

EVALUATION ON SUSTAINABLE DEVELOPMENT IN VOCATIONAL COLLEGES: IMPLEMENTATION AND CHALLENGES

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Abstract

The main purpose of this study was to explore the extensive growth of courses among the Vocational Colleges developed by the Ministry of Education since 2012. In order to determine the sustainability of the development, this study specifically seeks to explore the scope and quality of Vocational Colleges implementation via the integration of sustainability development among educators, and to investigate challenges occurred during the implementation of the college ever since. Findings indicated that the implementation of curriculum in the colleges has made clear the infusion of sustainability from the interviews and surveys conducted among teachers and panel experts in Technical and Vocational Education and Training. It fulfills the vision and mission aspired by the education ministry. In other circumstances, majority of the respondents argued on the inconsistency of its implementation. The misconception of understanding its curriculum as well as its implementation in the schools system has made them doubt with the career path of the students in the future. This study proposed nine elements of sustainable development for vocational colleges' course to be implemented in the curriculum using the Delphi techniques. They are the skills, counselor, committed management, internship among industries, collaboration and partnership, teaching techniques, entrepreneurship, soft skills, and curriculum.

Keywords: sustainability, implementation, challenges, Vocational Colleges

1. INTRODUCTION

In Malaysia, the development of education has been made as the main strategy of the New Economic Policy, which aims to eradicate poverty and restructure the society (Rahmah, 2003). The people has high hopes for education which will give future generations opportunities for social mobility and so free them from the shackles of poverty (Hasnah and Noraziah 2007; Nor Aini 2002, Rahmah 2003).

The education sector, particularly in technical and vocational education (TVE) in Malaysia has transformed in many dimensions. All this is done for the sake of global human capital that has high competitiveness and skills. In developed countries such as Germany, technical and vocational education and vocational training are the main choice of students because it provides good career prospects (Ivan, 2007). By contrast, in

Malaysia, it is still viewed as the last resort because of the perception of limited career prospects. This negative assumptions should be denied because of technical education and vocational training actually provide the basis for a good alternative for students to realize their potential (Mohd Fuad, 2010).

The transformation of vocational education started in 2012 by the Ministry of Education is the business of devising curricula, institutions, teaching and learning, assessment, governance and human resource. Transformation of vocational education focusing on the component business and work ability to make Malaysia a high-income nation.

Vocational College (VC) is an institution of education and vocational training to implement the Standard Curriculum Vocational College (SCVC) to form a moral human capital, educated and highly skilled. VC students learning orientation is a work-based learning and training in the workplace or on-job training (OJT). VC graduate will be skilled in a particular field of vocational qualifications Vocational College Certificate, Diploma of Vocational Malaysia and international professional qualifications. Vocational College objectives established in the context of the general objective of the national education system to develop human capital moral, educated and highly skilled. The general goal was realized with the planning and implementation of education and training to achieve the following general objectives:

- i. Express a high level of employment competent and meet the requirements of industry.
- ii. Foster professional character.
- iii. Produce competent students of entrepreneurs in the field of vocational choice.
- iv. Supply knowledge to continue their studies at a higher level.
- v. Love for lifelong learning.

This study is an exploration of the existence Vocational College under the Ministry of Education and identify elements of VC sustainable development. A sustainable development strategy for technical and vocational education and training by international center for technical and vocational education and training (UNEVOC) 2004 be used as the basic element in the formation of sustainability VC.

2. SUSTAINABLE DEVELOPMENT

The concept of sustainability or sustainable development has begun to be defined for the first time in the Brundtland Commission Report, the World Commission on Environment and Development. Brundtland (1987: 37), sustainable development has been conceptualized in a variety of purposes and one of them is "... development that meets the needs of the present without compromising the ability of future generations to meet their own needs ... ". It implies the development of the current generation without compromising the rights of future generations. He also stressed that the public should be concerned and take the memory of that development is done now will not affect the lives and welfare of the community in the coming days.

TVE is the master-key to sustainable development (Mohamed Jallah, 2004). Affirmed that sustainable development of society needs to ensure that development is done now will not affect the life and welfare of the community in the coming days. In this context, the existence of VC is expected to produce more of the nation's workforce to further enhance economic growth. Economy is an element in sustainable development or sustainability. The country expects to produce more students who tend to the fields skills related to further produce skilled human capital.

3. METHODOLOGY

In particular studies conducted using the Delphi study. The aim is to obtain the views and opinions of a high level of agreement among the panel of experts set up by the researcher. Delphi study was chosen because it is designed to optimize yangv input obtained from the individuals involved in the panel of experts has been formed.

The selection of an expert panel is in the Delphi study among individuals with a high level of knowledge in the field of technical and vocational education. For the purpose of determination of criteria such as the following as basic guidelines for the designation of an expert panel Delphi study, namely:

- i. Possess a doctoral (Ph.D) in the field of technical education and vocational training for the Public University lecturer; the lecturer of the Institute of Teacher Education (ITE) and teachers have served more than 10 years.
- ii. Have knowledge of the curriculum and the implementation of the VC.

- iii. Those who are directly involved in the implementation of VC especially from Ministry of Education.

The expert panel selected based on their willingness and ability to express an opinion on a topic that has been discussed and has deep experience in respect of such matters (French et. Al, 2002) with the criteria laid down. Eight people have been selected as expert panel to get elements of sustainability VC. Interview was conducted based on an interview protocol that was prepared by the researcher.

4. DATA ANALYSIS

4.1. Delphi Study Participant Profile

The data on this category involves the following aspects of gender and designation as illustrated in Table 1.

Table 1: Panel of experts Delphi study based on the title and gender

DESIGNATION	MALE	FEMALE	TOTAL
Academic Staff from Public Universities	3	-	3
Training Institute Director	1	-	1
Lecturer Institute of Teacher Education	1	-	1
Ministry of Education Officer	1	-	1
College Vocational Director	1	-	1
Excellent Teacher	-	1	1
TOTAL	7	1	8

A total of eight people involved themselves actively in the Delphi study was conducted. They are involved in the interviews conducted in their respective institutions to get their views and identify elements of continuity VC in Malaysia. A total of 3 male academic staffs from public university, a lecturer of the Institute of Teacher Education, a director of the training institute, an education officer from the Ministry of Education, a director of the Vocational College and an outstanding female teacher have been appointed to the panel expert Delphi study. Their selection process is in accordance with the selection criteria of the expert panel Delphi study have been set at the beginning of the planning.

5. IMPLEMENTATION AND CHALLENGES

A total of nine issues or elements of sustainable development in the VC curriculum have been identified from interviews with a panel of experts Delphi studies. These elements are the skills, counselor, committed management, internship among industries, collaboration and partnership, teaching techniques, entrepreneurship, soft skills, and curriculum.

i. Skills

Skill is an important element to the VC students to study or work in the field which they are trained. The skills will determine the student's' direction as soon as they graduate. The expert panel believes that skill is an essential element for the sustainability of VC, so that it is more sustainable to meet the development needs of the country's human capital. Skills for a particular program in technical education and should be given a priority.

According to Mohamad Salleh (2009), to be a developing nation of excellence, glory and distinction, it must be supported by human capital of excellence, glory and distinction as well. Having a knowledgeable human capital and high-skilled is the most important factor for Malaysia to transform its economy towards achieving developed nation status with high income by 2020 (Ismail, 2012). He agreed with Norhafizah (2014) which states that one of the efforts to achieve Vision 2020 envisaged is through education.

ii. Counselors

Counselors will also be one element in the preservation of VC. VC success is a high tendency of students

who choose VC with the help of a counselor. Apart from the expert panel believes that the counselor has a good knowledge of related implementation VC and they should provide ongoing support. According to a study conducted by Abd Hair Awang (2011), there are three parties which affect students' perceptions of technical and vocational education. The parties are the parents, counselors and teachers in the school. These parties give a negative perception that technical and vocational education as a low level of qualifications, suitable for school drop outs and for students who are unable to meet the challenges of the school curriculum.

Ramlee (2012), a teacher who was influenced by progressive ideas sees themselves as counselors to the students and facilitators of learning rather than the speaker to the subject being taught. Attitude to work more than the attitude adopted in class racing or competing with each other. Development of individuals according to their respective abilities more attention than development than others. It is backed by Mok (2009) which states that teachers have also always been a counselor/motivator to students by giving encouragement, strength, energy to lead, maintain the ideals and chain operations to achieve a goal.

iii. Committed management

The management of VC needs to create environment monitoring including with superiors and lecturers in their respective institutions. This is confirmed by Mohammad Sani (2001) because of changes in the educational environment itself. In the field of technical and vocational education, the development of technology to be a thing that must be followed in order to be associated with the content in VC with current technology or technology skills. Increased knowledge and teaching skills acquired by VC lecturers while attending staff development program organized either at the agency or at the industry ministry is helping them during the process of teaching and learning in the workshop. This is to increase the quality of VC. Committed management is one of the critical factors in quality management described in the literature consistently by many researchers. (Shire et al., 1996; Irawati 2005; Deming; 1986) .For example, the management responsible leadership to the implementation of management (Deming, 1986).

The committed management of VC will always find new measures to improve the performance of their services. Committed management should improve service performance, so that it can be assessed based on the activities and actions performed. For the example, the management showed strong support for activities related to customer service (Black and Porter, 1996), they are also actively involved in VC activities and always make an assessment and a review of all complaints (Saraph et al., 1989). All the activities and measures enable the management to get the latest input on the performance of their services. This in turn can drive the initiative to find measures that need to be done to achieve the level of service performance management commitment to VC.

iv. Internship among industries

Internship among industries is also an element that is produced through this study to achieve sustainability of VC. Through these elements suggested the industry come and provide exposure to students. Relationships with industry will provide jobs to students after graduation to find a job. Finally cooperation with industry needed to facilitate student visits programs and equipment.

Internship is a field training program that aims to link the knowledge, skills and experience of existing real practice (BPG, KPM 2010). Internships also give students the opportunity to improve their self-confidence and self-esteem. The Success of the program is highly dependent on cooperation by a party through public-private partnerships. That concept is adopted by the developed countries such as Germany and Finland, which makes TVE as an important educational resource. Collaboration between public sector (government) and private (employers) are very important in the development of TVE (Josh Hawley 2012). Grubb and Lazerson (2004), agreed that the involvement is consistently among the public and private sectors is crucial to the success TVE of a country.

TVE program or VC will be more successful and promote a very useful experience for students, especially if the firm cooperation of the industry. The involvement of the industry to improve vocational education was started in early 2002 in England (Jenny Asher 2005).

v. Collaboration and partnership

Collaboration and partnership with the Public Training Institute (PTI) should be done to expose students to the equipment and machinery that is not in the VC workshop. Partnership between schools and technical education institutions such as Community College nearby is also necessary because of its benefits to students and lecturers involved with VC. According Batorski and Hughes (2002), sharing often increases the

added value of a service or product. In the context of it will be beneficial to students, faculty, college and the management of this VC.

Sharing of network elements which are necessary to create networking, like to join other countries so that information can be shared and made comparisons other than running collaboration with other institutions such as public or private institution for equipment, programs, faculty, and resources.

vi. Teaching techniques

Various teaching techniques are suggested to teachers to achieve teaching objective. For success of a curriculum especially in TVE, teaching methods are considered to be important for the interest of learning for students. The method of teaching is an element of sustainable development for VC. Teaching and learning will be more meaningful if the VC teacher has good teaching skills and master a variety of teaching techniques.

Shahril @ Charil (2005) states that the role of teachers in developing countries is very important and effective teaching techniques mean that the teacher is trying to diversify teaching methods, provide teaching aids and deepen the content to be taught. In addition, teachers also need to be aware of the abilities of students receiving education or level of education, motivate the students to study hard, be able to control the behavior of students and to provide regular assessments or examinations to students. Elements of teaching techniques considered to be important in the implementation of VC. Mohd Zanal (2009) also demanded the teachers have teaching techniques in teaching and learning should focus on hands-on experience, a visit to the factory, field work, laboratory work and placement in industries. In addition, he also suggested that teaching techniques should apply problem-solving skills, creativity and innovation skills in achieving sustainable development in the TVE.

vii. Entrepreneurship

Entrepreneurship is one of the elements that has a significant influence on sustainable development of VC. Overall findings for this element found VC students should be given the opportunity to market the resulting product, VC curriculum should encourage students to become entrepreneurs and VC lecturers should be given enough exposure in entrepreneurship. Many researchers noted that at least students know how to design a product or market a certain product. In addition they can also produce a cost-effective product and also has the characteristics of entrepreneurship others.

Zaidatul Akmaliah and Habibah (2000), argues for the individual school function that will be the workers, why not just to produce instilled values and interests so that when students leave school they will become an entrepreneur or small business owner. They trust this person can be born entrepreneurs through education and training. However, since 2000 a variety of subjects of entrepreneurship education ministry introduced subjects such as entrepreneurship education, business management and business studies.

Tam, Suhaida and Abdul Patah (2008) has suggested that entrepreneurship in TVE can strengthen business skills through the activities undertaken. Accordingly, VC curriculum should encourage students to become entrepreneurs and students are given the opportunity to market the product. The teaching method is a form of experience between the methods appropriate for education and training for entrepreneurship (Shuman & Hornaday 1975). Implementation of entrepreneurship education in VC is expected to help students to be more independent and earn their living either salaried or self-employed. Patterns such as mergers or the application of the characteristics of entrepreneurship in this area actually has been the practice in some developed countries such as Japan and Germany.

viii. Soft skills

Soft skills contributed to the preservation of the eighth discussed. This shows, the soft skills need to be applied in VC for students who will enter to the workforce which required by employers today. In addition, the study allows students to communicate well VC between friend and teacher. Jennifer (2004) stating that the communication skills and entrepreneurial skills that involve to estimate costs.

There are many students who have conducted studies related soft skills, especially at the level of students in higher learning institutions both public and private. This is the starting point of the research conducted by some researchers to employers and industry. Some comments have been given by employers and industry about the quality of university graduates who complicate their party took work in their respective places. Consequently, the Ministry of Higher Education Malaysia has already introduced a number of specific skills which known as soft skills in public university aims to ensure that every student will have the soft skills

immediately after completing their studies at universities and meet the demands of employers and industry while working in the future. This refers to the study of William (2005), which found employers prefer workers who have the soft skills.

ix. Curriculum

Establishment of a good curriculum and ongoing monitoring are essential in order to produce quality VC students and curriculum of the industry's needs. As written in newspaper articles online messenger (Published: 10/09/2011), Deputy Prime Minister of Malaysia, Tan Sri Muhyiddin Yassin said the curriculum should be modular, competency-based and emphasizing the practical aspects. He explained, curriculum will be known as the Standard Curriculum Vocational College (CSVC) that includes elements of creativity and innovation, entrepreneurship, skills and knowledge, combined technology intertwine with the needs of industry and professional bodies. This suggests that the curriculum is one of the elements that related to each other with the elements that researchers have obtained in this study.

The goal of VC introduced is to produce skilled student in the relevant field of entrepreneurship and means to enable them to get a job to start a business or to continue training at a high level (CDC 2001). Clearly entrepreneurship has been emphasized in to the curriculum to produce students who have basic or knowledge related to entrepreneurship. Thus entrepreneurship plays an important role in shaping students to become entrepreneurs (Jonsson & Jonsson 2003). However, VC curriculum should be monitored from time to time so that the ultimate goal can be achieved and produce highly skilled VC graduates.

6. CONCLUSION

In summary, this study has produced the elements of sustainable development for Vocational College. TVE responsibility centers are now fully taken over the operations is the Division of Technical and Vocational Education (DTVE) and the Curriculum Development Centre (CDC), the Ministry of Education's special guard VC curriculum taking into account the elements that have been discussed. Sustainability of VC will make it survived and established in order to uphold the technical and vocational education. This is in line with the country towards becoming a high-income country as stipulated in the 10MP.

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