Evolution of Workforce Development in Bermuda

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Abstract

This article reviews the historical development of technical education and how it impacted the cultural socio-consciousness of Bermuda. It discusses the social effects on the community after the first technical schools are closed and the revival of technical education in Bermuda. The article provides insight into the ideals that motivated the vision of a single governmental centre for technical training and career development. Understanding that technical education is at the forefront for supporting the socio-economic stability of our country, the challenge involved the coordination of national and international partnerships while employing a flexible vision for an efficient twenty-first century workforce.

KEY WORDS: Sustainable, standardised, Workforce Development, trends, certification

Background

Historically, Europe and western philosophy began its journey towards technology in the seventeenth century after Newtonic Physics developed a methodology for scientific investigations (Anderson and Hepburn, 2015). The new approach to understanding the material world gave birth to an innovative wave of technology. According to Gjerten (1986), the growth of empirical science affected every branch of mathematics and, consequently, the modern empirical philosophy facilitated an expediential growth in mechanisms. Correspondingly, Deane (1979) stated that the by-product of empirical science piloted industry and, routinely, the Industrial Revolution (1760 - 1840) advanced the economic development and productivity of Europe. The rise in industrialism established a totally different approach for supporting the populace. Training and specialisation became an integral component of economic growth and sustainability (Deane, 1979).

In essence, as European scholars of the day initiated the ideals of scientific materialism, theoretical knowledge began to produce mechanisms that ushered in a new era of social development. Systematically, the empirical methodology for acquiring knowledge advanced an industrialisation movement that stimulated socio-economic growth.

Industry in Bermuda

In 1809, Bermuda, as a British Colony, embraced the wave of industrial development. Harris (1997) affirmed that after Bermuda was identified as a viable naval defense location for the Western North Atlantic, plans were drawn to construct a navy station in the western part of the island. Stranack (1998) corresponded stating that during the year 1818, the construction of the Royal Navy Dockyard was commissioned to a contingent of Army officers and Royal Engineers. Once the project was launched, a company of local craftsmen and slaves were assigned to augment the labor force at the Dockyard. The assignment was very successful and, by the year 1823, the pool of workers at the Dockyard had completed a major phase of the project (Stranack, 1998).

However, there was a notable problem arising. Although the local contingent were very hard workers, they lacked the skills to successfully advance the project to meet the anticipated timelines. Hallett (1999) stressed that the majority of the local workers consisted of illiterate, unskilled laborers who were academically deficient and, thus, it was difficult for them to excel in the crafts being employed. To rectify the deficiencies, the officers and engineers devised short and long term plans to increase productivity.

Birth of Formal Technical Education

Beginning in 1849, a detailed programme was implemented to educate and advance the expertise of the locals. Regular school classes were implemented and all unskilled workers were mandated to attend tutorials (Hallett, 1999). By the year 1860, three schools were located at the Dockyard and technical education was being facilitated with standardised curricula. The participating workers were instructed in Mathematics, Political and Physical Geography, English Literature and Grammar, coupled with Physics and History. Moreover, Hallett (1999) submitted that the labourers were also privy to journals and periodicals on Astronomy, Botany, and Natural Science. The intense training facilities began to produce innovators in design and technology and the labour movement was excelling in productivity and expertise (Hallett 1999).

Consider that, during this era, the main form of transportation along the Bermuda shorelines was by boat. Arnell (1979) acceded that many local artisans were able to construct sleek vessels that navigated the shoreline in a safe and dependable manner. In addition to becoming master boat builders, the locals were proficient in the repair and maintenance of the larger shipping vessels that periodically visited Bermuda. Moreover, the larger ship captains depended on the native seamen for their expert piloting skills which were essential for the safe navigation of the local waters.

In 1951, the Royal Navy left its post at the Dockyard and, subsequently, the training facilities closed. Essentially, the participants in the Dockyard schools were educated with comprehensive curricula that was designed to inculcate critical thinking and problem solving skills within a technical based programme (Arnell, 1979).

Literacy and scientific knowledge became the linchpin to progressive developments and, subsequently, the vision and the mission of the Dockyard facilities produced a myriad of educated and skillful artisans. They systematically cultivated the local landscape with the historical buildings, bridges, and artifacts that are indigenous to Bermuda's unique culture.

Death of Technical Education

With the closure of the Dockyard programmes, the public-school curricula introduced technical education. The Bermuda Technical Institute (1956 - 1972), the first public school dedicated to absolute technical training, held to curricula that uniquely balanced kinesthetic hands on technical assignments that connected to substantive courses in Mathematics, Physics, Chemistry, and other sciences (Forbes, 2017).

The Bermuda Technical Institute was atypical and revolutionary because the leaders augmented the curricula with apprenticeship and training partnerships with local businesses as well as incorporated pathways to higher learning. Consequently, some of the graduates became educators and business leaders, and many became pioneers in telecommunications, electrical engineering, and civil engineering (Grimes, 1998). Unfortunately, the BTI campus was unceremoniously closed in 1972 (Forbes 2017).

To date, after BTI closed, a fully comprehensive technical curricula in public education has not existed. Students who readily engaged with technical based curricula were being deprived of the incentive to become life-long learners. The study directed by Mincy, Jethwan-Keyser, and Haldane (2009) emphasised that most young Bermudian males initially sought employment in the technical occupations. However, the local education system was not providing the knowledge and skills required for employment readiness. The Mincy et al., (2009) report states that, as a consequence, many young males did not view the school curricula as a viable tool for survival in the real world and, consequently, many were not inclined to achieve. The report inferred that the lack of preparation in schools can be directly linked to the growth of anti-social behaviours among young males. Businesses were forced to import qualified technicians while able-bodied young men remained idle.

Unemployment among the local male population was high during periods when technical services were in demand. The Mincy et al., (2009) report held that the labour shortages over the past two decades could be rectified with some

curricula that provided incentives for young males who were unwarrantedly disfranchised from the local workforce.

The Mincy Report indicated that technical training is a necessary pathway towards re-engaging young males in particular, and technical training is critical for the socio-economic stability of the community. The challenge for Bermuda was the revival of viable education programmes to invigorate the workforce with local talent. How will Bermuda develop educational initiatives to engage and stimulate excellence and pride in technical occupations?

Revival of Technical Training

On September 1, 1997, the National Training Board Act (1997) was legislated to answer the call for classifying, organising, and coordinating essential labour resources and local expertise. The primary focus of the NTB was to provide training opportunities for students as well as the re-training and certification of existing technicians. Three departments were established under the umbrella of the NTB: the National Training Board, the Career Development Section, and the Labor Relations Section. Each department was governed by specific Acts of Parliament, and each department was designed as a collaborative entity that worked as one cohesive organisation to meet all needs arising within the local workforce.

The National Training Board

Collaborating with local community partners and accredited overseas institutions, the Board provided training and assessment programmes that led to National certification. Local partners included the Bermuda College, the Senior Schools, and the Construction Association of Bermuda. Qualifications and certification were empowering for the community: partnerships with NCCER Training and Certification, City and Guilds Administrators, the Atlanta Technical College, and the New England Technical College. Many other accredited organisations were facilitated for interested persons who wished to pursue technical expertise. However, the defining role for the Board was National Certification. The Board's remit was to build a database of certified professionals to service all of the demands of local development.

Career Development

The Career Development section worked closely with the senior schools and community partners to deliver career guidance to students who may or may not seek university diplomas. This component provided community service and other initiatives that equipped participating students with real-life technical experiences. The Career Development section also offered guidance towards viable career goals with a mandate to prepare the existing and future labour force for employment readiness and career success.

Labour Relations

The Labour Relations section became the intervening entity for any breach of the Labour Act 1992 and/or the Employment Act 2000. To advise employees and employers on best practice according to Bermuda law became the focus of this section. Employees who were aggrieved by a breach of the afore-mentioned Acts were serviced by this department which provided mediation services for labour disputes and, if necessary, utilised its power of referral to the Human Relations Department or the Labour Tribunal if necessitated by the specifics of an ongoing disagreement. Under its remit, the Labour Relations section also regulated the certification or decertification of trade unions. The overall remit was to structure the employment relationships that uphold a safe and wholesome working environment.

Substantially, the National Training Board Act (1997) established career guidance and training for technical expertise. As Bermuda embraced globalisation with major construction projects and the influx of international business initiatives, National Certification became the tool for placing local professionals at the forefront for employment readiness. The challenge of building a data-base of certified professionals became paramount for the Bermuda government. What strategies will amalgamate our community stakeholders and propel the agenda to acquire international certification?

Future Trends

On December 18, 2011, legislation amended the NTB Act (1997) to establish the Department of Workforce Development (DWD). With a Vision and Mission to be the most prolific provider of labour services, the existing mandate of the DWD is to strengthen and sustain the economy by training, building, and coordinating an internationally accredited workforce. Utilising the expertise of the afore-mentioned departments of the National Training Board, the DWD is equipped as a cohesive synergy that will effectively reposition the local workforce. As the labour regulating arm of The Bermuda Government, the DWD is committed to career development and technical training while embracing a philosophy that transforms the local workforce into competitive certified professionals.

Training initiatives and accredited programmes are geared towards professionals and unskilled workers as well as the unemployed. The rationale is to ensure that the majority has the basic training and certification that advances employment at all levels of industry. To accommodate qualified technicians, the Department of Workforce Development has established a viable pathway to certification that consists of two categories.

Category One: Applicant has formal training at an accredited college/university.

Figure 1: Qualification Process for Formal Learning

Γ	Formal Learning	Assessment	Validation	Certification
	Accredited study	At the end of the	By the educational	Full qualification
	programme	learning process	institution	award or non- certification
L				certification

Figure 1 is a straight forward process that requires documentation of completion from the accredited institution. National Certification is based on the diploma received from the school.

Category Two: Applicant has on- job experience and minimal formal classes.

Figure 2: Assessment of Non- formal Learning

Learning and personal	Assessment	Validation	Certification
activities on the job	Interview and portfolio. Oral questioning by panel	On job experience, related course work portfolio	Full qualification award, partial qualification, or non-certification

Assessment of non- formal Learning in figure 2 is a process that requires the individual to submit a detailed portfolio that includes pictures, documentation of formal courses, and employer or client references. An Industry Assessment Panel (IAP) interviews the applicant, reviews the portfolio and forms an assessment. Note: members of the IAP are fully accredited reputable professionals appointed by the Board for the sole purpose of assessing Category Two applicants.

The Department of Workforce Development recognises that technical training and certification is integral and essential to creating a socio-conscious community within a socio-economic paradigm that benefits all stakeholders. To meet this challenge, on May 16, 2014, the Ministry of Home Affairs unveiled its National Training Plan. The ten-year National Training Plan (2013) exists as a collaborative document designed by the government and the private sector with the directive to improve and sustain Bermuda with a competitive workforce. The Plan systematically studied past trends and outcomes of technical training and conflated the ideals with present training and assessments.

The rationale was to build a comprehensive model to transition the Bermuda workforce seamlessly into the twenty-

first century. The National Training Plan (2013) is projected to have specific measurable outcomes by the year 2023. The inclusive outcome will be a detailed database of professional human resources and efficient technical services that will sustain Bermuda with a globally competitive pool of labour expertise.

As a result of the hard work to date, the Department of Workforce Development has evolved to become the leader in providing services for employment readiness and career success in technical occupations. The department has awarded scholarships in National Technical Vocational Training (NTVT) and other trainee awards for studies at the Bermuda College or overseas universities (Burchall, 2016 and 2017).

Conclusion

Empirical science continues as the methodology that facilitates and stimulates education and socio-economic growth. Correspondingly, the Department of Workforce Development collaborates with the Ministry of Education and Community Partners to effectively create pathways for advancing Applied Science occupations. As the One Stop Centre for Bermuda, the Department of Workforce Development maintains its visionary mission to meet the challenges of the twenty-first century with the education, the training, and the assessments that shape an efficient and certified workforce. Bermudian technical expertise will continue to sustain our economy with procedures and processes that are comparable to global standards.

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