Malaysian Qualification Framework: A Need to Revisit

Usharani Balasingam

Faculty of Law
University of Malaya
50603 Kuala Lumpur
Malaysia

Abstract.

Education is a tool of empowerment and the betterment of a nation and its citizens. The race to achieve our Malaysian Vision 2020 is premised on a highly developed human capital. Learning, knowledge and education are without boundaries, be it in terms of age, place, time, quality and impact. The purpose of this paper is to attempt to measure the quality of our human potential by evaluating the benchmarks set by the Malaysian Qualification Framework against benchmarks of like qualifications of jurisdiction like England Wales and Ireland and Australia for higher level qualifications of degree and masters just as indicators of our standing when benchmarked internationally. It is the conclusion of this paper that we need to revisit and redefine our qualification descriptors to be sufficiently detailed, pegged at appropriate levels and industry sensitive in its outlook so as to enable proper emphasis on required acquirement and appropriate assessment of key indicators within the set qualification descriptors. We need to ensure that our levels are at least comparable to and stand on par on the requisite requirements at same levels across boundaries with international standards in order to achieve our Vision 2020. It is further suggested that we consider a similar benchmarking exercise and the need for a Malaysian Educational Framework for education from the primary school levels upward as education is incremental, developmental and progressive.

INTRODUCTION

As quoted from the Ministry of Education website, the National Inspiration and the Educational Policy is as set out as follows. The National Mission as announced in the Ninth Malaysia Plan (9th MP) (31 March 2006), emphasised the second phase of the government's effort to achieve Vision 2020. The Ministry of Education (MOE until recently MOHE) has the main role of initiating the mission to raise the capacity for knowledge and innovation, as well as encouraging a first class mind set to the nation.

In line with the second thrust of the National Mission, Malaysia needs to produce human capital with a first class mind set in order to face developmental challenges in knowledge and innovation based economy. The

desired human capital should be knowledgeable, skilful and possess a superior personality.

In relation to these needs, the *National Higher Education Strategic Plan* (NHESP) was formulated with the vision to transform higher education within the context of establishing Malaysia as an international hub of excellence for higher education. This transformation is the foundation towards attaining merit and sustainability for the higher education system beyond 2020. NHESP encompasses four phases: Phase 1 (2007- 2010): Laying the Foundation, Phase 2 (2011-2015): Strengthening and Enhancement, Phase 3(2016 - 2020): Excellence , Phase 4 (Beyond 2020): Glory and Sustainability [i]

We are at the end of phase two and need to reflect on the extent our Higher Education system is strengthen and enhanced. In line with this theme we draw on the idea to test the strength of our Malaysia Qualification Framework and to consider if there is a need to enhance the same.

The recognition of human capital as the engine of growth and development is evident from Chapter 5 of the 10th Malaysia plan titled *Developing & Retaining a First World Talent Base by 2020*. Here it is recognized that our labour force with tertiary education at 23.4% (OECD average 27.4% in 2007) , skilled labour force at 28 % (OECD average 37.6% in 2008) and labour productivity at 26.6 %(OECD average 64.8% in 2009) are all indicators of the need to relook and transform our education sector. The integrated human capital and talent development framework for Malaysia (2011-2015) under the Economic Planning Unit targets three specific areas namely the school level by revamping the education system to significantly raise student outcomes, secondly at the tertiary level (university, college, polytechnic, community colleges, Technical Education and Vocational Training (TEVT) Institutions to raise skills to increase employability and finally into the professional working life to reform the labour market to transform Malaysia into a high income nation.

At the school level change is necessitated as we are perceived as falling behind in our education system in terms of student ability and expected outcomes. In the Trends in International Mathematics and Science Study (TIMSS)1, (2007) around 20% of Malaysian students failed to meet minimum benchmarks for both Mathematics and Science, compared to only 5% in Science and 7% in Mathematics in 2003.[ii]

In a press release titled *Improving the Quality of Education Key for Sustained Growthin Malaysia* (December, 2013, World Bank) the highlight is that quality in education remains a concern. In standardized international assessments Malaysian students perform well below their peers in the high-

income economies Malaysia aspires to compete with. For example, among the 65 countries participating in the 2012 Program for International Student Assessment (PISA), Malaysia ranks at number 52 for Math, 53 for Science and 59 for Reading.

The above is a precursor and underlies the rationale for this paper and study. We recognize that in order to attain the high human capital growth we so desire, we need to focus not just in meeting the number of degree and postgraduate holders that the university are driven to churn out given the objectives of our strategic thrust in education. The first strategic thrust envisages 50 % of the population have access to higher education and 33 % of the workforce have tertiary education. The second strategic thrust emphasis on producing 100,000 Phd graduates. Underlying the strategic thrust is the word quality which seem to be so implicit that it is not specifically mentioned in our seven strategic thrust in education.[iii]

We must evaluate and benchmark our higher education qualification descriptors under the Malaysian Qualification Framework against prevailing international standards to gauge our standing on an international platform. The question here is not and is aside from the point of assuring that we do deliver on what is promised on the existing Malaysian Qualification descriptors and have an objective, credible and transparent audit system to ensure delivery and accountability of the qualification descriptor outcomes. This is yet another question not covered here but a question that begs an answer nonetheless.

Here we ask another question, namely are the Malaysian qualification descriptors levels comparable and put students who study under the Malaysian framework in equivalent or better or lower standing than their peers graduating from international universities on the same level of qualification. Are our expectations on a certain qualification descriptor valid and current given the current international education benchmarks. We need to mark our own report card from a quality assurance standpoint in an objective manner.

This paper aims to undertake an initial study by endeavouring to compare and evaluate our educational quality attributes by setting the quality descriptors for each level of qualification of certain countries like Australia and England, Wales and Northern Ireland against ours in Malaysia. We need to peek into our contemporaries benchmarks to evaluate our standing in this regard. The attainment of Vision 2020 of first world country status and actualization of the vision of Malaysia as an international education hub and where our human capital power justifies the high income it targets to achieve necessitates us to face this questions now and address them accordingly.

So plainly put, the objective of this study is conduct a preliminary medical check on our Malaysian Qualification Framework (MQF) focusing on certain qualification descriptors as the preliminary step in order to set out and contrast the MQF and the level descriptors therein contained with the Australian

Qualification Framework (AQF,2013)and the Framework for Higher Education Area England, Wales and Northern Ireland (FHEQ, 2008) level of qualification descriptors.

2. OBJECTIVE AND METHOD

This paper shall attempt to compare and contrast our Malaysian Qualification Framework (MQF) by embarking on the following. We begin the benchmarking exercise by identifying the level and qualification description of the particular qualifications of bachelors and master degree within the Malaysia framework and compare with the corresponding level and description in Australia and UK to assess and evaluate our standing on a particular qualification descriptor. The limitation is that the paper is targets specific named qualification levels on the Malaysian Qualification Framework with an objective to highlight the need to revisit the entire framework. It focuses on academic qualification descriptors and not vocational and technical qualifications or the volume of learning.

3. QUALITY ASSURANCE AGENCIES IN MALAYSIA, AUSTRALIA AND ENGLAND WALES AND NORTHERN IRELAND

In England, Wales and Northern Ireland the provision of higher education is regulated by the Quality Assurance Agency for Higher Education (QAA) through the provision of The Framework for Higher Education Qualifications in England, Wales and Northern Ireland (FHEQ)(2008).. Within the United Kingdom and Ireland there are frameworks of schools and vocational qualifications managed by Qualification and Curriculum Authority (QCA). In Australia, the Australian Qualifications Framework (AQF)(2nd edition 2013) is published by the Australian Qualification Framework Council. In Malaysia we have the Malaysian Qualification Framework which is enforced by the Malaysian Qualification Agency (MQA), was established on 1 November 2007 with the coming in force of the Malaysian Qualifications Agency Act 2007**.**

4. MEANING OF QUALIFICATION DESCRIPTORS

Basically, all jurisdictions under study have a common understanding of the term qualification descriptor. In the Malaysian Qualification Framework divides qualification in 8 levels and defines qualification descriptor is defined as a generic statement that explains the main learning outcomes for qualification at a particular level. The United Kingdom FHEQ has (five)

levels concentrating on academic pathway and states that the fundamental premise is that qualification are awarded on the basis of outcome and attainment and that qualification descriptors set out the generic outcomes and attributes expected for the award of individual qualification. The AQF has 14 qualification types from across all education and training sectors and each (with the exception of the Senior Certificate of Education) is located at one of the 10 levels.

The structure of levels and qualifications is defined by a taxonomy of learning outcomes (qualification descriptors). There is more detailed of the taxonomy of the learning outcomes in that it is expressed in the dimensions of knowledge, skills and the application of knowledge and skills. The concept of knowledge is encaptured in terms of depth, breadth, kinds of knowledge and complexity. Skills are referring to the ability of the holder of the qualification. Skills are described in the terms of the kinds and complexity of skills. Skills include cognitive and creative skills including the use of intuitive, logical and critical thinking, technical skills include dexterity and the use of methods, materials, tools and instruments, communication skills (written, oral, literacy and numeracy skills) and interpersonal and generic skills. Also relevant is the application of knowledge and skills in which context a graduate would apply the same. Application is seen in terms of (autonomy, responsibility and accountability). The context in which it is applied may be in ranges of predictability, the routine and the non-routine.

5. DEGREE QUALIFICATION DESCRIPTOR

We shall in this section consider the degree descriptors of the jurisdictions under study. The precursor qualification prior to degree which is the foundation qualification in Malaysia and United Kingdom is also perused to reflect on level of attainment of learning outcomes of the requisite levels.

5.1 Malaysian Degree – Bachelors Degree

Table1: Malaysian Degree Qualification Descriptor

A Bachelors degree prepares students for general employment, entry into postgraduate programme and research as well as highly skilled careers. It enables the individuals to pair responsibilities , which require great autonomy in professional decision-making. The bachelors degree is conferred on individuals who are able to:	
(i)	Demonstrate knowledge and comprehension **on fundamental principles** of a field of study, acquired from **advanced textbooks**
(ii)	Use the **knowledge and comprehension** through methods that indicate professionalism in employment
(iii)	**Argue and solve problem** in their field of study ‘
(	Show **techniques and capabilities to search and use data** to make decisions having

iv)	considered social, scientific and relevant ethical issues
(v)	**communicate effectively** and convey information, ideas, problems and solutions to **experts and non experts**.
(vi)	Apply **team and interpersonal skills** to continue further study with a high degree of autonomy
(vii)	Possess **independent study skills** to continue further study with a high degree of autonomy

The salient points to note here is that a degree qualification typically covers 120 credit hours (which is typically translated to 3 years or 6 semesters) . There is no distinction of for honours degree and basic bachelors degree. The depth, breadth, currency and complexity of knowledge is not detailed neither is the concepts of skill and the context of the application of skills and knowledge. The level of knowledge mention is at the lower levels of comprehension. There is not an emphasis on higher order of critical analysis, synthesis and evaluation or new knowledge. The concern raised here is whether our degree learning outcomes is pegged at a level not comparable to Level 6 of the FHEQ.

In 2014, the Malaysian Qualification Agency (MQA) published standard for Foundation programmes. The learning outcomes demonstrable by the students are reproduced in the Bahasa Malaysia version and translated below.

Dengan merujuk kepada ciri-ciri generik yang termaktub dalam MQF, hasil pembelajaran Kursus Asas (Foundation) ini adalah pelajar akan dapat:

i. menunjukkan kefahaman dalam fakta, konsep, prinsip dan proses dalam bidang yang berkaitan;

ii. mengaplikasikan (menggunakan) prinsip-prinsip asas dalam bidang pilihan bagi mengenal pasti dan menyelesaikan masalah;

iii. menjalankan aktiviti-aktiviti akademik seperti mengumpul maklumat, menganalisis data dan membuat kesimpulan, sama ada secara kumpulan atau individu;

iv. menunjukkan kecekapan berkomunikasi secara lisan dan penulisan;

v. menunjukkan kecekapan mencari maklumat dan kemahiran kendiri pada tahap ini bagi pembelajaran sepanjang hayat.

The translated English version is as follows

i. demonstrate **comprehension of facts**, **concepts, principles and processes**

ii.**apply the basic principles** in selected field to identify and solve problems

iii. conduct **academic activities like accumulation of information , analysis of data and reaching a conclusion** whether individually or in groups

iv. demonstrate **competency in written and oral communication**

v. demonstrate **competency to search for information and independent study skills for lifelong learning**.

We note that the foundation and degree MQF learning outcomes are not too far apart.

Another question posed here is to what degree or level are the outcomes of the foundation qualification differ from that of MQF bachelor degree. Just to make a short point on standards comparison it is suffice to say that FHEQ for foundation degree and degree requires not just comprehension (as per MQF) but higher level of critical understanding of well-established principles.

The descriptor for Level 5: Foundation Degree FHEQ primarily intended to intregrate technical and vocational qualification into the mainstream is set out below for us to analyse and reflect to what extent the same overlaps with degree qualification descriptors under the MQF. The point to note also is that within degree classification there is the concept of foundation degree, bachelors and bachelors with honours in the United Kingdom framework.

The descriptor provided for this level of the FHEQ is for any Foundation Degree which ***should meet the descriptor in full*** *.This qualification descriptor can also be used as reference point for the other level 5 qualification including Diplomas of Higher Education , Higher National Dipolma, etc*

Foundation Degrees are awarded to students who have demonstrated:

- ***Knowledge and critical understanding of*** *the well established principles of their area(s) of study and of the way in which those principles have developed.*
- *Ability* ***to apply concepts and principles outside the context*** *they were first studied including where appropriate , the* ***application of those principles in an employment context.***
- *Knowledge of the* ***main methods of enquiry in the subject(s)*** *relevant to the named award, and the* ***ability to evaluate critically the appropriateness of different approaches to solving problems*** *in* ***the field of study***
- *An* ***understanding of the limits of their knowledge****, and how this influences analyses and interpretations based on knowledge*

  Typically holder of qualification will be able to :

  - ***Use a range of established techniques to initiate and undertake critical analysis of information and to propose solutions to problems arising from that analysis***
  - ***Effectively communicate*** *information, arguments and analysis in a variety of forms* ***to specialist and non specialist*** *audiences and* ***deploy key techniques of the discipline effectively***

- *Undertake **further training, develop existing skills and acquire new competencies** that will enable them to assume significant responsibility within organisation*

And holders will have :

- *The qualities and transferable skills necessary for employment requiring the **exercise of personal responsibility and decision making**.*
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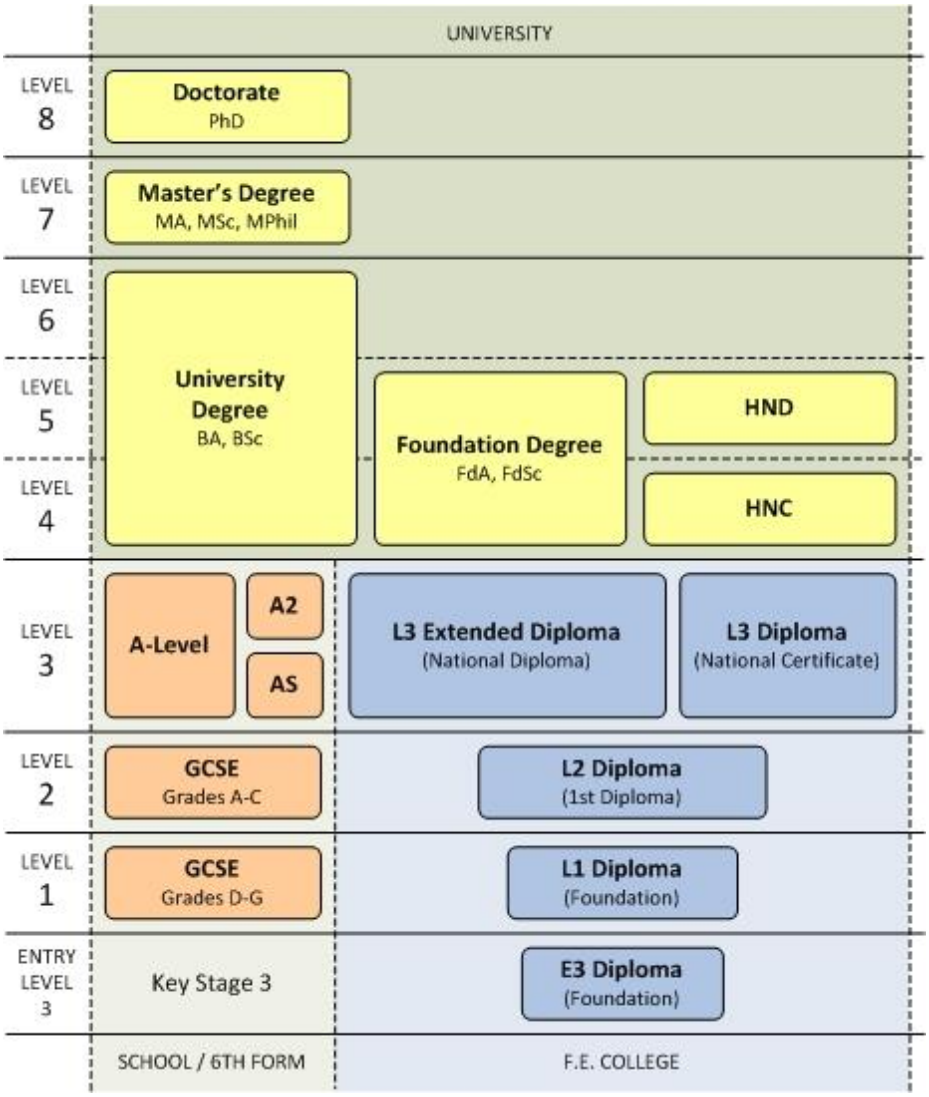

Fig 1 Qualification and Credit Framework (from United Kingdom Qualification and Credit Framework)

Stan Lester (2011) has critique the Qualification and Credit Framework as focusing rather inwardly on the vocational sector and rather than integrating more seamlessly with the school, university and professional arena.

Bearing this in mind, the MQF has to revisit the qualification set not only from an academic but also from a vocational and technical perspective balancing all interest and constraints to measure learning and set outcomes.

The Malaysian Qualification Framework being the mother standard setting of the various level and qualification descriptors common bench mark notwithstanding the disciplines (which are further subjected to subject or discipline standards) within and among the different levels need to more explicit and detailed to describe the expectation of common standards of the different aspect of learning (knowledge, specific skill and generic skills) and application of the knowledge and skills at the different levels. In so setting standards we need to benchmark against international levels. MQF when revisited also needs to consider where and how the aspect of vocational and technical education learning is to be measured against and accredited. Our emphasis in this paper is on the academic side of the equation of learning.

When we consider the MQF for degree qualification descriptors there is more of an overlap with the FHEQ foundation degree rather than the FHEQ degree descriptors.

We note that the MQF refer to the Bachelor degree and does not mention a Bachelor with Honours degree. The level and differences between this two qualification awards is not clear. It is submitted that such descriptors such be made clear and place in the MQF framework itself benchmarked against the international standards.

In practice a study of the Malaysian Qualification Register (MQR) for three Universities namely University of Malaya (UM), University Kebangsaan Malaysia (UKM) and University Sains Malaysia (USM) on the qualification award disclose the following

Table 2: Naming of qualifications in UKM,UM and USM [iv]

University	Bachelor	Bachelor with Honours /General degree	Bachelor with Honours
UKM			88
UM	41	3	108
USM			121

* Source Malaysian Qualification Register.www.mqaRetrieved 21 July 2014 excluded medical and dental qualification.

Just to note the MQF is defined in 14 pages, whereas the FHEQ is reflected in 42 pages and the AQF just taking into consideration the qualification descriptors is set out in 66 pages. This point is made to reflect that there is

much more than what is covered here in this paper that could be further pursued to review how we can further strengthen and solidify our MQF.

Now we turn to consider the AQF on Bachelor Degree. We note the Australian Qualification makes a distinction between Bachelor degree and a Bachelor Honours Degree.

5.2 Australian Degree Qualification Descriptor

Table 3: Australian Degree Qualification Descriptor[v]

Qualification Type	Bachelor Degree	Bachelor Honours Degree
Level	7	8
Purpose	The Bachelors degree qualifies individuals who apply a broad and coherent body of knowledge in a range of contexts to undertake professional work and as a pathway for further learning	The Bachelor Honours degree qualifies the individuals who apply knowledge in a specific context to undertake professional work and as a pathway for research and further learning
Knowledge	Graduates of a Bachelor Degree will have a board and coherent body of knowledge, with **depth in the underlying principles and concepts** in **one or more disciplines** as a basis for independent lifelong learning	Graduate of a Bachelor of Honours Degree will have coherent **and advanced knowledge** of the underlying principles and concepts in one or more disciplines and **knowledge of research principles and methods**
Skills	Graduates of a Bachelor Degree will have: • Cognitive skills to review **critically analyse, consolidate and synthesis knowledge** • Cognitive **and technical skills** to demonstrate **a broad understanding of knowledge with depth in some areas** • Cognitive and creative skills to **exercise critical thinking and judgement** in identifying and solving problems with intellectual independence • **Communication skills** to present a clear, coherent and independent exposition of knowledge and ideas	Graduate of a Bachelor Honour Degree will have: • Cognitive skills to review, analyse,, consolidate and synthesise knowledge to identify and **provide solutions to complex problems with intellectual independence** • Cognitive and technical skills to demonstrate a board understanding of a body of knowledge and theoretical concepts with **advanced understanding** in some areas • Cognitive skills to exercise **critical thinking and judgment in developing new**

		understanding . • **Technical skills to design and use research in a project**. • Communication skills to present in a clear and coherent exposition of knowledge and ideas to a variety of audiences
Application of knowledge and skills	• Graduate of a Bachelor Degree will demonstrate the application of knowledge and skills : • With initiative and judgement in planning, problem solving and decision making in professional practice and/or scholarship • To adapt knowledge and skills with diverse contexts • With responsibility and accountability for own learning and professional practice and in collaboration with others within board parameters	Graduates of a Bachelor Honours Degree will demonstrate the application of knowledge and skills: • To make **high level, independent judgments in a range of technical or management functions in varied specialised contexts** • With responsibility and accountability for own learning and practice and in collaboration with others within board parameters. • **To plan and execute project work and /or a place of research and scholarship with some independence**
Volume of learning	The volume of learning of a Bachelor degree is typically 3-4 years	The volume of learning of a Bachelors Honours Degree is typically 1 year following a Bachelor Degree. A Bachelor Honours Degree may also be embedded in a Bachelor Degree typically as an additional year.

This qualification descriptor demarcates the Bachelor from Bachelor with Honours. The difference is not only in the volume of learning in terms of time for Bachelor with Honours in that it is a year over the Bachelor degree. The emphasis is also on the level of advanced knowledge in cognitive and technical skills of higher order thinking applied to complex problems with intellectual independence to reach new understanding and technical skills to design and use research. Other features includes the requirement of research methods and principles and use of the same in research, project work and scholarship. Planning, execution and management decision making in complex situations.

5.3 The Framework of Higher Education in England Wales and Northern Ireland (FHEQ)

The figure below represents an overview of the 8 levels of qualifications in England Wales and Northern Ireland and the Table 4 following it sets out the qualification descriptor of degree qualification.

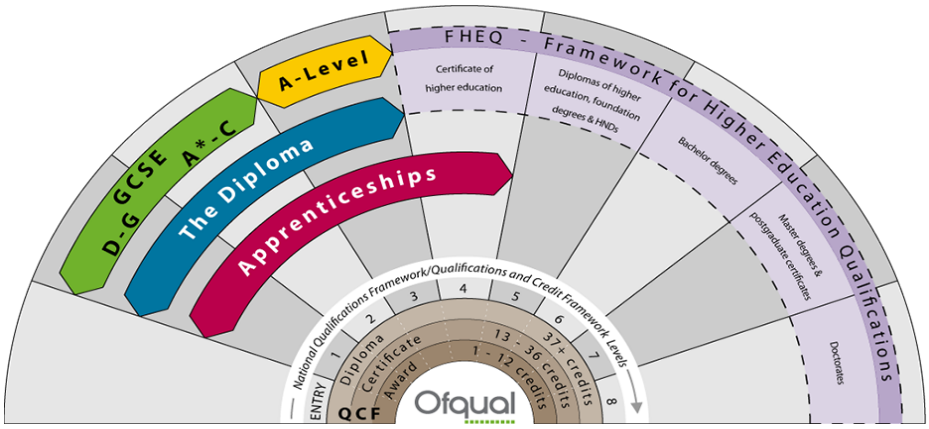

Fig 2 – Qualification framework in England and Northern Ireland (from **http://ofqual.gov.uk/help-and-advice/comparing-qualifications retrieved 5 th September 2014)**

Table 4: The framework of Higher Education in England Wales and Northern Ireland – Bachelor Degree with Honours at level 6.

Level 6	The descriptor provided for this level of the FHEQ is for any **bachelor's degree with honours which should meet the descriptor in full**. This qualification descriptor can also be **used as a reference point for other level 6 qualification including bachelor degrees and graduate diplomas**. Bachelor's degree with honours are awarded to students who have demonstrated :
	• Systematic understanding of key aspects of their field of study including **acquisition of current and detailed knowledge at least some** of which is at or **informed by the forefront of defined aspects of a discipline.** • An ability to deploy **accurately established techniques of analysis and enquiry** within a discipline . Conceptual understanding that enables • **the student to devise and sustain arguments** and/or to **solve problems using ideas and techniques some of which are at the fore front** of a discipline. • to describe and comment upon **particular aspects of current research or equivalent advanced scholarship in the discipline** • An **appreciation of the uncertainty ambiguity and limits of knowledge** • The ability **to manage their own learning and to make use scholarly reviews and primary sources (**for example referreed research articles and/or original materials appropriate to the discipline)

	Holders will be able to: • Apply the **methods and techniques** that they have **learned to review, consolidate, extend and apply their knowledge and understanding and to initiate and carry out projects.** • **Critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete**) to **make judgment** and **to frame appropriate question**s to achieve a solution -or **identity a range of solutions** – to a problem. • **Communciate** information ideas problems and solution to both specialist and non specialist audiences. Holders will have Qualities and transferable skills necessary for employment requiring ➢ The exercise **of initiative** and **personal responsibility** ➢ **Decision making** in complex and unpredictable contexts. ➢ **The learning ability** needed to undertake appropriate further training of a professional or equivalent nature.
• Holders of a bachelor's degree with honour will have developed an understanding of a complex body of knowledge, some of it at the current boundaries of an academic discipline. Through this, the holder will have developed analytical techniques and problem-solving skills that can be applied in many types of employment. The holder of such a qualification will be able to evaluate evidence, arguments and assumptions, to reach sound judgements and to communicate them effectively. Holders of a bachelor's degree with honours should have the qualities needed for employment in situations requiring the exercise of personal responsibility, and decision- making to complex and unpredictable circumstances	

Firstly it is seen from the award FHEQ Bachelor degree with Honours is given when the descriptor is meet in full and if not it serves as a reference point for Bachelor degree and graduate diplomas. In this regard there is reference to a two tier Bachelors like the Australian Bachelors degree though the learning outcome requirements of a Bachelor degree per se is not as clear as the Australian counterpart. However the Malaysian MQF does not make any provision or demarcation between Bachelors and a Bachelors Honours degree. This is aside from the point of the level of expectation of the requisite qualification in terms of knowledge (depth, breadth, currency, complexity) , skill (specific and generic) and application of skills and knowledge and management and decision making skills. It is to be noted that the level of knowledge is stated to be detailed here in pegged at current and abreast in some fields. MQF on the on degree level other hand only requires knowledge and comprehension of fundamental principles from advanced textbook. There is lack of emphasis of higher order thinking and research skills that is evident in differing degrees in FHEQ and AQF.

FHEQ is similar to AQF wherein there is a need for accurately established methods and techniques for to carry out research, analytical, creative and innovative thinking with initiative , independence and decision making in

uncertain environment to identify pertinent issues in problems and possible solutions.

6. Malaysian Qualification Framework (MQF) on Master's Degree

The following is taken from the MQF on requirements for Master's degree.

Table 5: Malaysian Qualification Framework Master's Degree

A Masters degree for the furtherance of knowledge skills and abilities obtained at the Bachelors level. The entrance to masters is usually based on proven capabilities to pursue postgraduate studies in selected fields. A Masters degree is conferred on students who are able to:	
(i)	Demonstrates **continuing and additional knowledge and comprehension above that of bachelor degree** and have capabilities **to develop or use ideas , usually in the context of research.**
(ii)	Use **the knowledge and comprehension to solve problems related to the field of study in new situations and multi-disciplinary** contexts
(iii)	**Integrate knowledge and manage complex** matters
(iv)	**Evaluate and make decision in the situations without or with limited information** by considering social responsibility and related ethics
(v)	Deliver **clearly the conclusion**, knowledge and the rationale to experts and non experts
(vi)	Demonstrate **study skills** to continuously progress on their own with a high degree of **autonomy** to do so.

The current MQF is not the comprehensive document that would housed the common qualification descriptors or learning outcomes but there would be a practice as seen in the master standards to include qualification descriptors in standards. This is unlike the FHEQ and AQF which would housed the common level of qualification descriptors of the requisite levels in the requisite document itself

It is seen here that the learning outcomes for master by research is no different from that of a masters by mixed mode or coursework under the MQF. This is displayed in the information in the Table below extracted from the Masters Standards. We shall peruse the same and contrast them with the FHEQ and AQF documents after setting them out following the Table below.

Table 6: Standards Master's Degree by Research and Master's Degree by Mixed Mode and Coursework [vi]

	At the end of the programme the graduate must be able to
1	demonstrate mastery of knowledge in the relevant field;
2	**apply practical skills** in the relevant field
3	**relate ideas to societal issues** in the relevant field
4	**conduct research** with minimal supervision and adhere to legal, ethical and professional codes of practice
5	demonstrate **leadership qualities** through communicating and working effectively with peers and stakeholders;
6	generate **solutions to problems using scientific and critical thinking skills**;
7	manage **information for lifelong learning**.

Table 7: Framework for higher education qualifications in England, Wales and Northern Ireland.

The descriptor provided for this level of the framework is for any master's degree which should **meet the descriptor in full**. This qualification descriptor can also be used as a **reference point** for other level 7 qualifications, including postgraduate certificates and postgraduate diplomas.
Master's degrees are awarded to students who have demonstrated • A **systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at or informed by, the forefront of their academic discipline** , field of study or area of professional practice. • A **comprehensive understanding of techniques** applicable to their **own research or advanced scholarship** • **Originality** in the application of knowledge, together with a practical understanding of **how established techniques of research and enquiry are used to create and interpret knowledge in the discipline**. • **Conceptua**l understanding that enables the student : • To **evaluate critically current research and advanced scholarship** in the discipline. • To **evaluate methodologies and develop critiques of them and where appropriate, to propose new hypotheses**.
Typically ,holders of the qualification will be able to : • Deal with **complex issues both systematically and creatively, make sound judgments in the absence of complete data and communicate t**heir conclusions clearly to a specialist and non-specialist audiences • Demonstrate **self –direction and originality in tackling and solving problems and act autonomously in planning and implementing** tasks at a professional or equivalent level. • Continue to **advance their knowledge and understanding and to develop new skills to a high level**
And holders will have :

- The qualities and transferable skills necessary for employment requiring :
- -the exercise of initiative and personal responsibility
- - decision –making in complex and unpredictable situations
- -the independent learning ability required for continuing professional development.[vii]

As evident form the above there are 3 levels of the qualification descriptor in that is explains the expectation of students demonstration or performance more precisely than that of MQF and setting out of outcomes of learning at a higher level than the MQF and the transferable skills derived.

Finally, we turn to the Australian Qualification Framework (AQF) where the masters degree descriptor has been divided into Masters Degree (Research) , Masters Degree (Coursework) and Masters Degree (Extended) wherein there are similar learning outcomes with minor difference between them. This is unlike the MQF where the outcomes are identical.

Table 8: AQF Master Degree qualification type descriptors

	Masters Degree (Research)	**Master Degree (Coursework)**	**Master Degree (Extended)**
Summary	The Masters Degree (research) qualifies individuals who apply an **advanced body** of knowledge **in a range of contexts** for **research and scholarship** and as a pathway for further learning	The Masters Degree (research) qualifies individuals who apply an **advanced** body of knowledge **in a range of contexts** for **professional practice and scholarship** and as a pathway for further learning	The Masters Degree (extended) qualifies individual who apply an **advanced** body of knowledge in **a range of contexts** for **professional practice** and as a pathway for further learning
Knowledge	Graduates of Masters Degree (Research) will have : -a body of knowledge that includes the understanding of recent developments in **one or more disciplines** **-advanced** knowledge of research principles and methods applicable to **the field** of work or learning	Graduates of Masters Degree (Coursework) will have : -a body of knowledge that includes the understanding of recent developments in **a discipline and /or** area of professional practice -knowledge of research principles and methods applicable to a field of work or learning	Graduates of Masters Degree (Extended) will have : -a body of knowledge that includes the **extended** understanding of recent developments in **a discipline and its professional practice** -knowledge of research principles and methods applicable to a field of work or learning

Skills	Graduates of a Masters Degree (Research) will have : -Cognitive skills to demonstrate mastery of theoretical knowledge and to reflect critically on **theory and its application** -Cognitive, technical and creative skills to investigate, analyse and synthesise complex information, problem ,concepts and theories and to apply established theories to different bodies of knowledge or practice - cognitive , technical an creative skills to generate and evaluate complex ideas and concepts at an abstract level -cognitive and technical skills to design, use and evaluate research and research methods -communication and **technical skills to present a coherent and sustained argument and to disseminate research** results to specialise and non-specialist audiences . -technical and communication skills to design, evaluate , implement , analyse , theorise and **disseminate research that makes a contribution** to knowledge	Graduates of a Masters Degree (Coursework) will have : -Cognitive skills to demonstrate mastery of theoretical knowledge and to reflect critically on theory **and professional practice or scholarship** -Cognitive, technical and creative skills to investigate, analyse and synthesise complex information, problem ,concepts and theories and to apply established theories to different bodies of knowledge or practice - cognitive , technical and creative skills to generate and evaluate complex ideas and concepts at an abstract level - -communication and technical research **skills to justify and interpret** theoretical propositions, methodologies, **conclusions, and professional decision to specialist and non specialist audiences**. - technical and communication skills to design, evaluate , implement, analyse and theorise about developments that **contribute to professional practice and scholarship**	Graduates of a Masters Degree (Extended) will have : -Cognitive skills to demonstrate mastery of theoretical knowledge and to **reflect critically on theory and professional practice** -Cognitive, technical and creative skills to investigate, analyse and synthesise complex information, problem ,concepts and theories and to apply established theories to different bodies of knowledge or practice - cognitive, technical and creative skills to generate and evaluate complex ideas and concepts at an abstract level - -communication and technical research **skills to justify and interpret** theoretical propositions, methodologies, **conclusions, and professional decision to specialist and non specialist audiences.** - technical and communication skills to design, evaluate , implement, analyse and theorise about developments that contribute to **professional practice**

Application of knowledge and skills	Graduates of a Masters Degree (Research) will demonstrate the application of knowledge and skills **-with creativity and initiative to new situation and /or for further learning** -with **high level of personal autonomy and accountability** -to **plan and execute a substantial piece of research**	Graduates of a Masters Degree (Coursework) will demonstrate the application of knowledge and skills: -with **creativity** and **initiative to new situations in professional practice and/or for further learning** -with **high level of personal autonomy and accountability** -to **plan and execute a substantial research – based project , capstone experience and/or piece of scholarship.**	Graduates of a Masters (Extended) will demonstrate the application of knowledge and skills: -with **creativity** and **initiative** to **new situations in professional practice and/or further learning.** -with **high level of personal autonomy and accountability** -to **plan and execute a substantial research – based project , capstone experience and/or piece of scholarship.**
Volume of Learning	The volume of leaning of a Masters Degree (research) is typically 1-2 years ; in the same discipline 1.5 years following a level 7 qualification or 1 year following a level 8 qualification; in a different discipline 2 years following a level 7 qualification or 1.5 years following a level 8 qualification	The volume of learning (Coursework)is typically 1-2 years ; in the same discipline 1.5 years following a level 7 qualification or 1 year following a level 8 qualification ; in a different discipline 2 years following a level 7 qualification or 1.5 years following a level 8 qualification	The volume of learning of a Masters Degree (Extended) is typically 3-4 years following completion of a minimum of a 3 year level 7 qualification

It is suggested that our MQF Masters Degree qualification fails to differentiate and distinguish the different pathways with a mind directed to the qualification descriptors and learning outcomes of the different pathways as there is but one generalised learning outcome for all the pathways. This should not be the case and in fact this negates the need and rationale of objective in the creation of the different pathways. There is a lack of dimension and perspective in terms of the knowledge, skills and application of the same alongside expected generic attributes and skills reflected in our MQF .in comparison with her counterpart in England, Wales and Northern Ireland and Australia as seen in the highlighted portions in the table above. The

mastery of knowledge in terms of currency, originality, creativity and technical skills and techniques in research and areas of scholarship and professional practice could be more detailed apart from other factors.

7. INDUSTRY FEEDBACK AND INTERNATIONAL INSTRUMENTS

The Ministry of Education Higher Education Indicator (2011-2012) indicates that the percentage of unemployed first degree holders are 24.7% (2008), 29.2%(2009), 25.6%(2010), 24.6% (2011) and 28.65(2012) respectively.

The Malaysian Economic Monitor (2012) reflects the following lack of non-routine skills and other soft skills as a concern to graduate employability in the Malaysian Economic Monitor (2012).

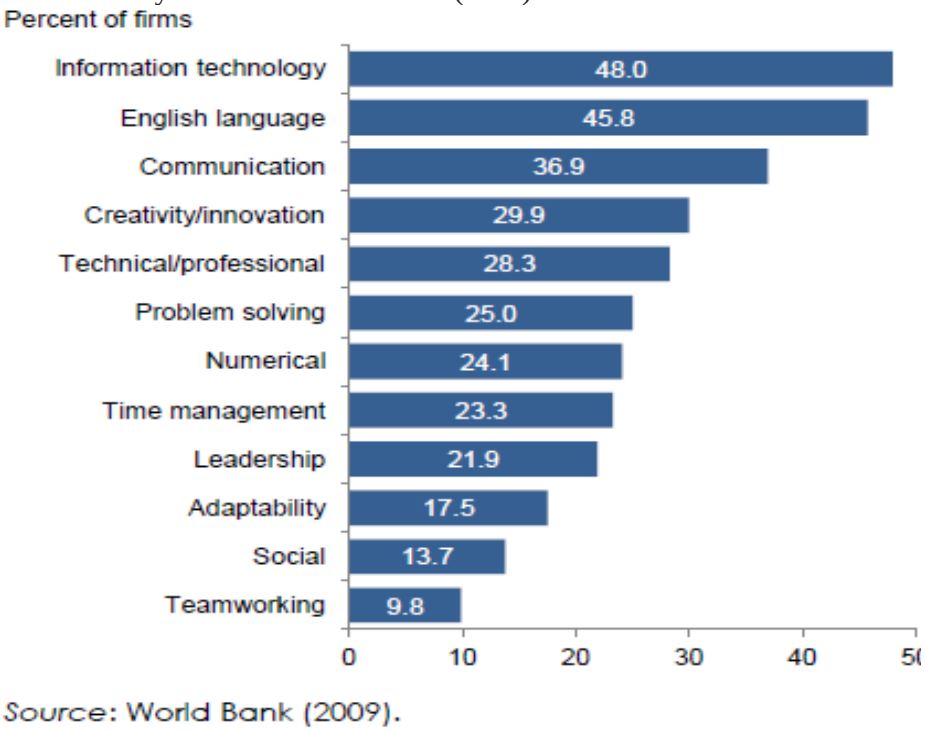

Fig 3:Key constraints in employability (from Malaysia Economic Monitor p 57, 2012)

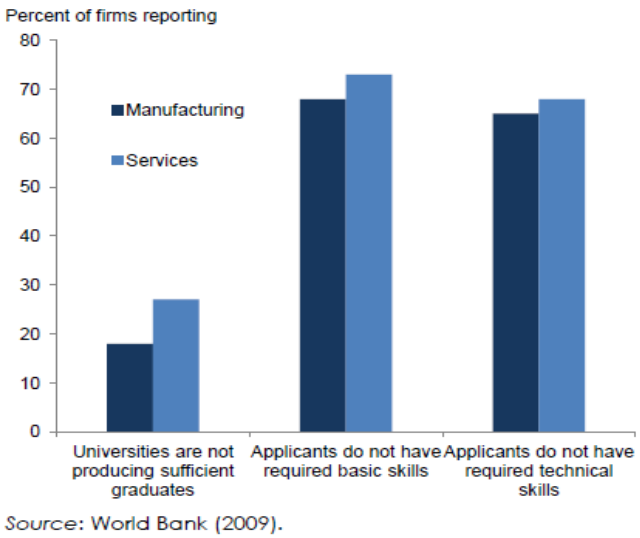

Fig 4: Lack of skills (from Malaysia Economic Monitor p 57, 2012)

It is noted in the Malaysia Economic Monitor (2012) that high employment is an indication that the curricula is not meeting the needs of the industry.

Finally the industry here should also be extended to refer to the education industry and the need to develop a comparable standards across boundaries wherein accredited and recognition of comparative levels of education and qualification can be the basis of credit transfers and entry requirements.

It is to be noted in the General Conference of the United Nations Educational, Scientific and Cultural Organization (37thSession Paris October 2013) the information document that monitors the implementation of UN standard setting documents notes that Malaysia has not ratified recommendation and conventions that deal recognition of qualifications in higher education like

(i)Regional Convention on the Recognition of Studies , Diplomas and Degrees in Higher Education in Asia and the Pacific , Bangkok December 1983

(ii)Recommendation on the Recognition of Studies and Qualifications in Higher Education 13 November 1993

(iii)Asia –Pacific Regional Convention on the Recognition of Qualifications in Higher Education , Tokyo 2011.

In the last mentioned convention, the parties are required to promote

(a) "UNESCO Diploma Supplement " or any other comparable qualification supplement and
(b) The UNESCO /OECD Guidelines for Quality Provision in Cross – Border Higher Education.

Evidently we should focus our attention and effort to do what is

necessary to situate Malaysia in a position where it is able to ratify the conventions. Ever increasing we have seen the boundaries across countries are being bridged as countries strive to battle for the ever lucrative business of the global education market. The dimensions of knowledge, attributes and abilities of the graduate are a key marketing tool that would bear testimony on the quality of the "product" of the education system in Malaysia. Our graduate need to be able to stand at least shoulder to shoulder to any other "product" of a comparable qualification especially those from developed nations. Hence the pressing need to revisit our MQF.

8. CONCLUSION

In summary the paper concludes by restating the following:

1. The need to revisit our MQF in the terms of the learning outcomes cum qualification descriptors of the various levels and types of learning set therein benchmarked on international level to be housed in the primary document of MQF based on initial finding of items set out in paragraphs 3 and 4 below.
2. Further looking beyond the qualification descriptors to consider the framework and structure of other jurisdictions for international benchmarking in terms of how the qualification framework is set up and administered in relation to matters relating to the same, in order to design and establish a systematic, coherent and comprehensive MQF framework dealing with all relevant matters connected to the same and with industry input into qualification standards.
3. That MQF degree learning outcomes need revisit for consideration if it is on par with degree level outcomes of comparable jurisdictions. The initial findings here do reflect that it is not at par and fall short of other jurisdictions under study. Further also whether there is a need to create a Bachelor of Honours qualification learning outcomes as there is none described within the MQF which only mentions learning outcomes for a Bachelor degree. The Bachelor of Honours qualification though not named in the MQF is prevalent in practice.
4. That MQF master degree outcomes for degree by research and degree by coursework or mixed mode is not differentiated for the different pathways and there is a need to revisit this by adopting a benchmarking approach with other jurisdiction to ensure comparable standing of our graduates in term of knowledge levels and dimensions, technical skills, research, generic skills and attributes.

5. That as learning is a continuous, progressive and developmental process the benchmarking exercise should begin at least when formal ,education commences hence there is a need revisit our national educational framework to content ourselves with the standing of our new academic curricula.

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