UNDERSTANDING THE TERTIARY VOCATIONAL EDUCATION CONCEPT : IMPLICATIONS FOR TECHNICAL AND VOCATIONAL EDUCATION IN MALAYSIA

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UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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Session One:

Understanding the Tertiary Vocational Education Concept: Implications for Technical and Vocational Education in Malaysia

By:

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Kolej Universiti Teknikal Kebangsaan Malaysia

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Ismail Hassan
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ABSTRACT

Policies and recommendations influence the planning, development and implementation of technical and vocational education in Malaysia. The education starts formally at the upper secondary leading through post secondary to tertiary levels. Tertiary level education is most important with the main objective to provide a complete knowledgeable, competent and highly skilled workforce required to propel the country towards becoming an industrialized nation and achieving developed status by the year 2020. The phenomenal growth of diverse tertiary technical and vocational institutions in the last few years augurs well for the development of the country. Important factors that influence the development of technical and vocational education to meet industry needs include globalization, knowledge-based economy, technology advancement and the emergence of new technologies. Issues and challenges must be addressed for technical and vocational education to be continuously relevant and make significant impacts.

INTRODUCTION

Apart from the Ministry of Education, other ministries handling technical and vocational education include the Ministry of Human Resource, the Ministry of Entrepreneurial Development and the Ministry of Youth and Sport.

Under the Ministry of Education a formal technical and vocational education system starts at the upper secondary school level. Technical and vocational schools, established for the purpose, offer the same core subjects as normal academic schools but in addition students also take selected technical and vocational subjects. Another option open to students consists of skill training programs that involve a great deal of practical work to develop competency in trade skills as required by related industries.

While a small percentage of secondary school leavers immediately enter the job market, many continue their education and training at the post secondary level. In the technical and vocational education, students can choose to follow either broad-based or skill training programs. Invariably the theoretical content of the former programs is well balanced by the practical component. Upon successful completion, students will be awarded certificates or diplomas.

Recent development in the last few years opens wide the opportunities to pursue technical and vocational education at the tertiary level. This is a direct result of our government's emphasis on producing complete workforce to perform the whole spectrum of job functions as required by industry. There is phenomenal growth in the

In addition, many skill training programs are run both by government and private institutions to conform to regulations and standard set by Majlis Latihan Vokasional Kebangsaan (MLVK). There are 5 levels of competency with level 4 equivalent to diploma and level 5 equivalent to advanced diploma.

Community Colleges

In year 2000, the government made the momentous decision to establish community colleges thus introducing a new dimension to the country's technical and vocational education. It was proposed to set up a community college in every parliamentary district to offer flexible training programs that cater for the local community and market needs.

Community colleges are also meant to provide life long learning opportunities to individuals and the local community at large to improve their quality of life. Industries would be able to use the services of community colleges to train their workers in the technical and vocational fields. The courses offered emphasize heavily on "hands on" training and are very flexible in structure, delivery and assessment. The courses include skill training, worker retraining, customized courses, bridging courses and various industry services and will initially be at certificate level although there will be provision for high achieving students to continue their studies up to the diploma level.

It is expected that in the long term when the establishment of community college is firmly put in place, it will make significant contribution and impacts to technical and vocational education largely because of the high number of institutions covering nationwide and the comprehensive and varied programs offered meeting the local community needs.

Universities

There are already 17 public and 16 private universities and university colleges in Malaysia not including branch campuses of foreign universities. Many offer technical and technology or engineering programs leading to degrees and diplomas. The older public universities offer a wide range of broad-based academic programs, have very large student population and may have branch campuses in different locations. On the other hand university colleges, which are only recently established, offer more focused programs and have relatively small student population not to exceed 10,000. It must be emphasized here that despite the distinguishing features mentioned, all the 17 public institutions of higher learning (universities and university colleges) have exactly the same status.

Of the private universities, Universiti Kuala Lumpur (UniKL) was established to provide academic programs in the technical fields and thus offering alternative routes to higher technical education in particular to students coming from the various advanced skill training centres.

continuous concerted effort to pave the way for smart partnership or strategic alliance in order for the relationship to be sustainable.

CONDUCIVE AND EFFECTIVE LEARNING ENVIRONMENT

The concern for educational institutions to have conducive and effective learning environment probably stems from the fact that some institutions are seen to occupy rather cramped and noisy premises often without safety perimeter. This may be true for small private institutions operating with financial constraints but there is generally a conscious effort to provide good learning environment at least in order to attract students.

More importantly, however, conducive and effective learning environment must be supported by good facilities and quality staff who are creative and innovative in their teaching techniques to promote and sustain interest in the learning process. For technical and vocational education in particular it is important for students to be involved in extensive practical work and applications in order to enhance their understanding of subjects and their technical skills.

Laboratories and workshops are prominent features of technical and vocational institutions although the equipment and facilities may vary considerably. Teaching or Learning Factory concept has been known for a long time but it is still not widely implemented. For good measures, the learning process ought to include regular visits to industries for general exposure and for students to see for themselves the applications and relevance of what they study and thus keep them motivated.

For effective learning it is imperative that technical and vocational institutions have good ratio between staff and students. This is especially critical for skill training that aims to develop competency as for programs offered by advanced skill training centres and community colleges.

Creative and innovative teaching techniques may be most effective in not only the dissemination of knowledge but also in motivating students to learn. Teaching and learning done in classrooms, laboratories and workshops may be:

- Problem-centered
- Project / case based
- Action oriented
- Experience- based
- Simulation-based
- Computer-aided.

Computer based training equipment finds widespread use but students must also get the opportunities to work with real industrial equipment and machinery. E-learning is expected to greatly facilitate the learning process.

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