



## A Review on Curriculum Design and Malaysian Graduate Employability.

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November 11, 2020

## **A Review on Curriculum Design towards Malaysian Graduate Employability**

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### **Abstract**

Graduate employability (GE) have been hot topic of discussion among Ministry of Higher Education (MOHE) officials, academicians, graduates and students in higher learning institutions in many developed and developing countries, and Malaysia is no exception to this matter. This review paper emphasis on reflection of previous studies related to the curriculum design effect towards Malaysian graduate employability competency. Employability competency in this paper is assessed narrowly from curriculum design that comprises curriculum vision, operationalization of curriculum vision, curriculum delivery and evaluation. Justification and personal perspective briefly clarified with each point discussed extensively, by understanding perspective on employability competency definition and followed by discussions on effects of curriculum design on graduate employability. Methodology of this study is relying on secondary data with reviewing the literature of previous studies. This study suggests the curriculum design is essential to be updated and versatile in line with the challenges of Industrial Revolution 4.0 in the employment landscape.

**Keywords:** Graduate Employability, Employability Competency, Curriculum Design, Curriculum Delivery, Curriculum Evaluation.

## **Introduction**

The unemployment issue among Malaysian graduates has been at an alarming level when the statistic shows the unemployment rate consistently in rise. In the workforce, the number of unemployed youths among those with a tertiary education is surpassing to those without having a tertiary education. The statistic shows in 2015, approximately 15.3 percent out of 405,000 graduates were unemployed and for the first degree graduates about 27.9 percent unemployed in 2015 and this percentage reduced a bit and became 25.6 percent in 2016 (Seng, 2018), however this percentage is still worrying. Another observation by The Summer Graduate Recruitment Survey 2009 by Association of Graduate Recruiters indicated that on average there were 48 applications per graduate vacancy (Saunders & Zuzel, 2010). It's clearly shows that there is high supply of graduates in the labour market compare with vacancies available out there. Therefore, this article can be useful to provide insightful information on the graduate employability (GE). As such, this article reviewed and reflection discussed critically by firstly defining employability competency and secondly by reviewing curriculum design effects on graduate employability competency.

## **Employability Competency**

A plethora of studies have been conducted in discussion on employability competency, which this issue is incline reflects to youth who are finishing their tertiary education. Some authors emphatically stated that employability is concerning the graduate's capability to secure a job after finish study (Harvey, 2001). Some have the view that the graduates should have essential knowledge, skills, manner and capability (Harvey, 2001; Hillage & Pollard, 1998).

Accordingly, from my point of view, employability competency is not merely securing a job after graduation but the most important thing is that the graduates' ability to perform match job functions to the study program and earn a reasonable wage. For instance, engineering graduates securing a job unrelated to the engineering field cannot be considered as achieving employability competency due to failing to apply theoretical and practical knowledge and skills on their job function. This is in line as what Khazanah Research Institute (n.d) found in their latest research called the School-To-Work Transition Report, which innumerable young Malaysians trapped in unskilled and low-skilled job due to failed in finding a matching job with their level of tertiary education.

Shortly, the graduates should embrace essential knowledge and employability skills that meet employer requirements. Employability skills is referred to as ‘a set of achievements’, include skills, understanding and personal attribute (Knight & Yorke, 2003). Then, the graduates secure a job function matching their study program and earn a reasonable wage. In this vein, higher education institutes are the most appropriate institution to provide a platform to develop graduate skills.

## **Curriculum Design**

Previous studies have proven there is a relationship between curriculum design and employability competency. Misni et al. (2020) have adopted the model of Anderson and Rogan (2011), which four attributes namely curriculum vision, operationalization of curriculum vision, curriculum delivery, and curriculum evaluation studies. The result showed that curriculum design, curriculum vision, operationalization of curriculum vision and curriculum delivery have positive relationships to employability competence except curriculum evaluation.

### **a) Curriculum Vision**

The curriculum vision sets are vital and initial steps in curriculum design, which educators should crystal clear the mission and vision of the program inclusive the syllabus, either the program or curriculum can execute and achieve in employment market requirement. Course Learning Outcome (CLO) should clearly adopted and practiced these visions to ensure better employability among graduates.

### **b) Operationalisation of curriculum vision**

The operationalization of curriculum vision is referring to the structure of human resource and teaching material (Johnson-Mardones, 2014). In this point, I believed that educators who have had related industry experience would become better educators as they would transfer skills and knowledge to students. For example, the educators who have been engineers themselves have had the significant insights into the actual desires in the industry. This industrial experience is an imperative aspect in developing and preparing the students for the real employment market. Therefore, most universities nowadays create collaborate programmes such as U2I (University to Industry), Guest Lectures from practitioners and so on.

However, the higher education institute might face difficulty in obtaining young educators who have industry experience. Therefore, one point might consider is that creating and encouraging industry training among young educators, which educators might do attachment to related industry. With this effort, the educators will update themselves with the latest skills and knowledge required by industry and then transfer to the students. Simultaneously, the curriculum materials and delivery will become more interactive, updated and avoid monotonous approaches as the educator no longer delivers the curriculum based on theoretical approach but instead technical and practical have embedded as well. Another compelling point, the higher education institution bridges the networking with industries sector and indirectly might advantage for job opportunities.

### **c) Curriculum Delivery**

Aderson and Rogan (2011), have described curriculum delivery such as fostering a deep learning approach, conceptual understanding development, and inculcating abilities to problem-solve among students. Albeit elements as above discussed describes curriculum delivery, but it can be expanded to other modes of delivery that can also be very effective.

One of the modes of delivery is that flipped classroom, where the concept of the flipped classroom is established on a theoretical framework articulated in 2007 by Bergman and Sams (2012) and this approach is not new but becoming more prevalent within higher education (Millard, 2012). It is a pedagogical model where educators and homework aspects are reversed. This mode requires the educator to make a recording of the lecture beforehand and enable students watching the recording before coming to the class and therefore, while in class, it is devoted to discussion and activities (Helyer & Corkill, 2015), besides the educator being able to go into more intensity and assist students with aspects they are challenged by or they don't understand. Beneficial of using the flipped classroom, it enhance students participation over active learning, strengthens team-based skills, provides personalized student guidance, focuses classroom discussion and offers faculty freedom (Millard, 2012). While, Ravenscroft and Luhanga (2015), have proven that the flipped classroom has improved the employability skills such as collaborative learning, writing skills and thinking skills.

Secondly, a familiar method is work-based learning, which this mode of delivery provides students with real-life work experiences to assist their learning and increase employability rate (Rowe & Zegwaard, 2017) as it combination between a layer of experience and conceptual knowledge, where the theory might acquire in concert with practice (Raelin,

1997). It also refers to the learning process through undertaking real work, whether the work is paid or unpaid and produce goods and services (Sweet, 2013). Another perspective on work-based learning is referred to distinction between the explicit and tacit, where explicit knowledge is codified form that is transmittable in formal and systematic language while tacit knowledge is referred as unreportable knowledge due to rooted in action and involvement in a specific context (Polanyi, 1966).

The work-based learning offers good benefits that not only for graduates but enterprise as well. In this vein, work-based learning potentially raises enterprise productivity and innovation as Japanese corporations' productivity rise due to a reliance on the job training, small-group quality circles and in-house training courses (Sako, 1994; Dore & Sako, 1998). Secondly, work-based learning is dynamic pedagogy as it potentially develops work ethic, occupational identity, and specific occupational competences (Sweet, 2013). This process learning is not merely work-based learning, but also involves adult learning, service learning and outdoor education (Billet, 2001; Dehnbostel, 2008a, 2008b; McCulloch et al., 2010). Furthermore, work-based learning can enhance career development as the graduates could sharpen and clarify their career pathways and for instance, the graduates make career decisions firmly based on their work experience and share it with peers (Guile & Griffiths, 2001; OECD, 2004). Besides that work-based is considered as successful transition systems due to the combination between learning and work benefit for the occupational skills improvement that are developed in apprenticeship programmes and networking between graduates and firms that assist recruitment (Sweet, 2013).

Briefly, over this mode, the graduates have the opportunity to apply what they have learned or the theoretical part while in lecture within a real employment environment. Directly, this also proves highly effective for the recruiting process at top firms as the employers are able to evaluate the student maturity in face the diverse challenges of the employment environment. This mode could be prepared by doing internships, field trips, simulations or mentorship programs.

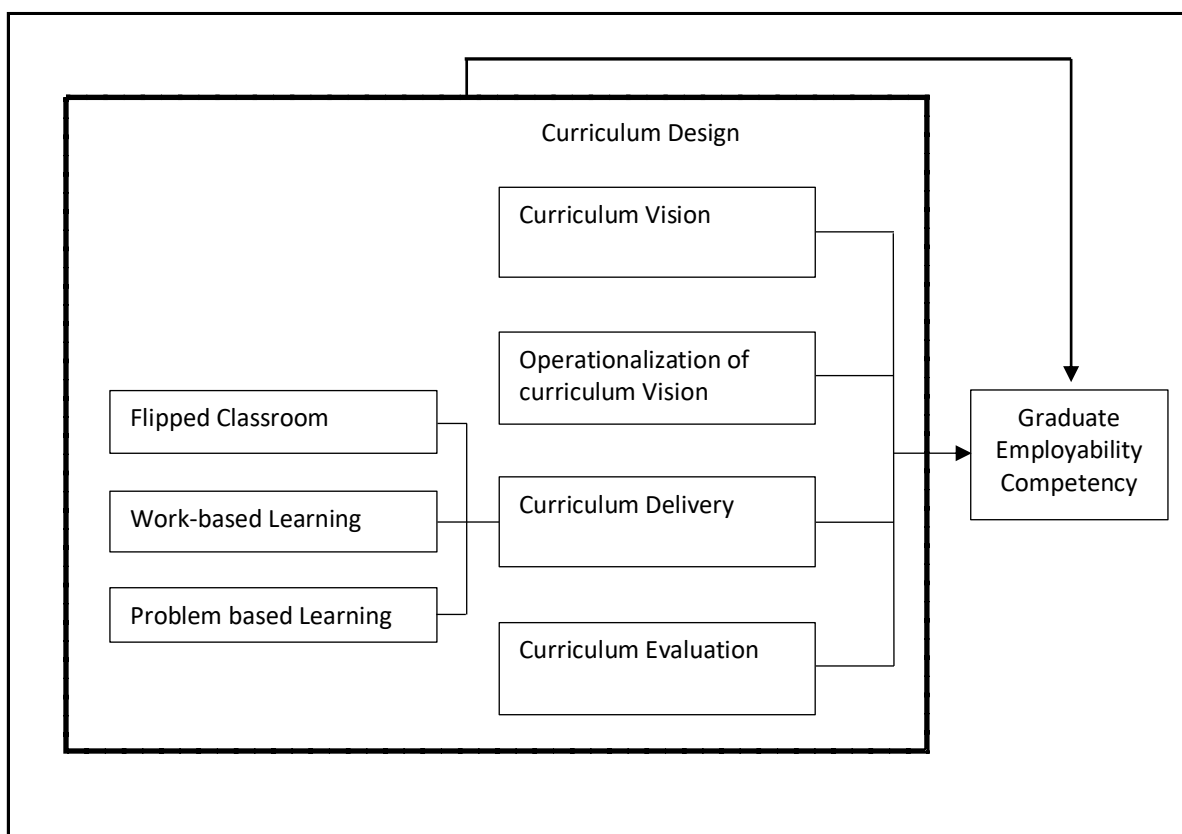
Problem based learning mode is contrary to traditional teaching mode as it seems requires students to solve the problem given by their lecturer. In this mode, the students apply "triggers" from the problem case to define a self-centred learning objective, where they learn independently, self-directed study before returning to the group to discuss and refine their obtained knowledge (Wood, 2003). With this approach, students become more active instead of spoon-feeding. Undoubtedly, this curriculum delivery mode provides benefits to students.

For instance, the student would develop debate and analytical skills, practice research and information processing, improve communication and soft skill and team working skill and finally develop transferable and employability skills that are worth it in the workplace.

**d) Curriculum Evaluation**

Curriculum evaluation is purposely to evaluate the effectiveness of curriculum or program with anticipating improving graduate development. The curriculum evaluation result is used to revise and improve the curriculum design. However, Misni et al (2020) study found that curriculum evaluation was not significantly correlated to employability competency. Agreed partially that the curriculum evaluation cannot affect employability due to influence by other external factors. However, from a different perspective of mine, I strongly believe that curriculum evaluation might affect employability competency as the curriculum design will be evaluated periodically, it will ensure the curriculum design constantly updated and meet the workforce requirement. To illustrate this, currently, we are facing the challenges of Industrial Revolution 4.0 (IR 4.0), as transforming the workplace from task-based characteristics to human-centred characteristics, powered by artificial intelligence. Therefore, the curriculum evaluation is vital to ensure the relevancy of the program is in parallel with current workplace and globalization requirements.

Fig: The research framework adapted from Misni et al. (2020)



## **Discussion and Conclusion**

Embedding employability effectively into the curriculum lean strongly on curriculum design, connecting the curriculum delivery. A diversity of curriculum delivery mode is required to enhance employability competency. In this vein, an educator should evade relying merely on traditional teaching mode, but instead apply relating to dynamic digital technologies tools and activities to make teaching mode more interactive and creating blended learning content. By utilizing digital technologies, it seems like the Higher Educational Institutions (HEI) is preparing our graduates to face the challenges of IR 4.0 in the workplace.

Employability is encompassing both academic intelligence and practical intelligence. Therefore, by utilizing various curriculum delivery modes, it would assist in improving the graduates skills. Work-based learning mode, for example, has fostered ‘bolt on’ activities that learn processes outside of formal academic programs and plus applying holistic approaches which embed employability within academic curriculum will improve graduate employability. Similarly, Billett’s work (2015) found that effective pedagogical interventions before, during, and after a work-integrated learning activity are pivotal to raising students’ learning from the experience. Likewise, problem based learning will improve communication, soft skill and team working skill, where all these skills transferable during at workplace. As such, these instilled skills believe to enhance the graduate employability chances in near future.

Then, curriculum evaluation is relevant to be reviewed or evaluated by professional institutions or external bodies to clarify and ensure that programs archive appropriate quality assurance. In this point, the curriculum which has been evaluated will be audited and finally it will offer and suggest on how employability-related learning is incorporated in curriculum design. This might need to rethink pedagogic or assessment practices. In nutshell, reviewing curriculum design vital in ensure the employability competency among graduates in Malaysia.



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