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Halden A. Morris, Ph.D., P.E.



## **STRAND:**

**Teacher education: A catalyst/mechanism for advancing education**

## **TOPIC:**

**Preparing Educators in TVET for Building Human Capacity in the Caribbean**

Halden A. Morris, Ph.D., P.E.  
School of Education, Mona

# Outline

- Definitions
- Significance of TVET
- Role of TVET in schools
- Why focus on Training of TVET teachers
- TVET Teacher Training Modalities
- Trends in TVET Teacher Training
- Strategies for TVET Teacher Training
- Meeting the needs of diverse groups
- ICT in TVET Teacher training
- Expanding the knowledge base in TVET
- Standards for TVET Teacher Training



# Outline Cont'd

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- Competencies for TVET Teachers
- TVET Teacher Activities
- Maintaining and extending industry currency
- Supplying TVET Teachers in Jamaica



# Vocational Education Defined

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Organized educational programmes which are directly related to the preparation of individuals for paid or unpaid employment, or for additional preparation for a career requiring other than a baccalaureate degree  
(Calhoun and Finch, 1982)

# Technical Education Defined

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A curriculum which requires the individual to “understand and apply various levels of mathematics and science appropriate to the occupation. ....The science and mathematics requirement is more advanced than that required for a middle-type craft or skilled-trades occupation (Calhoun and Finch, 1982)



# TVET Defined

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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 life. (UNESCO, 2001)

# TVET Defined

TVET also refers to "deliberate interventions to bring about learning which would make people more productive (or simply adequately productive) in designated areas of economic activity (e.g., economic sectors, occupations, specific work tasks)".



# Significance of TVET

- More than 80% of all work in the world are TVET related or depends on TVET (UNESCO, 1980).
- Both formal and informal education involves TVET.
- TVET is preparation for the world of work.
- TVET facilitates Life-Long-Learning.
- TVET is a catalysis for National Economic growth.




# Role TVET in Schools

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- TVET in schools is expected to play a key role in keeping young people engaged in education and in providing pathways to skilled work and economic independence.
- TVET provides an opportunity for students to get an understanding of what the world of work is about and for them to make preparations to participate in it.

# Why focus on Training of TVET Teachers

- Professionalizing TVET
- Improving quality
- Improve capacity of TVET delivery
- Build awareness of the importance of TVET
- Leveling the playing field in teacher education



# TVET Teacher training Modalities

- Pre-service
- In-service.

# Trends in TVET Teacher Training

## INCREASING DEMANDS:

Demands on TVET teachers and trainers are increasing as:

- Work changes,
- Technology changes,
- Skill requirements increase,
- New industries emerge, and
- Social dynamics changes



# Trends in TVET Teacher Training

## CRITICAL SKILLS:

TVET is now required to ensure students have:

- The knowledge and skills they need for work;
- Adequate language, literacy and numeracy skills and foundations skills
- 'green' skills needed for a sustainable economy and society;

# Trends in TVET Teacher Training

## SPECIFIC SKILLS:


TVET is now required to ensure students have:

- Technological skills;
- Employability skills;
- Entrepreneurial skills and,
- The knowledge and skills they need for further learning.

# Trends in TVET Delivery


<b>FROM</b>	<b>TO</b>
<b>Teaching - centered Learning</b>	<b><i>Facilitation centered</i></b>
<b>Teacher - centered</b>	<b><i>Learner - centered</i></b>
<b>Reproductive learning</b>	<b><i>Productive learning</i></b>
<b>Behaviourism</b>	<b><i>Constructivism</i></b>
<b>Time based</b>	<b><i>Outcomes - based</i></b>





# Strategy for Effective TVET Teacher Training

- Renew and modernize the system of professional development and training.
- Support continuous reform of TVET
- Achieve higher levels of pedagogical skills and competencies of teachers.
- Setting foundations for continuing education and life-long learning.



# Strategy for Effective TVET Teacher Training

- Implement systems to support diverse groups.
- Incorporate ICT in the delivery process.
- Reinforcing the concepts of education for sustainable development (ESD) and environmental protection into professional development and training programmes.

# Strategy for Effective TVET Teacher Training

- Provide opportunities for trainees to access industrial attachments.
- Provide state-of-the-art facilities for training teachers. These facilities must be comparable to what obtains in the field.
- Employ suitably qualified trainers to deliver at all levels. These persons should be equipped with appropriate experiences.

# Diverse Groups

- Disadvantaged backgrounds.
- Those who are already skilled to gain higher level or different skills.
- Young people entering the workforce.
- Older people who want to stay in the workforce.
- Persons who wish to pursue higher education.

# ICT in TVET Teacher Education

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- Still limited use because:
  - inadequate capacity development,
  - poor access and connectivity,
  - localization,
  - inadequate customization and
  - Inadequate content development

# ICT in TVET Teacher Education

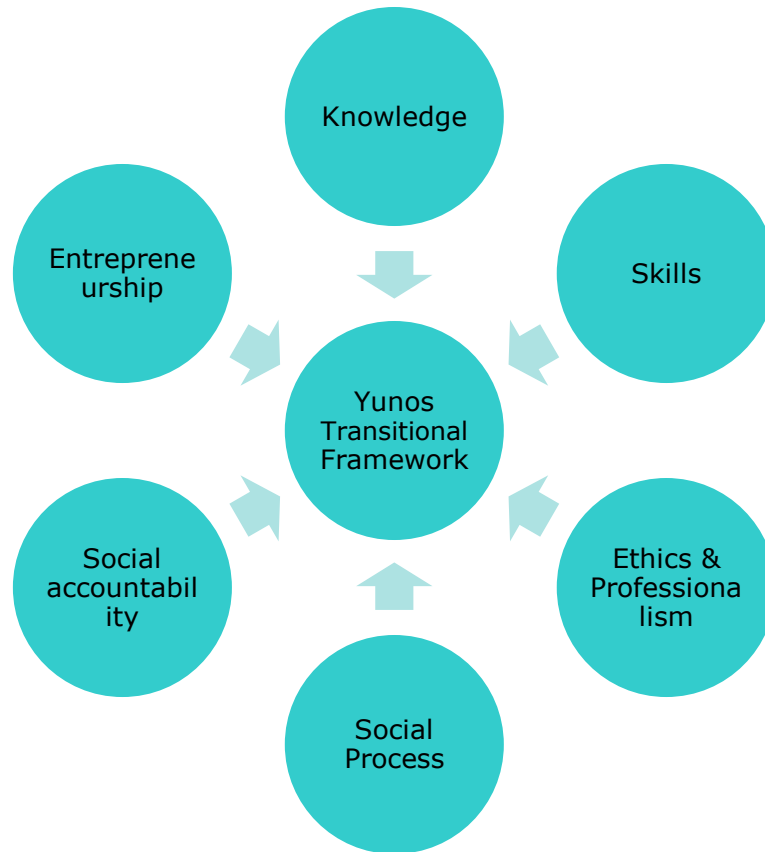
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- Anticipated increase utility of information and communication technologies (ICTs) in education and training.
  - On line teaching
  - Simulations
  - Competency based assessment
  - Self paced instruction and training

# Expansion of the knowledge base in TVET

- Many TVET practitioners are contributing to the availability of information and data on TVET through research and other data gathering mechanisms.
  - Computer-aided design
  - Just-in-time management of inventories
  - New and enhanced telecommunication services

# Standards for TVET Teaching and Training





# Actions Taken to Establish TVET Teacher Standards

- Formation of National Councils on TVET.
- Empower university Council to accredit institutions.
- Incorporation of the views of industry in establishing standards.



# Emerging TVET Teacher Qualification Standards

- Planning, Conducting and Evaluating Teaching Lessons and Instruction
- Providing Occupation-related Learning Environment, Materials and Media
- Assessment
- TVET Institution/School Management



# Emerging TVET Teacher Qualification Standards

- Curriculum Development and Evaluation
- Guidance and Placement of Students
- Public Relations
- Research
- Professional Development

# Competencies of TVET Instructors & Trainers

- An understanding of occupational profiles and content of the occupational field.
- An understanding and analysis, shaping and organization of work processes,
- providing methodological competencies which are needed and the changes that occur in the occupation.

# Competencies of TVET Instructors & Trainers

- An understanding of the object of professional work. Instructors must understand the processes and nature of the work and work environment, not just the subject area.
- An understanding and analysis, shaping and organization of occupation-related learning processes.

# Competencies of TVET Instructors & Trainers

- TVET instructor must use their knowledge of the culture, economy and context to develop learning environments which are appropriate for the occupational field.
- TVET instructor must include the definition of educational goals, the selection of appropriate content and methods of teaching.



# Competencies of TVET Instructors & Trainers

- Possess the ability to apply appropriate procedures for examination and assessment.



# TVET Teacher Activities

- Knowledge of industry placement
- Concurrent employment in industry and the RTO
- Industry and professional association membership.
- Attending conferences, professional workshops and industry specific development programmes





# TVET Teacher Activities

- Attending professional development activities run by industry skills alliances
- Researching best and new practice and general research
- Subscribing to professional journals and publications.
- Applying for sponsored corporate teaching awards and scholarships

# TVET Teacher Activities

- Networking with industry mentors, employers and other trainers
- Talking to students about practices and job roles in their workplaces
- Conduct industry specialist visits, industry site visits and study tours .
- Undertaking specific training courses in new equipment or skill sets.



# TVET Teacher Activities

- Work shadowing
- Fulfilling industry licensing or regulatory requirements.

# Maintaining and Extending Industry Currency

- Industry engagement
- Understanding of big-picture developments in the industry.
- Understanding of the whole industry sector, not just one section of it.
- Global trends in the industry and the economy as a whole.

# Maintaining and Extending Industry Currency

- Understanding of developments in the ways in which companies organize their businesses.
- Perhaps there is a need to reconfigure training – focus on persons with industrial/commercial experience and qualifications

# Supplying TVET Teachers - Jamaica

## UTECH Pre-Service

AREA OF SPECIALIZATION	NUMBER per YEAR			
	2009	2010	2011	2012
<b>Business Studies</b>	<b>42</b>	<b>43</b>	<b>24</b>	<b>35</b>
<b>Computer Studies with Accounting</b>	<b>6</b>	<b>19</b>	<b>8</b>	<b>6</b>
<b>Construction Technology</b>	<b>24</b>	<b>9</b>	<b>11</b>	<b>17</b>
<b>Electrical Technology</b>	<b>20</b>	<b>6</b>	<b>16</b>	<b>10</b>
<b>Home and Consumer Studies</b>	<b>29</b>	<b>18</b>	<b>23</b>	<b>28</b>
<b>Mechanical Technology</b>	<b>6</b>	<b>6</b>	<b>11</b>	<b>5</b>
<b>Office Systems Technology</b>	<b>18</b>	<b>9</b>	<b>9</b>	<b>14</b>
<b>TOTALS</b>	<b>145</b>	<b>109</b>	<b>102</b>	<b>115</b>

# Supplying TVET Teachers - Jamaica

## Teachers' Colleges Pre-Service

AREA OF SPECIALIZATION	NUMBER per YEAR			
	2009	2010	2011	2012
<b>Business Studies</b>	<b>15</b>	<b>18</b>	<b>14</b>	<b>20</b>
<b>Computer Studies</b>				
<b>Home and Consumer Studies</b>				
<b>Industrial Arts</b>	<b>18</b>	<b>14</b>	<b>0</b>	<b>4/12</b>
<b>TOTALS</b>				

# Summary



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## **Preparing Educators in TVET for Building Human Capacity in the Caribbean**





Thank You

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**QUESTIONS**

# References

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