

# **MEETING THE NEEDS FOR THE EMPLOYMENT MARKET**

## **A CXC APPROACH**

.

**COMMONWEALTH CARIBBEAN REGIONAL  
CONFERENCE**

**Trinidad and Tobago**

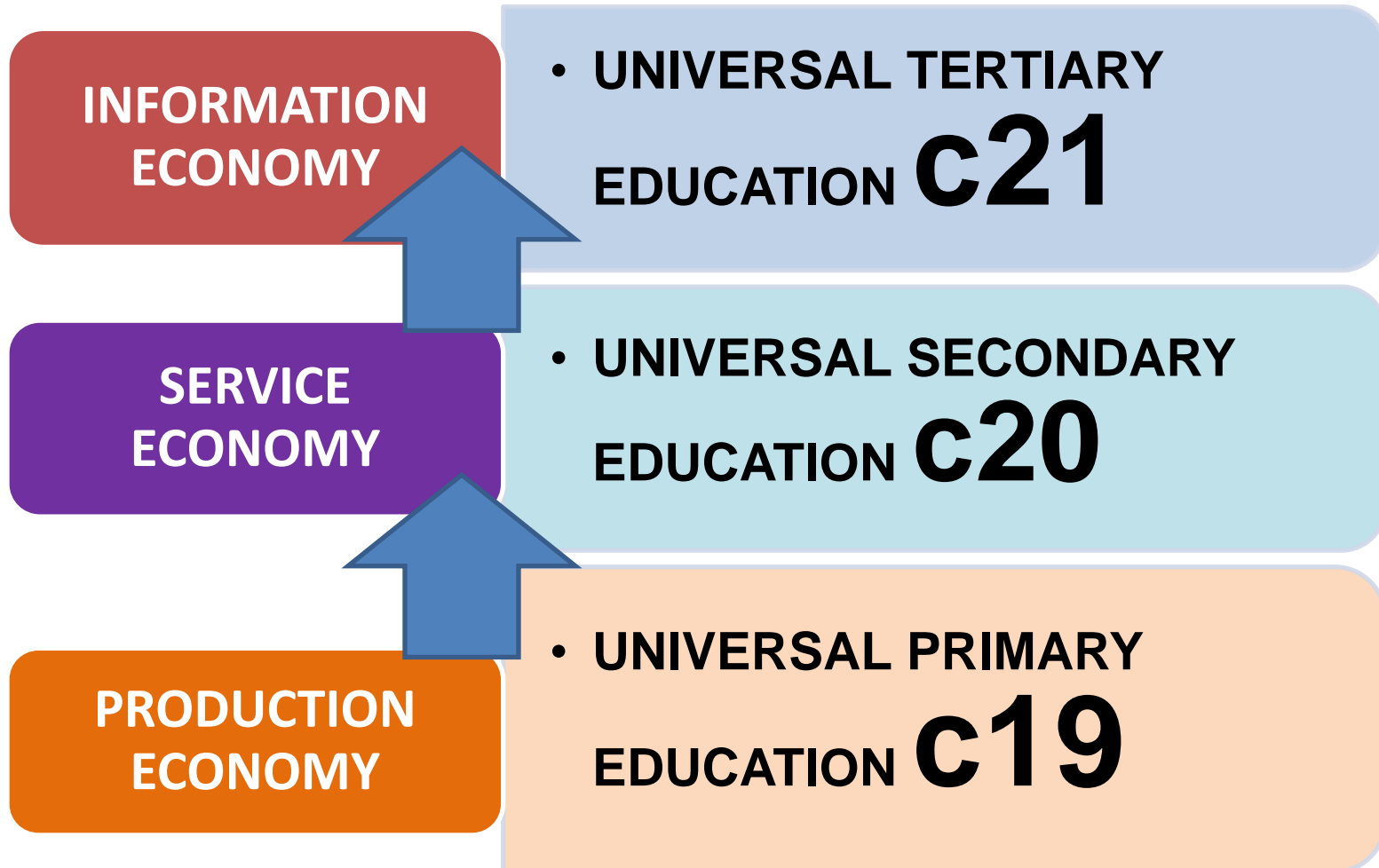
**24-26 May, 2011**

**“Investing in Youth”**

**Exploring strategies for sustainable employment**

- **Take a strategic view of the challenge**
- **Revision education to ensure that it is shaped to the contemporary and future needs of Caribbean Society**
- **Improve performance in the education system**
- **Articulation of certification at all levels and with requirements of the world of work**

- Education has provided the human resource scaffolding that facilitated the modernisation thrust at every stage of our national/regional development



Take a strategic view of the challenges and accept that **education needs to be redefined**

- **Why: WE BELIEVE**

- 1. tinkering with the system no longer works; we need a new vehicle of human empowerment and social transformation.
- 2. implications of the internationalisation of education in a globalised world
- 3. rapid obsolescence of knowledge in the information revolution
- 4. our education system IS no longer working
- 5. education is too rapidly becoming a panacea for all problems

# **RE-DEFINING SECONDARY EDUCATION CXC BELIEVES WE MUST TAKE A SYSTEMATIC AND SYSTEMIC APPROACH**

- 1. agree on a philosophy of education in the contemporary Caribbean.
- 2. establish a seamless education system
- 3. Make learning fun
- 4. Attune our assessment to key competencies and global competitiveness.

# Comprehensive review of all subjects with focus on

- **critical thinking**
- **modernization of content**
- **stronger practical application of subjects**
- **international benchmarking**



***...what is education in C21  
Caribbean for?***

Skills	Non-routine cognitive: Analytical	Non-routine cognitive: Interpersonal	Routine cognitive	Routine manual	Non-routine manual Physical
Sub-skills	Analyzing data/information	Establishing and maintaining personal Relationships	Importance of repeating the same tasks	Pace determined by speed of equipment	Operating vehicles, mechanized devices, or equipment
	Thinking creatively	Guiding, directing and motivating subordinates	Importance of being exact or accurate	Controlling machines and processes	Spend time using hands to handle, control or feel objects, tools or controls
	Interpreting information for others	Coaching/developing others	Structured work	Spend time making repetitive motions	Manual dexterity  Spatial orientation



Skills	Non-routine cognitive: Analytical	Non-routine cognitive: Interpersonal	Routine cognitive	Routine manual	Non-routine manual Physical
Examples of occupations demanding high levels of these skills	<p>Lawyers, College, university and higher education faculty</p> <p>Teaching professionals, Public and private sector managers medical doctors,</p> <p>Training and development managers</p>		<p>Telephone operators, Bus drivers</p> <p>Bookkeeping, accounting and auditing clerks,</p> <p>meter readers - utilities, cashiers</p>	<p>Industrial truck operator Cutting and Slicing Machine Setters, Operators and Tenders,</p> <p>Shoe Machine Operators and Tenders,</p> <p>Food Cooking Machine Operators and Tenders,</p> <p>Construction Carpenters</p>	

Source: Acemoglu and Autor (2010)

useful guidance to how content should be taught in education and training programs.

To take a simple example, **non-routine skills** require modeling and practice of key processes: analysis, creative thinking and interpretation of information. These can be incorporated into teaching of any formal curriculum

Non-routine interpersonal skills can also be learned across the curriculum (even in sports and physical education) if the subjects are taught in ways that require the skills to be practiced and formative feedback is provided.

- **This suggests why the technical and vocational curricula and programs of the 1970s and 1980s are rapidly becoming less relevant. These were – and continue to be in many countries – focused on routine skills.**

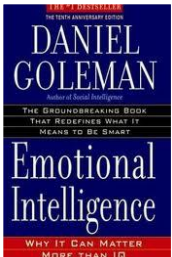
# CXC PHILOSOPHICAL & THEORETICAL BASE



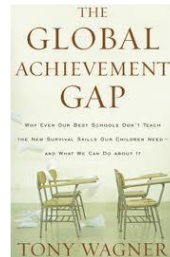
**The Ideal CARICOM Person, 1989:**  
**vision and purpose of education**



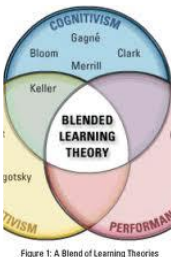
**UNESCO Pillars of Learning C21:**  
**specifies the abilities & competencies that ought to be developed.**



**Goleman's Emotional Intelligence**



**Wagner's Seven Survival Skills for the New Economy**



**Learning theories**



**European Union key skills for meeting the fundamental aspects of life**

# Informing Syllabus AND Examination Development

***Emotional Intelligences***  
(Goleman)

***Multiple Intelligences***  
(Gardner)

***Survival Skills***  
(Wagner)

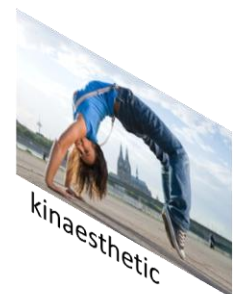
CARICOM  
*Ideal Caribbean  
Person*

UNESCO  
*Pillars of Learning in  
C21*

Interpolated by  
Learning  
Theories

**Behaviourism**  
**Cognitivism**  
**Constructivism**

To cater to  
Different  
Learning  
Styles



Subject	
Agric Science DA	2.0%
Agric Science SA	31.5%
Clothing & Textiles	26.0%
English A	100.0%
English B	20.0%
Food & Nutrition	10.1%
Home Econ Mgmt	6.1%
Information Tech	1.2%
Mathematics	96.8%
Music	0.8%
Office Admin	19.3%
POA	29.6%
POB	38.7%
Technical Drawing	9.3%
Theatre Arts	0.9%
Visual Arts	5.6%
EDPM	9.3%
Phys Education & Sports	4.6%
Building tech (Constr)	1.8%
Building Tech (Woods)	2.4%
Elec Tech	4.0%
Information Tech	22.4%

# In 2009 Caribbean Examinations Council

The most popular technical subjects were

- Principles of Business (38.7%),
- Agricultural Sciences (31.5%) and
- Principles of Accounts (29.6%),
- Information Technology (29.4%) and
- Clothing and Textiles (26%).
- Ten percent or fewer took other technical subjects.

The domains of the popular subjects require **routine cognitive skills**. Pass rates were about 50 percent.

Recognizing the employment skills required by Changing technology, CXC is revising technical Examinations to measure those skills.



# **REFORMING TVET**

**POLICY 2011**





# TVET POLICY MANDATE

- Develop a **policy framework**
- Document key components and policy imperatives necessary to ensure that **TVET** is **infused seamlessly into CXC's qualification framework**
- Chart **CXC's new direction in technical education**. Aimed at facilitating concerted and planned TVET actions
- Anchoring existing **good TVET practices**
- Facilitating **greater transparency and accountability of TVET operations** in institutions



## DEFINITION OF TECHNICAL VOCATIONAL EDUCATION & TRAINING

Technical Vocational Education and Training refers to those aspects of the educational process, involving in addition to general education **the study of technologies and related sciences** and the **acquisition of practical skills, attitudes, understanding and knowledge** relating to occupations in various sectors of economic and social lives

# RESPONSIBILITIES

CXC in collaboration with Regional Governments and Private Sector Organizations will:



Increase **access** to its TVET programmes



Make its **TVET** programmes **affordable**



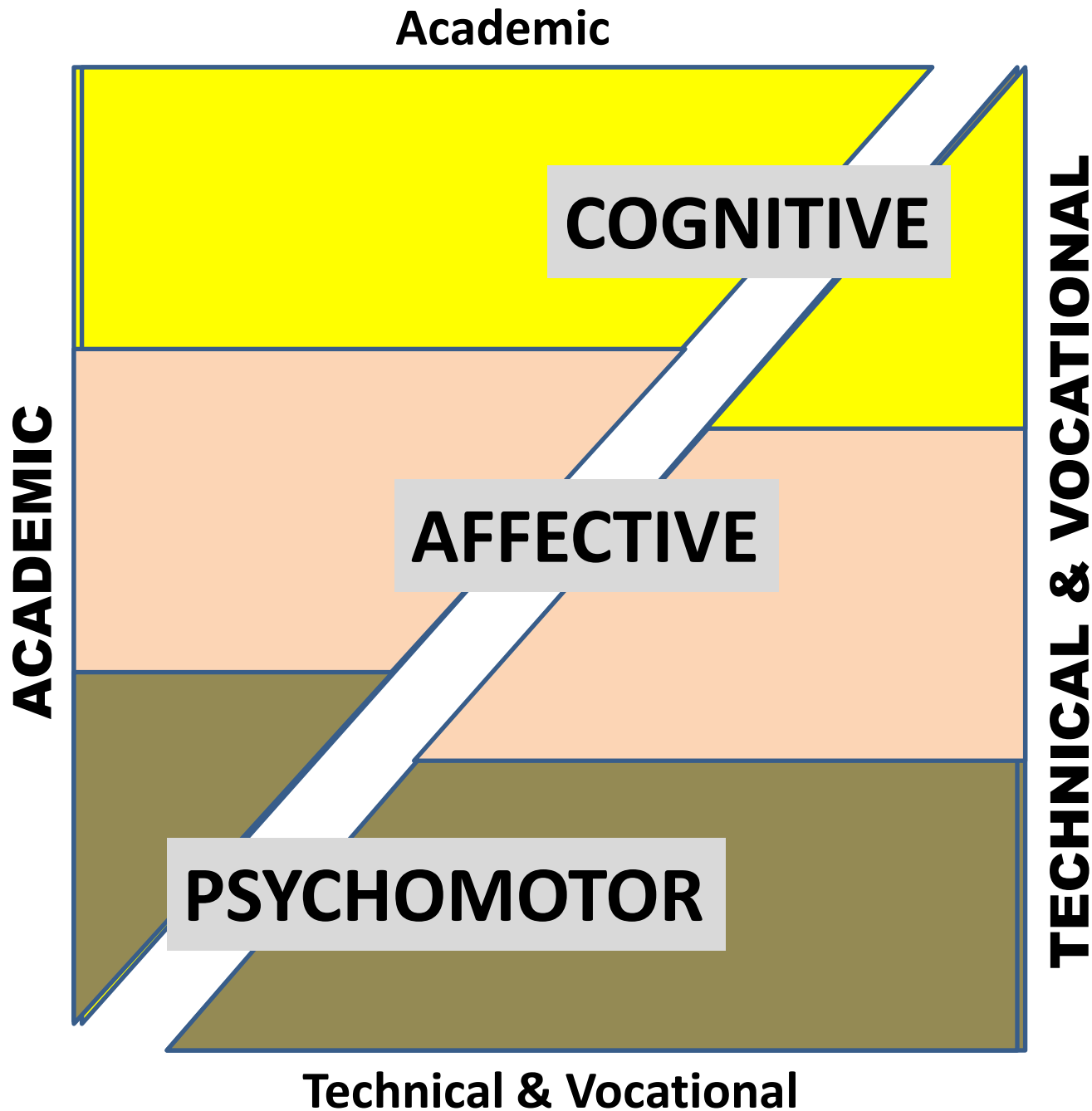
Make **provisions for** individuals with **special needs** and other vulnerable groups to access TVET programmes



Ensure that each TVET candidate **develops the necessary competencies** to perform well in TVET assessments



Ensure **appropriate infrastructure** is in place to support the delivery of CXC's TVET programmes



Learning  
distribution  
between two  
domains

Interpolate  
Middleton  
2011

# POLICY FRAMEWORK

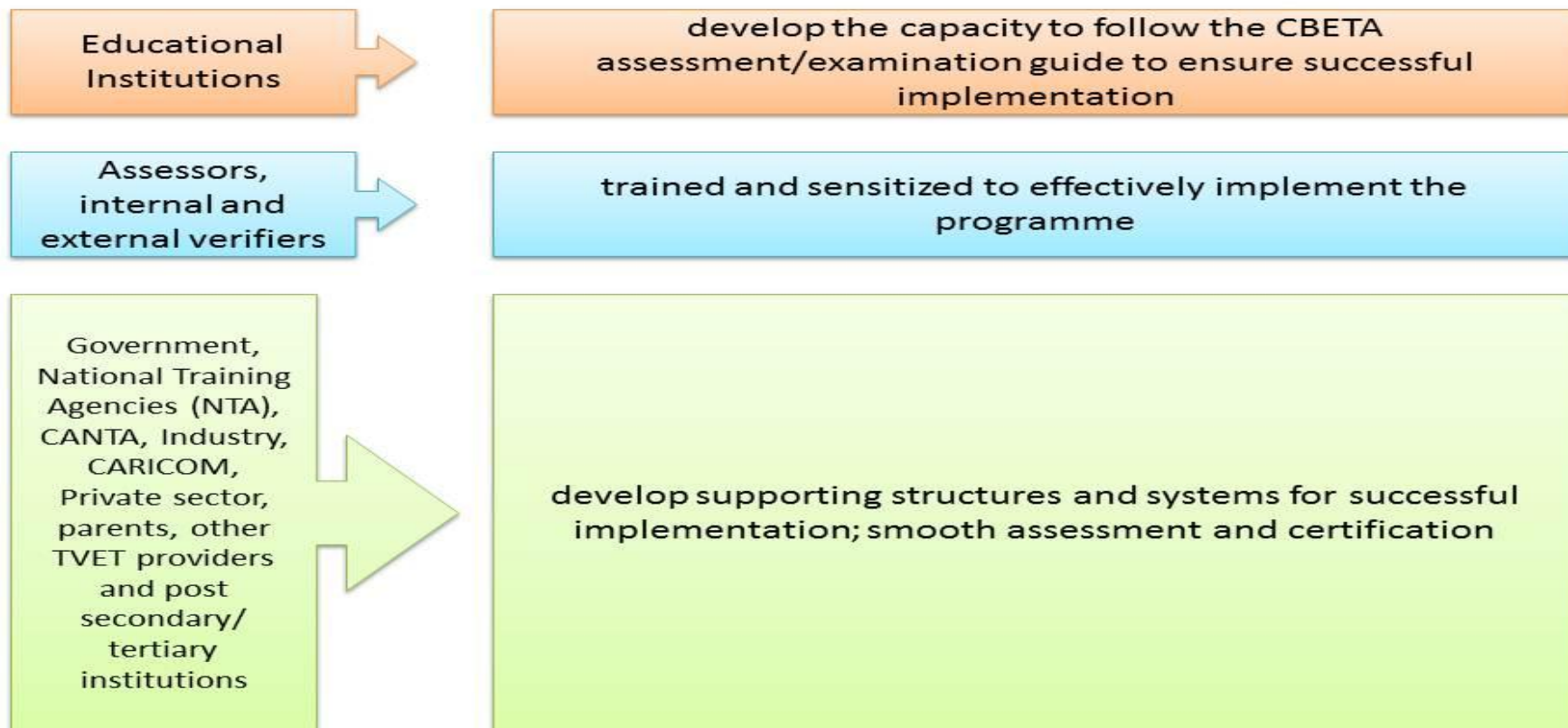




# POLICY VT01 – MANAGEMENT OF TVET PROGRAMMES

- A **strong governance and management structure** for valid and reliable assessment and certification
- **Competency based education, training and assessment** through curricula, standards and syllabi for specific programmes

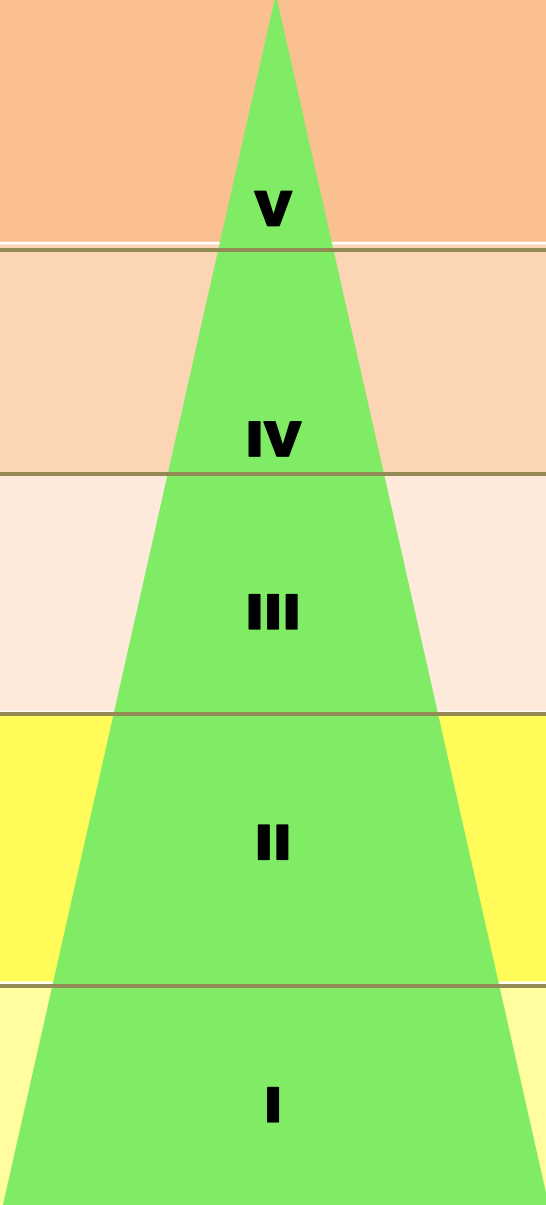
## PROPOSED STRUCTURE



# POLICY VT02 – STANDARDS & CURRICULUM DEVELOPMENT



- Design and implement TVET **curriculum based on prescribed standards** established by examining body
- Adoption of a **clearly defined Qualifications Framework**

Qualification	Qualifications Framework			Occupational Level
	Levels	Credits	Descriptors	
Second Degree	 V	<b>480</b> (=120 level 5 + 60 level 4 + 60 level 3 +120 level 2 +120 level 1)	Recognition of high professional knowledge, expert work and study competencies and the performance of these at the senior manager and professional levels	Advanced professional Chartered professional (Senior Manager)
First Degree		<b>360</b> (= 60 level 4 + 60 level 3 +120 level 2 +120 level 1)	Recognition of high specialized and expert work and study competencies and skills and the performance of these in a wide range of contexts. This includes at managerial, master craftsman, entrepreneurs, and technologists	Manager Master Craftsman Technologist (Para Professional)
Associate Degree/ Diploma		<b>300</b> (= 60 level 3 +120 level 2 +120 level 1)	Recognition of the ability to achieve detailed work and study competencies and skills and the performance of these with autonomy. Can perform supervisory work. Equivalence: CVQ 3, CAPE Units, GCE A Level, City & Guilds 3	Technician (Supervisor)
Certificate		<b>240</b> (= 120 level 2 +120 level 1)	Recognition of the ability to achieve a very good comprehension of work and study competencies and skills and the performance of these under minimal supervision or guidance. Equivalence: CVQ 2, NVQ 2, CSEC 1 - 3, GCE A - D, CCSLC 5 subjects – Competent /Mastery, City & Guilds 2	Skilled worker (Unsupervised)
Certificate		<b>120</b>	Entry level qualification that recognizes preparatory competencies and skills, and the application of these in everyday situations under direct supervision. Equivalence: CVQ 1, NVQ I, CSEC 4 – 5, CCSLC (individual subjects), City & Guilds 1	Entry-level worker (supervised)



# GRADE DESCRIPTIONS

Competency Status	Total of the General Assessment, Formative and Summative SBA Portfolio	Rating scale
Mastery	100 – 90	1
Proficient	89 - 70	2
Competent	69 - 50	3
Developing Competency	49 – 39	4
Not Yet Competent	38 – 25	5
Not yet Competent	Below 24	6

# ASSESSMENT

## CXC will:

- enhance its current assessment process to **improve the practical component** ensuring that the evidence provided is in line with the standards prescribed.
- Modify the Schools Based Assessment and Teachers' Assessments (TAs) to become **more evidenced based** and facilitate **continuous assessment**.
- Reflect this modification in the offering of **the CVQ as the SBA and TA component** of its technical subjects.

This approach will therefore provide the opportunity for candidates to be certified in CSEC and CVQ and at the higher level in CAPE and CVQ.

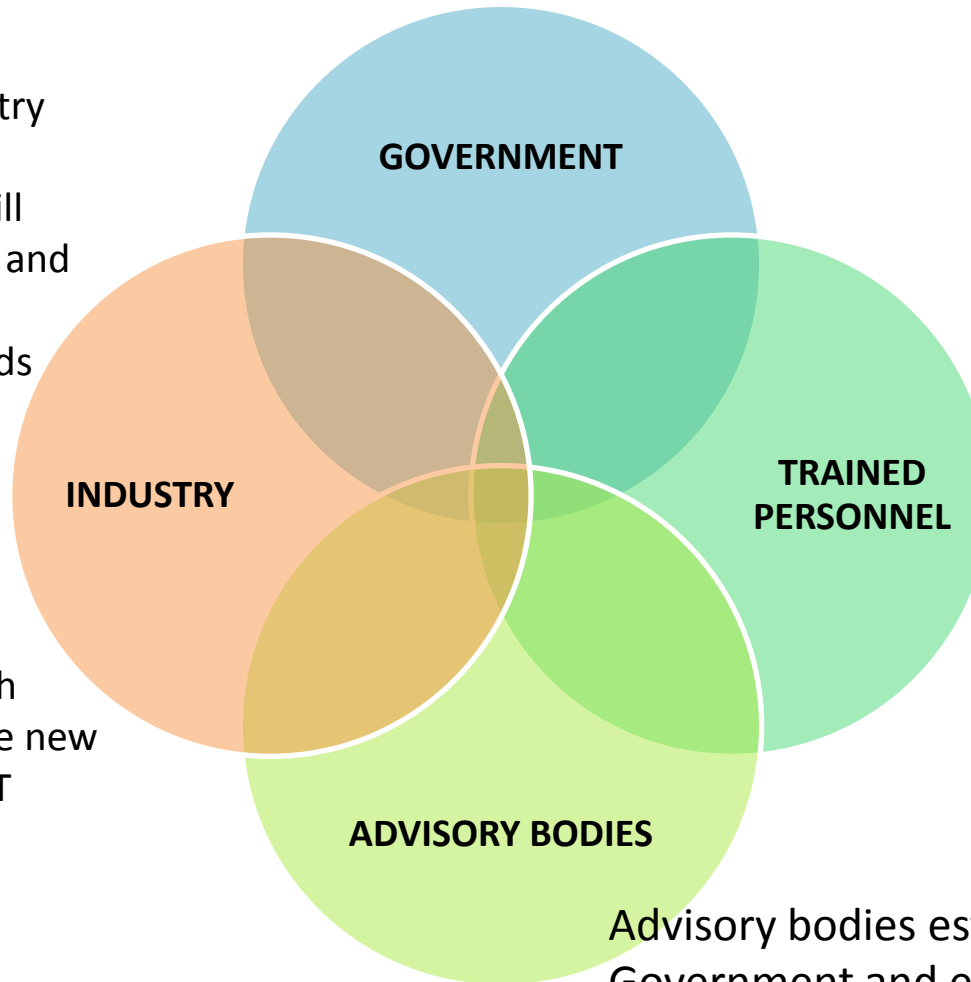
## POLICY VT04 – CAPACITY BUILDING; PEDAGOGY; QUALIFICATIONS

The Ministry will ensure that all teachers in TVET programmes **undertake annual professional development in the relevant TVET areas** to ensure that they remain current with best practices in the areas.

Staff providing TVET education **must have the relevant industrial experience**, in addition to their technical qualifications

# POLICY VT05 – RELATIONSHIPS & PARTNERSHIPS

Engagement of Industry  
Lead Groups whose  
terms of reference will  
include identification and  
regular review of  
occupational standards



Strategic linkages with  
industry regarding the new  
approach of CXC TVET  
courses

Investment in TVET  
in terms of  
continued support  
and provision of  
trained personnel

Advisory bodies established to advise CXC,  
Government and educational institutions  
on the currency of courses

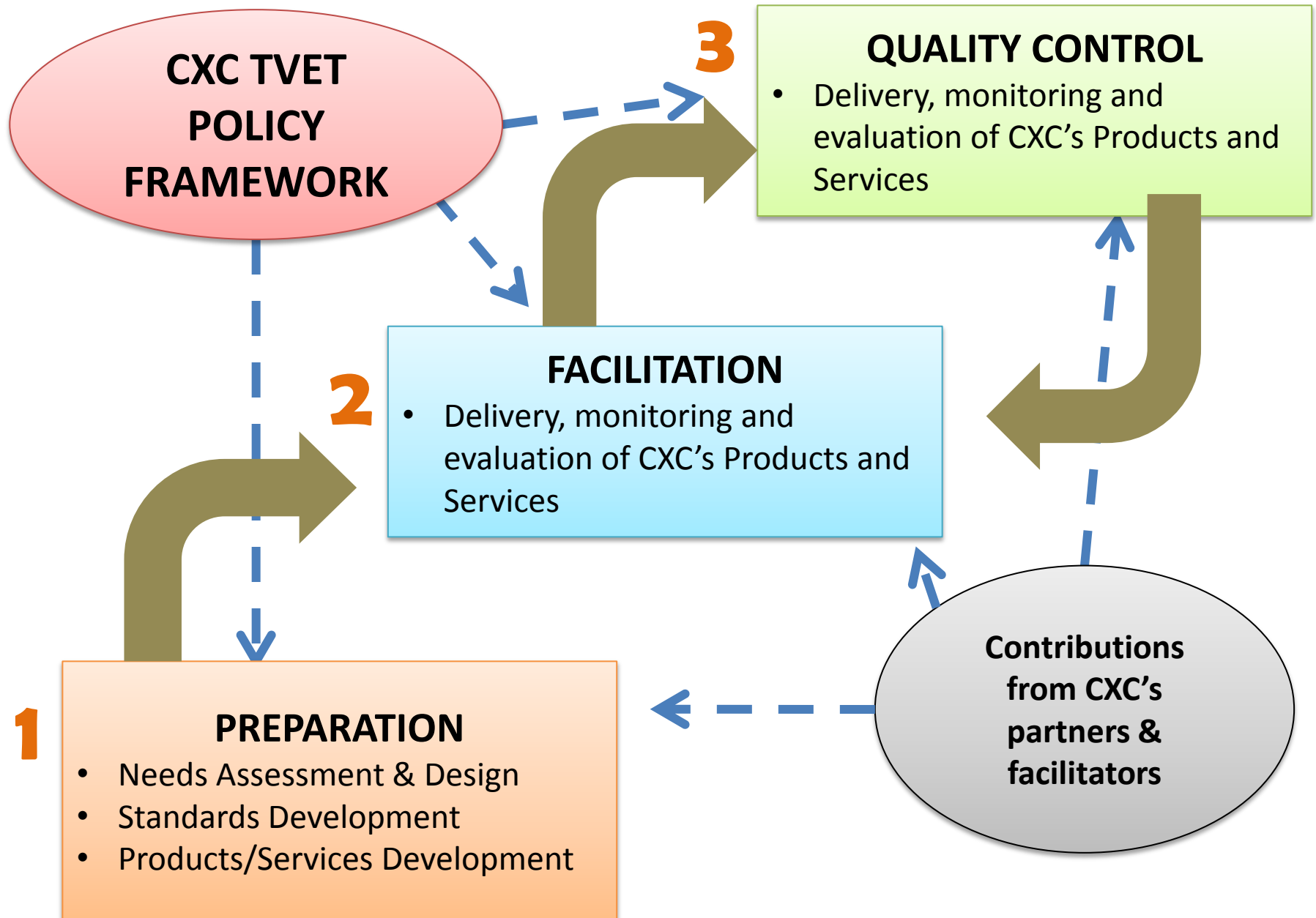
# POLICY VT06 – FINANCING TVET

Improvement in the governance structure of the secondary system to **include enterprises, industries and private sector** increased involvement in governance and decision making of TVET in the institutions.

Allocation of a **one half percent** of NTAs/Local TVET Council funding and other institutions as cost recovery activities **for retooling and retraining of staff.**

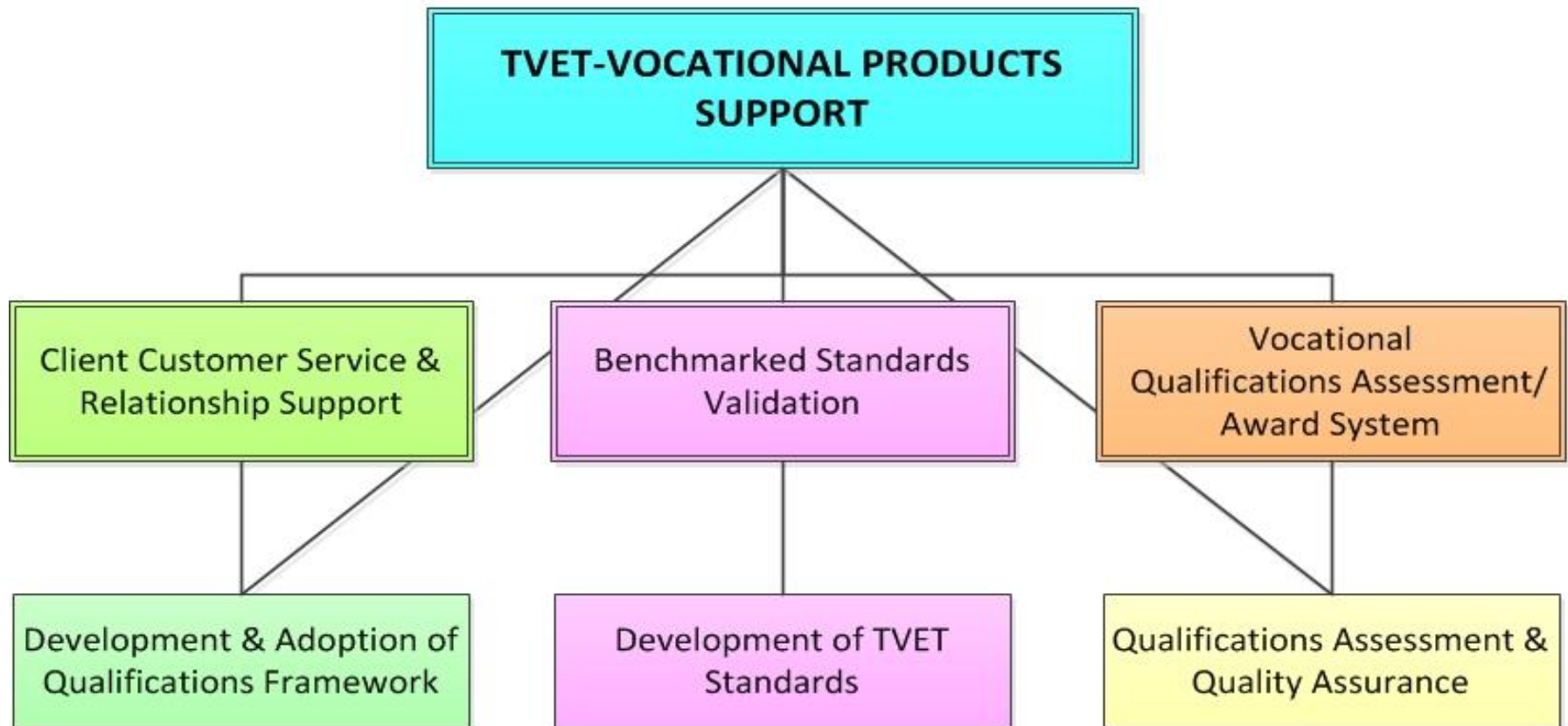
Regional Governments and Ministries of Education to seek **local funding support for scholarships/ fellowships** to outstanding TVET students and teachers and to provide **loans to parents/students** thus enabling them to contribute equally to the investments in TVET

# POLICY VT07 – M&E; REVIEW & SUPPORT SYSTEMS



# SUPPORT SYSTEM

The suggested critical support systems for development, enhancement and maintenance of quality TVET product offerings are shown in the diagram below:



**TVET POLICY  
IMPLEMENTATION PLAN  
2011- 2014**



# PROJECTION OF IMPLEMENTATION & COMPLETION TABLE

OBJECTIVES	2011	2012	2013	2014
Provide a Policy framework for TVET activities related to curricula/syllabus development resources, assessment and certification in CXC				
Provide the basis and or framework for articulation between CSEC (TVET) & CVQ offerings				
Provide guidelines for the management and coordination of assessment and certification of TVET offerings in Caribbean Schools				
Ensure a clear articulation of TVET courses and programmes into post-secondary schools				
Address the TVET needs of the widest cross section of the student population				
Promote strategic linkages with TVET partners in the region				
Assist in rebranding TVET programmes				
Facilitate the provision of adequate teaching and learning resources in schools				

# CCSLC STRUCTURE: A Strong Foundation

## 2 COMPULSORY SUBJECTS:

CCSLC English

CCSLC Mathematics



## 3 OPTIONS FROM ANY GROUP:

Other CCSLC Subjects

Integrated Science  
French or Spanish  
Social Studies

CSEC TVET – Bus. Studies  
G I-G IV

CSEC Creative Arts  
G I-G IV

TVET from other Boards

City & Guilds  
Heart/NTA  
Royal College of Music

CVQ Level 1

**One** Locally certified  
enrichment

Citizenship Education  
Community Service

CCSLC offers an inclusive framework to embrace a holistic cluster of knowledge, skills and competencies

# CCSLC KNOWLEDGE

- a foundation for further education and training;
- expanded opportunities for entry-level employment;
- opportunity to articulate with other programmes such as the Caribbean Secondary Education Certificate (CSEC®) programme and Technical Vocational Education & Training (TVET).

# CCSLC Competencies

- Oral and Written Communication
- Mathematical Literacy
- Problem Solving
- Critical Thinking
- Informed Decision Making
- Management of Emotions
- Working in Groups
- Diversity and Change
- Handling Conflict
- Development of Positive Self Concept
- Social and Citizenship Skills

# Attitudes & Values

- a positive image of self, family, community, region and the world;
- respect for others irrespective of age, class, creed, gender, ethnicity, physical abilities or nationality;
- a dislike for violence in all its forms;
- the capacity to understand that individual freedom is consonant with the acceptance of personal responsibility for one's own actions;
- commitment to ethical and moral societies

# **DEVELOPMENT OF NEW CAPE SUBJECTS**

## **2011-2012**

- **Physical Education and Sport**
- **Performing Arts**
- **Recreation and Tourism**
- **Agriculture**
- **Entrepreneurship**

# **Syllabuses will be developed using**

- **the Competency-Based Training and Assessment (CBETA) Approach.**
- **with other courses at the CAPE level will equip persons with the knowledge, skills and competencies needed for further studies as well as to prepare them to be entrepreneurs.**
- **Expand the offerings in CXC Associate Degrees in technical and vocational areas**

# **Regional Top Awards for Outstanding Performance in the**

- 1. Most Outstanding Candidate Overall in the Region in the Caribbean Secondary Education Certificate (CSEC)**
- 2. Most Outstanding Candidate in Business Education**
- 3. Most Outstanding Candidate in Humanities**
- 4. Most Outstanding Performance in Visual Arts, 2-Dimensional work**
- 5. Most Outstanding Performance in Visual Arts, 3-Dimensional work**
- 6. Most Outstanding Candidate in Technical/Vocational Education**
- 7. Most Outstanding Candidate in Sciences**
- 8. Best Short Story in the English A**
- 9. CSEC School of the Year for producing the Most Outstanding Candidate Overall**



# **REGIONAL Top Awards for Outstanding Performance in CAPE**

- 1. Most Outstanding Candidate Overall in the Region**
- 2. Most Outstanding Candidate in Humanities**
- 3. Most Outstanding Candidate in Technical Studies**
- 4. Most Outstanding Candidate in Business Studies**
- 5. Most Outstanding Candidate in Natural Science**
- 6. Most Outstanding Candidate in Modern Languages**
- 7. Most Outstanding Candidate in Information and Communication Technology**
- 8. Most Outstanding Candidate in Environmental Science**
- 9. Most Outstanding Candidate in Mathematics.**
- 10. CAPE School of the Year for producing the Most Outstanding Candidate Overall**

# CARIBBEAN PRIMARY EXIT EXAM

a

b

c

d

## **What is CPEE?**

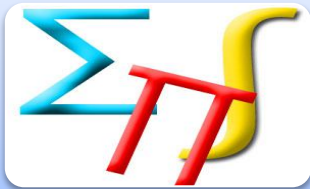
- **An assessment of the literacies required by all pupils exiting the primary school system**

# WHY?



- ☐ to assist with the quality measures in the primary education system
- ☐ To offer a common measure across schools and territories in the region
- ☐ To meet the calls for regional assessment at the primary level

# As Literacies



Mathematics



Language



Science



Problem Solving and Critical  
Thinking

# Assessment



what students  
know, can do and  
understand

utilize different  
modes – linguistic,  
kinesthetic

done over time

internal and external

Literacies	Multiple Choice	Open-ended	Projects
Mathematics		✓	✓
Language	✓		✓
Science	✓		✓
Problem solving/ Critical thinking			✓

Literacies	Internal	External
Mathematics	✓	✓
Language	✓	✓
Science	✓	✓
Problem solving/ Critical thinking	✓	

# CXC SOCIAL NETWORKING ARCHITECTURE



Exam cohort  
School cohort  
Youth demographic



Governments  
Employers  
Parents  
Teachers  
Students  
All ages demographic  
General Public



Teachers  
Students

# Education facebook + wikipedia

FEATURES

Groups networking

Chat/IM/video call

Syllabus focus

Online practice tests

Twitter like

## Communities:

- class
- School
- subject
- exam
- country
- region

## Knowledge base:

- syllabus
- teacher generated/  
peer reviewed
- online sources



# Advice and recommendations...

- “*look for models that work in our region...*”
- The architecture of delivery... **convergence** (*not necessarily **harmonization***) of effort and delivery...
- Preparation for world of work: **getting education RIGHT**... its not remediation; its doing it right first time around!

# Ultimately

- **an education system is only as good as its teachers**
- **teacher beliefs and teacher practices**
- **where we will find the beginning of the answer to the central question**

- depends **less** on CXC
- depends **MORE** on the nature of the interactions between students and teachers
- depends **MORE** on the attitudes and beliefs of teachers and students In classes and Out of classes
- we **must** increase our level of self-critique so as to go outside the box of the syllabus and examination to genuinely relate to lives of our students?

- If we believe that **full autonomy** is really in the beliefs and practices that operate in our teachers and our schools, I propose that this gathering should pay some attention to this issue.

## MEETING THE NEEDS FOR THE EMPLOYMENT MARKET: A CXC APPROACH

Our approach in the Caribbean to this issue has been largely compensatory and remedial. In the face of large percentages of unemployed youth in the region and given the poor performance at secondary level, we have tended to focus on short-term fixes that we hope will have immediate impact on employment

CXC's approach is to take a strategic view of the challenge

**1. Revisioning education to ensure that it is shaped to the contemporary and future needs of Caribbean Society**

comprehensive review of all subjects with focus on critical thinking, modernization of content, stronger practical application of subjects and international benchmarking

development of online portals for improved teaching and learning - Notesmaster.com

Stronger teacher preparation for more effective delivery of syllabi - teacher certification in the teaching of every CXC subject

Reshaping the SBA to make them more exciting, more practical, more collaborative

new TVET policy prepared by top level working

stronger alignment of technical subjects at CSEC and CAPE with CVQs

CVQs as SBA for CSEC and CAPE

CCSLC as a foundational program that brings academic foundation together with range of other skills and programs

**2. Improving performance in the education system**

**3. Articulation of certification at all levels and with requirements of the world of work**

urgent need for regional and national agencies engaged with youth to agree on a strategic framework predicated on a holistic approach to education and training (in both the formal and informal spheres)

in context of this framework to establish the most synergistic partnerships with each agency bringing a particular expertise/area of concentration to the mix

Future Direction

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