

Work-Based Learning Experience and Good Practices

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1. INTRODUCTION

Work Based Learning is a current trend at all levels of education. Today there is an increasing emphasis on university workplace learning programs. Disciplines which previously lacked work based education, benefit by engaging with industry partners for adequate preparation of both current and future work requirements. Students can get real-life work experiences through work-based learning programs. They can then apply their technical and academic skills to enhance their employability. Work based learning is delivered as a combination of educational courses that integrate industry work experience with academic preparation. Work based education benefits all stakeholders: communities, workers, educators, employers and governments. Work Based Learning experiences from Malaysia, United States, Germany and Australia are investigated and enriched through a global perspective.

2. WORK BASED LEARNING AND GOOD PRACTICES

Work based learning merges practice with theoretical knowledge while acknowledging tacit and explicit informational intersection (Raelin, 2012). Most work-based learning programs in Malaysia typically consists of accredited higher educational courses based on win-win strategies. Employers acquire skilled workers while students meet the educational needs leading to workplace success. Learners can explore potential work opportunities and focus their careers through

planning and competency development.

Proven career educational programs in Malaysia and other developing Asian nations, incorporate learning from work and systematic experience through the application of techniques such as work visits, work shadowing, execution of real tasks, and research projects. Such work based training is especially beneficial to career decision-making. Participants reflect on their progress and share their experience with peers.

WBL is beneficial to corporate employees and trainers—learning-rich occupational skills boost their career development opportunities. They're more likely to view their work positively and to be increasingly motivated as learners. An absence of educational workplace opportunities raises the chances of poor performance and downward career drift. In their study, Anderson et al. (2011) established a link between employee's tendencies to participate in vocational training and to work in an environment with voluntary learning opportunities. The possession of on the job learning skills is vital for career development improvements.

Malaysian learners enjoy widespread opportunities to combine work experience and learning for a successful transition from education to career. It is possible to merge formal study and work in ways such as apprenticeships. Alternately, students can work part time jobs while learning in the evenings or during weekends. A combination of work and study facilitates a smooth transition from school to work. The factors that prompt this observation

include apprenticeship occupational skills and resulting labor market qualifications. Other aspects include the basic skills and habits developed when working part-time, improved job skills, and solid connections between student employees and hiring firms.

The body of work based learning literature focuses on cases in the developed world rather than on developing countries. Given the rapid expansion of the Malaysian economy, promising models are emerging to connect formal vocational education and apprenticeship training. There is a need for a more highly skilled workforce to support the economy. Corresponding advances in educational development can be provided through the implementation of work based training systems (Ball & Cohen, 2012). As a middle-income economy, Malaysia has a strong formal work-based learning system, but the authorities are yet to develop well-organized WBL arrangements in low-skilled industries and occupations.

A pioneer collaborative work based learning program was accomplished by a partnership between Proton (automotive manufacture) and the Ministry of Higher Education in 2007. As a national car manufacturer, Proton and its dealers are responsible for supporting government policy. The participation of Proton in the program started in the early stages of the developing the WBL curriculum. The collaboration between Proton and community colleges has developed with relatively equal input from both sides. Researchers argue that in the industry- education collaboration, WBL programs work well for stakeholders (Ariffin&Asmah, 2009).

Collaboration is enhancing the relationship between the community colleges and the automotive industry as exemplified by Proton. For example, as a training-partner in the WBL program, Proton has taken things a step further by setting up new engines, tools and equipment at the community colleges. In fact, the equipment is

custom built for Proton's pit- stop or one stop-centre to educate Proton's sales and technicians in Proton service centres all over Malaysia. Facilities at the community colleges are upgraded to meet the Proton's needs. Technicians can then train in the emerging technologies required of those working at Proton service centres.

The obvious limitation to this model is that it initiates a systems and technology base exclusively developed for Proton technology protocols. It is specific to a single manufacturer rather than having a broad industry base. Findings of the Community College Proton collaboration in WBL Diploma in Automotive Program indicate the efficaciousness of learning theory in class and applying it in the work place (Yusuff et al., 2007). In 2015 the Malaysia Qualifications Agency (MQA) published Guidelines to Good Practices in Work-Base Learning (GGP WBL). This guideline covers the board range of national industries. Each industry is responsible for implementing their own standards.

2.1 Measurable Work Based Learning Value - The Kearny Construction Tech Academy

The Kearny Construction Tech Academy offers work based learning in the areas of architecture, construction and engineering. The learning process is supported by experienced professionals in a collaboration process. They assist students by reviewing their work and offering assessments. Measurable results show that this work based learning program has resulted in a high graduation rate of 92.4% in 2011 and that 36% of these graduates successfully completed requirements for admission into the University of California and California State University System. 80% of their students were admitted to colleges and many remaining students were successfully admitted to apprenticeship programs for skilled trades. (Rogers-Chapman & Darling-Hammond, 2013).

2.2 Innovation in technology through Work Based Learning

A New York State secondary school won a Technology Innovation Award presented by The Center for Economic Growth. CEG is a leading economic development organization in central New York. A new program was implemented at Ballston Spa Central School District in partnership with Hudson Valley Community College, NYSERDA, and more than 40 partners in business and education. The program encompassed nearly 300 students from 25 school districts. The program began in September 2011. One of its goals was to provide an early college program addressing documented workforce needs of the economic development region.

High school students in this program are co-enrolled in college classes that lead to an associate's degree in the fields of clean energy, information technology, mechatronics (semiconductor manufacturing) and entrepreneurship. Program participants can receive a college degree and enter the workforce earlier than those participating in a traditional college program. Program partners include K-12 educators, higher education, business, industry, government and nonprofit regional groups.

This is a recognized problem-based learning and accelerated higher-education program supporting students in the many science, technology, engineering and mathematics (STEM) fields supported by many partners across sectors. Annual CEG Technology Innovation Awards help identify and acknowledge high achieving and

innovative regional educational resources, while fostering continued growth and success of entrepreneurs and established enterprises (CEG, 2015).

3. EFFECTIVE STRATEGIES IN WORK BASED LEARNING

Learning institutions should work together with corporate leaders to adopt institutional and organizational strategies for an effective WBL program. Organizations ought to observe regulatory and legal frameworks for apprenticeship arrangements. For example, the employers and apprentices should sign contracts with a clear outline of terms and conditions of the agreement. In remote Malaysian regions, the absence of these provisions prevents scale-up of regional programs for national adoption. Organization should allocate adequate financial resources for the program, plan for apprentice certification and qualification, and establish proper governance systems at the institutional level. Most importantly, the trade unions, organizations, and government should cooperate in setting up learning outcomes as per the training qualifications and standards.

Successful WBL strategies employed in US secondary technology program discussed by Rogers-Chapman & Darling-Hammond (2013) are described in the table below. They ultimately led to strong partnerships with post-secondary programs. Students obtained higher qualifying GPAs and guaranteed admission to the San Diego State Construction Management program.

WBL Strategy	Description
Complex real world assignments	Assign students' complex real-world projects in the fields of engineering, architecture, and construction. For example, ninth graders explored amusement park functionality. They then designed their own amusement park project. Components of this goal included site planning, scale drawings, and a design presentation to industry professionals.

Curriculum joint industry-education effort	Curriculum and industry are partners in professional development. Teachers devote two-weeks annually in support of integrated curriculum development assessment tools.
Career focus	Focus is established for career and education. Students learn by engaging in college-preparatory courses as well as vocational coursework. Senior portfolios included a resume, college application, and budget for college expenses.
Schedules support concurrent enrolment	Schedules are designed to encompass opportunities for concurrent college enrolment and participation in for-credit work programs. Block scheduling allows students to take more courses within a school year.
Career Curriculum integration	Integrated career-related activities support all aspects of the curriculum. WBL guides students to become active learners developing career awareness, exploration, and preparation. Students become career aware by learning about a variety of potential careers. During 11th and 12th grades they can increase their awareness by participating in an internship program.
Accountability through assessments	Assessments enforce accountability for all stakeholders including students, employers and instructors. Performance-based assessments allow students to demonstrate in depth understanding. These assessments occur throughout the year.
Individual instruction	Individual instruction allows students to connect real-world work experience with on-site instruction.
Continuous Communication	Continuous communication between parents and teachers, including bi-monthly reports enable comprehensive progress tracking.
Post-Secondary partnerships	Strong partnerships between secondary and post-secondary schools lead to better qualifying test scores and admission possibilities.

3.1 Strategic Options

a.) Select educational experiences wisely

Not all work-based learning experiences are educational. WBL experience in this category fails to impart valuable skills and knowledge to participants. To avoid poor programs, the Malaysian government should assess the value of potential programs prior to approval. University programs that provide WBL in most Asian universities have varied degrees of real student learning.

b.) Fill the gap between programs that are available and those that are needed

Today there is a greater emphasis on university workplace learning programs. There is an increasing need for disciplines which previously lacked work based education to engage with industry partners for adequate preparation for

contemporary and future work requirements. One way this can be accomplished is through industry portals. These can be used to create good partnership programs between companies and organizations, universities and learners. An expectation of learning portals is that they enable industry university partnerships through efficient communication. They should be integrated with university web systems, government programs, university staff and students. Queensland University in Australia engaged in a design of a university-industry portal for this purpose (Luca, J. and Weippl, E. 2008).

c.) Choose business strategists and course instructors wisely

They can increase the richness of learning in a work environment. First, business mentors should encourage people to reflect on their experiences

and learn from their mistakes. Second, senior workers and experts in the field should guide learners and act as role models. Third, practice and demonstrations should be included as learning strategies. Supervisors must regularly provide problems for the workers to solve through avenues like task variety and rotation. Most of these strategies can be integrated into a typical work environment. Many researchers are interested in the role of employee supervisors and how they understand the importance of improving the worker's skills, experience, and knowledge. In regions where this does not form part of corporate culture, it is difficult to develop and implement work-based learning (Andersen et al., 2011). Organizations require a more structured intervention to develop learning islands, quality circles, and other techniques for developing learning-rich work environments.

d.) Strive for quality improvement

Malaysian enterprises can initiate various methods to boost and promote work-based learning quality. However, it is more difficult for SMEs (small and medium enterprises) that form a larger share of the country's firms than for larger corporations like the multinational Coca-Cola. Many organizations provide training and coaching for in-firm supervisors. Government authorities should pool funds and establish local training offices. Small and medium corporations should receive subsidies for effective execution of WBL programs. If the working conditions in Malaysia are appropriate, college teachers (especially those responsible for supervision and student visits) will assume most of these roles comfortably.

3.2 Good Practices and Experience

The development of high-quality programs for WBL demands relevant and integrated curriculum. Therefore, the learning institutions must develop curricula that not only incorporates the subject matter but also spans to WBL experiences. De Graaf&Kolmos (2013) argue that

pairing students without mentors or enrolling them in internship programs is not enough. For the learning programs to be successful, the instructors must set goals for both the employers and students. Furthermore, they should provide exhaustive instructions for industrial authorities and academicians.

Work-based programs help students to explore their careers and to be active learners. Consequently, the educational department should integrate career related activities into all the curriculum aspects. Career awareness won't emerge unless teachers introduce students to varied careers and their requirements. Students should be able to explore and refine selected areas of interest. During preparation, learners can engage in in-depth experiences that relate to their career choices. Often, such opportunities in Malaysia are preceded by several internships.

Assessments ought to be authentic, since they hold the learners and their mentors accountable for on and off school education. The WBL programs should utilize performance assessments for the apprentices to demonstrate their understanding and grasp of their newly gained experience. If the teachers conduct the assessments periodically, it will be possible to shift attention to struggling students. The implementation process prompts learning institutions to set explicit goals endorsed by business partners, teachers, and students.

Teachers are encouraged to conduct joint planning time. Savery (2015) advises educators to facilitate integrated curriculum development plans and utilize assessment tools. They too will develop professionally, as they prepare to set up aligned curricula or to visit potential work sites for informational and development purposes. On the other hand, the scheduling should be flexible. Most activities linkable to WBL programs in Malaysia hardly fit into the conventional school day. It is therefore, a good practice to ensure accommodation of real-world learning through

trade programs, block scheduling, and the provision of opportunities for college's simultaneous enrollment.

In 21st century economies like Malaysia, WBL is a valuable educational strategy to prepare learners for career and academic success. Hence, policy makers can support it through advocacy for implementation at the regional level, with political leaders introducing legislation in support of funding for WBL initiatives in rural areas. It is crucial, though, for school authorities to develop formal partnerships with corporations' if students are to become work based learners. Indeed, work-based educational programs allow students to transition successfully as youthful learners into responsible workers. If there is only minimal stakeholder support, the learners won't be career-ready.

Most multinationals with regional offices in Malaysia value WBL because the apprentices acquire core competencies that the organization requires. The program's worth is recognized in professions such as education, health, information technology, and other areas that require certified qualifications for student graduations. Youth with disabilities can reap bigger benefits from the program. Their work experience during secondary schools improves their prospects for future job security and better income.

At the national level, Malaysian work-based learning policies are diversified across learning and work environments. Happily, some regions (especially urban areas and industrial towns) have a long tradition of engaging students. It's an emerging trend, with fast-growing cities in the country and throughout the Asian continent adopting this policy to the mutual benefit of students and businesses. Employers realize numerous benefits when they develop and implement this policy. For example, they observe improved performance, availability of skilled workers and productivity. Tailored learning also addresses the endemic skills gap in the country by

fostering high recruit retention. Work based learning policies create a broad spectrum of positive effects that include both employee development and retention.

Often, work-based learning improves innovation and productivity within the participating organizations. WBL programs may require initial corporate investment.

During the final phase, the recruits have acquired necessary business skills and are productive. Different occupations have distinct learning scopes. For example, technical jobs such as engineering require a trainee to participate in a rigorous program before he can engage in productive work. Retail assistants learn while working. Education should be a continuous process throughout all work based learning programs. Assessments and supervision are crucial in determining whether learning takes place or not.

The organization that hosts trainees will potentially promote them to managerial roles in the future. However, the learners are not the only group that benefits from the program. Mentors gain useful skills and knowledge by consistently training new recruits because the young people are creative and inject fresh thoughts and ideas to the business system. The continuous learning process enriches all stakeholders and improves know-how in solving ever new challenges.

Given that the successful trainees are more likely to stay after program termination; labor turnover reduces significantly due to apprenticeship project. This is specifically the case for Malaysian corporations where important aspects (like employee retention, work structure, and wage platform) interact for a better outcome. Top level management can improve the connection between employees and their supervisors through the development of corporate ethos and values.

According to Raelin (2013), one of the most fundamental practices, especially for the employer, is to address the skills gap. Work-based

learning is an important tool for small and medium enterprises with limited operational resources. It reacts in an efficient, resourceful, and flexible manner to meet the company's demand through development and implementation of tailored programs for addressing unique skill gaps.

3.3 Work Based Learning in Germany – A definitional approach

Michael Gessler (2015) described an approach to grounded work based learning in German vocational education and training. A commonality of all economies weak or strong is that they require a trained workforce. Not all occupations need three-year training programs. Some training can be accomplished in far less time. Approximately 330 training occupations have been defined, but 27,000 are listed in German statistics. Companies are willing to support the cost of training programs when those programs contribute to enterprise requirements. Training problems are designed to fulfill current needs rather than ancient legacy definitions created since the middle ages. Part of the process of training skilled workers necessitates combining learning, teaching and work to fulfill vocational requirements. Teachers and trainers are challenged to identify typical work situations and processes to define an occupational profile. An approach to analysis and definition of occupations and competence profiles should be determined.

Educational settings should be designed with competence profiles in mind. While stable occupational descriptions should be defined - technology, organizational structure, economic relevance and social change must inform a continuous growth and adaptation process. Part of the process of continuous improvement includes looking at those who excel in their fields. What are their successful practices, problems solving skills, strategies and tools? What requirements are they aware of?

3.4 General findings of the US department of education on work based learning

Research and evaluation evidence general findings indicate that the more closely training is related to a real job or occupation, the better the results for training participants. Most training in the U.S. is work-based and employer sponsored. About 70 percent of firms indicate they offer some type of training to employees. Those who get training tend to be management and mid-level workers. Lower-skilled workers expand their learning through government sponsored work-based training.

Benefits to workers: On the job training results in increased employment and increased earnings. Registered Apprenticeships increases lifetime earnings of an average of \$8,000 a year, and about \$200,000 in lifetime earnings. Summer jobs for youth provide source of income and positive attitude towards work.

Benefits to transitional workers: Transitional workers include those with low skill levels, criminal records and immigrants. Most success in this category resulted from transitioning to permanent jobs.

Benefits to employers: Through work based literacy programs worker skills, attendance and job performance improved. High quality training leads to less turn over, increased productivity and positive returns to shareholders.

Benefits to communities: In the city of Chicago WBL led to a large reduction in violent crimes and arrests (US Department of Education, 2016).

3.5 Work Based Learning as a tool for disengaged youth

Work-based learning can be a powerful tool for disengaged youth, but those most in need are unlikely to successfully find or complete a work-based learning programme. Strengthening Work-based Learning in Education and Transition leads to career improvement, but one in eight young

people age 16 to 24 across OECD countries are struggling. They're not in education, training or employment. Soaring unemployment rates hit youth particularly hard in multiple countries following economic crisis. Those who go through spells of joblessness at early stages of their careers tend to suffer from a "scarring effect", leading to higher chances of unemployment and lower earnings later in life than their peers with similar backgrounds and abilities (Kis, 2016).

4. CONCLUSION

WBL is a powerful pedagogy that can be utilized to instill basic work habits, specific job competencies and occupational identity. It can motivate failing and disengaged learners and also aid in the development of core skills, such as problem-solving, creativity, and innovation. It significantly boosts the labor market results, especially if the business organizations incorporate sound practices to enhance the learner's experience. In Malaysia, local governments need to establish institutions to support extensive, high-quality WBL systems for better coordination between learning institutions and corporations. This will help the country to better address the persistent challenges in the labor market that arise out of mismatched occupational requirements and students' skills.

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