitment to learning, in trainees. To that end, the Comprehensive Plan for TVET (CP-TVET) makes the following recommendations:

- Improved labour market responses - Limit the number of trainees at the entry level in order to accommodate the generation of increased output at higher levels, and continued and intensified focus on employability.
- Deepening of relationships with employers - Development of productive relationships with employers, nurtured by periodic consultation.
- Articulation arrangements with other training providers - Vocational training to be more closely linked to the formal educational system, allowing for the natural progression into TVET without competition and overlaps.
- Assessment, certification, and accreditation - Flexibility in entrance testing and the certification of modules of employable skills; accreditation of programmes and of institutions.
- Training content, techniques, and modalities - More income generating, practical projects to better prepare trainees for productive employment (including self-employment) along with effective recruitment strategies. In addition, an intensified effort to reintroduce some Level 1 programmes to secondary schools.

The focus of HEART Trust/NTA has always been on the unemployed. The introduction of the modular mode of delivery has reconfigured the map, and it means that many more employed persons are making use of a much more flexible approach to the delivery of vocational training. Modularisation has, therefore, resulted in many more employed persons seeking training opportunities in order to secure certification. In addition, there has been a noticeable increase in the number of formerly employed-people seeking training opportunities. In effect, the formerly-employed worker is coming to HEART Trust/NTA in order to re-tool.

These new developments have placed the issue of the employed/unemployed centre stage. It is clear that the current environment, along with modular delivery of training programmes, has resulted in new sources of demand across the labour force. HEART Trust/NTA must now re-examine this area and make the requisite adjustments.

The 1996 HEART Trust/NTA *Corporate Plan* had presented a profile of the graduate that was informed by employer expectations. Out of this profile emerged a notion of "employability," which referred to the general attitudinal mindset of the graduate, and whether or not this made him/her amenable to the social relations of the modern workplace.

2.3.11. Some related issues

HEART Trust/NTA, through its research, has singled out certain specific problems for attention, and made some headway during the period of its last two strategic plans--1996-2002.

Quality of programmes

The training in the SL-TOPS and the Apprenticeship Programme is far from adequate. Training standards are not uniform and there is no formal or structured contact with training institutions. Programme content, competency assessment, and certification are variable and uneven. HEART

Trust/NTA recognizes this area of weakness and moves are underway to change the overall framework of the job training programmes.

Inequalities in the system

There are far more training programmes in urban than in rural areas. In addition, programmes in the rural areas are of inferior standard and quality. Studies conducted by HEART Trust/NTA (Knight, 1992; Pantin, 1996) pointed to groups within the society who experienced limited access to vocational training opportunities. Three groups identified for positive discrimination by HEART Trust/NTA are women, the disabled, and unemployed youth without access to secondary education. Women, in particular, while they head the majority of Jamaican households, are trapped in traditional occupations where they enjoy lower rates of pay.

The need for career guidance and counselling

HEART Trust/NTA has set up a Professional Guidance Information System (PROGIS) which is taking an active role in the admission screening process. HEART Trust/NTA recognizes the need for proper counselling and selection of candidates as a key factor in determining whether candidates successfully complete their training.

Instructional delivery

The Instructor Quality Service Programme was established in 1995. Through this programme, the agency tries to promote quality delivery of instructional materials by its instructors. Instructors are subject to annual evaluation by peers and managers, while evaluation by trainees is done on a quarterly basis.

Relevance of programme

The 1998-2002 plan placed priority on making the context of programmes more responsive to the needs of the market, as well as more relevant to national objectives. Institutions within the HEART Trust/NTA system are being encouraged to adopt a pro-active approach to planning responsive programmes in their community and for their sector.

2.3.12. A review of two corporate plans: 1996-2000 and 1998-2002

There were 10 key requested areas which were initiated in the first plan and intensified during the second plan:

1. More emphasis has been placed on basic skills and employability.
2. Higher-level programmes were increased, especially in academies.
3. Special programmes were designed and implemented which aimed to help firms directly, and to assist the community to assist itself.
4. All institutional training at HEART Trust/NTA has been reconstituted along modular lines.
5. HEART has improved its equipment, content, design, facilities, and instructors to world-class status.
6. A new unit called the Workforce Improvement Unit provides direct assistance to the private sector.
7. A more open admissions process is being developed as special programmes are introduced for under-qualified candidates.

8. Some limited improvements have been made in the use of production-based training, multi-skilling, work experience, job placements, environmental content, use of computers, distance education, and new technologies.
9. TVET technical services have been improved. These areas include evaluation of new curricula, generating instructor materials, and refining cost accounting techniques and procedures.
10. New programmes have been introduced in various areas such as in the field of poverty alleviation initiatives, assisting the formal education sector, and the establishment of more resource and technical centres.

Table 3. HEART Trust/NTA - Key Performance Areas

Enrolment by Sector	%
Handicraft	1
Health OJT	1
Education	2
Other Misc.	2
Agriculture	3
Industrial Maintenance	3
Information Technology	4
Automotive Skills	6
Remedial & Pre-Vocational	10
Hospitality and Tourism	12
Commercial Skills	16
Construction Skills	17
Apparel & Sewn Products	23

Apparel & Sewn Products, Construction Skills, and Hospitality and Tourism account for 68% of the enrolment total.

2.3.13. Financing

Table 4. Income and Expenditure Account: HEART Trust/NTA (J \$'000)

	1993	1994	1995	1996	1997	1998
Category	(J \$'000)	(J \$'000)	(J\$ '000)	(J \$'000)	(J \$'000)	(J \$'000)
Income	384,918	613,688	928,318	1,270,275	1,666,989	1,783,356
Expenditure	244,234	372,438	594,707	845,182	1,193,434	1,603,362
Per Annum Surplus	140,684	241,250	333,606	425,093	473,555	179,994
Accum. Surplus at Year End	364,358	605,608	939,214	1,364,307	1,837,862	2,017,856
Rate of Inflation	30.10	26.80	25.60	15.80	9.20	8.80
% Change in Expenditure	74.70	52.50	59.70	42.10	41.20	34.30

Source: HEART Trust/NTA. Draft comprehensive plan for technical and vocational education and training in Jamaica, 1999.

Table 4 shows a declining rate of increase in expenditure between 1996 and 1998. Increases in enrolment have negatively affected income because of an associated rise in costs. Between 1993-1997, enrolment increased by 83.4%, or over 20% per annum. This process was driven by the steady accumulation of annual surpluses which totaled J \$1.75B in 1998. The major reason for the surplus in the early and middle 1990s was the high interest rate regime of the GOJ. In some ways, it was an artificially-generated surplus resulting from interest returns on GOJ paper which, at times in the early and middle 90s, was in excess of 50% per annum. It seems clear that the agency is entering a period of less robust growth and declining income.

The period between 1993-1998 saw increases in expenditure in excess of 555%. Along with the increase in enrolments, there has been an associated increase in marginal costs, which have resulted in increased total costs. The increase in the numbers of trainees resulted in a 48% increase in spending. Total revenue, on the other hand, has not grown as fast as total costs. The overall effect has been to reduce income. The accounts of 1997-1998 indicate the scope and nature of this new problem confronting the agency. The budget figures for 1997-1998 show increases over the actual 1996-1997 figures for all but one category. The asset base increased by 57% from a 1996-1997 level of J \$786M to over J \$1369M in 1997-1998. Net surplus declined to J \$49M in 1997-1998 from J \$430M in 1996-1997.

Between 1993 and 1999, nominal revenues grew by over 210%, but when deflated this figure becomes 117%. In other words, in real terms, revenues grew by almost 100%. In the same period, expenditure showed an increase in excess of 400% in nominal terms (287% in real terms). The biggest increase in absolute terms was in emoluments, which were J \$14.1M in 1990 and J \$812.7M in 1998. Other notable increases were experienced in security, and telephone and electricity. Also, in the period, the accumulated surplus grew by a nominal 225%, which translates into real growth of approximately 110%.

It is clear that HEART Trust/NTA has been very successful at increasing enrolment. The agency has also enjoyed success in increasing the quantum of training outputs. However, the rate of increase is noticeably slower than that of enrolment. The 1999 *Draft Comprehensive Plan for Technical and Vocational Education and Training in Jamaica* (Heart Trust/NTA, 1999b) makes it clear that income no longer significantly exceeds expenditure as in previous years, and surplus-financed growth is no longer possible. Expenditures include:

- J \$161M which supports selected aspects of the formal education system;
- J \$152M in poverty alleviation.

In 1998, HEART Trust/NTA contemplated a new initiative that was expected to increase on-the-job enrolments to 4,000 per year. If implemented, the cost in year 5 was a projected \$150M. This would have meant a significant reallocation of resources, possibly away from those politically and socially sensitive areas noted earlier. HEART Trust/NTA intends to deal with this problem in the following ways:

- Decreasing expenditures.
- Creating new income.
- Implementation of cost-effective strategies.
- Allocating resources for further refinement of existing concepts and methodologies.

2.3.14. HEART Trust/NTA: To Decentralize or not to Decentralize?

Over the years, the agency has slowly shifted to contracting out operational responsibilities to private training providers. The thinking is that such a move allows the agency to concentrate on planning, financing, and policy making and implementation. In that context, there is a view that concerted action aimed at the training institutions, which would make training delivery distinct and separate from other related functions, would be desirable. Such action would involve more administrative and financial autonomy. This is not a unique view. It accords with a global quest by training organizations for

relevance and flexibility. The basic thesis of this view is that decentralization allows institutions more flexibility in responding to local needs. This is a global pattern aimed at addressing local needs.

In reality, HEART Trust/NTA remains a very centralized institution. The institution employs a bureaucratic “top down” form of management organization (see Figure 2). Decentralization may become a more desirable commodity in future years because it is also viewed as a means of increasing revenue generation at the level of the institution. This is a view which apparently first developed in the United Kingdom (UK) because of the tight budgetary conditions. In this decentralized framework, a public training institution is entitled to recoup part of the costs of training. For HEART Trust/NTA, with its emphasis on equity, fee-paying Level 1 trainees may prove to be an unacceptable option. These arguments on the revenue-enhancing capabilities of decentralization will become more pointed in the future, as HEART Trust/NTA’s earnings are being squeezed because, as previously noted, costs associated with increased numbers of trainees are rising. The period of surplus-led growth which HEART Trust/NTA enjoyed for so long appears to be coming to an end. Without it, the ability of the organization to respond to social imperatives is severely compromised.

Another important dimension to the discussion is the fact that a perennial problem for HEART Trust/NTA has been low levels of employer participation. Cost recovery at the institutional level places training providers and beneficiaries in closer proximity, making the institutional training programmes more responsive to the needs of local enterprise. Such an institutional arrangement would foster a demand-driven training system, and facilitate closer stakeholder interaction in the conceptualization and delivery of programmes.

2.4. Barbados: The Samuel Jackman Prescod Polytechnic (SJPP)

2.4.1. Background

The Polytechnic was established in 1969 and is named after Samuel Jackman Prescod, the first black Member of Parliament in Barbados. It was established to provide the technical and vocational training required for the changing pattern of economic development being experienced at the time. One of the major goals of the institution was to provide an environment where the youth would be able to broaden their interest, develop their capabilities, achieve realistic and worthwhile goals, develop creative disciplined thinking, and receive guidance in choosing a career and preparing themselves for their chosen vocation. The overall intention was to enable the youth to fulfill their roles as responsible citizens. Since 1983, a Board of Management has provided the policy leadership of the institution. By then, the SJPP had replaced two existing institutions and its stated objectives were:

1. To develop trade skills and occupational competence up to the level of skilled craftsman;
2. to prepare students for direct entry into paid employment;
3. to prepare students for entry into the proposed Division of Technology at the Barbados Community College;
4. to train students to be useful effective and good citizens.

Throughout the three decades of its existence, the SJPP’s goals and objectives have been refined and restated in response to the changing needs of the economy and the need of local industrial development.

2.4.2. The vision

The SJPP’s vision is “to be a Centre of excellence in technical and vocational training in the region.”

2.4.3. The mission

The current mission statement states that:

the mission of the SJPP is to be the leader in the preparation of a highly trained workforce by providing qualified persons a quality competency based technical and vocational training that respond to the future employment and lifelong needs of the students.

The SJPP, in fulfilling its mission, will:

- ◆ Provide programmes that are relevant to the personal and professional needs of the learners and employers, and contribute to the development of the productive citizens in the changing socio-technological society.
- ◆ Provide enhanced access through the use of flexible and innovative instructional delivery strategies.
- ◆ Expand the offering of lifelong learning opportunities for employed persons.
- ◆ Develop the institutional capability for identifying and responding to the changing workplace requirements.
- ◆ Create opportunities for the students to be computer literate at the end of their programme of study.
- ◆ Foster a supportive and customer service environment for both staff and students.
- ◆ Develop and implement a comprehensive human resource training plan and strategies for the upgrading of staff to meet the changing requirements of the workplace.
- ◆ Demonstrate a genuine commitment to create a working environment that recognizes and values the contribution of each individual.
- ◆ Encourage and recognize the contribution of staff and students.
- ◆ Maintain an on-going collaborative relationship with other tertiary level institutions.
- ◆ Develop and manage its resources consistently with other strategic priorities.
- ◆ Be accountable to demonstrate that its programme and services are monitored against agreed-upon performance standards.
- ◆ Maximize the use of its available resources.

The driving philosophy of the organization can be found in both the vision and mission statements. These are informed by the mandate of the Ministry of Education, Youth Affairs and Culture, as it relates to technical /vocational education in Barbados. The focus of the mission of the SJPP is based primarily on the identified training needs of the workforce and specific needs as requested by firms/industries, for example, the Barbados Agricultural Development and Marketing Corporation and the Arawak Cement Plant.

The SJPP, in fulfilling its mission, caters mainly to three categories of persons:

1. School-leavers over the age of 16 years.
2. Unemployed and employed persons (no upper age limit).
3. Overseas students (mainly from other Caribbean territories).

2.4.4. The offerings

SJPP offers technical and vocational training in a variety of disciplines. It offers approximately 50 courses full time and 60 part time under the following departments: automotive engineering, building trades, commercial, electrical engineering, agricultural, human ecology, mechanical engineering, and day-release special courses. Most courses require two years of preparation in full-time enrolment.

2.4.5. Organization and management of the SJPP

The SJPP is a public institution which is run by the state. It, therefore, has the government and general public as the key stakeholders. As stated earlier, policy formulation and policy leadership of the SJPP is provided by the Board of Management which acts on policy directives from the Ministry of Education. The daily operational management is undertaken by a Principal, who is assisted by two deputies, one with responsibility for administration and the other with responsibility for academic matters. In addition, there are divisional heads, supervisory staff, and the line staff which comprises instructional tutors and non-instructional or ancillary/office staff.

2.4.6. Organizational arrangements

The SJPP has been fairly progressive in its management approach. The institution has created a strategic plan which provides an operational framework within which it will plan its programmes and activities during the period 1998-2005. Unlike most other public organizations, the SJPP has a succession plan in place, which ensures continuity of management in the absence of the Principal and other members of the top management team, for example, in the absence of the Principal, the senior Deputy Principal will take up the responsibility for leading the organization. There is also a senior management team with responsibility for policy implementation and planning.

The decision-making structure and process in the SJPP is a traditional top-down one. There is also some cross-referencing communication with respect to decision making and specific implementation of policy. The organization is, however, relatively flexible on decision making within the traditional structure, promoting autonomy as the “watchword.”

2.4.7. Stakeholders’ involvement

Government as stakeholder is, in essence, involved in the strategic policy and decision-making process at the central level. A major part of the decision making relates to the provision of financial support for the institution’s programmes. The public as a stakeholder is a major customer of the SJPP. The public is, therefore, very involved by its utilization of the training facilities to upgrade skills to become proficient in key areas in the workplace. As customer, the public also informs the decision-making process, as the institution continuously respond to the needs and demands identified by this stakeholder.

2.4.8. Human resources

The selection of some staff is conducted at the central agency level. In the case of the SJPP, the criteria for selecting instructional staff is largely determined by the general guidelines for staffing in the public service. This falls under the aegis of the Personnel Administration Department of the Government of Barbados which has the responsibility of identifying persons with the required qualifications, skills, and experience. Recruitment and selection of non-instructional staff (office and ancillary) are done by the Board of Management. The Board of Management can also make recommendations for hiring instructional staff.

2.4.9. Qualifications and experience

The Personnel Administration Department requires that persons to be appointed to the three levels of Instructors should possess the following qualifications:

Instructor I

A degree or Higher National Diploma/Certificate (HND/C) or Full Technological Certificate or Licentiatehip (LCGI) or equivalent in the appropriate discipline, and a Teacher’s Training Certificate and seven years approved experience.

Instructor II

The Business and Technology Education Council (BTEC) National Certificate/Diploma, Private Secretary Certificate, Associate Degree, two subjects at Advanced Level, City and Guilds Advanced Craft, City and Guilds Part II or equivalent in the appropriate discipline, and a Teacher's Training Certificate and five years approved experience.

Instructor III

The BTEC National Certificate/Diploma, Private Secretary Certificate, Associate Degree, two subjects at Advanced Level, City and Guilds Advanced Craft, City and Guilds Part II or equivalent in the appropriate discipline, and three years approved experience.

2.4.10. Staff training and development

Staff training and development is catered for in the annual budget. Once training needs are identified and the appropriate training programmes are sourced and approved by the SJPP, leave of absence to attend the programmes is obtained through yet another central agency, namely the Government's Training Division. Leave is given in accordance with Government regulations under the Training Division. In this regard, the institution does not have the autonomy to manage its own training. Training may be short term (6 months) or long term (up to 3 years), and may be local or overseas. Leave for training may be at full pay, no pay, or partial pay.

As part of its mandate, SJPP aims to develop and implement a comprehensive human resource training plan and strategies for the upgrading of staff to meet the changing requirements of the workplace. This will hopefully correspond with the Government's move to decentralize some aspects of its training function.

2.4.11. Mechanisms for staff evaluation

The SJPP has, over the years, employed the evaluation and appraisal system that is used by the public service. This is the annual confidential report. The institution, in recognition of the need for a more developmental appraisal system, is now in the process of developing a "generic" instrument, since it is felt that the present evaluation technique is inadequate for the needs of a teaching institution. The proposed evaluation will provide for specific job descriptions, against which performance can be measured and needs identified.

2.4.12. Mechanisms for evaluation of programmes

SJPP has instituted a form for student evaluation of instruction and instructors. The intention is to obtain feedback from its customers on whether the programmes are meeting the needs of the students, and whether the methods of delivery are effective. Inputs are also given by an advisory committee from the industrial sector which help to ensure that the programmes are current.

2.4.13. Evaluation of student performance in the workplace

Second year full-time students on industrial attachment are given a questionnaire that includes questions on area of work, job satisfaction, and length of attachment. Questionnaires are also given to management in various organizations seeking information on (a) the number of polytechnic graduates employed and (b) the standard of job performance of SJPP graduates as opposed to others. It has been acknowledged that more follow-up studies are required. There is also some input from the Ministry of Labour.

2.4.14. Instructional capability

The SJPP offers a range of programmes to school leavers, unemployed and employed persons, and apprentices of the Barbados Vocational Training Board. A variety of instructional approaches are used in delivery of the teaching. The main methodologies are:

- Lectures
- Labs (especially audiotronics, mechanical engineering, etc.)
- Multimedia.

2.4.15. Certification

Successful candidates in the various programmes, who are also required to attend 80% of classes, are awarded the appropriate certification. These are:

- ◆ Polytechnic Certificate
- ◆ City and Guilds Certificate
- ◆ Caribbean Secondary Education Certificate (CSEC)

With respect to the CSEC, scaling down is underway as secondary schools become more equipped with the requisite facilities.

2.4.16. State of educational technology used in the delivery of programmes

The SJPP's aim is to be current in its practices, programmes, and methodology. To this end, it has established and maintained links with various industries, for example, instructors are invited to participate in workshops at specific companies where experts in the field are based. For the most part, the training rooms at SJPP are equipped with state-of-the-art equipment and materials.

There has also been a move to integrate the use of computers and the Internet into some of the programmes. For example, the Internet allows students to access information in relation to standards, materials, and so forth. An autotronics lab has been built by SJPP which has the latest state-of-the-art equipment, and is designed to meet demands of computerized vehicles in the automotive industry.

2.4.17. Enrolment statistics

The enrolment statistics for 1998-1999 are as follows:

Table 5. Enrolment by Student Status in SJPP, 1998-1999

Year	Total Enrolment
First Year (full time)	553
Second Year (full time)	288
Total (full time)	841
First Year (evening)	1,271

Enrolment for evening classes is high since there is an extremely heavy demand for these courses by working people. Some applicants have to be refused entry. With respect to gender, the pattern of enrolment has remained largely traditional, with certain fields such as human ecology being largely female dominated and the engineering trades being male dominated.

2.4.18. Teacher–pupil ratio

Lecture / Instruction = 1:18 – 25

Workshop / Labs = 1:16 (Safety, as a priority, necessitates smaller classes)

2.4.19. Examination results, 1997–1998

A look at the examination results, by department, for 1997-1998 (Samuel Jackman Prescod Institute, personal communication, 1999) shows a relatively healthy picture except in the field of agriculture. All other departments experienced a pass rate ranging between 60-100%. In agriculture, however, the failure rate was 30% and the dropout rate was 20%.

2.4.20. Employment rate of students after graduation

The employment rate varies among disciplines and with industry demand, however, it is estimated at approximately 80%. While no definite tracer studies have been done, the general consensus is that students have no problem finding employment. Indeed, some of the students are placed long before graduation.

2.4.21. Financial and physical resources

In 1998, the annual budget for the organization was B \$8,060,773, of which salaries were \$5,790,583 and teaching material was \$2,270,190. Income received from enrolment fees is used to supplement the cost of teaching material. The SJPP is financed by Government under the annual estimates. Generally, Barbadian students are not charged tuition fees since the Government finances their tuition for most of the courses. However, there are some courses where fees are charged.

The SJPP does not receive financial assistance from private sector organizations for its operational expenses. However, the institution was built with assistance from the World Bank under the IDB programme, and has some access to World Bank funding for workshops and equipment under the World Bank Project Office in the MOE.

The campus is sited on 11 acres of land. The SJPP is by no means adequately resourced. Financially, the organization has had to work on accessing funding outside of the Government's budget allocation for some of its major resources, especially the autotronics lab.

2.4.22. Conclusion

The SJPP boasts of its ability to bring a good balance of theory and practice to its programmes. The applicability of theory is highly valued and is, therefore, paramount. The management of the institution sees part of its uniqueness in its capability in servicing the region.

In reflecting on the SJPP's vision and mission, there are a number of strategic issues that emerge which will determine the institution's ability to fulfill its stated mission. There is clearly a strategic mandate relating to human resource development and other strategic issues relating to programme and organizational effectiveness, academic quality and marketing, sustainability of financial and physical resources, partnerships, and centres of excellence. There are also a number of challenges that the SJPP will have to manage. These include:

1. Programme and staff excellence.
2. Upgrade of staff, facilities, and equipment.
3. Range of relevant and niche programmes based upon identified employment needs for the future.
4. Image and recognition as a tertiary-level institution.
5. Improved access to qualified applicants in areas of employment potential.

6. Flexibility and responsiveness to lifelong learning needs of employed persons.
7. Financial stability and organizational renewal.

2.4.23. Sustainability and replicability

Linkage to the marketplace is critical in order to ensure relevance, because of the dynamic nature of the market and the constantly changing demands. The SJPP must always be on the alert for innovations, be willing to make changes where possible, and be able to respond creatively to those things that will hinder its progress, particularly those factors external to the organization. Recognizing the need for continuous links with industry, SJPP has sought to place its lecturers in industry for three-month periods so that they could keep in touch with modern trends. However, there is a definite lack of critical involvement with private industry.

SECTION 3

Summary and Conclusions

The three country studies reflect three different institutional models for education. The SJPP and the two technical institutes in Trinidad and Tobago represent the traditional post-secondary, state-run technical institutes. SERVOL, in Trinidad and Tobago, represents another very unique model while the HEART Trust/NTA, in Jamaica, is an umbrella organization coordinating a plethora of agencies involved in preparation for the world of work.

3.1. SERVOL

A number of key features of SERVOL make it a model worthy of replication in developing countries, especially where marginalized groups and large pockets of poverty and unemployment exist:

1. Its programmes are aimed at poor and marginalized groups. SERVOL has developed key strategies for intervention in poor communities.
2. The SERVOL Life Centres incorporate the community both in management and the building of facilities. This system facilitates community empowerment and self-help.
3. Dropouts from the conventional school system form SERVOL's main clientele.
4. SERVOL's emphasis on individual development is reflected in the evolution of its ADP, which deals with personal development issues and has become a compulsory prerequisite for all SERVOL programmes.
5. SERVOL retains flexibility and creativity in responding to different communities. As a result, the offerings may vary from one Life Centre to another.
6. SERVOL does not depend on State support, and programmes are basically free to allow easy access by the poor. SERVOL encourages departments to sell their services in order to achieve self-sufficiency.

3.2. Samuel Jackman Prescod Polytechnic, John Donaldson Technical Institute, and San Fernando Technical Institute

In both Barbados and Trinidad and Tobago, the major institutions for technical/vocational training seem to be structurally inadequate for modern times. As state-run, state-financed institutions offering free access to programmes, a number of problems emerge. These include:

1. Lack of private sector involvement at the institutions means lack of certain synergies which could affect course offerings, delivery modes, financial support, and staffing. Separation from the private sector has weakened the dynamic thrust of these organizations.
2. The cost of attracting highly qualified personnel and of updating plant and equipment is prohibitive, given reduced state subventions.

3. In Trinidad and Tobago, in keeping with the need to encourage flexibility and adaptability as emphasized in the literature, the course offerings at the two technical institutes are likely to change in the future as a general education component is introduced into the programme. In addition, as the two technical institutes are absorbed under the umbrella of the new community college, these will become fee-paying institutions. As such access is likely to change.
4. Another clear indication of the abandonment of the old technical institute model in Trinidad and Tobago is the advent of the Metal Industries Company Limited (MIC) Energy Skills Development Programme, under the direction of a private sector organization which accesses training staff from other private sector agencies. Both private and state funding have been involved in this venture. Resourcing has been financed by a loan from the German government, while staff has been trained in Germany in the German model.
5. A clear danger emerging when technical institutes become fee paying is the problem of access by the poorer members of the community who currently access the SJPP, the JDIT, and the SFTI.
6. The popularity of evening programmes in all the institutes reflects a strong demand by working people for flexible programmes.
7. The continued gender bias in specializations in all the institutes is a cause for concern.

3.3. HEART Trust/NTA

HEART Trust/NTA was established in 1982 by the GOJ and, at present, has responsibility for all non-formal training in the Jamaican public sector. It also supervises programmes run by other institutions through its Special Projects Division. Currently, HEART Trust/NTA operates seven main types of programmes:

1. Academies
2. Special Programmes
 - Community-based and others
 - Things Jamaican Ltd. Projects
 - Remedial and Continuation Education Programmes
3. Vocational Training Centres
4. Jamaican/German Auto School
5. School Leavers Programme
6. Apprenticeship Programme
7. Vocational Training Development Division

HEART Trust/NTA, therefore, can be seen as a national model for controlling and managing non-formal training. Trinidad and Tobago is at present attempting to set up an NTA to monitor and coordinate all institutions involved in technical/vocational education. CARICOM's regional strategy for technical/vocational education and training (1990) recommended the development of NTAs to member countries. As a model, the HEART Trust/NTA seems to have grown over its 17 years to reach a level of sustainability, and certain key features need to be highlighted which promote sustainability:

1. The organizational structure seems appropriate for the management of the range of programmes and the range of responsibilities. NCTVET looks after the issue of certification and accreditation and is appropriately staffed for doing so. HEART Trust/NTA's Vocational Training Programme Division controls all training programmes. The Workforce Improvement Programme operates 10

Academy and Institute Programmes; and the Training Referral Centre operates 16 vocational centres. HEART Trust/NTA also has a Planning Division which conducts sector studies.

2. HEART Trust/NTA has a solid revenue base derived through taxation. It is funded by a 3% payroll tax for all firms with a wage bill of more than J \$14,400 per month, and has a Compliance Department which works closely with the Inland Revenue Department. Thus, a fixed source of revenue is guaranteed.
3. There is need for continuous self-assessment in such a large organization. Constant evaluation of the quality of training offered and the reach of its programme is necessary. Without such evaluation, an organization with such a wide scope of responsibilities could easily become very large and unwieldy with a tendency to self-destruct. Between 1986 and 1992, three or four tracer studies were undertaken and HEART Trust/NTA appears to be responding to issues such as gender disparities, marginalized groups, modularizing the course offerings, and reaching the disabled. Both corporate plans, 1996-2000 and 1998-2002 developed by HEART Trust/NTA identify key areas for self-improvement.
4. HEART Trust/NTA has sought to emphasize fundamental skills and positive attitudes in its entry-level programmes. The emphasis, therefore, is on employability, with the prospective employer being responsible for the final training in the workplace.
5. The issue of centralization versus decentralization arises in the case of HEART Trust/NTA. If, within the whole system of non-formal training, there are community-based initiatives which are governed under HEART Trust/NTA, such initiatives may lose their dynamic if control at the centre is too strong. A coordinating agency, therefore, has to balance the need for centralization vis-a-vis the need for autonomy at the level of individual organizations within the system.
6. HEART Trust/NTA has become increasingly involved with the formal educational system. The institution, for example, has participated in a programme to have computers in all secondary schools by the year 2000. Some of its Level 1 courses have been introduced in some secondary schools.
7. As a state sector organization which combines different ministries and private sector agencies at the policy level, it is not clear what inputs the private sector make at the level of programme offerings. At times, there are indications that HEART Trust/NTA may not be fully in touch with the needs of employers which could affect employers' willingness to provide funding.

3.4. Conclusion

In 1990, CARICOM produced a document called a *Regional Strategy for Technical and Vocational Education and Training* to chart the way forward into the 21st century. This report highlights some key issues which include:

1. The need to improve the status of technical/vocational education to address the negative perception of agriculture, gender biases, and marginalized groups.
2. The need to improve the secondary phase of education as a preparation for post-secondary, technical/vocational training.
3. The establishment of NTAs in territories to identify training needs, set standards, provide accreditation, and consolidate and harmonize initiatives in the field.
4. The need for vocational and career guidance, proper public awareness and attitudes, teacher training for programme delivery, and proper infrastructure.

While this monograph sought to examine case studies from three territories to determine “best practices” and replicability for the purposes of preparation for the world of work, it is necessary to reflect on the status of thinking in this area.

It is very noticeable that the predicament currently faced by these countries (and perhaps other developing countries) is similar to what they faced 40 or 50 years earlier. While the details of the current world reality are different, the predicament is similar. There is concern that the workforce is not prepared to face the 21st century. Not only is there a challenge to produce a workforce ready to face the world of work, but the unstable level of inequality and poverty in these countries require that worker preparation must address the needs of women and the marginalization of poor groups.

A reading of the 1990 CARICOM TVET policy document as well as the document for Trinidad and Tobago (Trinidad and Tobago, 1995) reveals the reason why this predicament repeats itself. It is because planning is done without reference to a theory of development relevant to this part of the world. What is the history of the relationship with technology in this part of the world? How are technological capabilities built? What is the relationship between private sector firms and their technologies? Does the region possess cultural strengths in different fields which need to be converted into technological capabilities for producing and selling goods? How would education at different levels contribute? It is important to remember that Britain became the “workshop of the world” long before public education became institutionalized by the Foster Act of 1870. Without an attempt to articulate and answer these questions, the question of how to prepare people for the world of work will always be asked anew, with naivety, every decade or so. This is the result of advocacy without analysis.

A second and related issue is the way attention is focused on the post-secondary system whenever questions about education for productivity or work arise. If employability and appropriate attitudes are the key attributes sought by employers, then it is necessary to re-examine the experience of education for the broad mass of children in the Caribbean, especially as these countries are all now aiming at universal secondary education. If the experience reveals that not only are they not ready to face the world of work, but that large numbers of children do not achieve basic numeracy and literacy at the end of primary school, and achieve little by way of examination results at the end of secondary education, then the whole system of schooling requires radical re-examination. Moreso, if the experience of failure in the school system is so great that some children may have been made dysfunctional by their experience of schooling and require social rehabilitation. The experiences of both HEART Trust/NTA and SERVOL testify to this.

Consequently, in the CARICOM document of 1990 and the Trinidad and Tobago document (1995), there are some muted references to indigenous industries, entrepreneurship, and the negative regard for agriculture. These cannot be dealt with in a piecemeal fashion. The area of indigenous entrepreneurship requires study to ascertain the constraints facing these entrepreneurs and the factors which would facilitate their success. The point is that the higglers of the Caribbean, the calypsonians, the reggae artistes, and the panmen have all been perfecting their products and penetrating foreign markets despite lack of support at home, if not outright neglect and resistance. Is there an adequate enough understanding of the socio-cultural factors which impinge on these areas to be able to foster more growth?

To empower more children within the formal education system is likely to require, at minimum, a two-stage approach: (a) a radical intermixing of the academic and work-related curriculum as argued for by Theodore Lewis (1997) and, more extremely, by Lloyd Best (1996); and (b) a curriculum that produces a stronger sense of self-affirmation and cultural confidence. These approaches may shift output and trade into non-traditional areas.

Given such changes at the level of formal secondary schooling, then the recommendation of the CARICOM document (1990), for an NTA supervising and coordinating a national technical/vocational system, seems necessary. However, such a national system for post-secondary education would only make sense within a national technology policy. An NTA within the context of a national technology policy would exercise the authority to coordinate and to conduct research, quality control, and accreditation. HEART Trust/NTA is a relevant example in this respect.

The need for labour market studies to provide information about the needs of industry and, thus, training needs to be filled, must be addressed. This point is raised by the CARICOM 1990 document. Whereas countries seem to be considering the need to alter curriculum for the post-industrial workplace, Lewis (1997) argues that the reality of the workplace remains that a large number of jobs require little education and skill. Entire economies are not transforming into the post-industrial mode. Labour market studies would provide empirical data on the nature of jobs available in the economy. Within this framework of ideas on the way forward, HEART Trust/NTA retains great relevance as a model, as does SERVOL as an NGO model catering to the grassroots level. The SJJ, SFTI, and the JDTI require modification if they are to survive into the future.

Three additional issues, which have already surfaced, will have to be addressed in the future:

1. Private sector involvement is necessary to ensure the sustainability of any technical/vocational education arrangement from the standpoint of curriculum, staffing, and financing. However, more private sector involvement usually means limited access since a fee system is normally instituted. There is a conflict, therefore, between such efforts at privatization and opening access to the poor and underprivileged.
2. There seems to be strong gender specialization within technical/vocational operations, with females flocking to some courses and males to others. In most cases, the males are over-represented in the trades and engineering fields. This bias needs to be addressed.
3. At the level of the post-secondary technical institutes such as JDTI and SFTI, the emerging approach to curriculum is towards some degree of liberalization of the curriculum. Instead of a singular focus on purely technical concentrations, the addition of a general education component is being introduced. This approach, while educationally sound, would make the technical/vocational route less attractive to low achievers in the academic range of subjects. This may require mechanisms of remediation to be instituted if this approach is to be productive.

3.5. Recommendations

1. Within the context of the CARICOM strategy for technical/vocational education, the HEART Trust /NTA is a useful model of an NTA managing a technical/vocational system.
2. The SERVOL model is extremely relevant to school dropouts in the context of depressed areas.
3. The technical institute models have to be modified if they are to remain viable. They must be made more dynamic and responsive. Private sector involvement would be one option.
4. It is necessary to contextualise thinking about technical/vocational education in terms of the nature and evolution of Caribbean economy and society and a proposed conception of development.
5. It is necessary to re-think the concept of schooling at the secondary level in these countries.
6. There is need for a clearer focus on entrepreneurship and indigenous possibilities for production.
7. There is a need to improve the status of technical/vocational education and training in preparing people for employment.
8. Gender biases in the pattern of registration throughout the countries have to be addressed, with a specific view towards including women in the engineering and other high-tech skill areas.

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