Caribbean Curriculum
Vol. 21, 2013, 81-96.

MAKING TVET RELEVANT TO A POSTMODERN CARIBBEAN

David Subran

We live in a postmodernist society where there is greater acceptance of diversity and complexity, and recognition that multiple viewpoints can coexist in an era that is characterized by uncertainty and rapid changes. Consequently, TVET programmes cannot function effectively unless there are major reforms that can prepare students to better meet the needs of the postmodern work environment. This paper argues for some of these changes. The prevailing notion that TVET is a viable refuge for those who are not "academically inclined" is exposed in this paper as a myth, which has no support in the actual workplace, where scientific principles must be applied by workers in order to create, take decisions, and solve problems. Technological developments have made the workplace more demanding of autonomous workers who can take decisions without waiting for instructions. Hence there is need for greater integration of academics with TVET to widen the understanding of TVET students in preparation for these roles. If adopted, the reforms recommended in this paper can go a long way in preparing a workforce capable of meeting the challenges of the postmodern work environment and raise the social acceptance of TVET as well.

Introduction

In earlier times, it was possible for some workers to practise an occupation in the same manner over a lifetime, because changes in the essential aspects of the occupation were slow in coming. Because of the rapid growth of technology and changed public expectations today, there must be continuous curriculum changes in order for education and training curricula to be relevant. Public expectations have moved from a traditional and modernist world view, which relegated technical and vocational education and training (TVET) to a secondary role; to a postmodernist perspective that is more accommodating and equitable (Rust, 1991), and where much more is expected from workers than the performance of repetitive operations. Postmodernism radically reduces the hierarchical distance between white-collar and blue-collar work, and between academic studies and TVET. This paper will define TVET,

discuss the nature of the postmodern society, and suggest changes that must take place in TVET in order to be relevant in a postmodern Caribbean society.

At the Second International Congress on TVET in the Republic of Korea, it was accepted that TVET is most directly concerned with the acquisition of the knowledge and skills required for the world of work, formal and informal, urban and rural (UNESCO, 1999, p. 27). Historically, TVET has been an important contributor to Caribbean development. In earlier times, when communication with the developed world was infrequent and uncertain, local people had to fabricate parts and undertake repairs using very basic tools and individual creativity. Many of the innovations that emerged from the relatively primitive workshops in existence at the time satisfied needs that were encountered, mainly in agriculture and transportation. Later on, there was widespread introduction of formal apprenticeships, where the importance of integrating the scientific underpinnings with the practical operations of various work-related situations was recognized, and technical classes were incorporated into apprenticeship programmes. For example, apprentices at Shell Trinidad Ltd. had three days of field work and two days of classroom studies in mathematics, English language, and technological studies.

In those days, the graduates from apprenticeships possessed an occupational identity and demonstrated mastery over work situations. With the onset of Independence, apprenticeship declined in many Caribbean countries to give way to institution- and school-based TVET, where training took place in isolation from the workplace. Furthermore, the emphasis continues to be on developing the skills required by employers with very little being done to develop the trainees as living human beings, with individual dreams and aspirations, who must be capable of participating in the processes of democratic societies and interacting satisfactorily with clients and fellow workers.

The Postmodern Society

Rust (1991) characterized the modernist perspective as having a single world view, whereby privileged groups maintain perpetual ascendancy over other groups perceived to be of secondary status. For a very long time, TVET occupied this secondary role when compared to other fields. However, Rust maintained that from the postmodernist perspective, this kind of differentiation is obsolete (p. 618), and that education systems must be modified to accord previously suppressed groups more equitable rights and recognition.

The postmodernist perspective can also be applied to society. According to Slattery (2013), society has become a global plurality with competing subcultures, so that no single belief dominates. People have become more sceptical and discriminating, and there is no acceptance of definite truth, but recognition that the world is a constructed entity where knowledge is contested and incomplete. There is no cultural consensus about what should be the ideal culture, as people can have multiple preferences that are not transfixed, but changeable. Quite often there is little consensus, and curriculum planners for TVET need to adopt new approaches to curriculum development, which will complement the complex social and cultural milieu and prepare students to interact in such a paradigm. For example, TVET planners cannot continue to place emphasis solely on technical skills, but must widen their mandate to address other abilities to better meet the expectations of a postmodern society.

Jin and Li (2011) described the postmodern era as being characterized by "difference and pluralism; organic and ecological ideas; open-ended and inherent relation–oriented ideas; creative and practical ideas; uncertainty and humanity; and integrative neo-conservatism and futurism" (p. 25). Workers in the postmodern work environment enjoy high levels of autonomy, and are often empowered to take decisions and to solve problems as they arise in unpredictable environments. This empowerment of workers has reduced the number of hierarchical levels in organizations, so that the average worker is now expected to take decisions and embark on independent actions without awaiting guidance from a superior. This development calls for a radical reform of TVET, to widen its scope and aim at developing decision makers, problem solvers, and action initiators.

The Image of the New Worker for Postmodern Times

Those associated with TVET in the Caribbean have been excluded from mainstream education for many years, and even when TVET was included at the formal level, they were not perceived as equal partners with those in academics. A postmodernist Caribbean is one where TVET programmes, personnel, and graduates can be accepted as being of value to social and national development. This calls for changes in the thinking of the society at large.

It is therefore very important for Caribbean people to recognize that times have changed. We should now appreciate that there is no one correct way towards a goal, and that different approaches can coexist. Technology has improved to the extent where many operations that were

once done manually are now performed by machines, so that many present-day workers must be able to engage in more higher-order activities such as evaluating, trouble-shooting, problem identification, and problem solving. People have also become more sensitive to democratic rights, personal freedoms, and worker aspirations, so that workplace issues such as gender equity, lifelong learning opportunities, sexual harassment, and health and safety cannot be ignored.

In order to meet the requirements of this new age, workers in today's world must have command of work-process knowledge, which is an understanding of the overall purpose, operations, and target markets of the organization. This knowledge can help workers to appreciate productivity and ingenuity (Fischer & Boreham, 2008), and contribute to the development and exploitation of knowledge. All of these developments in a postmodern Caribbean environment mean that there must be a different kind of worker to function in the new work environment, hence there must be wider curriculum reforms and more effective training methods.

The worker in the new age must be well-educated; an independent decision maker, yet a team player; a critical thinker who can get his or her points across in meetings; an entrepreneur who can spot opportunities to monetize his or her skills and abilities; one who understands the scientific principles that underlie work processes; and one who understands how jobs are created and how jobs are lost. We will now consider some of the changes required for TVET to be more relevant to a more demanding and critical Caribbean society.

The Need for Academic Foundations

For many years, onlookers at TVET have perpetuated a belief that students who were unsuccessful in academics could be successful in TVET. For example, Kowlessar (2011) reported that, in an interview, the President of Trinidad & Tobago's National Parent Teachers Association, Zena Ramatali, said, "There are many children who are not academically inclined and focus must be placed on harnessing skills other than academics." Huie (2013) interviewed the Chairman of the TVET Council in St. Kitts and Nevis, Clyde Christopher, who lamented that the message in that country is that TVET is for low achievers, "if you can't read and write 'mek sure you go learn a skill."

But the question must be: Can any worker be skilful, innovative, productive, and resourceful without a relevant foundation in academics? The academics can be regarded as recorded human knowledge. For example, the academics include mathematical and scientific principles

already discovered, as well as historical developments, technological developments, properties of materials, and principles of human behaviour. In addition, we must recognize that more and more knowledge is being created with every passing day. If we neglect the academics, we might have to experiment and use trial and error to find out what has already been discovered and recorded. It is therefore critical for TVET students to be capable of applying principles from the academics in the performance of their work. For example, a welder should be able to enlist scientific principles to reduce distortion in fabrications and to prevent embrittlement of welds that can cause fractures. Workers in today's work environment must have a good understanding of academics in order to apply these principles in the performance of their work. There is very little room in the new work environment for those who cannot apply academic principles in working and living.

Vaz (2012), in his keynote address at an international conference on integrating academic courses with vocational education, noted that research has found that the old model of developing students with narrow vocational specializations did little to empower students for meeting the challenges of the present world. McLean and Lai (2011) advised that a technological foundation should be enriched with a broad-based curriculum using a cross-curricular approach to introduce common themes in as many areas as possible, instead of early specialization. Vaz argued that work life cannot be easily isolated from social life, and that TVET needs to prepare the individual for work as well as for gaining fulfilment in life.

Preparation of vocational students to meet these wide-ranging needs means that students will have to acquire knowledge, skills, and dispositions that have been traditionally associated with academic subjects as part of their range of employability skills. Vaz (2012) pointed out that industry requires workers who possess skills that transcend technical skills, such as what he referred to as employability skills required for progressing in an occupation. To be employable, workers must be self-directed, reliable, ethical, good at communicating, willing to work and learn, and possess positive personal attitudes. Vaz argued that present-day workers need interpersonal skills, customer service skills, negotiation skills, resourcefulness, flexibility, motivation, and time management skills. Vaz also noted that the United Kingdom's (UK) NCVQ core skills for employability include numeracy skills, problem solving, information technology skills, and modern foreign language skills (p. xvi).

In this new, era workers should develop an appreciation for diversity, particularly because of globalization. There should be an expectation that everyone should be able to contribute to the development of their society by being informed contributors to democratic processes. Workers constitute an important part of society and their views are also important, so that all workers should have an academic foundation in a broad range of subjects in order to prepare them for contributing to, or critiquing, national and societal decision making. It is therefore imperative that TVET students should have academic knowledge in areas such as history, literature, communication, economics, and environmental science, among other subjects.

In addition, workers must be able to function well in a digital environment, with the ability to use common computer applications for performing tasks, creating solutions, and keeping up to date. McLean and Lai (2011) advised that the education and training of knowledge workers suggests that the trend toward integration should continue to combine academics and technical studies, because the acquisition of technological concepts requires a sound foundation in mathematics, science, and communication skills.

There has been a widely held view that some young people are "not academically inclined," suggesting that this deficit is permanent and irreversible. Worse yet, there are leaders who suggest that people who are not academically inclined should be placed in TVET programmes. For example, in the 2004 Senate debate on the Budget Appropriations Bill in Trinidad and Tobago, Senator Magna Williams-Smith said, "we have established the Multi-Sector Skills Training Programme in July 2004, to address training for employment in the construction industry for about 10,000 persons, especially those who are financially and academically challenged or vulnerable" (p. 481). It must be asked to what extent can someone who is academically challenged function effectively in the construction industry, where accuracy and quality are important performance criteria.

Research by Bloom (1978) found that anyone (except the brain-damaged) can learn what is taught if the subject is taught properly. We need to recognize that top-down teaching is ineffective, and academic programmes should make more use of constructivist methods, where there is active engagement on authentic tasks, reflection, exploration from multiple perspectives, and social negotiation. Lack of academic competence cannot be taken as irreversible among some students, because quite often those students were not properly taught. Improving the teaching methods used in the academic subjects can be effective in

reducing the number of students who are labelled as *not academically inclined*.

New Sensitivities to Democratic Rights and Freedoms

In bygone days, the workplace focused on production, and workers were considered to be little more than human machines. Within recent times it has been recognized that satisfied workers are more productive (Sheehan & Griffiths, 2011). Consequently, attention has been given to meeting the personal needs of workers, and giving consideration to their aspirations and democratic rights. In so doing, several issues have gained prominence, and we will now examine some of these developments.

Increasing attention has been given to the protection of workers against sexual harassment and bullying in the workplace, and it is important in preparing workers that they learn to respect the rights of others and give consideration to all. The U.S. Supreme Court has recognized that sexual harassment occurs when unwelcome sexual advances are made on the job to interfere with a person's job or create an intimidating or offensive work atmosphere (Justia, 2013). Although both males and females are subject to sexual harassment, Uggen and Blackstone (2004) found that women appear to be targeted more often, and that they encounter a more virulent form of sexual harassment than men.

Sheehan and Griffiths (2011) made the point that a safe and healthy workplace is one in which the workers' physical and mental well-being are secured; consequently, there must be procedures for addressing bullying in the workplace. Programmes for worker preparation should address this need by taking action to prepare workers who can shape a work culture that rejects sexual harassment and bullying.

Lifelong Education

Because of rapidly changing technologies, materials, and processes, workers must develop a positive disposition to lifelong education and retraining activities. Majumdar (2011) observed that lifelong learning requires learning, re-learning, skilling, and acquisition of new knowledge. It may involve school activities, work-based learning, and other forms of formal and informal learning experiences. Students must recognize the need for lifelong learning and the curriculum must include *learning to learn* experiences, where students can analyse how they learn to facilitate lifelong learning.

King (2011) identified *learning to learn* as being at the core of lifelong learning. He suggested that education and training systems should address lifelong learning by motivating students to learn, helping them learn to learn, and influencing them to reflect on their learning to identify how they learn best. He added that a most important contributor to the development of lifelong learning is to have teachers who naturally expect their students to excel, and thereby inspire them to achieve. Consequently, the recruitment of TVET teachers must not only consider the applicants' technical competence, but should also seek to determine the level of commitment demonstrated by potential teachers.

Health and Safety

Sheehan and Griffiths (2011) explained that Workplace Health Promotion is the combined efforts of employers, employees, and society to improve the health and well-being of people at work. In the past, safety and health issues were treated from the perspective of protecting the individual worker. Nowadays, there are regulations and standards that focus not only on the individual worker, but also on the entire organization and the public as well. Workers should be aware of environmental risks and the need to support sustainable development strategies. They also need to understand the importance of these stipulations and should be motivated to conform.

Quality Focus

There were times when the producers' responsibilities ended after a product was sold or a service was provided. However, there are now national agencies that are mandated to ensure that quality standards are maintained, and TVET management personnel must now ensure that workers are aware of quality standards and are committed to maintain such standards. Anderson, Fornell, and Rust (1997) pointed out that there is a link between customer satisfaction and productivity, because when customers are satisfied with quality products there will be less expenditure in money, time, and effort in handling returns, re-doing work, meeting warranty claims, and addressing customer complaints. TVET programmes must ensure that there are learning objectives which focus on developing quality consciousness among students.

Entrepreneurship

The Indus Entrepreneurs (2003) pointed out that there is a need for people who can identify opportunities for meeting public demand for goods and services by the creation of enterprises, while at the same time

producing wealth and jobs. TVET students are trained to develop skills that can help them to earn a living as employees. However, training should not be based on an assumption that TVET graduates are being prepared solely for paid employment by an employer. The possession of TVET skills can be exploited by adequately prepared workers to facilitate their entry into self-employment and to create small enterprises. Furthermore, self-employment and small business creation have become more pressing as tenured employment has been greatly reduced, because large firms outsource operations to smaller firms and individuals. Kalleberg (2012) found that outsourcing has been part of cost-cutting strategies adopted to meet the pressures of globalization, where the main objective is no longer to provide full employment but to maintain price stability. Skilled workers can respond to loss of tenured positions by going into business themselves to benefit from outsourced opportunities.

Lochan (2004) advised that, quite often, attempts at developing entrepreneurial skills are unsuccessful because the course designers have failed to recognize that attitudinal change is required. He noted that the aim should be on development of a spirit of entrepreneurship. Erkkila (2000) outlined several approaches used to develop a spirit of entrepreneurship, including: raising awareness of the role of small business in market economies; participating in authentic business operations, such as involvement in the operation of the school cafeteria and copy centre; and instruction in some of the functional areas of business, such as accounting, finance, marketing, legal issues, business, planning, and management.

The Need for Higher-Order Thinking Skills Among Workers

Workers of today are expected to operate at a level that is higher than simply performing manual operations; they have to take decisions, identify and solve problems, and evaluate solutions. They therefore have to develop higher-order thinking skills that will enable them to engage in critical thinking, researching, and creating solutions. Kerka (1992) explained that learning does not automatically transfer to new settings, but requires carefully designed learning activities. Passive learning does not develop thinking skills, and behaviour change is not always an indicator of higher-order learning. The latter involves the construction of meaning from experience. There is therefore need for more constructivist teaching strategies, alternative assessment methods, and new ways of teacher preparation to support the development of these higher-order skills.

In agreement with Kerka, Lum (2003) explained that a worker's capabilities cannot be determined by any outward manifestation of skills and techniques, because being capable means that the worker possesses wider general and fundamental understandings that facilitate the performance required to complete a job. Some of the components of vocational capabilities include: "having a sense of responsibility, a capacity for decision-making, problem solving, judgement, imagination, leadership; which are neither a matter of knowing facts nor of doing particular things" (p. 3). In order to develop these capabilities Lum (2003) advised that teachers should lead TVET students into consideration of the substantial ends of the task by a process of reflection, visualization, and inference; following which the teacher introspectively determines the nature of understandings required. Afterwards, the teacher selects the most appropriate methods to develop these understandings among the students.

Winch (2013) provides additional support to this view by contending that an essential feature of human action, such as in work performance, is to formulate and execute a plan. He advised that occupational capacity transcends performance of first-order techniques, such as repetitive operations, and includes a combination of second-order abilities related to transversal skills and project management. Transversal abilities include planning, communicating, and evaluating, all of which are critical to work performance. Project management involves long-term sequences of actions that integrate the transversal activities. TVET curricula need to include strategies for developing transversal and project management abilities among students.

Thomas (1992) drew on cognitive theories to recommend that vocational teaching and learning must introduce collaborative learning environments in which groups of students work on authentic tasks. She suggested that classroom activities should be linked to real-world tasks and issues, and should engage students in actively questioning arguments and in applying what was learned to new and novel situations. Furthermore, students should be free to explore alternative ideas, and not accept a single position as being the sole means to a solution. One approach for ensuring that TVET students have experience in working with groups on authentic tasks is to introduce a training model that integrates work-based experiences into vocational TVET.

The European Commission (2013) described three models of combining institution-based with work-based learning. One model, called the *alternance* or *apprenticeship model*, is where the student is based in a workplace and attends an institution to develop occupationally related knowledge. A second model is school-based, where students are

enrolled in an institution, but acquire authentic work experiences through temporary attachments or internships. A third model requires the establishment of simulated work environments in the school, and/or the involvement of students in authentic work conducted at the institution, such as in the cafeteria, library, or registry. In addition, there are some schools that undertake live jobs from real clients to provide students with genuine work experiences related to the curriculum These models are worthy of consideration by TVET organizations in the Caribbean if the quality of TVET is to be improved.

Middleton (2003) advised that problem-solving ability can be developed among TVET students by building on the students' existing abilities, and moving to more complex problem-solving tasks. A range of such problems should be drawn from authentic work situations that practitioners could be expected to encounter in the workplace. He noted that problem solving should be complemented by engaging students in problem finding so that they learn to represent problems in various ways. In addition, it should be recognized that problem solving is often a shared activity and that problem-solving tasks should be performed by collaborative groups.

Meeting the Needs of the Digital Age

Bartel and Sicherman (1998) observed that technological change is always accompanied by new work practices. Information and communication technologies (ICTs) have revolutionized the workplace of today, to the extent that the traditional regard for the boundaries of time, location, and organization has lost its significance. Work teams may now comprise members who are based in different and remote locations across the world. Birchall and Giambona (2008) contend that email has become a substitute for face-to-face meetings, and web-based conferencing can take place among participants who are in different locations, so that workers today can work on international projects from their home base.

In addition, Graham (2006) found that new production systems have evolved; one of which is just-in-time production, in which production responds to actual orders, reducing the need to maintain excess inventory. Working in this type of environment requires that workers can access the requisite just-in-time knowledge at the right time. In a digital environment, workers must be able to find the required information in sophisticated document management systems. Furthermore, Wallace (2004) found that workers are now encouraged to build learning communities, to pursue knowledge in areas of common interest, to teach

one another, and to share their knowledge. Reforms in TVET to meet present-day needs cannot ignore these imperatives brought about by ICT.

Beven (2003) maintained that digital technology requires workers who are adept at using ICT tools to locate information. He added, however, that workers must also be able to examine information to establish whether the information is related to their needs, and whether the source is credible and reliable. Therefore, apart from being able to use ICT-based communication tools, workers should be able to critically evaluate the information they intend to use. These issues have important implications for the preparation of workers for an ICT-based work environment.

Preparing Workers for Sustaining a Knowledge Economy

The notion of work has expanded from merely meeting needs for goods and services to actually building an economy. The issues considered above, where workers share their knowledge, bring into focus the importance of the knowledge created by workers to the improvement of the general economy. Schultze (2000) advised that knowledge work is the production and reproduction of information. This comprises tacit knowledge, which workers are often unaware that they possess, so that the challenge knowledge workers face is to discover their tacit knowledge and convert it into transmittable information.

At the present time, an increasing number of workers are involved in work that involves the creation of knowledge for economic purposes, so as to build a knowledge economy. Powell and Snellman (2004) pointed out that the growth of economies in developed countries has often been based on the production and dissemination of knowledge. They add that the knowledge economy involves production and services based on knowledge-intensive activities that contribute to technological development. However, they were quick to add that these creations are very often short-lived, and quickly become obsolete, so that there must be ongoing research and knowledge-creation activities. They point out that whereas in the past workers have been expected to contribute mainly physical inputs, today's knowledge workers rely on their intelligence and contribute their ideas. The Caribbean states need to support the development of a knowledge economy by widening their engagement in regional research.

Mustapha and Abdullah (2004) reviewed the literature on knowledge workers and identified several characteristics that employers believe knowledge workers should possess in order to perform their role successfully. They found that workers for the knowledge economy

should possess communication and persuasion skills—the ability to influence others to their point of view. Knowledge workers should have an understanding of the fast-changing external environment that will help them to become more flexible and adaptable, with a commitment to lifelong learning.

Knowledge workers need to possess good interpersonal skills so that they can work in teams, willingly giving and receiving suggestions from team members. Additionally, they should be highly tolerant of ambiguity, possess a well-developed sense of personal responsibility, and should not hesitate to take action, once the appropriate indicators for action are present. Furthermore, they must have an entrepreneurial spirit where they can spot and exploit opportunities for using information for wealth creation.

McLean and Lai (2011) observed that the preparation of knowledge workers requires teachers who can facilitate learning rather than merely delivering information. Curricula must promote and facilitate learning and thinking, based on students' performance of learning tasks. They noted that some writers suggested that a competency-based approach to curriculum development could facilitate this change.

Conclusion

In the past, the Caribbean region had a reputation for creativity and self-reliance, and our workers had an international reputation for innovation and competence. This creative capacity has declined because of the ease of acquiring imports, and also because of stagnation in TVET systems that continue to aim at practical skill development at the expense of the development of higher-order skills. Within recent times we have witnessed the widespread importation of foreign workers, while our own people are employed on make-work projects. We have continued in a traditional belief mode where TVET occupies a secondary role in education systems.

However, in order for TVET to regain its relevance to Caribbean development, there is need for curriculum planners to recognize that societies have changed to become more demanding and sceptical. In some respects, this paper is a wake-up call to TVET planners to recognize the changes in the wider society and to respond accordingly. The work norms have changed so that secured tenure in paid positions is on the decline, and the roughness and toughness of the workplace have yielded to new sensitivities to democratic rights and recognition of individual aspirations. To these ends, TVET curricula must be substantially reviewed to focus on achieving the image of a new type of

worker for this new age, in which the societal values and expectations are being drastically changed.

Some of the reforms discussed in this paper include focussing on the development of higher-order skills, empowering future workers to be autonomous decision makers, and recognizing students' needs and aspirations through initiatives for their personal development. To achieve these ends, a case was made for greater integration of the academics with worker preparation and the deliberate development of employability skills. The rapid infusion of ICT into all occupations was noted, and planners were warned that this development calls for immediate curriculum revision. Planners were also alerted to the decline of tenured work, and a suggestion was made for TVET programmes to prepare students to exploit their TVET abilities for self-employment and entry into small businesses.

It was posited that in order to facilitate these changes, the model of TVET must be revised to produce a composite model, where TVET would include institution-based preparation combined with work-based experiences in authentic settings. The time has come for TVET in the Caribbean to take a great leap forward; to recognize that past approaches based on specific techniques have become outmoded and inappropriate for the new social and economic environments in the Caribbean.

References

Anderson, E. W., Fornell, C., & Rust, R. T. (1997). Customer satisfaction, productivity, and profitability: Differences between goods and services. *Marketing Science, 16*(2), 129–145. doi:10.1287/mksc.16.2.129

Bartel, A. P., & Sicherman, N. (1998). Technological change and the skill acquisition of young workers. *Journal of Labor Economics, 16*(4), 718–755. doi.org/10.1086/209904

Beven, F. (2003). Developing information literacy. In J. Stevenson (Ed.), *Developing vocational expertise: Principles and issues in vocational education* (pp. 110–132). Sydney, Australia: Allen & Unwin.

Birchall, D. W., & Giambona, G. (2008). The impact of ICT on the work patterns of managers and their organisations. *EuroMed Journal of Business, 3*(3), 244–262. doi:10.1108/14502190810906428

Bloom, B. S. (1978). New views of the learner: Implications for instruction and curriculum. *Education Leadership, 35*(7), 563–576.

Burns, P. (2001). *Entrepreneurship and small business.* Hampshire, UK: Palgrave.

Erkkila, K. (2000). *Entrepreneurial education: Mapping the debates in the United States, the United Kingdom and Finland*. New York, NY: Garland.

European Commission. (2013). *Work-based learning in Europe: Practices and policy pointers.* Brussells, Belgium: Author. Retrieved from: http://ec.europa.eu/education/lifelong-learning-policy/doc/work-based-learning-in-europe_en.pdf

Fischer, M., & Boreham, N. (2008). Work process knowledge. In F. Rauner & R. Maclean (Eds.), *Handbook of technical and vocational education and training research* (pp. 466–474). New York, NY: Springer.

Graham, L. (2006). Manual workers: Conflict and control. In S. Ackroyd, R. Batt, P. Thompson, & P. S. Tolbert (Eds.), *The Oxford handbook of work and organization* (pp. 338–355). Oxford, UK: Oxford University Press.

Huie, A. (2013). TVET Council: Change mentality towards vocational education. *WINN FM 98.9- West Indies News Network.* Retrieved from: http://www.winnfm.com/news/local/4435-tvet-council-change-mentality-towards-vocational-education

The Indus Entrepreneurs. (2003). *Essentials of entrepreneurship: What it takes to create successful enterprises.* Hoboken, NJ: Wiley.

Jin, Y., & Li, L. (2011). A postmodern perspective on current curriculum reform in China. *Chinese Education and Society*, *44*(4), 25–43. doi:10.2753/CED1061-1932440402

Justia. (2013). *Sexual harassment.* Retrieved from: http://www.justia.com/employment/sexual-harassment/

Kalleberg, A. L. (2012). Job quality and precarious work: Clarifications, controversies, and challenges. *Work and Occupations*, *39*(4), 427–448. doi:10.1177/0730888412460533

Kerka, S. (1992). *Higher order thinking skills in vocational education* (ERIC Digest No. 127). Columbus, OH: ERIC Clearinghouse on Adult Career and Vocational Education. (ED350487)

King, K. (2011, January). *Skills development and lifelong learning. Challenges for poverty reduction, sustainable growth and employability*. Keynote presentation at the International Symposium on Lifelong Learning 2011, Hong Kong. Retrieved from http://www.ied.edu.hk/isll/Download%20Files/Panel3_Prof_Kenneth_King.pdf

Kowlessar, G. (2011, July 7). NPTA head calls for scrapping SEA. *Digital Guardian.* Retrieved from: http://guardian.co.tt/news/2011/07/07/npta-calls-scrapping-sea

Lochan, S. N. (2004). *Entrepreneurship: A challenge facing the education system of Trinidad and Tobago* (Unpublished doctoral dissertation). The University of the West Indies, St. Augustine.

Lum, G. (2003). Towards a richer conception of vocational preparation. *Journal of Philosophy of Education*, *37*(1), 1–15. doi:10.1111/1467-9752.3701001

Majumdar, S. (2011, January). *Lifelong learning for sustainable development.* Keynote presentation at the International Symposium on Lifelong Learning 2011, Hong Kong. Retrieved from http://www.ied.edu.hk/isll/Download%20Files/Panel4_Prof_Shyamal_Majumdar.pdf

McLean, R., & Lai, A. (2011). The future of technical and vocational education and training: Global challenges and possibilities. *International Journal of Training Research, 9*(1–2), 2–15. doi:10.5172/ijtr.9.1-2.2

Middleton, H. E. (2003). Developing problem-solving skills. In J. Stevenson (Ed.), *Developing vocational expertise: Principles and issues in vocational education* (pp. 135–150). Sydney, Australia: Allen & Unwin.

Mustapha, R., & Abdullah, A. (2004). Malaysia transitions toward a knowledge-based economy. *Journal of Technology Studies*, *30*(3), 51–61.

Powell, W. W., & Snellman, K. (2004). The knowledge economy. *Annual Review of Sociology, 30*, 199–220. doi:10.1146/annurev.soc.29.010202.100037

Rust, V. D. (1991). Postmodernism and its comparative education implications. *Comparative Education Review, 35*(4), 610–626. doi:10.1086/447066

Schultze, U. (2000). A confessional account of an ethnography about knowledge work. *MIS Quarterly, 24*(1), 3–41. doi:10.2307/3250978

Sheehan, M., & Griffiths, J. (2011). Understanding the context of workplace health management as it relates to workplace bullying. *International Journal of Workplace Health Management, 4*(1), 5–12. doi:10.1108/17538351111118563

Slattery, P. (2013). *Curriculum development in the postmodern era: Teaching and learning in an age of accountability* (3rd ed.). New York, NY: Routledge.

Thomas, R. G. (1992). *Cognitive theory-based teaching and learning in vocational education.* Columbus, OH: ERIC Clearinghouse on Adult Career and Vocational Education. (ED 345102)

Uggen, C., & Blackstone, A. (2004). Sexual harassment as a gendered expression of power. *American Sociological Review, 69*(1), 64–92. doi:10.1177/000312240406900105

UNESCO. (1999). *Second International Congress on Technical and Vocational Education: Final report.* Paris, France: Author. Retrieved from: http://unesdoc.unesco.org/images /0011/001169/116954e.pdf.

U.S. Equal Employment Opportunity Commission. (n.d.). *Sexual harassment*. Retrieved from: http://www.eeoc.gov/laws/types/sexual_harassment.cfm

Vaz, G. (2012). From prejudice to pride: Policy perspectives for vocational skills and training to empower citizens. In G. Vaz (Ed.), *Integrating vocational education with academic education in Commonwealth open schools* (pp. vii-xxii). Vancouver, Canada: Commonwealth of Learning. Retrieved from: http://www.col.org/resources/publications/Pages/detail.aspx?PID=433

Wallace, P. (2004). *The Internet in the workplace: How new technology is transforming work*. Cambridge, UK: Cambridge University Press.

Williams-Smith, M. (2004, October 25). *Appropriation Bill. Trinidad and Tobago. Parliament. Senate. Hansard*. Retrieved from: http://www.ttparliament.org/hansards/hs20041025.pdf

Winch, C. (2013). Three different conceptions of know-how and their relevance to professional and vocational education. *Journal of Philosophy of Education, 47*(2), 281–298. doi:10.1111/1467-9752.12025