

**Country Paper**

**MALAYSIA**



**INNOVATIVE PRACTICES IN TVET TOWARDS EDUCATION FOR  
SUSTAINABLE DEVELOPMENT**

**WORK-BASED LEARNING DIPLOMA PROGRAMMES AT  
COMMUNITY COLLEGES IN MALAYSIA**

**ANI ASMAH TAJUL ARIFFIN**  
PRINCIPAL ASSISTANT DIRECTOR  
POLICY DEVELOPMENT DIVISION  
DEPT. OF POLYTECHNIC & COMMUNITY COLLEGE EDUCATION  
MINISTRY OF HIGHER EDUCATION  
MALAYSIA

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## ABSTRACT

Work-based learning began with the rebranding of Community Colleges where 33 companies including Government Linked Companies consented to sign memoranda of understanding with the Department of Polytechnic and Community College Education to collaborate in areas of mutual benefits. Among the areas of collaboration are participation in curriculum development, curriculum implementation and student assessments. The memoranda also provide opportunities for staff attachment to industries which allow academic staff to keep abreast of current trends in the industries as well as upgrade their knowledge, skills and experiences. Leveraging on the experience of the industries, the WBL diploma programmes, are initiated to address the issues of mismatch as well as other issues such as relevancy and connectedness of training programmes. It is based on the premise that skills training are best learned at the workplace as compared to other learning environments. In essence, the workplace within the industrial environment is the student's best learning workshop.

The main strength of the WBL in the community colleges is the one year industrial experience which is incorporated into the curriculum structure. The industries were involved in designing the assessment methodology and more significantly, the implementation of the curriculum itself. One of the biggest benefits for the companies participating in the programme is that they will be given priority in employing the graduates, trained and developed by the companies, with an advantage of ready made skills that can be immediately utilized. The attachment to the industry is structured and has specific curriculum contents that replicate the real work experience in the industries. The curriculum implementation is being shared by both the institution and the company, applying various modes like mentoring, job shadowing, coaching, tutoring, project-based instruction and others.

In WBL, students are nurtured to be independent workers. However, to ensure the success and sustainability of this programme, appropriate measures must be in place to support the learning process. For example, the students' counseling support needs to be enhanced, logistic support beefed up and many other support services must also be properly planned. Supervision at regular intervals to monitor the progress of the students must be a joint effort between the staff of the community colleges and the company. An effective communication mechanism must be in place to provide real time information so that any issue that arises can be addressed promptly. Officers from both the institution and the company must be committed and flexible so that problems can be nipped in the bud.

The sustainability of the programme depends very much on the quality and commitment of the participating members. Every department in the participating organizations must function effectively and efficiently to ensure the success of this noble venture which will benefit the industries and the nation in general.

## **Introduction**

The establishment of the Ministry of Higher Education (MoHE) in March 2004 is an important event in the history of education in Malaysia. The government, in its quest for quality in the delivery system of tertiary education in the country, consequently instituted the Department of Polytechnic and Community College Education (DPCCE) as one of the departments in MoHE. The main functions of the DPCCE is to conceptualise policies and set the direction for polytechnic and community college education to develop human capital in the technical, commercial and service sectors. Currently, DPCCE manages 27 polytechnics and 39 community colleges as well as 21 community college branches throughout the country.

## **Work-Based Learning (WBL) at Community Colleges**

Work-based learning (WBL) means learning that is derived specifically from doing a job of work and taking on a workplace role (Little, 2006). In the early years, before industries were a common place of work, most learning was directly related to the surrounding community and 'work-based' activities. Young people learned by watching and working alongside their parents, relatives and self claimed partners. Over time, the gap between education and the world of work has increasingly widened. Concepts learned in the classroom have minimal real world significance. For many students the classroom is not connected to the world of work outside of the school. Education and knowledge cannot be delivered solely from textbooks and lectures; it must include practical, hands-on experience that challenges the students. WBL re-establishes this connection between the classroom and the world of work by providing a platform and link between theory and practice. WBL programmes also provide opportunities to achieve employment-related competencies in the workplace.

Work-based learning in Malaysia began with the rebranding of Community Colleges on the 2nd February 2007. During the launching of the rebranding exercise, 33 companies including Government Linked Companies have consented to sign memoranda of understanding with the Department of Polytechnic and Community College Education to collaborate in areas of mutual benefits. Among the areas of collaboration are participation in curriculum development, curriculum implementation and student assessments. In addition to this, the memoranda also provide opportunities for staff attachment to industries which allow academic staff to keep abreast of current trends in the industries as well as upgrade their knowledge, skills and experiences.

## **Industry Collaboration**

The rebranding exercise has provided the initial breakthrough in formalizing a more serious collaborative relationship between the institutions and industries, even though many initiatives involving industries have already been undertaken by the community colleges in recent years. Among the existing programmes of

collaboration are the implementations of industrial training for students, industrial attachments for lecturers, incorporation of professional examinations into the formal college programmes (Cisco, Microsoft, etc), the introduction of project based learning and many others. The rebranding exercise will take the collaboration to a higher level, with wider participation from industries, and create a “win-win” situation.

The collaboration with the industries will be beneficial in many ways. Leveraging on the experience of the industries, the brand new WBL diploma programmes, which essentially are industry-driven, are initiated to address the issues of mismatch as well as other issues such as relevancy and connectedness of training programmes. The new WBL diploma programmes which were unveiled by the then Minister of Higher Education on 19th July 2007 will be based on real work-site experience using the approach known as work-based learning (WBL). It is based on the premise that skills training are best learned at the workplace as compared to other learning environments. In essence, the workplace within the industrial environment is the student's best learning workshop.

An industry-driven programme will make the graduates more marketable and truly skilful. The enhanced market value of these programmes is expected to attract more students to the community colleges especially when they know the programmes were developed with solid support from the industries. Furthermore, students would be able to develop soft skills such as positive work culture, social skills, team-working skills and other skills incorporated into the programme. Work-based learning has seen many applications and forms in many parts of the world. According to the Washington State University, WBL is the learning experience where knowledge and skills secured from industries and institutions are related to the real job requirement. WBL involves a formal programme of learning, structured, and strategically planned by both parties; the institution and industry, to relate learning at the workplace with the experience in the institution and consequently, involves career learning.

The main strength of the WBL in the community colleges is the one year industrial experience which is incorporated into the curriculum structure. The new WBL diploma programme was developed from scratch with full commitment and participation of the industries. The industries were also involved in designing the assessment methodology and more significantly, the implementation of the curriculum itself. One of the biggest benefits for the companies participating in the programme is that they will be given priority in employing the graduates, trained and developed by the companies, with an advantage of ready made skills that can be immediately utilized. As for the graduates who are not selected for employment by the companies where they have undergone the workplace learning, the one year industrial experience will still be an invaluable asset for seeking employment elsewhere or even for self-employment.

The attachment to the industry in the WBL programme is essentially similar to the current industrial training programme but with a difference. It is more structured and has specific curriculum contents that replicate the real work experience in the industries. As mentioned earlier, the curriculum implementation is being shared by both the institution and the company, applying various modes like mentoring, job shadowing, coaching, tutoring, project-based instruction and others.

In WBL, students are nurtured to be independent workers. However, to ensure the success and sustainability of this programme, appropriate measures must be in place to support the learning process. For example, the students' counseling support needs to be enhanced, logistic support beefed up and many other support services must also be properly planned. Supervision at regular intervals to monitor the progress of the students must be a joint effort between the staff of the community colleges and the company. An effective communication mechanism must be in place to provide real time information so that any issue that arises can be addressed promptly. Officers from both the institution and the company must be committed and flexible so that problems can be nipped in the bud.

Equally important is the documentation of the student's learning experience which must be properly managed so that evidence of competency can be verified in terms of reliability and authenticity. A mechanism for constant dialogues among the parties concerned must be in place to ensure that every member participating in the WBL remain motivated and supportive throughout the programme. Truly, the sustainability of the programme depends very much on the quality and commitment of the participating members. Every department in the participating organizations must function effectively and efficiently to ensure the success of this noble venture which will benefit the industries and the nation in general.

### **Characteristics of WBL Programmes**

The new WBL diploma programme is characterized by its very close collaboration with industries among others. As for the existing institution-based diploma programmes, though there are some forms of collaboration, they are less systematic and rigorous. Essentially, there are significant differences between the two programmes.

The student intake for WBL diploma programmes is directly dependent on the capacity of participating companies in providing places and facilities for work-based learning. For institution-based programmes, the intake is based on the physical facilities available in the institutions such as classrooms and workshops.

Participating companies share equal ownership of the WBL programmes with the institutions since they are involved right from the planning stage to the implementation stage. However, the involvement of the industry is significantly less in the existing institution-based diploma programmes.

The equipment used in WBL is of industrial size and students will have no difficulty applying their skills in the real work situation after graduation. This implies that, no further training will be required at the workplace unlike the institution-based programmes, where companies will need to provide orientation programme to make the new employees job ready.

Teaching will be jointly conducted by staff from the participating companies and lecturers of the community colleges. The institution-based diploma programmes, on the other hand, are wholly taught by full-time lecturers in the community colleges.

The trainers from the companies in work-based learning are experienced practitioners in the industry who are competent on practical skills, whereas the current diploma programmes are conducted by full-time lecturers who have limited industrial exposure.

In work-based learning, the teaching and learning of theory and practice is affected in an integrated manner in real work situations. As for the traditional diploma programmes, there is a time lag between learning the theory and putting it into practice due to the separation of the theoretical and practical lessons conducted in the institutions.

The implementation of the curriculum in WBL programmes is more flexible to suit the work environment in the companies, unlike the institution-based programmes which are more rigid and examination-oriented.

### **WBL Programme Structure**

For the inaugural intake, five diploma programmes were offered, namely Automotive Technology, Electrical Technology, Computer Technology, Hotel Catering and, Fashion and Apparel. Another six programmes were introduced last year, namely Facilities Maintenance and Management, Architectural Technology, Advertising Technology, Food Processing Technology, Business Accounting and Tourism and Adventure. These courses are conducted in the community colleges throughout the country.

The students were selected from graduates of relevant certificate programmes from the community colleges. In other words, the WBL diploma programme is an extension of the certificate programme with the addition of three semesters. The first two semesters (1 year) will be the work-based learning component conducted in the companies. In the final semester (Semester 7), the students will return to their respective community colleges to consolidate their theory and to 'top up' practical contents not available during their industrial attachment.

All the diploma programmes comply with the requirements of the Malaysian Qualification Framework (MQF) and the Public Service Department (PSD). Even though the programme is meant for students to work in industries, the recognition by PSD would ensure the reliability and validity of the award from community colleges. The period of industry work-based component will provide the students a minimum of 20 academic credit hours and the final semester in the college will contribute a further 15 credit hours. This brings the total credit hours for the diploma programme to 95, with students carrying forward 60 credit hours from the certificate programme.

## Issues and Challenges

Invariably any new innovation is bound to meet with challenges and skepticism. Thus, the way forward is to persevere and ensure that the programme succeeds. As a concept the work-based learning is still new and such needs time and full support from the government, industries, institutions, parents, and not least from the students themselves. The industries must be fully committed and be ready to offer assistance, as and when required, to realize the spirit of a 'win-win' situation.

Since the WBL programme involves many parties, coordinating the roles of various parties poses another challenge. For the students, the challenge is whether they are mentally prepared to undergo the rigours of the programme, which necessitates information to be given well in advance so that they know what they are getting into. On the other hand, the industries may feel the burden of having to get their staff to deliver lectures which essentially is not their core business. Consequently, staff in the industries may need to undergo some pedagogical training before they can become effective trainers.

Building and sustaining a productive education-industry partnership requires commitment, time, effort and involvement. Some elements required for the effective partnership includes:

- Clear objectives
- Measurable outcomes
- Top management involvement and commitment
- Open dialogue and strategic discussions
- Effective sharing of resources
- Clarity of roles and mutual responsibilities, and
- Sharing achievements and challenges

Two of the most significant issues affecting the work-based learning programmes are accreditation and assessment. This form of learning where learning is achieved in the workplace must be accredited and subjected to a robust assessment system if WBL is to be accepted by society, government, educators and accrediting bodies. Any development of accreditation entails assessment of learning in the workplace and the success of such assessment depends on identifying the outcomes of experience in terms of competence and work role of the learner. These assessment scope should be rigorous and robust using the following mechanisms:

- Provide formative feedback on portfolio work
- Provide marks for summative assessment
- Include employer appraisal of competency in the job portfolio assessment
- Explicit diagnostic assessment and setting of learning outcomes
- Ensure student sets, negotiates and reviews WBL goals, and
- Ensure employer mentoring procedures are in place

The mind set of lecturers in the community colleges needs to be transformed as well so as not to be too idealistic, as in some instances the industries may be reluctant to share and reveal technologies and skills that can jeopardize their trade secrets. This necessitates both parties to sit together to find amicable solutions when problems arise. Judging from the success of work-based learning in advanced countries, the potential benefits derived from the implementation of the programmes should outweigh any initial hiccups.

## Conclusion

The rebranding exercise has given a new dimension to the development of community colleges in Malaysia as well as an enhanced image. It has also provided an alternative route for the students to further their studies according to their learning style, especially those who are more inclined to the “hands on” approach. The workplace environment is a suitable place to generate new knowledge, improve innovation, enterprise and creativity. The willingness of industries to participate and collaborate at this scale shows that they are now beginning to see the importance of their role and contributions in human capital development for the nation. While it is too early to assess the success of the programme, the Prime Minister’s interest in encouraging industries to collaborate with institutions of learning should motivate the lecturers in the community colleges to work for the success of this new approach.

## References

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