

Strengthening TVET Teacher Education

(By Professor Masriam Bukit)

The qualification of skilled workers is one of the key issues for the competitiveness of economies of most countries in the world. Speaking of economic transformation particularly in the global competition, to be able to achieve knowledge based economy each country requires to develop its knowledge based workers who are competent, adaptive, and innovative (Stevenson, 2003). Technical and vocational education and training (TVET) has proven to be essential in promoting economic growth and socio-economic development. TVET has long been considered by UNESCO as a key area in education, as it is continuously faces challenges upon preparing workers with dynamic knowledge (Maclean, 2010).

There are several factors affecting the quality of vocational education, particularly in generating workers with qualified knowledge and skills, and reality shows that the quality of TVET teachers is the most salient factor among them. TVET teachers and trainers have been long known as the backbone of countries economy development. Meaning to say that professionalization of TVET teachers or trainers is widely regarded as a critical issue that affects the effectiveness of vocational education in generating skilled workers (Bukit, 2007). It is also widely agreed that the quality of any education system ultimately depends on the quality of interactions and relationships that occurs between a learner or learners, and particularly the TVET teachers or trainers who are interacting with the learners (Grollmann, 2009). Therefore, the quality of TVET teacher education is crucial to determine the skills of future workers. Without adequate numbers of professionally qualified teachers, TVET cannot offer the qualified skilled workers (Majumdar, 2011).

As the demand for qualified skilled workers increases rapidly, so does the demand for qualified pre-service TVET teacher education, particularly in developing countries where governments strongly accommodate the rapid development of TVET schools both in terms of quality and quantity such as Indonesia (Bukit, 2010). The fact also increases the pressure, firstly, to TVET teacher training institutions to improve the quality of their pre-service TVET teachers, and secondly, continuing the training for teachers who already serve in the schools, so called in-service teachers training.

Preparing TVET teachers or instructors for TVET presents a complex set of problems that have been only partially solved, even in the most developed countries. Some of these problems are shared with other areas of teacher preparation, but some are caused by the results from the unique features in TVET education which are congruent with the world of work itself (Biddle, 1987). Although the actual task of technical and vocational teaching has some important features that clearly differentiate it from teaching in other areas, the university tends to conduct the pre-service TVET teachers education or training with almost the same approach as for all areas of teacher preparation.

One of the unique features in TVET education is that the knowledge and skills of TVET teachers or instructors can soon become outdated in a short period. This occurs as a result of rapid technological change. One of the important roots to accommodate this unique feature of TVET education in order to maintain a qualified teacher is to develop the learning culture for pre-service TVET teacher training, (Spottl, 2009). The term 'learning culture' is frequently used in order to develop a new idea for learning. It is a new term for vocational education and training, and a paradigm change which places 'learning' in the context of working processes of the teachers. In the future design of TVET

teacher training, there are questions whether learning within the context of teacher's work can be realized and how this can possibly be linked to traditional forms of learning.

To apply the learning culture with regards to the working culture, each teacher training institution should strongly invite the world of works to be important partners in pre-service TVET teacher education. Students of pre-service TVET teacher education, and even more important, the TVET teacher educators who interact with students should experience and sense the swiftness of technological change in the world of work. In teaching teacher's skills and knowledge in pre-service TVET teacher preparation, the educators should always embark from the most updated technology which is applied in the real occupation at industry. TVET teacher educators change the learning culture of the pre-service teacher's preparation, and they should "bring" the real world of work to the classroom.

In order to understand how crucial the in-service teachers training program is, several studies show that there is no relation between the lengths of service of a teacher in TVET education with his or her competency level particularly with regards to industrial skills. During his or her service time in the TVET School, he or she is never had the opportunity to experience the world of work. Several pre-service TVET training institutions rise the question why in-service teacher training programs are very popular in several developing countries, it is believed mainly because the TVET teachers lack the learning culture. Even during the in-service teacher training, teachers show poor learning culture towards the new knowledge and technology the teachers. Evaluations to several in-service teacher training programs indicate that teachers prefer to just 'receive' rather than 'search' for new knowledge and technology.

However, most of these in-service training programs were conducted with only little connection with the previous pre-service TVET teacher preparation program, and showed very little feedback flow from the in-service training program to the pre-service TVET teacher training. The certification has been widely used in several countries as the ultimate quality control and quality improvement for their TVET teachers.. For the pre-service TVET teachers the certificate is treated as the pre-requisite passport to enter the world of teaching. Within the certification policy, there is an expectation that the certified teachers will increase the quality of the teaching process, and remain qualified in the schools. In contrary, several indicators show that the certified teachers do not always show a significant teaching effectiveness. There is an indication that the certification program fails to change the teacher's learning culture.

In addition to the concerns of the TVET teacher quality improvement, currently there is a growing thought to introduce a research culture in TVET teacher education. The research conducted by the TVET teacher educators should be concentrated to build competencies in learning culture for teachers training and the competencies in developing the learning and teaching (Spottl, 2009). Rauner (2010) advises that the focus of research should also be shifted to occupational research. He mentioned that the TVET research should be carried out for the development and modernization of occupational curricula. The occupational research particularly has a decisive role with regards to the attractiveness of occupations, occupational commitment and for the realization of modern organizational concepts in the enterprises. Research for development and modernization of vocational education, including occupational research, should be implanted in any pre-service TVET teacher preparation.

Conclusion

As discussed above, preparing TVET teachers or instructors for TVET education is a complex task with many determining factors that need to be addressed and applied in TVET teacher's education and training. TVET teacher education and training should develop the learning culture both for pre-service and in-service TVET teacher training. Unless these factors are considered and implemented properly in the TVET teacher training program, the TVET education system will suffer to generate qualified skill workers.

Discussion

Through this UNEVOC e-discussion we are attempting to discuss and share the answers of the below questions:

- How to build a competence learning culture to strengthen pre-service TVET teacher's education?
- How to develop and maintain the research as the teaching and learning culture in TVET teacher's training institutions?
- How to ensure that TVET teachers and instructors remain qualified?