GHOCS: Capturing Creativity in Shifting Character Building for Student Development

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Abstract: - Graduate Higher Order Critical Skills (GHOCS) is uniquely designed to meet UniKL's requirements to portray UniKL graduates' character. This is in line in Malaysia's education blueprint, which identifies four domains – fondly referred to as JERI, based on its Malay acronym: Physical, Emotional, Spiritual and Intellectual, to equip school and university students alike with the necessary skills to survive in the world back then. Fast forward to the present, with changes taking place around the world, school-leavers, and the graduates of higher learning institutions are expected to be equipped with not only knowledge, but soft skills that match the needs required by the industry. GHOCS was introduced to UniKL students to reduce the competency gap in the employability skills as highlighted by the industry, and it will visualize the students' self-development progress shown by the "spider web" of skills obtained throughout their studies in UniKL. It is expected that UniKL will inspiration other TVET institutions, and boost the employability rate for the nation's graduates.

Key-Words: - Student Development, Student Character Building, GHOCS

1 Introduction

In today's challenging world where there are no boundaries to almost everything, everyone must compete with each other and remain competitive in the fast-paced changes taking place everywhere. Organizations now prefer to hire someone with good attitude and pleasant personality. Therefore, it is compulsory for the universities to produce graduates who are able to meet the challenges and sustain its capability in accomplishing the tasks given to them.

Higher education would require operationalizing the institutional purposes, collecting data about the value added impact on student skills and dispositions, and using such data to consider modifications to pedagogy, curriculum, and faculty development. Chan et al (2014) believed the reason of higher education was created due to the reasons. In relation toward purposes of higher education institution, various initiatives have been designed to portray higher education institutions in ensuring all students possess the desired attributes and competencies needed by future employer and the nation.

Under Malaysia Education Blueprint 2015-2025 (Higher Education), in order to achieve the 10 shifts identified to address quality and efficiency of higher education in Malaysia. The outcome of the 10 shifts are divided into 2 parts, the first part 1 to 4 focus on the outcome for key stakeholders in the higher education system, including students in academic and TVET pathways, the inspirational academic community, as well as all Malaysians participating in lifelong learning. The second part of shifts focus on enablers for the higher education ecosystem (Kementerian Pendidikan, 2012).)

2 Background

The rapid changes taking place in the world's economy and workforce trends today are placing greater demands on the education sector to produce employable and marketable graduates, as reported by Stock (2004). It is eminent as the failure to keep up would cripple the Malaysian industry from staying competitive globally. Hence, the higher learning institutions (IPTs) in the country need to revise, reinvigorate or even renovate the syllabi of academic and co-curricular activities in order to produce

graduates that have all the skills required by the industry in order to remain relevant as a training institution.

University Kuala Lumpur (UniKL), a young university, within thirteen years of its establishment has grown by leaps and bounds to create a niche in the quest of producing skilled engineering technologists that cater to the demands of the industry. In order to produce graduates that are equipped not only with the technical know-how, but also holistically complete with outstanding interpersonal skills, affable personality, and driven to perform well, UniKL countered by revamping its Student Welfare Department by including the General Studies unit as part of the Department of Student Development and Campus Lifestyle (SDCL). The objectives are to enable better mobilization of staff and academics alike to shape its students into highly skilled graduates sought after by the industry. Apart from the usual student welfare services, clubs, alumni, and general subjects involving language, co-curricular and subjects like religious and interpersonal skills, the Student Development Section is tasked with the mission to complement the role of the academics in producing graduates that can perform and meet the demands of their employers the moment they enter the job market.

UniKL has taken bold strides in the past couple of years to stay ahead with the demands of the industry. At the same time, the Ministry of Education (MOE) – a task now shouldered by the re-introduction of the Ministry of Higher Education (MOHE) – has also made inroads through its own mechanisms by introducing the iCGPA, an extension of the government's Education Blueprint launched in 2013.

In 2005, the government carried out a large-scale survey that sought information on the employment status of the nation's graduates. To the shock of many, the number of Malaysian graduates unemployed or not employed based on their actual qualifications was highly alarming, as the number was very high – 60,000, which tallies to about the total number of graduates produced in 1 ½ years in the country. The research cited their unemployment was due to "a lack of experience, poor English, poor communication skills" (Singh, 2008) and a mismatch of employment based on their qualifications.

Surprisingly, the conundrum is not unique to the Malaysian job market. As early as the 1990s, research in the West, especially in the United States of America, identified that the technological changes sweeping the world over had created a demand for workers that were built with both technical knowledge and generic skills, in order to compete for available jobs. Lawrence (2002) claimed that many graduates left their alma mater without the necessary skills and attitude to deliver on their jobs. And a number of Malaysian research teams also echoed similar findings, when it was found that the graduates were competent in their field of knowledge, but somehow lacked the soft skills required to survive the demands of the new order ((juhdi,2008), (Khir, 2006), (Ismail & Sieng, 2011)).

The merger of markets, communication, intercultural awareness, and ability to forge networks beyond one's comfort zones are forcing companies to train and re-train their human capital to cater to the demands. Therefore, it is not a startling fact that employers have started to become choosy in hiring workers that are equipped with the complete package (Rawling, 2005) preferring those with excellent interpersonal skills (Mason, 2009), and the ones with excellent oral and written communication skills (Hassan, 2008).

Based on the studies carried out and surveys conducted, the IPTs began to take note, and with the cooperation of the MOE, and later, the MOHE, the focus had shifted from just concentrating on the undergraduates' academic performance, but to fully develop their potential to be conversant with the elements of generic skills like "creative thinking, problem solving and analytical skills" (Singh, 2008). Other than that, engineering graduates, in particular, are expected to display employable elements that would allow them to execute their technical expertise commandingly (Rasul, 2009).

The following table lists the Employability Skills Framework (Zaharin, 2010), the skills required of engineering graduates in order to be employed by the best companies in the industry. It is believed that this is one of the frameworks that forms the building blocks for the conceptualization of iCGPA, to be implemented across all disciplines in the Malaysian tertiary education sector.

Table 1.0: engineering employability skills developed by the ministry of higher education

	Skills	*Descriptions*
1	Communicate effectively	The ability to present ideas with confidence, and effective through oral,
2	Competent in application and practice	The ability to use the techniques, skills, and modern engineering tools
3	Interpersonal or team working skills	The ability to function effectively as an individual & in a group with the capacity to be a leader or manager as well as an effective team member
4	Engineering problem solving & decision making skills	The ability to undertake problem identification, apply problem solving, formulation & solutions
5	Apply knowledge of science & engineering principles	The ability to acquire and apply knowledge of engineering fundamentals
6	Competent in specific engineering disciplines	The ability to acquire in-depth technical competence in a specific engineering discipline
7	Understand professional, social and ethical responsibilities	The ability to understand the social, cultural, global and environmental responsibilities of a professional engineer
8	Lifelong learning	The ability to recognize the need to undertake lifelong learning
9	Engineering system approach	The ability to utilize system approach to design and evaluate operational performance

All the research findings and recommendations point to the need for the tertiary education providers to develop methods or systems that could produce graduates that have the technical know-how and critical skills to perform well in the industry.

In line with UniKL's mission to attain global recognition with its launch of the We4Asia framework, the vision is to produce graduates that are not only knowledgeable, communicative, driven, honest, and pro-active, but also sensitive and aware of the needs of society and the differing cultures of the global village.

GHOCS is a system developed to provide recognition of student's achievements beyond the confines of the classroom, which are basically expanded from the National Philosophy that outlined the four key domains (Physical, Emotional, Spiritual and Intellectual) with UniKL adding two more domains – Social and Career, as UniKL's Educational Model.

3 Integrated Student Character Building System - GHOCS

Universiti Kuala Lumpur believe the success of a university is based on positive student experience. The student development cycle starts from the first day they step into the university until the day of their graduation. The next phase in the cycle is when they return to UniKL as a great alumni. The inspiration student life cycle framework started by revamping the Student Welfare department, and based on Shifts 2 and 3 of the Education Blueprint, the G-HOCS model was proposed by the Center for Student Development team to develop value-driven graduates and overcome the shortcomings of UniKL's undergraduates. The six critical skills domains are then embedded into the activities carried out in human sciences subjects, club and sports activities, wellbeing and welfare units, with the vision of creating a holistic graduate with the utilization of the concept Engage, Explore and Experience blended with Commitment, Integrity, Teamwork, Innovation and Excellence.

Figure 1.0 GHOCS Overview

As visualized in figure 1.0 above, the UniKL Student Development model define all student activities as student character building (SCB), and each must fulfill at least one of the six domains' pillar. This pillar is defined as SPICES. S.P.I.C.E.S is the heart in developing "holistic graduate" leading to student success, area of development which is known as followed:

Table 2.0: Student Character Building (SCB) Merit Element

	Merit element (SCB)	Description of area development
1.	**Social**	Having the ability to form relationship, engage with others → explore the potential → share the experience
2.	**Physical**	Having & applying knowledge about physical strength (body) to keep fit & energize
3.	**Intellectual**	Academic Excellent by exposing the ability to learn, gain skills, and reflect the knowledge (learn, → un-learn, → re-learn)
4.	**Career**	Ability to map again the goal and needs to success.
5.	**Emotional**	Ability to understand & match with situation to react upon.
6.	**Spiritual**	Understanding and having ability to be aware of own culture & respect others

By referring to Figure 2.0 and Table 2.0, the mapping of activities between S.P.I.C.E.S will derive the potential transferable skill. The anticipation is that, the core values will facilitate in developing UniKL graduates to be Knowledgeable & Highly Skilled, Altruistic Leaders, have a holistic mind-set in the quest to become Noble Citizenships with the spirit of being Lifelong learners.

Figure 2.0: Transferable Skills (S.C.O.P.E)

Each activity conducted by students will fall under SIX domains classified as Spiritual (S), Physical (P), Intellectual (I), Career (C), Emotion (E) and Social (S). Every single domain will contribute to at least ONE transferable skill within ONE activity conducted by students. Through our mapping, each transferable skill will be mapped to UniKL DNA, which then determines the characteristics of the graduates. These are the essence of UniKL GHOCS. Figure 3.0 below shows the overall Student Character Building that is applied by GHOCS.

Figure 3.0: Overall mapping Student Character Building into GHOCS

4 Graduate High Order Critical Skill - GHOCS

What is GHOCS? – GHOCS is basically a computerized system developed through the evolution of Student Character Building in Student Experience Model. GHOCS means Graduate-Higher Order Critical Skills (G-HOCS) is systems developed as a program to produce certification system to recognize student's achievement and efforts. The system has been successfully deployed in Sept 2015.

The G-HOCs system is an integrated academic system in UniKL (ECITIE). Some modifications to UniKL ECITIE are required in order to have an effective and collective student activities record in UniKL through the GHOCS system. Currently, this system oversees the management and monitoring of student activities at UniKL including student club management, supporting program management (UniKL DNA Program), Excellence Program and the student involvement through a point calculation system.
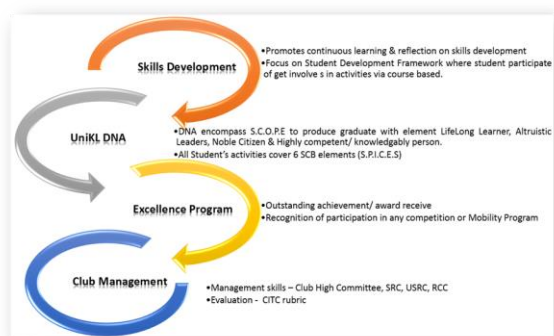
Figure 4.0: GHOCS Structure

The GHOCS system is used to administer the students' activities and a GHOCS point will be rewarded to recognize the participation and achievement of the students upon the completion of the activities. The development of GHOCS focused on:

a) Skill Development: Skill development module focuses on promoting continued learning, within and outside classrooms. The evaluation of point is generated from subjects listed under student development section such as Languages and common General Subjects.

b) UniKL DNA: This is the main component of GHOCS. The modules are divided into several components underlying categories of student activities in UniKL. Some of the components focus specifically for mobility, and are categorized as GLOBAL module. UniKL believes the importance of embedded community services, GHOCS dedicatedly provides sub-modules within the system to cover the activity under Community Services (CSR) in sub module Active Program.

c) Excellence Program: Outstanding achievement received by students shall be recorded into this module.

d) Club Management: Module club management focuses on managing the club activities. This module includes 360° assessment.

5 Result & Discussion

Universiti Kuala Lumpur (UniKL) is a leading university in engineering technology established on 20 August 2002. Wholly owned by Majlis Amanah Rakyat (MARA), an agency under the Ministry of Rural and Regional Development (KKLW), Malaysia, the university is given the mandate to upgrade the status of technical education in Malaysia

by the government. As the nation expects more from technical higher learning institutions, UniKL mould its graduates with strong technological knowledge and astute entrepreneurial skills who would later fulfill the current demands of the industries.

UniKL's 14 branches offer various foundation, diploma, undergraduate and postgraduate programs, with the concept of 'One Institute, One Specialization'. Below are UniKL campuses located across Malaysia:

- Universiti Kuala Lumpur Malaysia France Institute (UniKL MFI) – Industrial Maintenance Technology

- Universiti Kuala Lumpur British Malaysian Institute (UniKL BMI) – Electrical, Electronic & Telecommunication System.

- Universiti Kuala Lumpur Malaysian Institute of Aviation Technology (UniKL MIAT) – Aviation Technology

- University Kuala Lumpur Malaysian Spanish Institute (UniKL MSI) – Automotive Component & System Technology

- Universiti Kuala Lumpur Malaysia Institute of Information Technology (UniKL MIIT) – Information Technology, Networking, Multimedia & Animation

- Universiti Kuala Lumpur Malaysian Institute of Chemical and Bio-Engineering Technology (UniKL MICET) - Chemical & Bioengineering Technology

- Universiti Kuala Lumpur Malaysian Institute of Marine Engineering Technology (UniKL MIMET) - Marine Engineering Technology

- Universiti Kuala Lumpur Royal College of Medicine Perak (UniKL RCMP) - Medical & Allied Health Sciences

- Universiti Kuala Lumpur Institute of Product Design and Manufacturing(UniKL IPROM) - Design, Manufacturing & Engineering Business Management

- Universiti Kuala Lumpur Malaysian Institute of Industrial Technology (UniKL MITEC) –

Scope Quality Engineering & Industrial Logistics

- Universiti Kuala Lumpur Institute of Medical Science Technology (UniKL MESTECH) - Medical Science Technology

- Universiti Kuala Lumpur Business School (UniKL Business School) - Accountancy, Entrepreneurship, Islamic Finance & Marketing

- Universiti Kuala Lumpur International College(UniKL ICOLE) - Engineering

In the result tabulation and discussion, UniKL ICOLE will not be discussed, as most of the programs are run at various campuses.
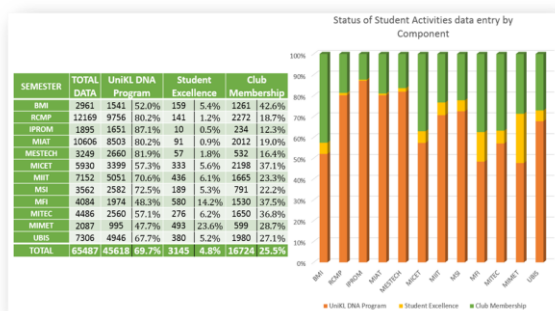

Figure 5.0: Activities conducted across campus

In Figure 5.0 above, 65,487 activities have been recorded since Sept 2015 across all campuses. In general, around 27 activities were conducted by each campus per week. The capacity of student by each campus varies from 136 to 774 per batch. The data tabulated for this discussion are based on the graduating class of 2016. The major contributor towards the activities in the GHOCS system is from activities classified as UniKL DNA program. This component mainly contributes into the calculation of transferable skills. Each of the students will know their obtained skills by referring to the GHOCS transcript as shown in the sample (Figure 6.0) below. UniKL IPROM, with the capacity of 136 students graduating in 2016, has 1895 data collected for student activity. On average, each student had participated in around 14 activities throughout their study in UniKL IPROM. As for RCMP, with 12,169 activities recorded into the system, with 375 students, on average, each student took part in 32 activities throughout their 5 years of Bachelor of Medicine and Bachelor of Surgery (MBBS) program.
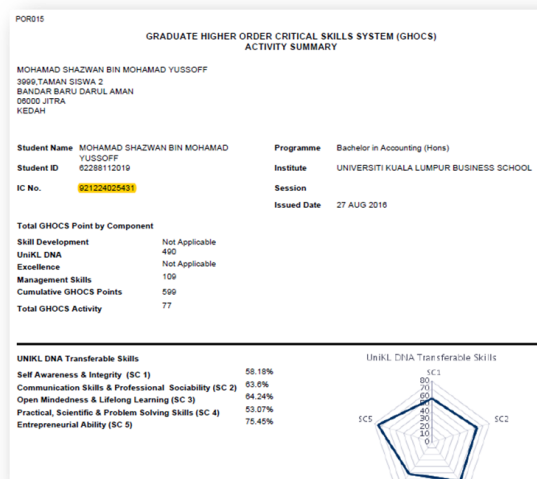

Figure 6.0: GHOCS Transcript sample

As shown in Figure 7.0 below, only 9.3% student did not utilize GHOCS to record their activities and they will not receive their GHOCS transcript during convocation. Generally, there are around 28 clubs set up to accommodate activities conducted by student.

Figure 7.0: Tabulation of GHOCS transcript.

6 Conclusion

Capturing graduate employability issues, unemployment is an important issue. As reported by economic.com, unemployment rate in Malaysia has escalated to 3.5% from 3.4% within a month. Indicated within the report is the jobless rate that is at the highest in April with 516.2 thousand people being unemployed. Reports also show that the unemployment rate in Malaysia averages at 3.26 percent a year from 1998 until 2016. GHOCS was introduced to UniKL students to reduce the competency gap highlighted in the employability. It is able to be visualized through self-development progress shown by the "spider web" which highlights the obtained skills throughout their studies in UniKL. It is expected that UniKL, with the inspiration to be

the best TVET institution, is able to boost the employability rate of its graduates in the emerging global markets.

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