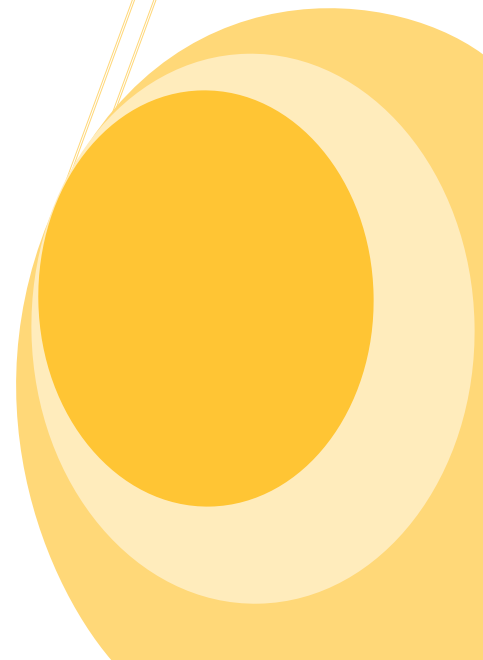


**Title: Technical Vocational
Instructor/Teacher Training (TVITT)
Challenges.**

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Technical Vocational Instructor/Teacher Training (TVITT) Challenges

Abstract

In this paper the authors seek to articulate foresight pertaining to the insurmountable challenges for the TVITT professors, lecturers and or instructors as they endeavour to develop the Technical Vocational Education and Training (TVET) Teachers/Instructor Pedagogical and Andragogical Cognitive delivery skills. The authors will implore the reader to view this paper through the prism of the Industry-Stakeholder partnership model for education and training. Central to the Industry-Stakeholder partnerships model is the empowerment of industry to provide nation-wide industrial training and TVET teachers/instructors in- service education and training. Among the many challenges for the TVITT professors, lecturers and or instructors in the fore-mentioned model, is inadequate recourses couple with an enormous volume of untrained TVET instructor/teacher in the system. The writers purport that the quality of any TVITT programme is affected when there is a correlation between limited buy-in perception on the part of the Stakeholder partnership and voids of principal leadership from the Industry, exist.

Introduction

Sustainable economical growth for developed or developing industrialized countries are heavily dependent on the country's training institutions ability, to train a competent technological, knowledge worker for today's workforce. If the reader of this paper accepts the authors premise, that a competent technological, knowledge worker for today's workforce, is an essential ingredient for sustainable economic growth. Subsequently, the authors will also like to indulge the reader to the view, that a critical aspect to the training of a competent technological, knowledge worker for today's workforce is the training of competent technical vocational teachers/instructors.

Moreover the authors proclaim that to facilitate countries sustainable economic development to meet the challenges of Friedman (2006) 'flat world' new and emerging economies, and Covey (2005) 'Information/Knowledge Worker Age and Age of Wisdom'; also found in *The Post-American World* in which the author of that book reaffirmed the thinking of both Covey and Friedman, as he proclaimed, since the 1980s. The political, the economical and the technological forces have all been pushing in the same direction to produce a more open, connected, exacting international environment (Zakaria 2009).

The authors of this paper additionally affirm that our *modern world* is essentially a globalized entirety. Therefore, it is both essential and necessary for all political, industrial, economical and technological stakeholders on the Trinidad and Tobago training environment stage; to not only recognize the value of technical and vocational education. But, they must endeavor to pick-up the mantle and become active players in the training of the county's Technical Vocational Education and Training (TVET) workforce at all levels.

In October 2004, at the UNESCO International Experts Meeting Learning for Work, Citizenship and Responsibility held in Bonn, Germany, it was decelerated that "*Skills development leading to age-appropriate TVET should be integral to education at all levels, and can no longer be regarded as optional or marginal....*" The authors request for recognition of TVET training at all levels, also resonated where at the 18th Summit CARICOM Heads of Government where it was proclaimed

that the Ideal Caribbean Person must be *“the kind of individual who possesses the knowledge, skills and attitudes necessary for active participation in life and underscore the role of education in enriching human experience.”* The authors’ presumption is, that like most developing countries Technical Vocational Instructor/Teacher Training (TVITT) programmes, is very similar to the Republic Trinidad and Tobago, programme and more specifically, the training of tertiary level TVET Instructor/Teacher which has not yet scratch the surface of the first layer of the “training onion”. In this paper the authors seek to articulate foresight pertaining to the insurmountable challenges for the TVITT professors, lecturers and or instructors, as they endeavour to develop the Technical Vocational Education and Training (TVET) Teachers/Instructor Pedagogical and Andragogical Cognitive delivery skills.

Background

Prior to the mid-twentieth century, virtually none of the teachers in industrial education and training in Trinidad and Tobago received any type of institutional pedagogical training. Between the years 1946 to 1962 arrangements with the International Cooperation Administration of the USA, and the United National Fellowship and Scholarship Programme coordinators, influenced the training of Junior Technical School instructor as well as several qualified craft personals who were aspiring to become technical teachers. These upgrading and training were tenable at technical institutions and universities in Canada, Puerto Rico and the USA (Dyer and Dyer 2007).

With opening of the country’s first Technical Vocational Teacher Training Technical Teacher Training Department at The John S Donaldson Technical Institute (JSDTI) headed by Roland Maunday in June of 1979. Without any foreign aid and or assistance, Trinidad and Tobago took the bold move to venture out on their own and offer the country’s first national TVET Teacher/Instructor training programme. In the first year, intake was limited to two hundred candidates and the course extended over a two year period on a part-time bases. Teachers were released from their schools one day a week to attend classes at JSDTI (Dyer and Dyer 2007). Unfortunately sometime in the mid -1990s, the Technical Teacher Training Department at JSDTI doors were closed creating void in the TVET Teacher/Instructor training programme.

During the 1990s UWI School of Business and Applied Studies Limited (Roytec) in attempt to close the gap, which was created by the closing of the JSDTI-TVET Teacher/Instructor training

programme, implemented a programme geared towards the training of new and existing trainers: (among them were human resource personnel, supervisors, instructors, and consultants). Although the Roytec programme graduated a total of approximately 1500 persons in these areas, the program was not designed to train TVET instructor/teachers at either a certificate or diploma level. The Metal Industries Company Ltd (MIC) of Trinidad and Tobago also offered Train the Trainer courses for industrial trainers throughout the country. However, the MIC programme, also fell-short in its attempt to fill the gap, left by the termination of the JSDTI-TVET Teacher/Instructor training programme.

The Caribbean Community and Common Market (CARICOM), Single Market and Economy (CSME) is an arrangement which allows CARICOM goods, services, people and capital to move throughout the Caribbean Community without tariffs and without restrictions to achieve a single, large economic space, and to provide for a common economic and trade policy (<http://www.tradeind.gov.tt/projects%20and%20programs/csme.htm>). CARICOM-CSME requested that portable TVET qualifications must agreed-on and implemented across the Caribbean region. As a result, the Caribbean Vocational Qualification (CVQ) was developed for the purpose of harmonizing Technical and Vocational Education and Training (TVET) across the Caribbean which brought about the official launching of the CVQ on October 19, 2007 at the Heart Trust/NTA in Jamaica (http://www.caricom.org/jsp/pressreleases/pres258_07.jsp).

The National Training Agency of Trinidad & Tobago (NTA), is responsible for the coordination and harmonization of Technical and Vocational Education and Training (TVET) in Trinidad and Tobago. The NTA is mandated to ensure that Trinidad and Tobago has a highly skilled, certified and competent workforce in a competitive global economy. The basis for the development of this workforce involves fostering partnerships, both with government industry and training providers (<http://www.whoswhotnt.com/index.cfm/1,581,0,0,html/National-Training-Agency>). In the NTA's Stakeholder graduate analysis prospectus for 2012 to 2016, it is estimated that Trinidad and Tobago TVET training institutions will train close to 100,000 skilled workers over the next five years.

New Impetus

With funding from the European Development Fund (EDF), and in partnership with the Ministry of Science and Tertiary Education (MSTE) of Trinidad and Tobago, the Metal Industry Company Ltd

(MIC) of Trinidad and Tobago, embarked on a new venture to offer TVET Instructor/Teacher training at the tertiary level. On October 6, 2008, the first cohort of tertiary level technical and vocational instructors and teachers enrolled in the Technical and Vocational Instructor/Teacher training (TVITT) programme at MIC. In December 2009, MIC's TVITT Unit headed by Dr. Sheila Cooper, successfully completed what was dubbed EDF incubation programme. In March 2011, 15 out of the 19 candidates received Technical Vocational Instructor/Teacher Training Diplomas. Similar to the JSDTI-TVET Teacher/Instructor training programme the candidates in MIC's TVITT programme were released from their training centres one day a week to attend classes on a part-time bases. However, unlike the JSDTI-TVET Teacher/Instructor training programme, the MIC TVITT programme was a one year part-time programme.

Tertiary Education in Trinidad and Tobago and in particular Technical Vocational Education and Training (TVET) has lately received special attention through a major policy paper.

With special attention from MSTE, the Government Assistance for Tuition Expenses (GATE) funding has been expanded to TVET students/trainees throughout the Trinidad and Tobago. The TVITT has been a direct beneficiary of this new impetus in the awarding of GATE approval status. With no scientific evidence available, to assert that a correlation exists, to support the notion that GATE has lead to an increased in TVITT programme applications from 19 in the 2008 to 70 in 2011. None the less, an antidotal comment, regarding the 250 % increase in enrolment would suggest that GATE funding may have had an effect.

Strategy for the Development of Vocational Education and Training in the Republic of Trinidad and Tobago, since 2008, has been the sole responsibility of the MIC Technical Vocational Instructor/Teacher Training and Development Unit (TVITTDU). In the Industry-Stakeholder partnerships model, i.e. MIC TVITTDU, the unit delivers the TVITT programme with full autonomy. Therefore, not only it is the responsibility of MIC's TVITTDU to adequately develop the instructors/teachers pedagogical and andragogical cognitive delivery skills, but to as well, provide the training that will help the instructors/teachers implement the new CVQ curricula. With this autonomy and responsibility imparted on MIC's TVITTDU to deliver the TVITT programme. It is vital that MIC managers and TVITTDU Heads of departments administer the courses with the utmost of professionalism.

The authors believes that a fair assumption could be made and hence a statement could follow, that the void created after the closing of the JSDDTI-TVET Teacher/Instructor training programme coupled with NTA projection of TVET training institutions will train close to 100,000 skill workers over the next five years. At present, there is substantial number of untrained TVET instructors/teachers delivering courses at training providers throughout the Trinidad and Tobago; MIC's TVITTU is thus, saddled, with the task for the training and development of a sizeable number of TVET instructors/teachers. It is also fair to conclude that with MIC being the sole provider of TVET-TVITT programme with GATE approval status, the numbers of teachers/instructors that will be seeking instructor/teacher training will place an overwhelming amount of stress on MIC's TVITTDU. Consequently, the challenges the TVITT professors, lecturers and or instructors will be faced with, as they endeavour to develop the Technical Vocational Education and Training (TVET) Teachers/Instructor Pedagogical and Andragogical Cognitive delivery skills are insurmountable.

Definitions

- Pedagogy “is the study of being a teacher or the process of teaching. The term generally refers to strategies of instruction, or a style of instruction... Pedagogy is also occasionally referred to as the correct use of instructive strategies.” (<http://en.wikipedia.org/wiki/Pedagogy>)
- Andragogy “is the process of helping adults learn...While pedagogy refers to the teaching of children, where the teacher is the focal point, andragogy shifts the focus from the teacher to the learner. Adults learn best when they have control over their learning.” (<http://adulted.about.com/od/glossary/g/Andragogy.htm>)
- For the purpose of this paper we stood on the shoulders of Carkhuff & Berenson, (1981) to define Pedagogical and Andragogical Cognitive delivery skills as the “The knowledge and skills required to facilitate learning, including, content development skills, lesson planning skills, teaching methods skills, teaching delivery skills, and interpersonal skills” both for secondary and postsecondary technical vocational education and training programmes.
- Technical Vocational Instructor/Teacher: is in this referred to as “An individual hired directly from business and industry to provide specific technical training and related theory in their field of occupational expertise” (American Association for Vocational Instructional Materials [AAVIM], 1989).

- Industry-Stakeholder partnership: in the context of this paper an *industry-stakeholder* is a party that can affect or be affected by the actions of its customers, owners, employees, associates, partners, contractors, and government legislative bodies. *Partnership* is where two or more parties come together for a joint venture through contractual agreements for the purpose of a predetermined outcome.
- For the purpose of this paper a competent technical knowledge worker in today's workforce is: an individual who is valued for his/her ability to act and communicate with knowledge within a specific subject area. He/she will often advance the overall understanding of that subject through focused analysis, design and/or development. By extension a competent technical knowledge worker is a literate skill person in one or more technological areas.

Limitations

The following limitations concerning this paper are here noted:

It can be argued that due its linear aspect, the assumptions and beliefs noted in this paper may not necessarily be transferable to other TVET institutions in other countries.

Significance of this paper

Beyond training, TVET Teachers/Instructor pedagogical and andragogical cognitive delivery skills for postsecondary vocational programmes, the Trinidad and Tobago TVITT programme is also intended to prepare its graduates for career mobility and or matriculation in their pursuit of degree programmes. Consequently it is important for all stakeholders and beneficiaries of this programme to seek to minimize the challenges. This paper is also significant because little has been written about the preparation of tertiary level TVET instructors/teacher in Trinidad and Tobago.

Sustainable economical growth for develop or developing industrialized countries, is heavily dependent on the country's training institutions ability, to train a competent technological, knowledge worker for today's workforce. If the reader of this paper accepts the authors premise, that a competent technological, knowledge worker for today's workforce, is an essential ingredient for sustainable economic growth. The authors will also like to indulge the reader to the view, that a critical aspect to the training of a competent technological, knowledgebase workforce is the training of competent Technical Vocational Teachers/Instructors.

Review of the literature

In the past, most vocational instructors in Trinidad and Tobago were hired for their occupational expertise and not necessarily for their teaching credentials. Contributing to this practice was the difficulty in finding persons who had both industrial skills and teaching expertise. With a system confronted with choosing between an industrial expert and someone with teaching expertise, the occupational expert typically won the day (Dyer and Dyer 2007).

At the time of writing this paper, only two Canadian provinces expect postsecondary vocational instructors to complete some form of teacher education as a condition of employment. British Columbia requires postsecondary vocational instructors to complete a 6- course *Provincial Instructor Diploma Program* within a year of commencement (Provincial Instructor Diploma Program, 1997; B.C. College of Teachers, 1997). Manitoba requires that postsecondary vocational instructors complete a twelve-course teacher training program before commencing employment (Red River College, 1988). In both these provinces, a provisional teaching certificate is granted upon successful completion of course work, allowing recipients to teach specific vocational courses in provincial high schools and community colleges.

To teach technological studies, you are required to have a secondary school diploma, at least five years of wage earning experience in the technology subject area (or a combination of work experience and training in the technology area) plus a one-year teacher training program. In Ontario, this teacher training is usually in the form of a one-year Diploma in Technical Education, taken at an Ontario faculty of education. The equivalent of a one-year teacher training program is acceptable for those educated outside of Ontario. (http://www.oct.ca/become_a_teacher/)

In the United States teacher preparation of postsecondary vocational instructors is not considerably different from those of Canadian provinces (Chinien, 1995). No less than 40 states allow districts to hire teachers without a valid teaching certificate (Daugherty, 1997). Studies conducted in American over the past few decades suggest that while there is no strong relationship between extensive work experience, teaching performance and student achievement, none the less, a positive relationship between formal teacher preparation and performance is evident in the classroom and student achievement (US. Department of Education, 1994).

In the German Vocational Education and Training (VET) context, “Trainers (instructors) or masters within companies (including in big companies the responsible VET managers)...” resides in two categories. The “Certified educators/trainers in initial and continuing vocational education, and in professional education...” the VET teachers in the vocational schools, are also separated into two categories. The “university trained teachers for job-related theory and general education subjects and the master craftsmen or technicians with additional further training (*Werklehrer*) imparting practical skills”. (Germany. VET in Europe – Country Report 2010)

The Challenges

With the void created after the closing of the JDIT teacher training programme and NTA’s 2012 - 2016 projection of just under 100,000 skill works by 2016. It is thus expect that large numbers TVET teachers/instructors will be seeking pedagogical and andragogical cognitive delivery skills training over the next five years. At present MIC is the sole provider of TVET-TVITT programme with GATE approval status. It is therefore reasonable to conclude that the MIC TVITT professors, lecturers and or instructors will face an insurmountable task as they endeavour to develop Trinidad and Tobago TVET teachers/instructors pedagogical and andragogical cognitive delivery skills.

With the purported premised that a developed competent technical knowledge worker is very much an essential aspect for sustainable economic growth in the global economy. And therefore by extension, TVET-TVITT institution/s capable of delivering relevant pedagogical and andragogical cognitive programs is necessary. The perceived and or real correlation of limited buy-in on the part of the *Stakeholder Partnership*, and the voids that exist on the part of principal leadership from the training institution, is at the bedrock of the programme’s many challenges. The perceived lack of buying resonates from the limited resources awarded for the administering of the programme. Another perceived treat is lack of programme recognition due to the limited buy-in on the part of the *Stakeholder Partners*. The TVITT programme is fully funded through the GATE funding scheme and thus recognized by the Minister of Science Technology and Tertiary Education (MSTTE) Trinidad and Tobago. However, the Ministry of Education of Trinidad and Tobago has yet to be recognized MIC’s TVITT programme. Herein lies a problem resulting in the public’s miss-perception for the MIC’s TVITT programme. The perception of the secondary school TVET teachers is; if the Ministry of Education of Trinidad and Tobago fail to recognized MIC’s TVITT

programme, any awarding of diploma/s will not be authentic, this lack of reorganization on the part of the Ministry of Education has resulted in the programme not been taken seriously.

If the achievement of sustainable economical growth for the country's continued development is heavily dependent on the country's training institutions ability, to train a competent technological, knowledge worker for today's workforce. It stands to reason that the training institutions instructors/teachers must also be competent in their respective fields. The TVITT unit is striving develop a programme, that uniquely blends the honing of the TVET instructor/teacher technical skills, while at the same time developing the TVET instructor/teacher pedagogical and andragogical cognitive delivery skills. The blending of honing the TVET instructor/teacher technical skills and the developing of the TVET instructor/teacher pedagogical and andragogical cognitive delivery skills, also requires the acquisition of very skilled competent TVET instructor/teacher training; professors, lecturers and or instructors. The ability for MIC to attract and recruit these professionals to deliver these programmes is an insurmountable challenge.

Finally, among the many challenges which have been cited above and those which were not mentioned due to the confines of this paper, are limited funds. For the purpose obtaining and replacing equipment, for Distant On-line Learning (ODL), face-to-face teaching and learning, and curriculum development to match the needs of Trinidad and Tobago TVITT programme offered at the MIC, the TVITTUD requires a substantial infusion of capital funding.

Summary and Recommendations

If human resource development, through well planned education and training initiatives can contribute significantly to promoting the interests of individuals, enterprises, economy and society within the entire Caribbean Region. Then it stands to reason, that it may be necessary for the CARICOM to revisit the initiatives taken at the 18th Summit CARICOM Heads of Government which adopted as the Vision for the *Ideal Caribbean Person*, and partner with the MIC which will enhance the Technical Vocational Education and Training (TVET) Teachers/Instructor Pedagogical and Andragogical Cognitive delivery skills.

If the CARICOM Heads of Government adopts this recommendation, TVET instructor/teacher training will immediately gain national and international recognition status accessible to all TVET instructor/teacher among all CARICOM countries. In so doing the pool of available skilled competent TVET instructor/teacher training; professors, lecturers and or instructors will no longer be restricted to a single CARICOM country. The widening and opening up of the TVITT programme to include other CARICOM countries will also allow for the pooling of funds which will no doubt enrich the programme equipment and staffing needs.

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