

# Integration and Development of Generic Competencies into Malaysian Higher Education Context: Review of the Literature

Mehrnaz Fahimirad<sup>1,1</sup>, Pradeep Kumar Nair<sup>2</sup>, and Sedigheh Shakib Kotamjani<sup>2</sup>

<sup>1</sup>Taylor's University Malaysia

<sup>2</sup>Affiliation not available

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## Abstract

The current review study has presented the challenges of developing and implementing generic competencies in the context of higher education institutions in general and Malaysian higher education in particular. The results of the study revealed that institutional support and commitments should be assigned to increase the awareness of generic competencies and give more value to these skills to affect teachers' and students' perception. Furthermore, implementing generic competencies efficiently need enthusiasm and self-motivation of both teachers and learners. However, due to lack of time teachers maintained that they fail to teach generic competencies to cover the course subjects at universities.

## Integration and Development of Generic Competencies into Malaysian Higher Education Context: Review of the Literature

Mehrnaz Fahimirad

Faculty of Social Sciences & Leisure Management, Taylor's University

*E-mail: Mehnaz.Fahimirad@taylors.edu.my*

Professor Dr Pradeep Kumar Nair

Deputy Vice-Chancellor Taylor's University

*E-mail: pradeep.n@taylors.edu.my*

Sedigheh Shakib Kotamjani

Faculty of Educational Studies, University Putra Malaysia

*E-mail: nshakib58@gmail.com*

## ABSTRACT

This paper aims to provide a critical literature review on the role of generic competencies in designing, integrating, and assessing curriculum in Malaysian higher education context. This study addresses the issue of integrating generic competencies in higher education context. Moreover, the challenges of implementation of generic competencies in higher education institutions are identified. Then the research gap on the lack of integrating generic competencies in Malaysian higher education system is highlighted and the past studies which addressed the issue of integrating and assessing generic competencies in Malaysian universities are reviewed. The results revealed some Malaysian universities attempted to integrate generic competencies into their curriculum to increase the rate of employability; however, there is an ambiguity regarding the

assessment of generic competencies in the context of higher education. Further research is required to be conducted to investigate the assessment of generic competencies.

**Keywords:** Job skills, Curriculum development, Higher Educations, Generic competencies, Malaysia.

## Introduction

The nature of curriculum refers to divers range of issues such as practical course, process, syllabus, product, and praxis (Kelly, 2010). Curriculum as a product highlights education, and curriculum designers set objectives, draw up a plan and measure the outcomes (Tyler, 1949). The idea of the written curriculum, its implementation in teaching-learning methods, learning engagement, and the student's autobiographical experience have been negotiated in an interactive process (Blossey & Notzold, 1995). In this respect, curriculum as the process approach is developed based on the informed and committed actions (Grundy, 2006). Curriculum needs a continuous assessment of what needs to be modified and what is considered valuable in order to be developed via interaction between a dynamic action and contemplation.

In the context of higher education, the curriculum design is highly affected by the social, economic, physical, and cultural environment. Practical curriculum designers are supposed to identify students' and society's needs to develop a new curriculum. However, recently there is a critical scarcity in the number of effective curriculums since the finalized curriculums found to be insufficient; led to less participation in the industry training programs. In recent years, the higher education has encountered unmatched disruption since top companies clearly assert that curriculum designers design, deliver, and assess degree qualifications in traditional ways. Graduate students fail to perform well in the real world. In 20-year time, approximately half of current jobs are more likely to be high-tech whereas 65% of school children will be hired in jobs which are not exist yet (Yaacob, 2012). Certainly, most future jobs require high social skills, as recent economy generates wealth via creativity and consequently creativity is effectively fostered through collaboration (Yin, 2009). Due to the importance of social skills and creativity, universities are supposed to align their curriculum design constructively to fulfill the future workforce capabilities and to ensure continuous success. A future-ready curriculum requires to emphasize skills and abilities which are necessary across diverse jobs and work settings (Cowan, 1988).

In 2016, World Economic Forum's Future of Jobs reported that complexity of skills will be increasing and advanced skills are required for graduates. Based on World Economic Forum (WEF) most critical 21st century skills are classified into three categories: Competencies, Foundational Literacies, and Character Qualities. Over the past two decades, many scholars have extensively discussed the application and assessment of competences in context of higher education. Competencies are defined as constructs, which expressed in behavior in a particular context. Competences are defined as an integration of knowledge, skills and attitudes are aligned to a professional context (Mateo, Escofet, Martínez, Ventura, & Vlachopoulos, 2012). In what follows, the controversy on core competencies in higher education curricula is discussed. On the one hand, the opponents of competency based education in higher education curriculum express that this curriculum is excessively prescriptive and skill-oriented and hence this competency-based curriculum is unfavorable to the academic context of higher education. It has been reported that many higher education universities in developing countries are experiencing a wide gap between the needs of societies and their curricula. Hence, these curricula lack high skills or competencies in problem solving, project management and team working (van den Akker, 2007). Based on Biggs and Collis's definition (1982), competences are more likely to develop in five levels in the Structure of Observed Learning Outcomes: pre-structural, uni-structural, and multi-structural, relational and extended abstract. In the higher level of leaning, students can construct a logic and generalise those meanings to other contexts (Biggs & Collis, 1982). A requirement for reaching these higher level of learning is deep learning. As students achieve a particular level to select competences which associates with achieving the intended learning outcomes (Braun, Woodley, Richardson, & Leidner, 2012). Therefore, competences and learning outcomes are interrelated concepts.

In higher education context, the problem of 'key skills' pose the challenge to planning curriculum to serve a more diverse student groups. Primarily based on the Malaysia's experience, this paper aims to review different

curriculum designs, alignment and outcomes, especially on generic competencies, and its implementation of 21st century employability skills in higher education context. Thus, the curriculum designers recognized the necessity for transformation in curriculum of higher education to assist students succeed in their future careers. Moreover, this study aims to find the gap in the existing literature in terms of generic skills to enhance the university's awareness to deliver quality learning more effectively to transform into as a world-class university. In the following section, the concept and components of generic competencies will be elaborated and reviewed.

**Generic Competencies** In the process of developing a curriculum, generic competencies are used an umbrella term which refers to various types of generic competencies namely time management, teamwork, communication, creativity, problem-solving, and positive attitudes for instance respect, lifelong learning, consideration, and appreciation for students' development. However, some alumni have ambivalent attitudes towards generic competencies because they face uncertain difficulties and practices in generic skills (Hughes & Barrie, 2010). Moreover, university academics and teachers are not aware of the development of generic skill issues; therefore, deeper investigations are required to identify the challenges in developing a generic skill (Milne, Drummond, & Renoux, 1998). Generic competences are applicable skills across various professional contexts. These generic competencies occur in key the social, occupational, and personal areas (Clarke & Braun, 2013). In another study, all the generic competences are summarized by Young and Chapman (2010) based on twelve generic competence frameworks from USA, Australia, New Zealand, UK, Canada, and Germany. Even though, Young and Chapman (2010) inferred that competences related to bachelor's degree programmes could not be selected on the basis of international consensus, owing to differences in students' needs and culture; hence, they managed to identify the most frequently appearing competences. The most frequent appeared competences were: communication skills, critical reflection, creativity, thinking skills, self-management, leadership, information processing, problem solving, social responsibility, lifelong learning, and teamwork (Young & Chapman, 2010).

Consequently, they emphasized not only to develop university students' work-related skills but also prepare them for being an effective members of society" (Barrie, 2012) . Some experts criticize the inclusion of core competency in the higher education curriculum. They pointed out two detriments: One of the detriments of core competency inclusion is that less emphasis is placed on disciplinary knowledge; hence, there is an apprehension that students might not acquire the necessary comprehensible knowledge in their discipline for an academic profession. Another threat of core competency is that, it is restricted to the achievement of thinking styles, and problem solving associated to a particular profession (Chan, Fong, Luk, & Ho, 2017). Core competency in education develops different approaches: problem-based learning project-based education, case-based learning, and dual learning with internships in the real workplace (Schmidt, Loyens, Van Gog, & Paas, 2007). While, curriculum development is considered as a complicated process that form the 'plan for learning' involving ten interrelated components: rationale, assessment, objectives, learning activities, content, teacher role, location, resources, grouping, and time; hence, if one component changes, it somewhat influences the other components (van den Akker, Fasoglio, & Mulder, 2010).

The greatest challenge of higher education institutions (IHL) is to enhance work-related skills and knowledge and generate local graduates more appealing to their employers. Based on the findings from surveys employers are more concentrate on soft skills or work-related skills instead of technical competencies. The finding revealed that soft skills for instance leadership, team working, communication, and entrepreneurial concern were considerably significant for employing employees and offering key positions (Yassin, Abu Hassan, Wan Mohd Amin, & Amiruddin, 2008). Evers, Rush, and Berdow 1998 conducted a study to investigate students' competencies for increasing employability. They found that students require developing management of people and tasks, self-management, communications and encouraging innovation and producing change. In another study carried out by Richens and McClain, 400 employers responded to a survey on their perception of essential work-related skills and competencies for present and prospective employees. The majority of employers maintained that they require entry-level workers who have employability skills instead of technology competencies. Moreover, 92.6% of employees regarded the following skills important, namely thinking skills, interpersonal skills, and personal quality competencies (Andrews & Russell, 2012).

## Integrating and Assessing the Generic Competencies

The issue of integrating generic competencies into university courses by instructors is the second concern in the course of planning, implementing and assessing the curriculum. Noticeably, universities looking for a change in exactly how professors manage the planning, implementing and assessing phases of teaching and learning to integrate this set of competencies into the university curricula. It should be taken into account that generic competencies will develop if students, alumni, and university cooperate and participate fully. To get industries' feedback, researchers could administer surveys to measure and evaluate the influence of integrating generic competencies as needed by the industries for continuous development (Shahrin, Toh, Ho, & Wong, 2002). In the assessment process, the assessor aims to verify whether the student's performance fulfill the standard requirements, which planned by the standard setting. Standard setting in educational assessments are utilized to make a variety of decisions in order to group test takers according to their performance. Moreover, standard setting process conducts quality assessment, either analytical or holistic assessment.

There are two mechanisms for assessing generic competencies namely academic-industry cooperation and variability in the methods of assessment. In contrast to the students' views, the instructors opposed with this statement that lecturers could identify the proper mechanism to evaluate student's generic competency development. (Mayer, et al., 2001) maintained that it is required to gather a variety of professionals and experts from different industries so as to review the criteria of assessment for generic competencies to meet the employers' needs. In what follows, the challenges of integrating generic competencies in the context of higher education are discussed.

## Higher Education Challenges for Implementing Generic Competencies

Higher education institutions face some challenges for implementing generic competencies. The initial challenge of implementation of generic competencies is the lack of identification of significance of these competencies. Even though, the majority of universities have integrated generic competencies into their mission reports and these competencies are regarded as requirements for graduate students, some higher institutes maintained that provision of generic skills is not required. Almost 20 years later Bunney, (2015) highlighted that higher education should not be planned only by bringing economic profits to the society, but also higher education should encourage the individual development to assist the achievement of work-related skills and improving the society (Chan et al., 2017).

The second challenge is related to lack of integration of generic competencies into curriculum planning and alignments; the third challenge is associated with scarcity of providing professional development to academicians. The significance of generic competencies frequently is realized by students after they graduate from university. Moreover, employers regard generic competencies highly important because those skills have work-related nature. Reliable assessment enables employers to get concrete information about students' employability and work-related skills. For the purpose of employment in government sectors, they have some expectations in terms of developing generic competencies. The graduates should prove the evidence that they develop those competencies so as to turn into socially good citizens (Hughes & Barrie, 2010). On the other hand, the question raised here is that whether the assessments of generic competencies are required to be evaluated and acknowledged. Based on Chapman and O'Neill, teachers are required to contemplate on the assessment of generic skills.

## The Malaysian University System and Curriculum

The Ministry of Higher Education was founded in 2004. The departments of Higher Education Management Department (JPIPT) is divided into IPTA for managing public universities and the IPTS for managing private universities. In 2007, the Malaysian Qualifications Agency (MQA) was founded to improve the academic quality in universities. The MQA is considered as the reference and the basis of quality assurance with the aim of implementing the Malaysian Qualification Framework to highlight the standards for national qualification and ensure the quality of higher education. MQF is developed and classified based on a collection of nationally approved benchmarks and criteria against international best practices. Moreover, MQF explains

the learning outcomes in different areas of study, determines deserved academic levels, and credit system consistent with student academic load. Recognized higher education sources approved and accepted those criteria all awarded qualifications. Furthermore, MQF has laid great emphasis on learning outcomes in different areas of study such as knowledge, social skills & responsibility, psychomotor/technical skills, values, ethics, professionalism, attitudes, team skills and communication, critical thinking, lifelong learning, scientific approach, managerial & entrepreneurial skills, and information management.

Despite the fact that MQF focused on the aforementioned criteria in implementing curricula, experts have realized that jobless Malaysian graduates are not sufficiently prepared with the required skills based on employers' expectation. Unemployed Malaysian graduate lack sufficient skills in problem-solving skills, English language proficiency, as well as lack of professional manners. Hence, one of the concerns of parliamentarians is the public unemployment among Malaysian graduates. HRM ASIA (2012) informs that each year, 150,000 people graduate from Malaysian universities; however, many of those graduates are not successful to secure a job.

This finding broadly was supported by (Wang & Chiew, 2013) who mentioned that in December of 2012, Malaysia had very low rate of unemployment of 3.3% (434,000 of its 13-million labor force); however, the rate of graduate unemployment was quite high. Chiew (2013) maintained that this high rate of graduate unemployment could be attributed to a mismatch of talent in Malaysian higher institutions; moreover, ineffective delivery system plays a major role in rate of unemployment. Hence, the government took initiatives to assist graduates to find jobs through establishing the government agency named as the Graduate Career Accelerated Program (GCAP).

In accordance with Ministry of Higher Education Malaysia, generic competencies are the most important skills in the job market, particularly in this fast emerging world of technology (Larson & Miller, 2011). Based on the results of past studies on generic competencies, the soft skills elements developed by the Malaysian Ministry of Higher Education in 2007 and were introduced to the public universities. Datuk Mustafa Mohamed, the previous minister of higher, mentioned that the module of generic competencies or soft skills were included in the curriculum after taking into account employers' complaints about local graduates' soft skills. Moreover, to address this issue, the Malaysian government developed and implemented the new curriculum plan to provide high quality outcomes in graduate levels through concentrating on global careers. Moreover, universities are making attempt to find ways to develop and assess critical skills in their students.

## Methods

In this study, the articles were collected from databases of library. 23 articles which investigated curriculum and generic competency in the context of Malaysian higher education were selected. The researcher employed the search criteria that the articles must be published recently from 2005 to 2018 and the term 'curriculum' and 'generic competency' should be existed in the title and the keywords. For doing systematic literature review on curriculum and generic competencies, the articles were systematically assessed during two months and our attention was focused on the ideas and discussion on the notion of integrating generic skills into higher education curriculum. The articles were analyzed in two phases. Firstly, the existing gap in the literature regarding the lack of generic competency in universities were identified, then the concept of generic competencies is defined and challenges of integrating those skills in curriculum design and alignment are investigated. Secondly, the researcher raised the issue related to the Malaysian curriculum design and lack of integration of generic competencies in higher education, it is followed by reviewing the studies that developed and integrated generic competencies into Malaysian higher education systems (Clifford & Montgomery, 2015).

## Integrating Generic Skills into Malaysian Higher Education Institutions

Incorporating generic competencies into higher education curricular is considered as a tough task. In what follows, the studies carried out to integrate generic competencies in Malaysian higher educational context are reviewed. The Universiti Malaysia Terengganu (UMT) redesigned the graduate curriculum by integrating and implementing generic competencies to enhance the employability of students. (Altbach, Reisberg, &

Rumbley, 2010) investigated and examined the challenges of integrating, implementing and assessing this new curriculum which integrated the components of generic skill competencies at UMT. The structure of curriculum in UMT is developed based on three-stage of Ritz's Model. In 2004, UMT revised its curriculum, in each program, the emphasis was given on integrating and implementing generic competencies in all courses. UTM identified the components of generic competencies based on the reports of the national unemployment and findings of past studies in different universities. They integrated following skills: communication, technology (ICT), analytical thinking, learning to learn, languages, information communication, entrepreneurship, numerical competency, and character building into the curriculum. Public Universities of Malaysia documented the importance of these competencies in the Code of Practice for Quality Assurance which assess the graduates' ability to take their responsibilities and roles (Md. Yunus et al., 2006).

Moreover, UMT enriched students' campus knowledge through including various co-curriculum activities to develop their social network and skills. Hence, the co-curriculum activities were included to enhance generic competencies, generate holistic, and versatile graduates either directly or indirectly. Generally speaking, they integrated and trained organizational skills, developed spirit of cooperation and teamwork, leadership, and staff discipline. Furthermore, they provided students with opportunities to discover their talents. Therefore, UMT offered different co-curriculum courses or value added competencies including sport and martial-arts activities, industrial training, cultural, and leadership activities (Yunus, 2001). Moreover, this holistic curriculum framework is designed to increase, soft skills & emotional spiritual quotient, and content skills based on industrial-training, and real knowledge through connecting with community with a range of proper professional attitudes.

This holistic framework equips graduate students with a set of skills which assist them to be productive members to succeed in a wide range of responsibilities and tasks. It should be taken into account that these attributes should be practiced professionally through professional development programs to enable students to integrate the required skills and knowledge. In a nutshell, the incorporation of generic skills through both curriculum and co-curriculum programs particularly in the united club and leadership activities provided students with value added competencies and sustainable employment of graduates.

However, Yasin & Liu, (2016) mentioned that the success of this curriculum is significantly dependent on the commitment, supervision, monitoring, and the accessibility of the appropriate infrastructure. In another study, (Khair, et al., 2012) highlighted that issues related to integrating generic competencies into higher education curricular such as Universiti Kebangsaan Malaysia (UKM) and other public universities in Malaysia is not related only to the planning, implementing, and assessing phases but also the issues related to logistical problems. Besides, students and lecturers lack the existing resources to apply generic skills that they are going to learn and teach (Shahrin et al., 2002).

A study conducted by (Yaacob, 2012) to investigate students and lecturers' perspective on integrating of generic competencies into compulsory courses in Universiti Kebangsaan Malaysia (UKM). Compulsory courses were Islamic and Asian Civilizations (TITAS and Ethnic Relation, moreover, the issues related to integration of generic competency such as operational context, integration ability, and assessment mechanism were measured. Yaacob (2012) aimed to identify whether generic competencies were 'naturally occurring' within the current course programs, and whether any methods can be developed to record and assess explicitly those competencies. He also examined to what extent individual lecturers can integrate these competencies into the courses throughout the planning, implementing, and assessing phases. Moreover, Yaacob (2012) aimed to examine the proper operational context in which the generic competencies are expected to develop and to investigate the proper instrument to evaluate students' development in generic competencies. The researcher distributed a survey among 2,500 students and 22 lecturers who taught compulsory courses. To compare the lecturers' and students' perspective towards integration of generic competencies, frequency analysis was employed (Yacob, Kadir, Zainudin, & Zurairah, 2012).

The findings revealed that both lecturers and students approved that methods of recording generic competencies and its assessment can be developed. Though, lecturers maintained that integrating generic competencies are less likely to be incorporated into compulsory courses and those competencies are not 'naturally occur-

ring' within the current courses. Besides, they believe that UKM has not appropriately provided operational context for developing generic competencies. They opposed to the statement that lecturers can identify the appropriate mechanism to evaluate student's generic competencies. Contrary to the lecturers' viewpoint, it was surprising to report that students had strong attitude towards integrating generic competencies into compulsory courses.

In another study, Pradeep Kumar Nair Deputy Vice-Chancellor reported that Taylor's University recognized the need to change its curriculum framework. Taylor's University has introduced a *New Curriculum Framework* (NCF) in terms of design, delivery, assessment and outcomes to address the emerging challenges in higher education and more effectively engage and educate the millennial and post millennial generation of learners (Ali, Zhou, Hussain, Nair, & Ragavan, 2016).

The NCF will integrate the essential employability skills into Taylor's degree programs to assist students to succeed in the emerging global landscape. This is to meet growing demands for a more job-relevant curriculum and a work-ready, resilient and intentional graduate via the balanced and wholesome "integration of science and arts" into the curriculum (incorporated via nurturing both hemispheres of the brain). Thus, learners will be equipped with future work skills and abilities required across different jobs and work settings, that is, to develop and showcase the most critical 21<sup>st</sup> century skills. These will be encapsulated in the revised Taylor's Graduate Capabilities encompassing foundational literacies, competencies and character qualities to support the development of future ready graduates. This university offer the NCF for degree program to enhance the employability of learners by integrating the essential 21<sup>st</sup> century employability skills into curriculum, being adaptive to changing trends in learning, society, and aligning a constructive curriculum design, delivery, assessment and outcomes. Taylor's University has redesigned its curriculum to fit the learners of the future.

The NCF involves significant changes in how the University operates, higher education is delivered, as well as a change in culture and mind-sets. Under the NCF, learning is designed on the basis of personalized learning, immersive and problem-centered, international experience, and outcome-based assessment, entrepreneurial journey, flexible learning, and life skills development, self-management and relationship management. Kumar Nair 2018 (Ali et al., 2016) maintained that constructive alignment plays important role in designing and assessing curriculum for teaching and learning to achieve its objectives. Taylor's university developed the following eight principles to design the curriculum:

### **Figure 1. Key parts of SHINE program are now embedded into the curriculum**

They intend to improve the following generic capabilities namely discipline specific knowledge, problem solving, critical and creative thinking, problem solving, critical and creative thinking skills, lifelong learning, communication, personal competencies, social competencies, entrepreneurialism, and global perspectives.

### **Results and Discussion**

In the current digital era, the way people work and do business is strikingly reshaped. Due to fundamental changes in globalization, technological development, transforming the nature of work considerably influence the demands of workforce. It has been found that many higher education universities in developing countries are experiencing a wide gap between the needs of societies and their curricula. Hence, these curricula lack high skills or competencies in problem solving, project management and team working which refers to generic competencies. There are various types of generic competencies namely time management, teamwork, communication, creativity, and problem-solving, positive attitudes for instance respect, lifelong learning, consideration, and appreciation for students' development. As stated by (NCVER, 2010) generic skills have six frequent components i.e., basic essential skills, personal skills, interpersonal skills, thinking skills, skills which are related to business, and skills associated with community. (Limbach & Waugh, 2014) have supported the importance of integrating generic skills through the curriculum and extra curriculum activities.

The results of the systematic review of literature on challenges of integrating generic competencies in higher education revealed that generic skills programs provide work-related skills beyond the disciplinary knowledge. Generic competencies have been developed and included in the curricula of higher education in different

countries (Cranmer, 2006). However, some university academicians and instructors do not have awareness and understandings of generic skills development; therefore, deeper investigations are required to identify challenges and obstacles of generic skills agenda in developing countries (Goodwin, 2009).

Moreover, drawing on research of generic competencies, there is a strong relationship between the expansion of learners' generic competencies and methods of learning and teaching. Therefore, initially the instructors are supposed to make sure that students experience a category of learning experiences; provide opportunities for students' interaction such as peer consultation; and develop students' profiles including learning experiences (Mayer et al., 2001).

Another finding is the challenge of developing, implementing, and assessing of generic competencies. Even though, higher education sometimes has embedded generic competencies into discipline and curriculum, these skills are seldom assessed as separate learning outcomes (Rosten & Drummond, 2005), but they are assessed more holistically in the discipline knowledge. Furthermore, students are less likely aware of the development of these competencies in the classes since those capabilities are hidden in curriculum (Hughes & Barrie, 2010).

Due to various natures of generic competencies, the assessment of these skills might not be rated on scales (Hughes & Barrie, 2010). Another raised question is related to how students are given credits for achieving generic competencies (Pitman & Broomhall, 2009). Furthermore, based on the findings of past studies, it has been revealed that some teachers perceived that developing students' generic competencies was not their responsibility. Teachers are more likely unwilling to take innovative teaching approaches due to undertaking professional development (Rosten & Drummond, 2005). They maintained that university should take action to develop disciplinary knowledge at high education (Green, Hammer, & Star, 2009). The finding is consistent with the study conducted in Malaysia by Yaacob, (2012) that lecturers maintained that integrating generic competencies are less likely to be incorporated into compulsory courses and those competencies are not 'naturally occurring' within the current courses. Besides, they believe that UKM has not appropriately provided operational context for developing generic competencies. They opposed with the statement that lecturers can identify the appropriate mechanism to evaluate student's generic competencies. The reason that teachers are reluctant to integrate and assess generic competencies is that research and publication are strongly associated with university's reward systems and job promotion; hence, research universities give more priority to research activities than teaching (Rosten & Drummond, 2005).

The findings indicated that in a study conducted in UMT, the co-curriculum activities were included to enhance generic competencies, generate holistic, and versatile graduates to increase the graduates' employability. Therefore, UMT offered different co-curriculum courses or value added competencies including sport and martial-arts activities, industrial training, cultural, and leadership activities. Moreover, this holistic curriculum framework is designed to increase, soft skills & emotional spiritual quotient, and content skills based on industrial-training, and real knowledge through connecting with community along with a range of proper professional attitudes.

In the same vein, Taylor's University integrated generic competencies in its new curriculum framework, and implemented those competencies in vocational courses; however, the assessment of those generic competencies has not been conducted. Further study needs to be conducted to investigate lecturers and students' perceptions of integrating generic competencies and the assessment of those skills.

## Conclusion

The current review study has presented the challenges of developing and implementing generic competencies in the context of higher education institutions in general and Malaysian higher education in particular. The findings indicated that there is a lack of transparency about the concept of generic competencies, and a lack of consistent teaching pedagogy on generic competencies and assessment criteria. Hence, adequate understanding of generic competencies is required to be developed through establishing a common conceptual base on a generic competencies agenda. If a conceptual base is built, the potential challenges of integrating and implementing generic competencies could be addressed.



The results of revision revealed that institutional support and commitments should be assigned to increase the awareness of generic competencies and give more value to these skills to affect teachers' and students' perception. Furthermore, implementing generic competencies efficiently need enthusiasm and self-motivation of both teachers and learners. However, due to lack of time teachers maintained that they fail to teach generic competencies to cover the course subjects at universities.

Teachers and students perceived that generic competencies play major role in employability; however, the issue of assessing and giving credit to generic competencies has not been thoroughly addressed in the context of higher education. Generic competencies need to be assessed as disciplinary knowledge through standardized system. Moreover, employers place a lot of importance on generic competencies because these skills considerably manifest work-related skills. Therefore, the results of reliable assessment on generic competencies provide employers with comprehensive information and graduate work-readiness. Students often come across to notice the significance of generic competencies or work skills after graduating from universities (Chan et al., 2017). It worth mentioning that lecturers should evaluate whether generic competencies assessments, assess what are supposed to assess. Future research is definitely required to investigate and develop the appropriate assessment of generic competencies to guarantee reliable and consistent interpretation of graduates' work-related competencies outcomes.

The extensive review of literature in Malaysian higher education revealed that generic competencies integrated into curriculum; however, there is no alignment between teaching pedagogy and students' experience so as to ensure the implementation of a systematic approach to the development of generic competencies. Further research should be conducted to identify the best practices of implementing and assessing of generic competencies to give teachers' insight and confidence about teaching generic competencies. Many research-intensive universities around the world, have come to realize the lack of work-related skills or generic competencies among their academicians has deprived their students of being work-ready graduates since the most students are not going to continue working in research sector. Therefore, several universities have hired 'professor of practice' who has great deal of experience and qualifications in industrial sectors in various disciplines to introduce and implement relevant and well-aligned generic competencies (Etzkowitz, Mello, Luna, & Campbell, 2014). In a nutshell, institutions of higher educations should recognize the significance of developing generic competencies and implement those competencies to increase the employability of graduates.

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