

TECHNICAL VOCATIONAL EDUCATION AND TRAINING (TVET) IN MALAYSIA: THE NEEDS FOR IN TRAINING AND RETRAINING TEACHERS IN VOCATIONAL COLLEGE

Rohayah Adiman^{*}, Rahida Binti Ramli², Ainiza Binti Silim³, Siti Khadijah Binti Yusof⁴, Siti Rawaidah Binti Razikin⁵

Department of Commerce, Politeknik Sultan Salahuddin Abdul Aziz Shah, Seksyen U1, 40150 Shah Alam, Selangor, Malaysia

ABSTRACT

Technical Vocational Education and Training (TVET) become an important and main route in providing highly-skilled human resources to achieve the developed nation status by 2020. In 2018, Ministry of Education become a largest recipient of funds whereas RM206 million were allocated to develop and prepare training programmed at polytechnics, community colleges and vocational colleges. It's show that Malaysia are committed to produce highly-skilled human resources to fulfill the demand-supply gap in various industries. However, in order to achieve the highly human resources the developing highly effective instructors also should be consider. Currently, teachers and instructors are still pressing issue due to a lack of quality and quantity where most of TVET teachers are recruited from fresh graduates of vocational and technical colleges and universities, thus lacking in industrial experiences. To produce the good quality of Technical Vocational Education (TVE) teachers must be specialized in their field. However, this study has not been exploring yet especially in vocational collage where many of them were employed with the necessary technical skills but no had more opportunity to undertake professional training. At the same time qualified personnel with work experience are not willing to become teachers due to the unattractive salary scheme. This paper is a review of the structure and performance of the TVE teachers in Malaysia focusing on development of curriculum, program design, the nature of learning material and stakeholder's involvement in vocational college. Improving the quality of teachers in TVET is related to raising the quality of technical and vocational education.

Key words: Training; Retraining, TVET, Teacher

1. INTRODUCTION

The important of being competent and well-performing teacher in any educational institution are undoubted. The teacher is considered the professional agent and the most directly responsible person in the process of learning. According to [1], preparing teachers for the teaching profession is conceived as being a higher priority in any country since this profession is considered as being challenging and critical, and may lead to nations' rising and progress in the different domains. A lot of attention has been given to the teacher quality through media, policymakers and researchers on this also high and debates about teachers have been intense, creating numerous policy decisions at local, state and national levels. However, improving teacher quality and teacher preparation is no simple task. In Malaysia teachers was trained in universities and teacher's training institutions. For Teaching Vocational Education (TVE) teachers a few universities and teacher's training institutions provided the courses which can fulfil the school's needs.

Concerns regarding the competence and the importance of training and retraining of Technical and Vocational Education and Training (TVET) teachers should not be taken lightly as problems are pervasive in TVET institutions across the country. The report by SEAMEO VOCTECH (2012) states that '...most of the TVET teachers are graduates from different levels but still lacking in industrial practice and exposure'. Education Statistics Indicator 2012/2013 reported that teachers in Cambodia have low academic qualifications and teachers did not receive training in pedagogy [3]. According to [4] due to the problems related to TVET trainers in countries such as Bangladesh, Cambodia, Sri Lanka, Lao PDR, Vietnam, and Indonesia, where they are facing a shortage of TVET trainers qualified and proficient in pedagogy and technology. Furthermore, expert workers in the industry have lost interest in working as teachers in TVET institutions and prefer to work in other sectors due to the low salaries in the teaching profession [5].

In Malaysia TVET education began at the end of 1806 to train local young people to work as mechanics and fitters on the national railways [6] The educational reform in Malaysia began in the early 1980s, as mentioned in the Cabinet Committee Report in 1979. TVET as part of the development of Malaysia, promoted a broad range of participation in business and trade. As such, technical and vocational education were expanded and further developed in

line with national development [7]. In Malaysia, TVET is led by eight ministries: the Ministry of Human Resources, the Ministry of Works, the Ministry of Youth and Sports, the Ministry of Higher Institution, the Ministry of Education, the Ministry of Regional and Rural Development, the Ministry of Agriculture and Agro-Based Industry, and the Ministry of Defence. The ministries have the common objective and goal to produce a generation of Malaysians with knowledge and skills in their respective fields [8]. The Malaysian Qualifications Agency (MQA) under the Ministry of Higher Education is a government body which gives accreditation to TVET institutions and accredits the training programs implemented in the universities, polytechnics, community colleges, and training institutions under MARA, while the Department of Skills Development under the Ministry of Human Resources is the accrediting body for both public and private institutions for skills development. At present, there are 1369 TVET institutions in Malaysia, including universities, polytechnics, community colleges, vocational colleges, technical schools, and public and private institutions, for skills development [9].

Education Minister Maszlee Malik (2019) says the cabinet has approved a proposal for a single qualifying body for Technical and Vocational Education and Training (TVET) courses. It's means process of integration will begin for vocational colleges, polytechnics, community colleges, and technical universities in the country. However, programs at vocational colleges were often criticized for being unrecognized or unaccepted. The competence of teachers in vocational colleges always issued. Thus, the discussion on this study will try to answer the questions is that the training that teachers have will provide the best performance for TVE in vocational college? Is that the Curriculum development, program design, the nature of learning materials and stakeholders involvement are the another factors should teachers know and improve. For teachers who had five, ten or more experience in teaching, Does the retraining is needed to make their knowledge relevance in General or vocational education?. Issues on training and retraining of teachers is a "tough choice" in many developing countries [10]. In the human capital framework, general education creates 'general human capital' and vocational and technical education generally creates 'specific human capital' [11]. The former is portable across one's life and from job to job, while the later one is not and hence many advocate general education, as more suitable to the flexible labor force that can change task and even the type of work; but the later one has an advantage, imbibing specific job-relevant skills, that can make the worker more readily suitable for

a given job and would make them more productive. Hence both are important, and education systems in many countries therefore include both general and vocational streams in order to provide a varying proportions of education.

2. LITERATURE REVIEW

2.1 Training for Vocational College Teachers

In Malaysia, teachers training and professional development are seen as central mechanisms for the improvement of teachers' content knowledge and their teaching skills and practices in order to meet high educational standards. According to [12] teacher training in TVE can be defined as the main role in providing the skill. Training is concerned with the development of knowledge and skills to be used immediately or in the very near future and deals with developing people who already have or who are just about to enter a job. This statement agreed by [13] where they said in a nutshell, vocational education and training is learning activity which can contribute to successful economic performance and tangible economic and social gains. It is this focus on tangible outcomes and accountability which broadly distinguishes them from general vocational and education system and services.

As stated, in Malaysia teachers training was conducted by a few universities and teacher's training institutions. In 1980s and 1990s Technical Teacher's Training College was one of the training centres provide the vocational courses for vocational schools in Malaysia. At first the training centres offered courses such as Automotive, Building Constructions, Welding and Electric & Electronics. Each of the trainees should complete their training within one and half years to three years depends on their basic qualification. Within the training duration they should attend the industrial training for 6 months to have knowledge and skills in their fields. The strength of this experience or is called a situated learning in a particular setting such as the workplace is that learning occurs where the problems to be solved are real or live. They were located in selected industries and will supervise by the person in charge there. Lecturers will come to observe two or three time to make sure trainees will follow the college and industries rules. Trainees learned a lot in this training. They will have extra knowledge and skills for the preparation when they will be a teacher soon. After

they finished their training in colleges they will be awarded the certificate and diploma as a teaching license.

The government policy had changed and a few improvements have been done to the syllabus in order to increased high quality of teachers especially in TVE. The focus to produce teachers are more to technical field which is not skill oriented. Universities provide the degree course for TVE teachers. When they complete their study they will graduate as another student in other courses but they will teach technical & vocational subject in technical or academic schools. The different of two types of training, teachers graduated from training colleges are more focus in their skills. Teachers from universities are more knowledge in terms of science & technology. What all the teachers needs in retraining which can improve their quality, curriculum content, approach of teaching & learning to make TVE is the main choice of parents to send their children to technical & vocational education system in Malaysia.

2.2 Curriculum Development of Training

Every time there are changes or developments happening around the world and due to this the school curriculum also were affected. A curriculum is considered as the “heart” of any learning institution which means that schools or universities cannot exist without a curriculum. With its importance in formal education, the curriculum has become a dynamic process due to the changes that occur in our society. Therefore, in its broadest sense, curriculum refers to the “total learning experiences of individuals not only in school but society as well” [14]. According to [15] Curriculum development defined as planned, a purposeful, progressive, and systematic process to create positive improvements in the educational system. Whereas Curriculum development of training is a training that must be given especially to teachers including TVET educators to ensure they are able to provides answers or solutions to the students regarding world’s pressing conditions and problems, such as environment, politics, socio-economics, and other issues of poverty, climate change, and sustainable development.

For the reason of TVET as a catalyst for economic growth and is expected to fill the gap of skilled workers of 7% (5,352) by 2020 with 60% of the 1.5 million jobs that will be created during the Eleventh Plan will require TVET-related skills (11th Malaysia Plan, 2016) the TVET educator quality becomes a focus of many TVET stakeholders in recent years. As for Malaysia, under the 4th shift of Malaysia Education Blueprint 2015-2025 (Higher Education), an initiative to produce quality TVET

educators has been outset with purpose of preparing quality graduates. TVET educator curriculum were suggested to revise in order to ensure TVET educators have deep and broad understanding of the learning processes of students and the various factors that shape this process. This includes the demand of the industry and the current transformation in ICT and Industrial Revolution.

2.3 Retraining for TVE Teachers

According to [16] retraining defined as vocational rehabilitation or process of learning a new skill or trade, often in response to a change in the economic environment. Generally, retraining it reflects changes in profession rather than an "upward" movement in the same field. The need to retrain workers is often thought to apply to older members of the workforce, many of whom saw their occupations disappear and their skills lose value as technology, outsourcing and a weak economy combined to erode their ability to make a living. Retraining on the order hand, according to [17] is an on-the-job training used by organizations to bring about development and improved competency in the workers. This is essential especially with the frequent policy changes in education and also in the evolving new knowledge and technology based society. In TVET education retraining teachers can help to reduce mistakes and improve innovations in the teaching profession. Training and retraining of teachers can be done in the following ways: in service training, conferences, workshops, seminars and demonstrations.

Teachers should attend retraining to improve their performance and knowledge especially to make students more interested in teaching and learning session. They can have short or long term of retraining depends on the needs. Figure 1 show why retraining become important to TVE teachers including Vocational college teachers.

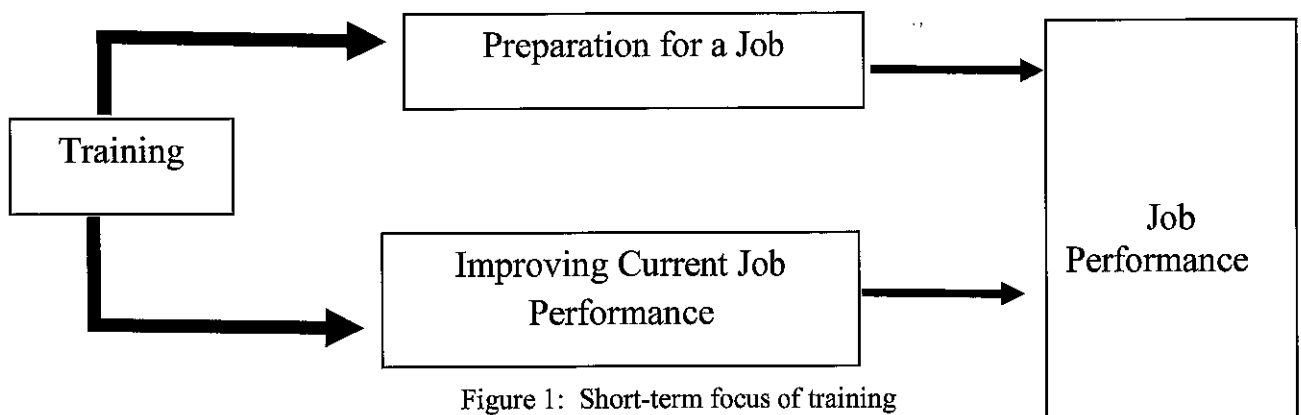


Figure 1: Short-term focus of training

The need of retraining for TVE teachers in Malaysia begun when the new of assessment introduced for vocational students in 2006. The new approach of assessment for vocational students is competency-based education and modular system was implemented. Back to the basis objectives of vocational education to prepare students gain job-oriented education, clear career pathways and opportunities to gain access to higher education. The challenges of TVET are Skill, Technical and Innovation Component which focuses on the specifics occupational area of the TVET Educator. As educators experience theoretical and practical sessions in diverse ways, the emphasis on technical aspect is vital. The subject-didactics have to reflect this competency and thus support the educator's personality development. Industry experience, research and innovation and workshop management are the important elements in this component [18]. Besides that, the present challenge is the preparation of high-quality TVET educators to execute Malaysia's policies and agenda and this concern brought about new challenges and demands, which require new capacities and knowledge on the part of educator. Different aspects of teacher quality are likely to be emphasized in different countries over different periods of time [19]. Today, the emphasis is less on quantity but more on quality.

According to [20] retraining of teachers will enable them to teach any vocational subjects, getting industries to be mentors to enable the department to train students who are suitably skilled for the work place, developing multi-skill students and gaining international accreditation for the courses offered. However, this situation was not occurred and still become the problem especially in vocational college. Due to literature review discussed this paper is to discuss and analyze the element of retraining needs for TVE teachers in terms of development of curriculum, program design, the nature of learning materials and stakeholder's involvement.

2.3.1 Retraining Program Design

Retraining program should be design towards adult learning characteristic. The characteristic of training is similar of characteristic of learning which will prepare how people learn and develop competency and expertise in the subject. Vocational college teachers will involve in this program will adapt lifelong learning experience in their carrier. The program should be designed with corporation in companies and industries involved. In designing training program, the specific outcomes are requiring to prove the competencies. Competences are defined as a combination of knowledge, skills and attitudes appropriate to the context. Key competences are those which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment [21]. The European Trade Union Committee for Education (ETUCE) describes quality teachers as equipped with the ability to integrate knowledge, handle complexity, and adapt to the ne

eds of individual learners as well as groups. Competency is one ability to perform tasks based on specific criteria; knowledge, skills, behaviors and attitudes. It is observable, measurable and practicable. Each individual can acquire competency if given the appropriate instructions, guidance, teachings, opportunities and time.

2.3.2 Learning methods and materials

Nowadays, the changing of pedagogy is important in order to fulfill the requirement of TVET education. In classroom or workshop teachers should plan and implement new approach of teaching and learning. Currently, most of the TVET teachers and educators still use the traditional method because they did not expose with the new trend of teaching especially for experienced teachers. There are various types of method and materials can be used in teaching to increase student's attentions. The suitable method in vocational education that can be use by the teachers are problem based learning (PBL), work- based learning, project -based learning and blended learning. Students can use the various source of materials from internet or discussion besides the text books provided. Furthermore, Problem-Based Learning (PBL) can be used [22] to help students become better at problem-solving. The process of solving problems encourages students working together; learn critical thing skills and they will become self-directed learners.

The other methods that can be used are Work-Based Learning. The approach of work-based learning generally used in industrial work setting where schools and colleges are placing students to learn skills in workplace environment. This strategy is an alternative to classroom training; action learning has been adopted by business schools and corporation as work-based experimental. Teachers should be able to know how to implement this method to prepare students in work-based experience. The characteristics of the method are knowledge and skills relevant for an occupation that contain essential elements of work identified by actual work.

Project-based learning also can be used to offers quite a different take on the relationship between working and learning and between being a worker and learner. Teachers will give students the task integrate previous learning to using their experience in 'real' workplace and try to solve the 'real' work problem. It will help students more expose to real world of work and can be understood as the kind of thing that real worker.

Blended learning (BL) is a last learning methods and materials suggested whereby globalization and technology are altering our views on education and educational offerings. Technology has given to many new avenues for learning. To name a few, online learning,

teleconferencing, the Internet, computer assisted learning (CAL), web-based distance learning (WBDL) and other technologies currently exist. In turn, these methods will help to coin the term “blended learning” (BL), and although the term is still ill-defined, BL has entered into the training and education scene and is gaining popularity. BL is no longer a fad but is now expanding and getting established, although rapidly changing.

2.3.3 *Stakeholders Involvement*

To achieve the level of vocational education to higher level the participation of other stakeholders is needed. Parents and industries should know their role to more upgrading the vocational schools. The program for teachers training with industries attachment will contribute the new standard of TVE teachers [23]. In TVET education the participants considered industry an essential component in ensuring the effectiveness of TVET institutions in generating qualified and skilled workers. Linkages between TVET institutes and employers empower TVET teacher education through the acquisition of practical skills, positive professional attitudes, and the gradual development of teachers’ understanding of working within industry. TVET institutes depend upon industry as a means of accessing the latest technology and practices, as well as indicating the level and types of skills currently required. An effective relationship between TVET teachers and industries will thus ensure that TVET curricula and teaching methodologies are relevant and up-to-date. The participants believed that the close collaboration between TVET teacher education and industry would significantly improve the quality and relevance of TVET. The success of TVET teacher education (and therefore indirectly, TVET education) is highly dependent on the quality of linkages, emphasized by one participant’s characterization as the “backbone” of TVET teacher education.

The benefits of TVET teachers gets from the collaboration with the industries are TVET teachers will experience a strong background of industrial working experience. Those who are less familiar with new technologies and required skills were typified as lacking enthusiasm to collaborate with industry [24]. Moreover, many participants emphasized industry as the primary source of information for TVET teachers to establish their teaching modules. Close collaboration provides TVET teachers with the opportunity to access information concerning the latest technologies used within industry, which can form the basis of suitable teaching modules. Theoretical modules are developed based on modern sciences, while hands-on modules focus on skills and working processes in practice within industries. Such modules need to be adapted with ‘soft skills’ to understand working competencies and standards in the industry [25]. This includes an awareness of the practical purpose of

a theory, its linkage with modern technology, associated skills and competencies, and whether it is currently practiced or alternatively outdated.

3. CONCLUSIONS AND RECOMMENDATION

Training and retraining become an important element to all teachers and TVE educators where there is a prevailing belief that education has entered a new environment in which quality plays an increasingly important role [26]. Therefore, all the TVET institutions including government need to be aware of the technology changes and provide effective support to the students [27]. TVET educator training and responsibilities in Malaysian context has evolved beyond its normal historical evolution. Due to this the implementation of a coherent but flexible structure of teacher training programs on different level based on the high standard of teachers are required. Malaysia should have the new National TVET-Teacher Qualification Standards as criteria against which somebody will be assessed for entering or exiting a specific teacher-training program as an element of lifelong professional development. These standards should be developing as a first step when modernizing the existing teacher training system. Skills accreditation programs for vocational teachers should be more which can collaborate with Skills Development Department in Ministry of Human Resource. To overcome the lack of skills among teachers, they are required to attend to short-term courses to improve their skills.

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