



e-Learning For Lifelong Learning in Malaysia

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Executive Summary

Lifelong learning initiatives, whether utilising e-Learning or otherwise, are a relatively new phenomenon in Malaysia. Education for many people is still characterised by formal schooling; and for a certain disadvantaged section of the population, post-secondary education may not even be a possibility or an option. Out of the projected number of 881, 247 individuals enrolled at upper secondary school level in 2010, only 277, 904 (or 31.54 per cent) actually go on to participate in post-secondary education (Government of Malaysia, 2006). The remainder 68.46 per cent may gain employment without furthering their education, or may not be employed at all. This points to an even greater role that lifelong learning programmes has to play; as a formal, non-formal or informal means for many more individuals to attain some form of education to improve both their professional and personal lives. The foremost individual who made the earliest proposal for the enculturation of lifelong learning in Malaysia is the then incumbent Prime Minister, Tun Mahathir Mohamad. During and following his tenure, the Government began strategising to implement lifelong learning, particularly in the 8MP, OPP3, KEMP, 9MP, NHEAP and NHESP.

The country is at a stage whereby the awareness and provision for lifelong learning still needs to be enhanced. The problem of digital divide remains at large, significantly marked between urban and rural communities, contributing to low levels of ICT adoption, knowledge and lacklustre response to e-Learning, principally within the latter. Having been an independent nation for only fifty-odd years, Malaysia has focused most of its efforts in providing basic education to its people. Today, the scenario has changed, and the Government recognises how rapidly evolving technologies, the erasure of political and geographical boundaries as well as competitive forces are impacting the global economic landscape. The need to create, develop and sustain a knowledgeable workforce with strong employability and productivity traits is one that is not exclusive to Malaysia, and like many other nations, the country has put in place various schemes to fulfil this requirement.

e-Learning in lifelong learning, while having been adopted in segregated forms throughout the country, from community-based efforts to bridge the digital divide to formal academic programmes designed for working professionals, is also still in its infancy. The key point in this regard is enculturation, where many of the infrastructures, policies and frameworks are actually already in place and the most important step to be taken is to ‘connect the dots’ and maintain efforts in all forthcoming action plans.

The prospects for Malaysia are indeed quite positive, as the Malaysian public is receptive to new developments and very concerned with the importance of education. In this sense, the Government is seen to have a very significant responsibility in connecting the said dots and provide the push necessary to bring the cogwheels into motion.

Within this publication, based on the context of lifelong learning in Malaysia, the education system will be described from the post-secondary level onwards. In terms of e-Learning, emphasis will be given to ODL institutions and practitioners that have been the most prominent advocates of e-Learning in the country. Categorisation of education will be made according to formal, non-formal and informal levels. All of the policies, plans, programmes, examples and other points documented in this publication are currently in implementation, or have been carried out within the years 2005-2009.

1.1 Background

Malaysia has undergone three phases of educational system over the last 50 years. The first phase focused on a system that emphasised national unity. The second phase shifted the emphasis towards improving adult literacy in the country. Currently, due to global economic pressures, the education system has been broadened to include lifelong learning in the context of enhancing employability and productivity of the working age population. The lifelong learning agenda is also aimed at improving the quality of life of the general population.

The first phase of the education system was based on the concept of national unity. This system was founded more than 50 years ago on the basis of the 1956 Report of the Education Committee (better known as the Razak Report 1956). Headed by the Minister of Education at the time, Dato' Abdul Razak Hussain, the Committee was given the task of reforming post-colonial education and developing a structure that could satisfy the needs of all Malaysians and promote their cultural, social, economic and political development as a nation (Ministry of Education, 1956); a structure that is generally still in place today.

The second phase emphasised on mainstream education in which the country aggressively implemented action plans to achieve universal primary enrolment. This is evinced by the high adult literacy rate which stands above 92 per cent (Prime Minister's Department, 2010). There has also been considerable growth in the number of post-secondary education institutions, public and private universities, signifying the increasing supply and demand for various levels of educational opportunities in the country. While this has certainly been positive, changes in the Malaysian demog-

raphy and socio-economy; particularly in terms of population size, levels of education attainment as well as employment and unemployment rates (illustrated in the following table), leads to the third phase in which it is widely accepted that *education is and should be a lifelong process*. With increases in the number of people in the work

Table I: The Malaysian Demography and Socio-economy from 2000 to 2010
(Figures from the Ninth Malaysia Plan (9MP), 2006-2010)

	2000	2005	2010
Total Population (million)	23.49	26.75	28.96
Age Structure (million):			
0-14	8.00	8.72	9.18
15-64	14.56	16.88	18.42
65 and above	0.93	1.15	1.36
Median Age (years)	22.4	23.3	24.2
Enrolment in Public Education Institutions (by Level; until Post-Secondary):	5,505,743	6,014,357	6,564,559
Pre-schools	539,469	702,897	784,200
Primary	2,907,123	3,044,977	3,195,977
Lower Secondary	1,256,772	1,330,229	1,425,231
Upper Secondary	707,835	736,618	881,247
Post-Secondary	94,544	199,636	277,904
Enrolment in Tertiary Education Institutions (by Level):	574,421	731,698	1,326,340
Certificate	105,570	132,880	284,770
Diploma	208,454	230,381	474,370
First Degree	230,726	322,917	428,200
Master's	26,181	38,638	117,320
Ph.D.	3,490	6,881	21,680
Employment:			
Total Labour Force ('000 persons)	9,571.6	11,290.5	12,406.8
Unemployment ('000 persons)	297.0 (3.1%)	395.7 (3.5%)	430.8 (3.5%)
Labour Force Participation Rate (%):	65.7	66.7	67.3
Male	85.7	86.6	87.4
Female	44.7	45.7	46.3

ing age group of 15 to 64 years (representing almost two-thirds of the entire population), as well as school leavers, graduates, female workers and the jobless, there is a similarly escalating need for educational channels that can impart *equitable and continuous personal, moral and professional development*. Malaysia's challenge is to provide responses and solutions to the abovementioned concerns, e.g. to encourage *greater participation* and create *substantial capacity* at all stages, as well as to create more opportunities to educate, train, employ and absorb eligible persons (not excluding the unemployed) in fulfilling the lifelong learning agendum of the country.

1.2 Overview of the Education System

Within the last 50-odd years since its independence, Malaysia has shown great commitment in developing an education system that is able to achieve the goals first stated in the Razak Report of 1956. This commitment is evident in every economic plan with substantial allocation for education and training, and it is also prominent in many of the policies and plans that will be discussed in this publication. In the most recent economic plan, i.e. the 9MP, MYR 45.1 billion was allocated for education and training and this represents about one fifth of the total budget allocation for the five-year plan period. This commitment is also mirrored in the national education philosophy (NEP):

“Education in Malaysia is an on-going effort to further develop the potential of individuals in a holistic and integrated manner, so as to produce individuals who are intellectually, spiritually, emotionally and physically balanced and harmonious, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens of high moral standards, knowledgeable and competent, and who are responsible and capable of achieving a high level of personal well-being as well as being able to contribute to the harmony and betterment of the family, the society and the nation at large.” (Ministry of

Education (MOE), n.d.)

Malaysia provides free and compulsory basic education to all its citizens. As illustrated in Figure I, the Malaysian national school system is made up of pre-tertiary and the optional tertiary education. At the pre-tertiary level, the national system is standardised until the upper secondary level. Outside this system, there are also many private schools that cater to specific groups (e.g. private Chinese schools, religious schools) and expatriates (e.g. international schools). Ordinarily, these schools do not teach according to the national curriculum and also do not subject their students to standard national examinations. However, they need to register with the MOE and are bound by regulations stated under the Education Act 1996. It is only at the upper secondary level that some form of streaming is apparent and will determine prospective pathways later on. At the post-secondary level onwards, there are several different options available, leading to employment, tertiary and/or postgraduate education.

Post-secondary and higher education, while neither free nor compulsory, receive strong Government support and ample funding under the jurisdiction of both ministries. Although higher education is offered through both public and private means, much of it is carried out by public institutions. At this level, study opportunities are present at all levels, i.e. for certificate, diploma, undergraduate and postgraduate studies (Study in Malaysia Handbook, 2009). There are also designated Government agencies that promote and manage professional programmes for career advancement, upskilling and upgrading for a large section of the labour force. Undergraduate education constitutes studies for Bachelor's degrees and professional certification. Postgraduate studies involve learning at Master's and Ph.D. levels. Diploma programmes are made available for Malaysian Certificate of Education (*Sijil Pelajaran Malaysia*, SPM) holders from the age of 17, while Bachelor's degree programmes are open to those with post-secondary certification, including diplomas and the Malaysian Certificate of Higher Education (*Sijil Tinggi Persekolahan Malaysia*, STPM; equivalent to GCE 'A' Level) (Study in Malaysia Handbook, 2009). The table and diagram provided in the following pages are a general representation of

the entire Malaysian education system.

Table II The Malaysian Education System

Level	Description	Qualification(s)
Pre-School Education	<ul style="list-style-type: none"> • Children from ages four to six • Public and private kindergartens 	—
Primary Education	<ul style="list-style-type: none"> • Children from ages seven to 12 • Standards one to six for six years • Public or private schools 	Primary School Achievement Test (<i>Ujian Penilaian Sekolah Rendah</i> , UPSR)
Secondary Education	<ul style="list-style-type: none"> • Lower Secondary • From ages 13 to 15 • Forms one to three for three years • Public or private schools 	Lower Secondary Assessment (<i>Penilaian Menengah Rendah</i> , PMR)
	<ul style="list-style-type: none"> • Upper Secondary • From ages 16 to 17 • Forms four to five for two years • Public or private schools • Option of academic, technical/vocational or religious education 	Malaysian Certificate of Education (<i>Sijil Pelajaran Malaysia</i> , SPM)
Post-secondary Education	<ul style="list-style-type: none"> • Form Six • From ages 18 to 19 • 1.5 years of additional schooling • Public schools • Option of Science or Humanities 	Malaysian Certificate of Higher Education (<i>Sijil Tinggi Persekolahan Malaysia</i> , STPM)
	<ul style="list-style-type: none"> • Matriculation • From age 18 • One-year programme • Public matriculation centres • Science-based pre-university courses 	Matriculation Certificate
	<ul style="list-style-type: none"> • Private/Foreign Pre-University Courses • Usually one-year programmes • Private colleges 	(External qualification for entry into foreign universities or foreign branch campuses)
	<ul style="list-style-type: none"> • Polytechnics and Community Colleges • From age 18 	Certificate and Diploma
Tertiary/Higher Education	<ul style="list-style-type: none"> • Teacher Training Institutes • From age 18 • Three-year programme 	Diploma in Teaching
	<ul style="list-style-type: none"> • Undergraduate Studies • From age 19 or 20 	Bachelor's Degree

	<ul style="list-style-type: none"> • For three to five years • Public or private institutions 	
	<ul style="list-style-type: none"> • Postgraduate Studies • After obtaining Bachelor's degree • For one to five years • Public or private institutions 	Master's Degree and Ph.D.

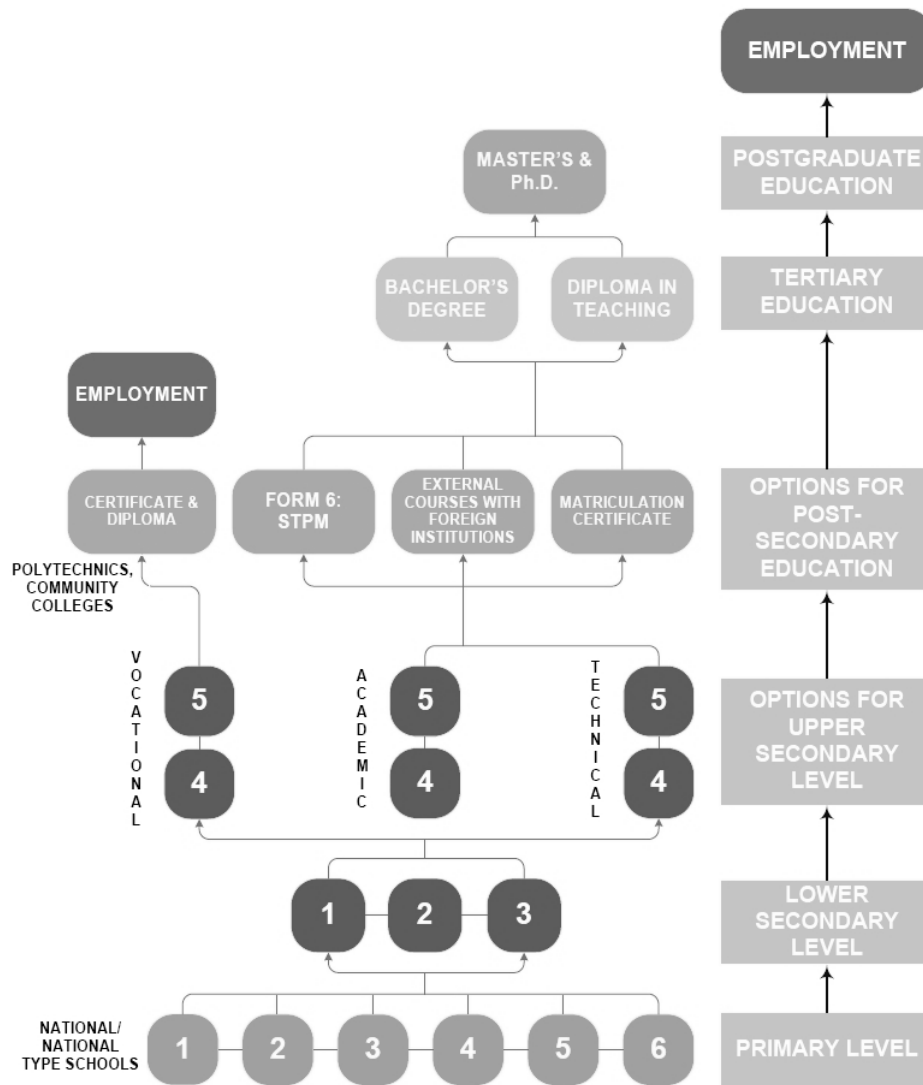


Figure I Pathways in the Malaysian education system

Lifelong learning as a policy agendum continues to receive significant emphasis by developed nations, spearheaded by various organisations, such as the Organization for Economic Co-operation and Development (OECD), United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Council of Europe over the last three decades. The OECD policy brief on lifelong learning cites the following key reasons for lifelong learning (Ministry of Higher Education (MOHE), 2007):

- The rapid pace of globalisation and technological change;
- The changing nature of work and the employment market; and
- The gaping disparities in access to learning opportunities between the knowledge-haves and knowledge have-nots.

In the context of Malaysia, the Government has recognised the need for an “educational revolution” especially with respect to its aspiration to become a developed nation by 2020. Thus, *Enculturation of Lifelong Learning* was incorporated as one of the seven strategic thrusts of the National Higher Education Strategic Plan (NHESP) in 2007. The objectives of the above thrust are as follows:

- To ensure that lifelong learning becomes a way of life for Malaysians in order to equip our citizens with lifelong knowledge and skills; and
- To make lifelong learning the catalyst for establishing a learning community in every organisation.

To achieve the above objectives, the following four strategies have been formulated by the MOHE in NHESP:

- Upgrade mechanisms and infrastructure to facilitate lifelong learning as a means of developing diverse kinds of knowledge and skills in line with individual interests and needs to enrich the quality of life;

- Enhance public awareness and involvement in lifelong learning so that individuals can develop their self potential and reap the benefits of lifelong learning in terms of productivity, competitiveness and marketability;
- Ensure the continuity and appreciation of lifelong learning; and
- Provide adequate financial support to inculcate lifelong learning as a way of life.

Within the frame of this publication, the definition of lifelong learning in Malaysia, as well as all its relevant points, will thus be taken to include post-secondary and higher education levels. Further illustration regarding the concept of lifelong learning in Malaysia will be expounded in Chapter 2.

e-Learning has also been a prominent feature in Malaysia's policy statements; with one of its earliest mentions under the national information technology (IT) agenda (NITA) that was introduced in the 8MP. For that particular plan period, the National IT Council (NITC) was launched with five strategic thrusts (Government of Malaysia, 2001). One of these thrusts was e-Learning; seen as a means to cultivate a lifelong learning culture in Malaysia. As a whole, e-Learning encompasses systems to enable information gathering, management, access and communication in various forms; as well as the integration of information and communication technologies (ICTs) in teaching and learning (Raja Maznah Raja Hussain, 2004), particularly in higher education. Thus, within the frame of this paper, e-Learning will also be described as a representation of its role in higher education. Further details of e-Learning in Malaysia will be given in Chapter 2. Correspondingly, the following sections will provide detailed descriptions of post-secondary and higher education in Malaysia.

1.4 Post-secondary Education

Post-secondary or pre-university education in Malaysia can take place in several different ways:

- By undergoing additional schooling for 1.5 years (Form Six) and sitting for the STPM examination;
- By obtaining a Matriculation certificate through a one-year programme;
- By undergoing pre-university programmes (internally- or externally-based) at private institutions; or
- By undergoing certificate- and diploma-level programmes in public or private institutions.

The STPM and matriculation certificates represent two of the major routes available for admission into higher education, particularly for public institutions. Students who are enrolled into pre-university programmes in private colleges will continue their Bachelor's degree education overseas or in branch campuses in Malaysia. On the other hand, those who opt to undergo certificate- and diploma-level programmes may not necessarily continue to a higher level of education in universities.

1) STPM

Students who opt to take the STPM examination need to undergo 1.5 years of additional schooling in what is known as lower- and upper sixth form classes. Since the Malaysian school system is generally modelled after the British system, STPM is considered the equivalent of the GCE 'A' Level. There are two main fields of study, i.e. the Sciences and Humanities, whereby students typically take five subjects of any combination, depending on preference and location of study. The only compulsory subject is General Studies; it must be taken for students who wish to be considered for admission into public universities.

2) Matriculation Programmes

Matriculation programmes are a relatively new phenomenon in Malaysia, having started only in 1999/2000 (MOE, n.d.). It is currently managed by the Matriculation Division of the MOE as a preparatory programme for higher education. Unlike STPM, matriculation programmes focus on Science and Technology. The programmes are held at various matriculation centres throughout the country, including two that are housed independently at University of Malaya (UM) and the International Islamic University Malaysia (IIUM). At the end of two semesters, students undergo standardised final examinations before applying for enrolment into public universities. Both STPM and matriculation programmes use a cumulative grade point average (CGPA) system as a scoring method.

3) Certificate and Diploma Programmes

Diploma and certificate programmes are mainly broad-based programmes targeted at school-leavers who are looking into professional upgrading in technical and vocational fields. Under the jurisdiction of the Ministry of Higher Education (MOHE), there are five types of institutions that conduct these programmes, i.e.:

- a. Polytechnics;
- b. Community colleges;
- c. Public universities;
- d. Private institutions; and
- e. Other relevant institutions.

(1) Polytechnics

There are currently 27 polytechnics that conduct certificate and diploma programmes in several technical fields such as engineering, commerce, hospitality and food technology. Entrants into these programmes are typically school leavers with SPM certification. Certificate programmes take about four semesters (two years) to complete, whilst diploma programmes can be completed within six semesters (three years).

(2) Community Colleges

Malaysian community colleges were first established in 2000 as a means of providing an alternative avenue for secondary school leavers to further their education. Similar to polytechnics, community colleges offer certificate- and diploma-level programmes in technical and vocational fields targeted at those with SPM certification. There are currently 43 community colleges throughout the country (Study Malaysia Online, n.d.). While a diploma programme can be completed within two semesters (provided one has completed the four-semester certificate course), community colleges also offer short courses in 12 areas, i.e. computer, electrical, vehicles, industry, apparel, beauty therapy, nutrition, languages, decoration, building, motivation and generic skills. Both polytechnics and community colleges are managed by a designated department within MOHE.

(3) Public Universities

There are currently 20 public universities in Malaysia, inclusive of five technical university colleges that were recently upgraded to university status. These five universities were established circa 1999-2002 to focus on higher technical education programmes, mostly at diploma and first degree levels. Albeit they no longer hold the status of technical university colleges, they continue to offer programmes in fields related to engineering and technology. Entrants into diploma programmes need either an SPM/equivalent or polytechnic certificate.

(4) Private Institutions

Many private colleges in Malaysia have been offering and awarding diploma-level qualifications, particularly through internally-developed programmes that are recognised and granted with 'advance standing' entry status by foreign universities in Australia, Canada, New Zealand, the United Kingdom, Germany and the United States of America (Study Malaysia Online, n.d.). This arrangement is designed to help those who wish to continue with a Bachelor's degree education at second- or final-year level at these foreign universities.

(5) Other Relevant Institutions

Through the involvement of the relevant ministries and agencies, there are also several Government-linked institutions that provide training and professional courses similar to certificate programmes offered by the abovementioned institutions; representing the central Government's effort to promote lifelong learning and skill enhancement of the Malaysian citizens as a means to bolster the nation's human capital. The ministries and bodies involved include the following and a description of the associated institutions is provided in the ensuing table below:

- The Ministry of Human Resources (MHR);
- The Ministry of Youth and Sports (MYS);
- The Ministry of Entrepreneur and Cooperative Development (MECD);
- The Ministry of Agriculture and Agro-based Industry (MAAI);
- The Ministry of Health (MOH); and
- *Majlis Amanah Rakyat* (MARA).

Table III Other Relevant Institutions and Post-Secondary Education Programmes Offered (Summarised from Study Malaysia Online, n.d.)

Ministry/ Agency	Name/Type of Institution	Type/Field of Programme(s)	Remarks
MHR	Industrial Training Institutes	Formal skill training for school-leavers and industrial workers	<ul style="list-style-type: none"> · Certificate level · Sponsored by the Government · Duration between six and 36 months · For SPM holders
	Japan-Malaysia Technical Institute	Courses in engineering technology (manufacturing, electronics, et cetera)	<ul style="list-style-type: none"> · Diploma level · Annual total fee of MYR5,000 (€1,020) · Duration of 36 months · For SPM/certificate holders
	Advanced Technological Training Centres	Vocational training in engineering and manufacturing technology	<ul style="list-style-type: none"> · Diploma level and advanced vocational training · Annual total fee of MYR5,000 (€1,020) · Duration between two and three years · For SPM/certificate holders
	Centre for Instructor and Advanced Skill Training	Training for instructors needed in vocational training institutes	<ul style="list-style-type: none"> · Diploma level · Sponsored by the Government · Duration between two and three years · For SPM holders

MYS	National Youth Training Institutes	Institutionalised skills training in industrial-related fields	<ul style="list-style-type: none"> · Certificate level · Sponsored by the Government · For SPM holders
		Non-institutionalised training (National Youth Apprenticeship Scheme)	<ul style="list-style-type: none"> · Short-term modular skills training courses · Sponsored by the Government · For Lower Secondary Assessment (PMR) and SPM holders; the unskilled and unemployed
MECD	Directly under the Ministry	Basic courses/workshops in business, commerce and motivation	<ul style="list-style-type: none"> · For all interested parties · Also as a support for Government servants and non-graduate teachers
MAAI	Agricultural institutes	Skills training in agriculture-related fields	<ul style="list-style-type: none"> · Certificate level · Annual fee of MYR4,040(€824); sponsored by the Government · Duration of two years · For SPM holders

Table III Other Relevant Institutions and Post-Secondary Education Programmes Offered (*Continued*)

Ministry/ Agency	Name/Type of Institution	Type/Field of Programme(s)	Remarks
MOH	Specialised training colleges	Skills training for paramedics and auxiliaries required in medical disciplines	<ul style="list-style-type: none"> · Sponsored by the Government · For PMR/SPM holders
MARA*	MARA Skills Training Institutes	Skills training in technical fields	<ul style="list-style-type: none"> · Certificate and diploma levels · For SPM holders
	MARA Business Institutes	Business-based courses	<ul style="list-style-type: none"> · Certificate, diploma and higher diploma levels · For SPM holders
	MARA Advanced Skills Training Institutes	Joint ventures with specific international training agencies for technology-based courses	<ul style="list-style-type: none"> · Diploma level · For graduates of MARA Skills Training Institutes and SPM holders
	GiatMARA Centres	Training courses in the fields of building technology, furniture craftsmanship, et cetera	<ul style="list-style-type: none"> · Short term single-skill specialist training courses · Targeted at school-leavers and the unemployed

* MARA is an agency under the jurisdiction of the Ministry of Rural and Regional Development (MRRD). It was established as an autonomous body to encourage and assist *Bumiputeras* to obtain education and participate in business, entrepreneurship, trade and industry as a means to enhance the overall Bumiputera standing in Malaysia.

1.5 Tertiary Education

Tertiary or higher education is delivered through both public and private means under the jurisdiction of MOHE as the governing authority for all higher education institutions in Malaysia. The Government regulates the administration and funding for public universities, polytechnics and community colleges. Private institutions conduct their own academic programmes and receive no financial support from the Government; albeit they need to adhere to Malaysian education laws, and they are also under close monitoring by MOHE. The following table indicates the numbers and types of tertiary education institutions currently available in Malaysia.

Table IV Higher Education Institutions in Malaysia (Figures from Government of Malaysia, 2008; MOHE, 2009)

Type		Number
Public	Public Universities	20
	Polytechnics	27
	Community Colleges	43
	TOTAL	90
Private	Private Universities	15
	Private Colleges	18
	Branch Campuses	15
	Colleges	490
	TOTAL	538
GRAND TOTAL		628

All 20 of the public universities receive financial aid from the Government, including lump-sum funds for research, development and capital expenditure (Government of Malaysia, 2008). Through the National Higher Education Fund Corporation (*Perbadanan Tabung Pendidikan Tinggi Negara*, PTPTN), the Government also offers scholarships and loans to students from low-income backgrounds. In the 1990s, three Government-linked corporations (GLCs) were authorised to run their own private

universities, i.e. Multimedia University (MMU), *Universiti Tenaga Nasional* (UNITEN) and *Universiti Teknologi Petronas* (UTP); paving the way for further establishment of private institutions. Today there are over 500 private colleges and universities, a majority having been set up after the introduction of the Private Higher Education Act 1996. Six universities also operate in the open and distance learning (ODL) mode, i.e. Universiti Tun Abdul Razak (UNITAR), Open University Malaysia (OUM), Wawasan Open University (WOU), Asia e-University (AeU), Al-Madinah International University (MEDIU) and International Centre for Education in Islamic Finance (INCEIF).

In the present system, enrolment into diploma and Bachelor's degree programmes in public institutions is centrally controlled by the Division of Student Admission, MOHE (Study Malaysia Online, n.d.). Although admission requirements and selection criteria are the prerogative of the public universities, they still need to conform to the MOHE's minimum entry requirements (UNESCO, 2006/2007). While those with STPM or matriculation certification commonly apply for admission into public universities, applicants for private institutions usually undergo pre-university programmes at private colleges before sitting for the corresponding examinations (e.g. GCE 'A' Level, Australian pre-university or Canadian pre-university examinations). Another entry pathway for private students is to undertake a university's internal pre-university programme before enrolling into degree programmes in the corresponding foreign branch campus in Malaysia.

Another form of higher education in Malaysia is teacher training (Study in Malaysia Handbook, 2009), whereby school-leavers can enrol into Diploma in Teaching programmes at teacher training colleges. In-service teachers who have obtained basic certification for teaching also have the opportunity to upgrade their qualifications by enrolling into Bachelor's degree programmes in universities. The following table illustrates the current intake, enrolment and output of all higher education institutions in Malaysia.

Table V Intake, Enrolment and Output in Malaysian Higher Education Institutions in 2008 (MOHE, 2009)

Type of Institution	Intake	Enrolment	Output
Public Universities	133,100	419,334	94,622
Polytechnics	40,574	85,280	32,783
Community Colleges	9,649	17,082	5,566
Private Institutions	185,846	399,852	78,561
GRAND TOTAL	369,169	921,548	211,532

In the 9MP, the Government expects to enrol over 1.3 million new students into all higher education institutions and at all levels by the end of the plan period. Evinced in the table above, Malaysia is doing relatively well in its drive towards this target.

Chapter 2

Concepts of Lifelong Learning and e-Learning in Malaysia

2.1 Lifelong Learning in Malaysia

At the time of writing, there is no concrete definition of lifelong learning in Malaysia. The most recent and germane national description of lifelong learning can perhaps be taken from the NHESP (MOHE, 2007):

“... a process for the democratisation of education through the acquisition of knowledge, skills and competencies via formal, informal or non-formal means based on workplace experiences or training”.

The Plan also notes that lifelong learning — through distance learning, e-Learning, workplace and part-time learning — will be integral to support Malaysia’s human capital development and the nation’s knowledge- and innovation-based economy (MOHE, 2007). Apart from the abovementioned Plan, there are several other Government documents that make references to lifelong learning and the need to establish a national definition. These will be explained in Chapter 3 of this publication.

Despite the current lack of a national definition, we can concur that lifelong learning practices in Malaysia universally encompasses a phase of both education and training that takes place after the completion of formal education. Lifelong learning is also generally associated with adult education; and thus refers to learning beyond the formal setting and involving those who have reached adulthood or who are no longer in school (Khairuddin Idris, 2004). Thus, its notion clearly concerns employability and economic strength, and has also come to contain a broader definition that includes all phases and forms of learning, including formal, non-formal and informal education (Mohamed Rashid Navi Bax & Mohd Nasir Abu Hassan, 2003).

Beyond formal schooling, there are opportunities for furthering education at different levels; either leading to some form of qualification via workplace training or purely for self-development. The greater core of lifelong learning programmes is formal in nature, and to a lesser extent it may also include non-formal education (Mohamed Rashid Navi Bax & Mohd Nasir Abu Hassan, *ibid.*).

For the purpose of this paper, the concept of lifelong learning in Malaysia will be addressed according to the following levels:

- Formal lifelong learning;
- Non-formal lifelong learning; and
- Informal lifelong learning.

1) Formal Lifelong Learning

Formal learning includes activities that take place in formal learning institutions that lead to some form of accreditation or qualification (Khairuddin Idris, 2004). It is

very organised and structured, with clear learning objectives and for learners, the explicit aim is to gain knowledge, skills and/or competencies (OECD, n.d.). In the context of lifelong learning, formal activities take place in educational institutions and lead to different levels of formal recognition. These include:

- Certificates and diplomas at polytechnics and community colleges (e.g. as managed by MARA and several ministries); and
- Executive and postgraduate diplomas and degrees (e.g. at universities).

Community colleges are considered the lifelong learning hubs of the country (MOHE, 2007). Their role has been further reinforced through a rebranding process in 2007, whereby they were encouraged to collaborate with Government-linked companies to offer more industry-relevant formal programmes at certificate and diploma levels. Public universities are also involved in the cultivation of lifelong learning through the offering of development, executive-Level, part-time and distance learning-based programmes. Several of these universities have established designated centres to manage these programmes:

Table I Public Universities and Designated Centres for Lifelong Learning

University	Centre
University of Malaya (UM)	Centre for Continuing Education
Science University of Malaysia (USM)	School of Distance Education
National University of Malaysia (UKM)	Centre of Educational Extension
Putra University of Malaysia (UPM)	Centre for External Education
Technology University of Malaysia (UTM)	School of Professional and Continuing Education
Northern University of Malaysia (UUM)	Centre for Professional and Continuing Education
MARA Technology University (UiTM)	Institute of Education Development

The concept of recognition of prior learning (RPL) is also significant in formal lifelong learning. It is a relatively new practice; with OUM as the first private institution

in Malaysia to implement RPL policies beginning in 2006. OUM's Flexible Entry (FE) System is a system that provides leeway for those without extensive or complete formal schooling, but with the relevant work experience to gain entry into university programmes. At the moment, the MOHE has given the green light to six private ODL institutions (i.e. OUM, WOU, AeU, UNITAR, MEDIU and INCEIF) to implement the RPL system, particularly in the area of Open Entry. Another equally important and significant mechanism is the Accreditation of Prior Experiential Learning (APEL); which allows the lifelong provider to award credits for subjects in a certain course by converting learning experiences into the subject's learning outcomes. Both Open Entry and APEL are new in Malaysia; and in fact, the Malaysian Qualifications Agency (MQA) is awaiting the MOHE's endorsement for both systems so as to allow for full implementation. Both OUM and WOU have put the Open Entry system into practice. OUM is presently drafting out the detailed administrative and academic procedures for the implementation of APEL.

2) Non-formal Lifelong Learning

Non-formal education generally includes learning that is outside the formal educational context; with targets that may not necessarily result in a particular qualification (Khairuddin Idris, 2004). While non-formal lifelong learning programmes are usually planned and well-structured, many do not lead to the conferment of qualifications. In general, they are intended towards professional skill development and enhancement, and cover a significant part of the adult learning sector (OECD, n.d.). In Malaysia, opportunities for non-formal learning generally take the form of workplace and on-the-job programmes at various levels that also comprise vocational and executive training. Examples of non-formal lifelong learning in Malaysia include:

- Training and apprenticeship schemes for employees; and
- Training courses for professional development.

One important factor in encouraging non-formal lifelong learning is the role of the Human Resource Development Council (*Perbadanan Sumber Manusia Berhad*, PSMB) that manages the Human Resource Development Fund (HRDF, described

in Chapter 3). In general, PSMB focuses on assisting small and medium enterprises (SMEs) in various industries to provide continuous skills training for their employees. These industries include electronics, manufacturers of food and beverages, industrial chemicals, various household products, as well as those involved in printing, petroleum refineries, basic iron and steel, and et cetera. PSMB has full control of the HRDF; its roles include monitoring collection of levies, disbursing training grants, as well as approving financial assistance and training places. In 2008, PSMB achieved the following:

Table II PSMB Achievements in Promoting Non-formal Lifelong Learning in Malaysia in 2008 (PSMB, 2008)

Indicator	Amount
Approved Training Places	736,410 places
Approved Financial Assistance	MYR 371.87 million
Collection of Levies for the HRDF	MYR 323.39 million
Disbursement of Training Grant	MYR 288.04 million

Provided that employers are registered with PSMB, individuals at various levels of employment are given the opportunity to further their professional skills. The council also manages training schemes for retrenched workers and industrial needs, as well as one unique training scheme for information technology (IT) and software development specialists (PSMB, *ibid.*).

3) Informal Lifelong Learning

Informal education is not well-documented in Malaysia, although many acknowledge it as an important part of learning (Khairuddin Idris, 2004). Acquired through work and social interactions, it does not have a given structure and no set objectives in terms of learning outcomes (OECD, n.d.). As iterated earlier, informal learning is not a focal point in the Malaysian lifelong learning context (Mohamed Rashid Navi Bax & Mohd Nasir Abu Hassan, 2003).

Informal activities take place for the typical reason of improving one's quality of

life, takes place at all ages and across all levels of the society without leading to formal recognition and usually occurring at the initiative of the individual according to personal interests. Such opportunities are characterised by interaction between people, the media and material resources (Gan, 2005). By and large, tangible informal lifelong learning appears as community-based programmes that address diverse social problems and meet universal needs of the community, e.g. career training, skills upgrading, environmental concerns, basic education and literacy, public policies or community interests (Gan, *ibid.*).

One example of a consolidated community-based initiative has been initiated by the Malaysian Chinese Association (MCA). Under its Community Education Development Bureau, MCA started a lifelong learning campaign in 2004, through which it has actively organised activities, short courses, talks, exhibitions and workshops throughout the country. These activities cover a wide range of interests and concerns, e.g. communication skills, information technology, personal development, martial arts, family and home care (MCA, n.d.).

Because it is also known as experiential learning, a certain degree of informal lifelong learning can also be properly accredited for individuals who seek recognition for the experiences they have obtained throughout their work and from within the community. This concept ties in with RPL, allowing for many individuals to leverage on informal experiences when they seek entry into the formal education system. Although RPL is still relatively new in Malaysia, it is acknowledged as an important instrument in providing a pathway for any individual to continue learning at higher educational levels to attain a better quality of life.

2.2 e-Learning in Malaysia

In Malaysia, as is common with many other countries, e-Learning is seen as one

of the means to foster lifelong learning. Having received mention in Malaysian policy initiatives since the introduction of the NITA in 1996, e-Learning is also frequently referred to alongside open and distance learning (ODL) as well as professional training and development (MOHE, 2007). Many educational institutions believe e-Learning to be an effective alternative approach to traditional classroom teaching. The deployment of ICTs through e-Learning is recognised as an important support system for lifelong learning, particularly through intensive use of the internet, mobile learning and other applications. Cost-effectiveness and flexibility that allows students to undergo academic programmes without attending full-time classes (MOHE, *ibid.*) are two of the main reasons that Malaysia has embraced e-Learning in its education system.

The idea of e-Learning in Malaysia points to the utilisation of ICTs at various education levels, particularly with the Government's attention in ensuring a respectable national ICT infrastructure in the drive towards globalisation and greater competitive force. This is evident in the inclusion of e-Learning as one of the five strategic thrusts under the NITC (NITC, n.d.), as excerpted below:

“e-Learning is the first step towards capitalising on knowledge. This strategic thrust area envisions the creation of formal and informal network, providing the opportunity and cultivating an ethos of lifelong learning for individual organisational, institutional and societal advancement. It is expected that e-Learning will be the vehicle to accelerate the pace of growth of Malaysia's intellectual capital.”

What is apparent is that e-Learning is considered vital for Malaysia to build a world-class human capital and has been adopted in various ways in schools and universities. Greater implementation has been noted at the higher education level, whilst still in its infancy at the school level (Rohana Abd Rahman, 2004). For the purpose of this paper, we will look into e-Learning at both levels.

1) e-Learning in Schools

e-Learning initiatives in schools are under the ambit of the Government, and is concerned with the provision and use of ICTs, the roll-out of ICT curriculum and assessment and its integration in teaching and learning (Rohana Abd Rahman, *ibid.*). School-level e-Learning initiatives have taken the form of projects as described in the following table.

Table III e-Learning Initiatives in Schools

Initiative	Description
MySchoolNet	A website set up by the MOE to provide links to educational resources worldwide; and to allow interaction between Malaysian school children with those globally.
Smart Schools	Schools with up-to-date ICT infrastructure, using the most current technologies in its curriculum, pedagogy, assessment and materials.
Computing Tablet Project	Encouraging the use of and providing laptops to enhance classroom teaching and learning experiences in a wireless environment.
Computerisation Programme	A development project to equip schools with the necessary ICT hardware and software.
EduWebTV	A website that hosts educational videos under the MOE. Launched in 2008, EduWebTV streams seven types of programmes, i.e. News, Academic, Articles, Interactive, Curriculum, Live and Guides.

2) e-Learning in Universities

The most obvious utilisation of e-Learning is in institutions that have adopted the ODL mode. In Malaysia, these include UNITAR, OUM, WOU, AeU and other universities.

(1) UNITAR

UNITAR was the first of any Malaysian university to attempt full-scale distance education, and is considered Malaysia's first virtual university (Syed Othman Alhabshi & Hasnan Hakim, 2006). As the first provider of virtual learning, UNITAR retained its full-time mode while it continued to experiment in the provision of educa-

tion through the use of ICTs, beginning with producing CD ROM-based course materials to web-based and online content. Currently, UNITAR is a dual mode university that operates mostly on a full-time basis.

(2) OUM

OUM was established in 2000, just two years after UNITAR, and operates completely via ODL. As Malaysia's first open university, the majority of OUM's students are working adults who study on a part-time basis. OUM has developed a blended pedagogy that combines self-managed learning and face-to-face tutorials with online learning. OUM is one of the leading e-Learning practitioners in the country; and has now enrolled more than 90,000 learners in over 70 programmes.

(3) WOU

WOU was established in 2007, making it the second private university in Malaysia to practise ODL. Like OUM, WOU employs a flexible mode that incorporates e-Learning as a means to help part-time students study at their own pace without leaving their jobs or compromising their other commitments. WOU considers itself the country's first private, not-for-profit open learning institution that is funded by charitable trusts, corporations and the public.

(4) AeU

AeU, formed in 2008, is the latest university to employ e-Learning in Malaysia. It is an international university established under the Asia Co-operation Dialogue (ACD). AeU collaborates with institutions of higher learning in 31 Asian countries through ODL; benefiting from the collective expertise and experiences of the universities in each ACD member country.

(5) Other Universities

Several other universities also deserve mention as e-Learning practitioners. UM, MMU and International Medical University (IMU) were among the first to launch learning management systems (LMS). Since then, many other universities have also

introduced their own LMS, even if they do not employ the ODL mode. This is an indication of overall ICT and e-Learning acceptance in Malaysia, including for institutions that offer various full-time programmes in physical campuses throughout the country. Two other institutions also employ the ODL mode, i.e. MEDIU and INCEIF. Both are relative newcomers, having been established in 2007 and 2006, respectively. Additional explanation of e-Learning in Malaysian education will be provided in subsequent chapters of this publication.

Chapter 3

Policies, Funding and Regulation of E-learning in Lifelong Learning in Malaysia

Caveat

At the time of writing, there are no definitive national policies on e-Learning for lifelong learning in Malaysia. For the purpose of this publication, this chapter will provide a description of e-Learning *and* lifelong learning separately as they appear in each of the specified documents. Matters concerning funding and regulation will be explained in the context of education and training.

3.1 Government Policy Statements and Plans

As introduced in Chapter 1, e-Learning and lifelong learning have received separate and linked statements in several policy documents, i.e.: 8MP, 9MP and OPP3. Substantial statements were also made in the Knowledge-based Economy Master Plan (KEMP), introduced in 2002 by the Economic Planning Unit (EPU), under the jurisdiction of the Prime Minister's Department; and the NHEAP and NHESP, released

by MOHE in 2007.

1) Eighth Malaysia Plan (2001-2005)

The 8MP provides one of the earliest mentions of e-Learning and lifelong learning policies in Malaysia. This Plan introduced the NITC's role in achieving the NITA through the Strategic Thrusts Agenda, of which e-Learning was one and was meant *“to focus on cultivating a lifelong learning culture”* (Government of Malaysia, 2001). Having access to lifelong learning opportunities was also seen as important aspect in addressing the dangers of the digital divide in marginalising a substantial number of Malaysians. The Plan states that:

“A system of lifelong learning will be introduced and skills upgrading strengthened to support the development of a learning society...”

As such, lifelong learning was also listed as a human resource policy thrust that could encourage and further enhance the employability and productivity of the labour force (Government of Malaysia, 2008). The promotion of lifelong learning was needed in order to develop a knowledge-seeking culture amongst Malaysians. The Government anticipated lifelong learning, through the use of ICTs, distance learning and web-based learning, could help steer the nation towards becoming a knowledge-based economy. The Government's attention to education in this respect was evident in better support services in the form of public and mobile libraries. Educational institutions were also encouraged to offer more diversified courses through distance learning programmes and part-time courses (in community colleges). In essence, the 8MP asserts lifelong learning as the strong foundation needed for the creation of a knowledge-seeking society in the nation's drive towards Vision 2020.

2) Third Outline Perspective Plan (2001-2010)

Having been launched during the same period as the 8MP, the OPP3 also outlines e-Learning as a strategic thrust under NITA and lifelong learning as a means to develop Malaysia's human capital. In line with Vision 2020 and the Government's

concern for the creation of a knowledge-based economy, the OPP3 recognises lifelong learning as vital in allowing Malaysians to continuously learn and upgrade their skill base after leaving the formal education and training system. In this respect, OPP3 outlines quite clearly the role of lifelong learning in training programmes. The setting up of information technology (IT) kiosks and cyber centres were planned, particularly in rural areas. This is in line with the use of ICT-related media to offer access to training programmes and education across the Malaysian society. Similar to the 8MP, the OPP3 also outlined the following action plans related to formal education and training:

- The establishment of community colleges, open universities and distance education as alternative avenues for tertiary education;
- Community colleges to provide opportunities for school-leavers to further their education;
- Encouraging financial institutions to provide soft loans to working adults to continue their education;
- Encouraging employers to promote lifelong learning through training and retraining programmes; and
- Strengthening the delivery of public training institutions by using ICTs and web-based learning systems.

3) Knowledge-Based Economy Master Plan (2002)

The KEMP, launched by EPU in 2002, is based on the development thrusts provided in the OPP3, and contains 136 recommendations encompassing human resource development, information structure, incentives, science and technology development, reorientation of the private and public sectors as well as addressing the digital divide (EPU, n.d.). The KEMP views education as crucial to develop a knowledge-based economy; of which one of the most important steps is to enhance Malaysia's human resource capacity. The KEMP provides a comprehensive collection of action plans spread over three phases from 2001 to 2010, along with the relevant implementing agencies. Under education alone, there are 64 recommendations that either directly

or indirectly involves the implementation of e-Learning and lifelong learning in Malaysia. Several prominent recommendations related to lifelong learning in the KEMP (Government of Malaysia, 2002) are:

- Formulate and adopt a National Policy on Lifelong Learning and Education within the context of Vision 2020 and the knowledge-based economy;
- Embed lifelong learning education and philosophy in all major Government policies;
- Promote research and development in the areas of adult education and lifelong learning by strengthening existing research and development centres of lifelong learning;
- Foster the development of scientific and technological literacy through lifelong learning and education; and
- Promote trade union involvement in lifelong learning.

4) Ninth Malaysia Plan (2006-2010)

The 9MP clearly describes e-Learning and lifelong learning as important features in the nation's efforts to mainstream ICTs as well as to enhance human capital development (Government of Malaysia, 2006). The following are excerpts of the 9MP with regards to e-Learning and lifelong learning (Government of Malaysia, *ibid.*):

- E-learning initiatives will be expanded in the formal education process, vocational training programmes, in the private sector and also in public offices (through the formulation of the Public Sector e-Learning Blueprint by the National Institute Of Public Administration (INTAN));
- Encouraging the use of the internet is integral in the growth of e-Learning as a potential source of online education and training.
- Provision of infra- and infostructure through initiatives such as the Malaysian Grid for Learning (MyGfL) and Smart School community projects;

The establishment of the National e-Learning Consultative Committee (NeLCC) to direct and monitor all e-Learning strategies and programmes. The NeLCC is also

responsible for overseeing the preparation of INTAN's Blueprint;

- Offering of lifelong learning programmes with flexible entry requirements (by community colleges and ODL providers);
- Accelerating lifelong learning through upgrading and expansion of infrastructure, increasing accessibility (through e-Learning and distance education) and inculcating a learning culture;
- Public universities to establish centres for continuing education with flexible entry requirements;
- Institutions such as OUM and UNITAR will be encouraged to offer postgraduate programmes to cater to working professionals; and
- Private institutions, training providers, non-governmental organisations (NGOs) will also be encouraged to provide lifelong learning programmes, including amongst the workforce.

5) The National Higher Education Action Plan (2007-2010) and National Higher Education Strategic Plan (2007)

(1) The National Higher Education Action Plan (2007-2010)

The NHEAP lists lifelong learning as one of the critical agenda to be achieved during the 9MP plan period. The Plan calls for measures to put in place a comprehensive policy on lifelong learning that will involve both the Government and the private sector. Some of the desired outcomes listed in this Plan are to increase the number of adult learners in order to bolster the knowledge value of the work force; to inculcate a pervasive lifelong learning culture; and to provide alternative and equitable access to tertiary education for the rural and urban poor, *Bumiputera* communities in East Malaysia, indigenous (*Orang Asli*) communities as well as the physically disadvantaged.

(2) The National Higher Education Strategic Plan (2007)

The NHESP focuses on the enculturation of lifelong learning to democratise education across all levels of the Malaysian society. Similar to the above Plans, this Plan lists

extensive lifelong learning mechanisms to support the nation’s knowledge- and innovation-driven human capital development. Drawing on ODL, e-Learning, workplace and part-time learning, these mechanisms include:

- The establishment of a Lifelong Learning National Committee under the MOHE and MHR;
- The expansion of lifelong learning programmes at all higher education institutions;
- The proper accreditation of prior learning through the Malaysian Qualifications Framework (MQF);
- The reinforcement of community colleges as a lifelong learning hub; and
- Increasing enrolment in lifelong learning programmes by up to ten per cent at diploma and first degree levels through flexible entry requirements.

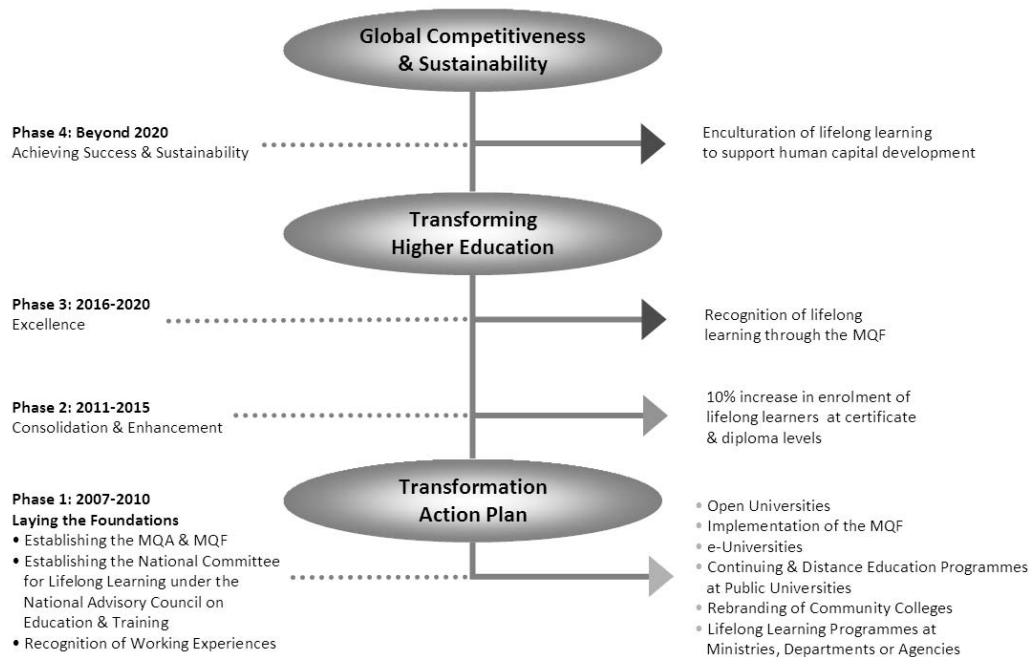


Figure 1 The NHESP’s transformation process for Malaysian lifelong learning (Translated from the NHESP, MOHE (2007))

The following is the diagram of the NHESP’s transformation process for lifelong learning in Malaysia. It is evident from this diagram that the various parties described in this publication have important roles to play in this regard.

3.2 Funding: Education and Training

With the focus of lifelong learning and e-Learning in Malaysia resting on enhancing the employability and productivity of its citizens, the main point of reference is the Government’s attention towards education and training at the higher education level. The most recent economic plan allocated MYR 45.1 billion between 2006 and 2010 (Government of Malaysia, 2006). What is important to note is that this allocation represents financial aid awarded to public institutions; disbursed through the pertinent Government agencies and ministries. The following table details the allocation for tertiary education and training, as stipulated in the 9MP (Government of Malaysia, 2006).

Table I Development Expenditure and Allocation for Tertiary Education and Training, 2006-2010

Programme	9MP Allocation (MYR in million)
Tertiary Education	16,069.0
Training:	
Industrial Training	4,103.6
Commercial Training	179.5
Management Training	509.5
Total	20,861.6
Grand Total (Education and Training)	45,149.1

Similar to other countries, central provision of funds for lifelong learning and professional development in Malaysia involves resource generation through payroll taxes, incentives for employers to invest in lifelong learning programmes and other such

approaches. The funds described below represent the main components in financing lifelong learning and e-Learning in Malaysia.

1) Funding for Public Institutions

Within the context of lifelong learning and human capital development, Government funding for training and retraining opportunities are present in the form of specific funds, e.g. the HRDF, Skills Development Fund (SDF) and National Higher Education Fund (NHEF). In general, funding for education and training represents about a fifth of total Government expenditure (EPU & World Bank, 2007).

(1) HRDF

The HRDF is managed by the Ministry of Human Resources and operates through levy contributions from private institutions and companies (Anuwar Ali, 2005). Established in 1993 to replace the training tax incentive scheme, it provides funding for training and retraining programmes for private sector employees. Employers are liable to pay an average of one per cent of each employee's monthly remuneration to the fund. The fund's objective is to provide financial assistance to defray part of the costs for employee upgrading programmes through a cost-sharing scheme between private companies and the Human Resource Development Council (Haslinda Abdullah, Raduan Che Rose & Kumar, 2007). In the 9MP, almost MYR 4.8 billion was set aside for financing all training programmes (Government of Malaysia, 2006).

(2) SDF

The SDF was established in 2001 as a means to provide loans for technical and vocational training courses in both public and private training institutions (Anuwar Ali, 2005). Students who have obtained a basic skills certificate can apply for a loan programme that will provide them with MYR 5,000 for every level of study. In the 9MP, a total of MYR 644.5 million was disbursed to about 135,000 trainees nationwide (Government of Malaysia, 2006).

(3) NHEF

The PTPTN is a semi-autonomous agency under MOHE and has been operating since 1997. The NHEF offers subsidised loans to meet tuition fees in both public and private institutions of higher education throughout Malaysia; intended to promote further enrolment and access to tertiary education nationwide. From 1997 to 2006, a total of MYR 17.27 billion was disbursed to benefit over 890,000 students at various study levels across the country. For the 9MP, the Government increased the allocation to MYR 19.83 billion to be distributed from 2006 to 2011 (Ministry of Higher Education, 2007).

The national Employees Provident Fund (EPF) is the largest contributor to the NHEF, and for the next two economic plans, i.e. the Tenth and Eleventh Malaysia Plans, MYR 38.85 billion and MYR 71.40 billion, respectively, will be allocated for the fund. Out of those figures, MYR 9.68 billion and MYR 16.12 billion for each of the aforesaid Plans will be subsidised by the Government (Ministry of Higher Education, *ibid.*).

2) Other Sources of Funding and Scholarships

Within the context of financing lifelong learning and e-Learning programmes, it is necessary to mention the role of MARA as one of the main providers of not merely education programmes at various levels, but also as a provider of financial aid to needy individuals, many of whom are school-leavers, those without complete basic education and come from rural areas. MARA is a Government agency that focuses on providing business, educational and financial support to *Bumiputeras*. Under the ambit of the MRRD, MARA has financially aided *Bumiputera* students and budding entrepreneurs for over 40 years with scholarships, loans and various training and development programmes (as described in Chapter 1).

The Public Services Department (PSD), under the MHR, also provides a source of scholarships and financial aid for ‘critical’ academic programmes, e.g. Medicine, Dentistry, Pharmacy and Engineering. In general PSD scholarships are offered to

students enrolled in public universities, or to those who are placed in selected universities in the United Kingdom, the United States of America and Australia (Study Malaysia Online, n.d.).

MOHE's designated Scholarship Division provides study loans and scholarships for students in various stages of education, i.e. matriculation students and students at polytechnics and community colleges. The Federal Training Award Scheme, also under the MOHE, is offered to academic personnel and postgraduate students bound to polytechnics and community colleges as well (Study Malaysia Online, n.d.).

3) Funding for Private Institutions

As iterated earlier, private education institutions in Malaysia are self-sustaining bodies outside the state funding mechanism. Private providers that directly or indirectly operate within the sphere of lifelong learning and e-Learning, for instance OUM and WOU, rely almost entirely on independent revenue-generating activities (in particular, student enrolment and tuition fees) to remain viable. From a national viewpoint, the private sector provides additional places at the tertiary level; and it also helps to reduce the total public subsidy to higher education (Wilkinson & Ishak Yussof, 2009). That said, private students can also apply for study loans under the NHEF or obtain other means of scholarship.

3.3 Regulation and Quality Assurance

1) Legislative Acts

At present, Malaysia has yet to introduce legislative acts that are exclusive to e-Learning for/and lifelong learning. In spite of this, the increasing use of ICTs in education has had an enormous impact on the quality of education throughout the country. Many of the e-Learning and lifelong learning initiatives described earlier, particularly at the school and post-secondary levels (e.g. MySchoolNet, MyGfL, Smart

Schools, upgrading of ICT infrastructure, et cetera) during the 8MP and 9MP plan periods, have been implemented by the Malaysian Government with support from private entities. This suggests the Government's keen involvement in the management and regulation of these initiatives. Educational reforms, especially in the 1990s, have had great bearing on the provision of e-Learning and lifelong learning programmes. The following are details on legislative acts and how they have affected e-Learning and lifelong learning in Malaysia, particularly at the post-secondary and higher education levels.

Table II Legislative Acts and Their Impact on e-Learning and Lifelong Learning
(Adapted from UNESCO, 2006/2007; Study Malaysia Online, n.d.)

Act	Content/Impact
Education Act 1996	<ul style="list-style-type: none"> · Provisions that apply to MOHE in the establishment of polytechnics and community colleges.
Private Higher Educational Institutions Act 1996	<ul style="list-style-type: none"> · Establishment and operations of private higher educational institutions. · Provision for the establishment of private universities, university colleges, branch campuses of foreign universities, as well as the upgrading of existing private colleges to universities. · Liberalisation of higher education to meet increasing demand for tertiary education and a highly skilled workforce.
National Council of Higher Education Act 1996	<ul style="list-style-type: none"> · Establishment of a national body to determine policies and co-ordinate the development and rapid expansion of tertiary education in Malaysia.
The National Accreditation Board Act 1996 (Replaced by the Malaysian Qualifications Agency Act, 2007)	<ul style="list-style-type: none"> · Establishment of the National Accreditation Board (now MQA) to ensure that high academic standards, quality and control are maintained in private higher educational institutions. · The MQF as a platform for QA in Malaysian higher education.
Universities and University Colleges (Amendment) Act 1996	<ul style="list-style-type: none"> · Corporatisation of public universities.
National Higher Education Fund Corporation Act 1997	<ul style="list-style-type: none"> · Establishment of the PTPTN as a fund that provides financial assistance through study loans to students.

2) Quality Assurance (QA)

(1) Public Institutions

QA in public higher education, whether constituting conventional studies, e-Learning or mixed models, comes under the purview of MOHE. Public education is regulated by the Quality Assurance Division under the ambit of MOHE. This division concerns itself with the quality of academic programmes in the public system and also manages ISO-related certification for every institution. Professional accreditation bodies, such as the Malaysian Medical Council, PSD and Engineering Accreditation Council provide standards for licensure and professional practice as well as deal with QA in the academic sense (EPU & World Bank, 2007). Because all public institutions are centrally managed by the Government, all matters with regards to QA are also a central concern. However, it is common for each institution to have a Quality Management Unit that deals with institutional QA according to guidelines provided by MOHE.

(2) Private Education Providers

Based on the Private Higher Educational Institutions Act 1996, all private colleges, universities and non-degree granting institutions are answerable to QA measures outlined by the Government. Operational activities are not explicitly supervised by the Government, thus allowing for a certain degree of autonomy for these institutions. However, with the establishment of the MQA, each of these institutions must abide by the classifications given in the MQF. In this sense, qualifications awarded by all institutions must conform to criteria that clarify academic levels, learning outcomes and credit systems (MQA, 2007) set by the MQF. MQA, as the authoritative agency for implementing the framework, is responsible for monitoring and overseeing QA practices and accreditation in all private institutions. MQF stands as the basis for QA in higher education as well as the reference point for criteria and standards for national qualifications (MQA, n.d.). It covers eight levels of qualification, i.e. Certificate Levels One to Three, Diploma, Advanced Diploma, Bachelor's Degree, Master's and Doctoral Degrees (MQA, 2007). The functions of MQA (MQA, n.d.) are to:

- Implement MQF as a reference point for qualifications;
- Develop standards, credits and all other relevant instruments as national

- references for the conferment of awards with the co-operation of stakeholders;
- Quality assure higher education institutions and programmes;
 - Accredite courses that fulfil the set criteria and standards;
 - Facilitate the recognition and articulation of qualifications; and
 - Maintain the Malaysian Qualifications Register (MQR).

In the context of lifelong learning, the MQF also provides education pathways to systematically link qualifications and allow proper recognition of prior learning, whether obtained through formal, non-formal or informal means (MQA, 2007). This is evident in the document's clear inclusion of lifelong learning in its qualifications and levels (Figure I). Listed in the MQF, these pathways are represented by three qualifications (Table III).

Particularly where formal private education is concerned, this is a significant development that demonstrates the value of lifelong learning initiatives in Malaysia. One example of which is the implementation of FE at OUM; a system that promotes lifelong learning by providing access to university education to individuals who generally have little beyond basic education (i.e. just PMR or SPM certification). This is done by evaluating and recognising their working and other learning experiences against the learning outcomes for a particular course or programme. OUM began implementing FE and RPL policies in February 2006; the first of its kind in the country.

Table III Qualifications for Lifelong Learning Pathways in the MQF

Qualification	MQF Description/Definition
Advanced Diploma	· A specific qualification that identifies an individual who has knowledge, practical skills, managerial abilities and more complex and higher responsibilities than those expected at a diploma level.
Graduate Certificate and Graduate Diploma	· Qualifications that comprise competencies at the Bachelor's level. · Graduate Certificate and Graduate Diploma differ by credit value. · Used for purposes such as continuing professional development (CPD), changing a field of training or expertise and as entry qual-

	ification to a higher level with permissible credit transfer.
Postgraduate Certificate and Postgraduate Diploma	<ul style="list-style-type: none"> · Qualifications that contain competencies at least at the Master's level and acquired after obtaining a qualification equivalent to that of Bachelor's. · Postgraduate Certificate and Postgraduate Diploma differ by credit value. · Conferred when the practitioner completes CPD or advanced training which is more professional than academic in nature.

MQF Levels	Sectors			Lifelong Learning
	Skills	Vocational and Technical	Higher Education	
8			Doctoral Degree	Accreditation of Prior Experiential Learning (APEL)
7			Masters Degree	
			Postgraduate Certificate & Diploma	
6			Bachelors Degree	
			Graduate Certificate & Diploma	
5			Advanced Diploma	
4	Diploma	Diploma	Diploma	
3	Skills Certificate 3	Vocational and Technical Certificate	Certificate	
2	Skills Certificate 2			
1	Skills Certificate 1			

Figure II Qualifications and levels in the MQF

4.1 Status: A General Overview

Lifelong learning is widely practised across many different levels in Malaysia. As described earlier, many different parties are involved in the provision of lifelong learning programmes at formal and non-formal levels, from public universities, ODL institutions, post-secondary institutions, MARA as well as through the relevant ministries. In 2008 alone, the enrolment at certificate and diploma levels amounted to almost 430,000 (MOHE, 2009); representing students in public and private institutions, community colleges and polytechnics. Despite the rising participation in lifelong learning programmes, there is a clear lack of co-ordination and management at a national level. Through a more resolute effort by the relevant bodies, it is hoped that all these programmes, from education to skills and training, will be represented by a more concerted co-ordination by the Government and its ministries.

The rising interest in lifelong learning can be attributed to the pressures of globalisation and technologies as well as Malaysia's changing demography (Mohamed Rashid Navi Bax & Mohd Nasir Abu Hassan, *ibid.*); as the nation gears itself towards greater employability and productivity of its citizens (Ruslan Abdul Shukur, 2005). Globalisation brings with it social and economic changes that compels Malaysia to look into upgrading skills and technology intensity and knowledge capabilities in its labour force. With a population that is expected to reach 28.9 and a working age group (ages 15 through 64) of about 19 million individuals in 2010, the new Malaysian demography implies the need for more employment and training opportunities (Mohamed Rashid Navi Bax & Mohd Nasir Abu Hassan, *ibid.*) that could be created through lifelong learning. The need to nurture a learning society, mentioned

in the OPP3 (Government of Malaysia, 2001) involves encouraging more women, senior citizens, retirees and marginal groups to take part in informal or non-formal learning as well.

Despite the increasing number of institutions adopting e-Learning throughout the country, its utilisation in lifelong learning programmes in Malaysia is not well-established as yet; and mainly limited at the formal level through private higher education institutions. In connection to this, there is also growing interest from many working adults who are beginning to see lifelong learning as a way of furthering their education or obtaining formal recognition for their professional experiences. Of particular interest are programmes offered through e-Learning as this will allow them to enrol on a part-time basis. While various parties are involved in the provision of continuing professional education, skills upgrading and training programmes (as has been described in the earlier chapters), the adoption of e-Learning in these institutions and programmes has not been as widespread as with those practising ODL (e.g. OUM and WOU).

e-Learning initiatives at the school level have mainly focused on the provision and use of ICTs, while more and more organisations, both public and private, are beginning to look into e-Learning as a viable means for training their employees. At the informal level, this is slightly less distinct, but literature suggests that many lifelong learning projects involving e-Learning are usually performed at the community level and are aimed towards creating awareness of ICTs and bridging the digital divide between urban and rural populations (see Chapter 5).

At this point in time and regardless of its level of use, there is a need for:

- Greater awareness amongst the citizens;
- More extensive adoption of technological infra- and infostructures (including internet accessibility); and
- Greater Government attention in:
 - Carrying out the various policies and action plans described in Chapter 3;

- Providing better management, guidance and funding to allow more players and practitioners to enter the field; and
- Introducing new schemes that would make e-Learning more cost-effective.

4.2 Characteristics

1) Introduction

The use of e-Learning in lifelong learning in Malaysia aims to achieve the following objectives:

- As a smart and cost-effective way for employee training and upgrading;
- To complement the traditional mode of learning through blended learning;
- To facilitate greater educational access to geographically distant individuals;
- To broaden access to disadvantaged and marginalised individuals (e.g. the disabled, those in remote areas);
- To improve cost-effectiveness in offering formal educational programmes;
- To develop information-retrieval skills and digital literacy in its target audience;
- To improve the quality of teaching and learning; and
- To promote continuous personal and professional development.

Many of these objectives are embodied in the practices of ODL institutions, particularly as they are the pioneers and continuous practitioners of e-Learning in Malaysia. Because ODL is generally targeted towards working adults in search of higher qualifications, the lifelong learning connotation is evident as well. For the purpose of this publication, the characteristics of e-Learning in lifelong learning will be provided from the viewpoint of ODL.

2) The ODL Viewpoint

Four of Malaysia's ODL institutions (as listed in Chapter 2), i.e. UNITAR, OUM,

WOU and AeU, can be considered the key proponents of e-Learning in the country. With the exception of UNITAR, which currently operates as a dual-mode university, OUM, WOU and AeU operate fully through ODL and focus on providing tertiary education to working adults. Other higher education institutions also supplement traditional modes with ODL, e.g. MMU and IMU. However, as providers of formal higher education to full-time, first-degree university entrants, these institutions are not considered to be involved in the lifelong learning context of Malaysia, and thus will not be described in this publication. Public universities that dabble in e-Learning (mostly through distance education programmes) have been described in Chapter 2 and will not recur in this chapter. The following is an illustration of the characteristics of e-Learning provided by UNITAR, OUM, WOU and AeU.

Table I Characteristics of e-Learning in Lifelong Learning in Malaysian ODL Institutions

		Criteria			
		ICT Infrastructure	Type and Availability of Learning Resources	Delivery of Programmes	Other Details
UNITAR	Course Management System (CMS) known as Virtual Online Instructional Support System (VOISS).	This consists of e-mails, forums, bulletin board, virtual library and announcements.	CD- and web-based courseware and virtual library (online databases, electronic texts, e-books, examination papers, etc).	Hybrid e-Learning model that incorporates classroom teaching, online tutorial meetings, the virtual library and an online/offline Call Centre and Customer Relations Management.	Malaysia's first virtual university, but currently operates as a dual-mode university, mostly targeting full-time first-degree university entrants.
OUM	LMS known as myLMS. myLMS consists of e-mails, forums, bulletin board, announcements, academic calendar, links to all learning resources, digital library, university publications, handbooks, online assessment, iRadio, etc. It also allows learners to track financial transactions with the university.		Print-, audio-, PDF- and web-based modules, Digital Library (books, journals, etc), iTutorials, iWeblets, iRadio learning segments, multimedia courseware. Also includes mobile learning, online resources (e.g. Mathematics Resource Centre and	Blended pedagogy that comprises online learning, self-managed learning and face-to-face tutorials. One programme (Master of Instructional Design and Technology, MIDT) is offered as a fully-online programme.	Malaysia's first ODL institution. Targets working adults in pursuit of higher/ further/continuing education and professional training.

	iRadio is OUM's internet radio, the first for any university in Malaysia.	Electronic Gateway to English Resources) and multiple choice question (MCQ)-based assessment.		
W O U	LMS known as WawasanLearn. It contains course-by-course announcements, online forums, tutorials, supplementary course materials, assignments, self-tests and online quizzes, etc.	Digital Library, CD-ROM based material, supplemented by PowerPoint slides for selected topics, PDF files, website links, articles, quizzes and online interactive programmes.	ODL model that includes self-learning course materials, face-to-face tutorials, telephone and online tutoring, video conferencing and support from regional offices (library and internet access).	Operates as a not-for-profit ODL university. Like OUM, also targets working adults in pursuit of higher education.
A e U	LMS known as AeU LMS. The system contains courseware, course announcements and information, forum, chat room, messaging, assignments, timetable, question bank, web links and quizzes. It is accessible through the student portal that allows students to do online transactions, add/drop subjects, change programmes, etc.	Virtual library, books, journals, theses and print modules.	Distance learning mode that involves independent study, online discussions and face-to-face interaction/tutorial.	Operates as a multinational university under the ACD. It is an international university and is in the process of gaining international recognition.

The four universities above share several similar grounds, i.e. they have all constructed each respective CMS or LMS either based on an open source platform or developed it independently from the ground up. All four institutions also employ an open entry system to provide leeway for individuals without extensive educational backgrounds to enrol in their academic programmes and each has also developed its own courseware and/or modules. While there are slight distinctions in the modes of delivery, in essence the utilisation of e-Learning in these institutions are quite clearly represented as not only a technological feature, but an important component in the teaching and learning process. What is also important to note is that because the main clientele for these ODL institutions are working adults (a majority of whom are within the 25-45 age range), many of them are either not well-versed or may

have never even had any experience with e-Learning technologies. As such, these institutions spend a great deal of time and effort in guiding new students to adapt to their new ways of teaching and learning.

3) Corporate Involvement: A New Form of e-Learning in Lifelong Learning

For-profit, on-demand and corporate e-Learning are relatively new phenomena in Malaysia. This form of e-Learning warrants a mention in this publication as it is considered to be a part of continuous training for working professionals; a complement of the traditional face-to-face trainer-trainee programme (Rozana Sani, 2004). Having been given allocations under the HRDF, corporate e-Learning is a response to the World Trade Organization’s General Agreement on Trade in Services (GATS) that first came into force in 1995 (Jung, 2009). The influence of GATS on the e-Learning practices of many countries, including in Asia and Malaysia, is clear in that many have come to realise this new, under-exploited market for e-Learning and there have been, in recent years, evidence of local, national and regional for-profit providers that have entered this market (Jung, *ibid.*).

In Malaysia, for-profit e-Learning has grown quite rapidly in the corporate training sector; seen as an effective strategy for employee development. Several examples of such providers include the following (cited in Jung, *ibid.*):

Table II Several Corporate e-Learning Providers in Malaysia

	Description
training.my	<ul style="list-style-type: none"> · Malaysia’s one-stop portal for training events across various areas. · Includes a list of e-Learning courses. · Major clients include National Bank of Malaysia, MMU and the EPF
HP Education Services(HPES) Malaysia	<ul style="list-style-type: none"> · A training house under Hewlett Packard Malaysia. · Lists a comprehensive selection of training and e-Learning solutions across a wide variety of IT course subjects.

There are also several major vendors that provide school curriculum-based educational

courseware, online or e-Learning teaching courses for primary schools in Malaysia (Jung, *ibid.*). Two such examples include KDEB Anzagain, a private company that develops and supplies courseware to the MOE; and e-Learn Dot Com, that provides software for primary web-based learning system, multimedia teaching solutions, as well as thematic learning software for children and materials for schools and kindergartens in various subjects.

While there has been significant growth in this area, corporate e-Learning has yet to truly take off in Malaysia, with many parties still preferring the traditional approach of face-to-face sessions (Rozana Sani, 2004). However, as the country searches for flexible, cost-effective access to lifelong learning, primarily for working adults, corporate e-Learning could provide the solution needed to close the gaps in terms of skills and demographics of Malaysia's society.

Chapter 5

Typical E-learning in Lifelong Learning: Malaysian Initiatives

5.1 Introduction

The first part of this chapter will deal with formal and non-formal examples of e-Learning in lifelong learning initiatives in Malaysia. In line with the concepts introduced in Chapter 2, formal examples will be taken to include programmes and courses conducted by designated educational institutions that utilise e-Learning and are aimed at award of official qualification and certification. Frequently, these instances have specific target groups and in the case of higher education institutions, represent the learning pathways for working adults. Non-formal examples will focus

on programmes that are sponsored by large organisations for the purpose of employee professional development or skills upgrading of the labour force.

The second part of this chapter will deal with informal examples of programmes that have been conducted in Malaysia. There are extensive instances of both forms of lifelong learning activities; and their impact range from large-scale, national implementation to small, community-based efforts. Both types will be mentioned in this publication to provide a comprehensive view for the whole country. Many of the informal initiatives have taken the route of rural development as an effort to bridge the digital divide and ensure that rural folk and the underprivileged have equal lifelong learning opportunities and are not left behind in the race towards greater technological awareness in the country. These programmes do not confer certifications per se and are generally conducted on a not-for-profit basis.

5.2 Formal and Non-formal Lifelong Learning Examples

1) Public Universities: A General Observation

As iterated in Chapter 2, several established public universities are involved in the offering of lifelong learning programmes through each respective designated centres or schools that focus on continuing, professional and adult education. In general, many of such programmes are conducted on a part-time basis, leading to certificates, executive and professional diplomas and may include short courses as well. The use of e-Learning in such instances may not be as prominent as in institutions that fully employ the ODL) mode. Rather, the “e” component is, more often than not, represented by IT infrastructure, internet accessibility and encouraging students to leverage on technologies to complement their learning. That said, some of the courses and programmes offered can include an e-Learning component, particularly for public universities that also dabble in ODL as well. The table in the following page describes the efforts of public universities in offering e-Learning in lifelong learning.

The USM, is a prime example of a traditional public university that has opened up to e-Learning; being the first university to implement distance education in Malaysia in 1971 (USM, 2008; Lee & Rozinah Jamaludin, 2009). Today, USM's e-Learning model includes an LMS, virtual library, blended pedagogy and an ICT helpdesk (Lee & Rozinah Jamaludin, *ibid.*) and the School of Distance Education has also produced more than 14,000 graduates since the School began operating in full distance education mode in 1993 (USM, *ibid.*).

Table I Involvement of Public Universities for e-Learning in Lifelong Learning in Malaysia

	Centre	Type of Programmes	e-Learning Component
U M	Centre for Continuing Education	Short courses, certificates, executive and professional diplomas and coaching programmes	<ul style="list-style-type: none"> · Not extensive. · Programmes are conducted on a part-time basis, complemented by adequate IT infrastructure.
U S M	School of Distance Education	Short courses, undergraduate and post-graduate programmes	<ul style="list-style-type: none"> · Available. · USM employs full distance learning mode, supplemented by well-established infrastructure.
U K M	Centre of Educational Extension	Bachelor's degrees, post-graduate diplomas and Master's programmes	<ul style="list-style-type: none"> · None (UKM discontinued their distance learning programmes in 2002). · Programmes rely on face-to-face lectures conducted on weekends or after office hours.
U P M	Centre for External Education	Undergraduate and post-graduate programmes	<ul style="list-style-type: none"> · Available. · UPM uses the distance learning model, using e-Learning complemented by face-to-face sessions.
U T M	School of Professional and Continuing Education	Short courses, executive, English and undergraduate programmes and diplomas	<ul style="list-style-type: none"> · Available. · UTM has developed its own learning management system to complement the e-learning mode for these programmes.
U U M	Centre for Professional and Continuing Education	Diplomas and undergraduate programmes	<ul style="list-style-type: none"> · Available. · UUM also employs distance learning as the main delivery mode.
U i T M	Institute of Education Development	Short and professional courses and undergraduate programmes	<ul style="list-style-type: none"> · Available. · UiTM also employs distance learning as the main delivery mode.

2) OUM: A Private Example

In deliberating both e-learning and lifelong learning in Malaysia, it is essential to describe the role of OUM. While UNITAR was the first virtual university in Malaysia, OUM is the country's premier ODL institution. Having been established in response to the call for the democratisation of education in 2000, OUM's very foundation, much like other open universities worldwide, underlies the need to provide working adults with a viable alternative to lifelong learning opportunities.

As an ODL institution, OUM employs a blended pedagogy that combines e-learning complemented by face-to-face tutorials and self-managed learning. The e-learning component is backed by the university's myLMS, that is used by all tutors and learners to communicate, share information, access course materials, assignments, practice tests, learning objects and other e-content as well as important announcements from the university. It also includes an online interactive forum, learning content management and online assessment management; and e-learning is complemented by various electronic elements, e.g. a digital library, internet radio, educational text messages via mobile learning and web-based technologies (Figure I).

As much as 95 per cent of the OUM learner population is made up of working adults, many of whom did not have the chance to pursue tertiary education earlier in their lives, or are now looking to continuing education as a means for career advancement. This is the heart of OUM's lifelong learning philosophy — i.e. anyone, regardless of time, place, creed, age or socio-economic background has the right to education.

One of the mechanisms that can create a lifelong learning pathway is RPL; an increasingly significant avenue for formal recognition and for a more meaningful lifelong learning experience. As mentioned in Chapter 2, OUM is the first in Malaysia to implement RPL through a system now known as FE. FE allows for entry into OUM academic programmes through less stringent requirements by taking into consideration every applicant's prior learning and work experiences for admission into an

appropriate field of study at the university. Thus far, almost 2,000 individuals have enrolled as FE learners, representing 18 per cent of the open market intake for OUM (Latifah Abdol Latif, Mansor Fadzil & Kek, 2009). While many may be sceptical about the FE system and question the quality of such learners, the study above has shown that their academic performance can be far better than normal entry students in the same courses taken. The re-registration rate (persistence level) among the FE students is also higher and this indirectly implies that the motivation and perseverance among the FE students are relatively high (Latifah Abdol Latif, Mansor Fadzil & Kek, *ibid.*). Such a result serves as strong evidence of the effectiveness of RPL and its implementation. This success is indeed a significant milestone for OUM; representing the effort to uphold the philosophy of a democratised education and dispelling the myth that FE system will lead to inferior output.

Under RPL, OUM is also exploring the possibility of implementing APEL, another mechanism to create a clear pathway for lifelong learning. Once implemented, APEL will be applicable to all undergraduate learners, allowing them to obtain credits for certain courses where they are able to provide proof of adequate and relevant experiential learning. Learners will be assessed through a system that involves either sitting for a challenge test (comprising multiple-choice questions) or writing an e-portfolio. In this context, Malaysia should emulate Korea in the establishment of a Credit Bank System (CBS), i.e. an open education system that recognises diverse learning experiences gained not only through formal learning, but also through non-formal and informal means as a way to provide a better opportunity for the people to enhance their individual capabilities. Assessing the candidates' applications via the e-portfolio system is an innovation in itself; giving flexibility to candidates to fill up the required forms for their credit applications. Both APEL and the CBS will serve every individual who aspire to continue learning to obtain recognition in terms of all the knowledge and skills acquired.

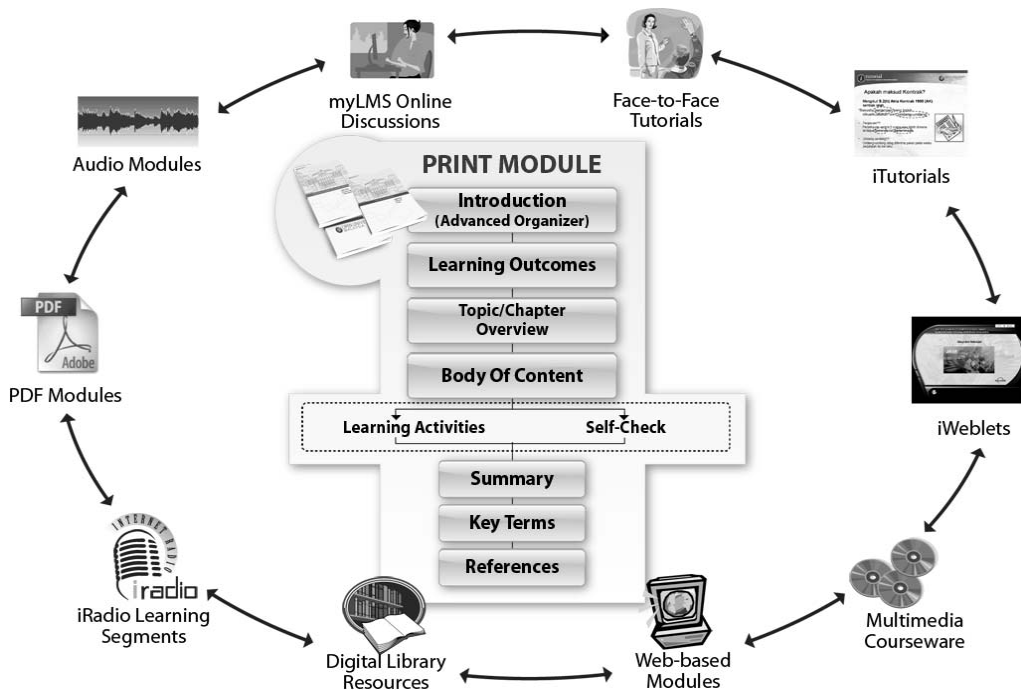


Figure I Various print and electronic media used at OUM

3) Community Colleges

Community colleges, proposed to be the lifelong learning hubs of Malaysia (MOHE, 2007), conducts various programmes at certificate and diploma levels; targeted at school-leavers who have entered the job market and are looking towards furthering their basic education for professional upgrading. There are currently 39 community colleges and 21 branches that conduct, in total, 11 diploma and 23 certificate programmes, along with 15 clusters of short courses that registered over 106,000 participants as at March 2009 (Ani Asmah Tajul Ariffin, 2009). All these programmes are considered to be work-based learning (WBL) programmes whose curricula includes industry-based theoretical and practical education, generic soft skills and other academic content. They are generally conducted via classroom teaching and learning, supported by workplace learning and mentoring (Ani Asmah Tajul Ariffin, *ibid.*). Present evidence for e-Learning usage at community colleges is obscure, but it is certain that this is currently in implementation. The Mid-Term Review of the 9MP

(Government of Malaysia, 2008) confirms that WBL programmes at community colleges will be enhanced through:

- Installing better info- and infrastructure at community colleges;
- Encouraging greater use of ICTs by lecturers, facilitators and students; and
- Developing an e-Learning platform and various learning objects to complement teaching and learning.

4) e-Learning for the Public Sector

A new training policy introduced in 2007 required every civil servant to attend at least seven days of training in a year and that one per cent of the total emolument in all yearly budgets to be allocated for training purposes (Azizah Abd Manan & Malek Shah Mohd Yusoff, 2007). This policy aligns well with the context of lifelong learning in Malaysia, its close association with employability, productivity and professional upgrading, as well as the missions of the KEMP (described in Chapter 3). For the civil service, an important aspect of professional training is enhancing the use of technologies in Government agencies (Azizah Abd Manan & Malek Shah Mohd Yusoff, *ibid.*). With close to 850,000 Malaysians working under the public administration (representing 7.6 per cent of the total labour force in the third quarter of 2009) (Department of Statistics, 2009) and a total public sector emolument budget of MYR 38.05 billion in 2009 (equivalent to €7.95 billion; Economic Planning Unit, 2009), the need and allocation for training and human capital development are indeed quite staggering.

As the main training arm for the Malaysian civil service, INTAN initiated a pilot project to promote lifelong learning for public sector personnel. The Public Sector e-Learning Project was meant to provide learning opportunities that gave particular focus to improving on-the-job skills and capabilities. The e-Learning for the Public Sector (*e-Pembelajaran Sektor Awam* (EPSA)) Project was launched in July 2007, offers 54 different courses in management, leadership, ICT, agricultural management, financial management and languages (Syahidi Bakar, 2009). Until October 2009, almost 7,000 civil servants had registered with EPSA. The system has been found

to successfully reduced training duration and cost as participants can undergo courses via an online platform without compromising their day-to-day responsibilities.

5.3 Informal Lifelong Learning Examples

1) Bridging the Digital Divide: MyGfL, Rural Internet Programme and e-Community Centres

The MyGfL project was initiated by the MOE in 1999 to promote and support Malaysia's lifelong learning agenda (Zailan Arabee Abdul Salam & Azmi Mansur, 2006) by connecting all Malaysians, education institutions, industries, communities and online learning resources into one integrated platform (United Nations Development Programme (UNDP), 2006).

The MyGfL portal was made available in 2004, and a pilot programme was initiated in 2005, focusing on deaf children and their parents, the rural community and youths (Zailan Arabee Abdul Salam & Azmi Mansur, 2006). It is clear that the project was oriented towards creating better technological awareness amongst underprivileged groups, and it found that e-Learning holds great potential in promoting continuous learning in Malaysia, although at that time there was need for more and better content, and there were disparities in terms of computer ownership, internet and broadband penetration (Zailan Arabee Abdul Salam & Azmi Mansur, *ibid.*). While it paved the way to the use of e-Learning platforms and proposed the need for e-Learning standards, it is unfortunate to note that MyGfL has not been successfully utilised.

The rural internet programme (*Program Internet Desa*, PID) and e-Community Centres were also initiated to address the digital divide between urban and rural Malaysia. The PID was initiated by the Ministry of Energy, Water and Communication (MEWC) with support from Pos Malaysia Berhad (PMB) to build computer centres in rural areas (Julia Ismail, 2007). With a sponsorship of MYR 2.8 million from PMB, the Ministry managed to build over 40 of such centres in

post offices around the country; targeting housewives, school leavers, senior citizens and small-scale entrepreneurs to help build awareness and encourage the community to leverage on ICTs in their daily lives. The PID is, in fact, one of the large-scale projects known collectively as e-Community Centres (Norizan Abdul Razak, 2005). Together with *Medan Info Desa* and *Kedai.Kom*, they represent a lifelong learning opportunity for many rural folk and acts as an access point for information, e-Learning, socialisation and as an advertising platform for their businesses (Norizan Abdul Razak, *ibid.*).

2) The eBario Project of Sarawak

Similar to the establishment of e-Community Centres, Sarawak University of Malaysia (UNIMAS) also initiated a project that focused on deploying ICT to a remote rural community in Bario, Sarawak (about three days' journey from Sarawak's capital of Kuching). The researchers from UNIMAS aimed to empower the people to apply technologies to improve their lives (Yeo, Songan & Khairuddin Ab Hamid, 2007). The project was implemented in 2001 with the setting up of a computer laboratory and a telecentre equipped with desktop computers and internet access. Interestingly, this project also attempted to design a sustainable model by acquiring volunteers and powering the computers using solar energy. Since then, UNIMAS had reported increased computer literacy amongst the Bario community, along with various other socio-economic benefits evident in, among others, its tourism industry.

3) Other Initiatives

There are various other instances of projects that utilise e-Learning in lifelong learning in Malaysia. Many, like the above, aim to increase computer literacy and awareness, bridge disparities between different socio-economic circles and provide educational opportunities to marginalised communities. One example is the collaboration between OUM and the Asia Pacific Economic Cooperation (APEC) in 2008 to conduct workshops in ICT training to women in rural communities. The workshops were conducted in the rural areas of Malaysia, a south-western state of Malaysia. In the December

2008 workshop, about 20 women, many who are homemakers, factory workers, farmers and teachers, were introduced to computer parts and taught to use e-mails, perform web searches and familiarise themselves with the internet.

The MCA, through its nationwide lifelong learning campaign, has also included e-Learning as a component in several of its programmes, e.g. English for Speakers of Other Languages, Computerised Accounting and Information Technology (The Star, 2005). The Aminuddin Baki Institute (IAB), an institute under the ambit of the Ministry of Education that provides training programmes that are related to teacher development and upgrading as well as educational management, has introduced e-Learning in several of its courses as well. In 2006, IAB initiated a pilot programme that involved the development of an LMS, a web portal, object repositories and modular authoring tools that can be reused for various types of courses at the institute (Ahmad Rafee Che Kassim, Lew & Hafizi Shafiin, 2009). IAB will be expanding the e-Learning programme to cover all of its courses nationwide.

With support from the Ministry of Entrepreneur and Co-operative Development, another Government-linked institution, i.e. the Co-operative College of Malaysia (*Maktab Kerjasama Malaysia*, MKM), which offers programmes and conducts training for various co-operatives under specific agencies in Malaysia, e.g. Federal Land Consolidation and Rehabilitation Authority (FELCRA) and the Fisheries Development Board of Malaysia (LKIM). MKM conducts about 400 different programmes at certificate, diploma and Bachelor's degree levels; with about 30 using e-Learning as a main mode of delivery (MKM, n.d.).

At the formal and non-formal levels, e-Learning adoption has taken place as a new method for teaching and learning, particularly to benefit part-time studies. Informal educational programmes have also benefited from e-Learning, especially in addressing the digital divide and other socio-economic gaps between urban and rural societies. While there are various examples of its utilisation in lifelong learning programmes by different types of institutions that include formal educational institutions,

Government-linked agencies, private entities and not-for-profit organisations, as a whole this is still in its infancy in Malaysia. The country is at the stage where e-Learning is progressively being embedded, and there is a need for better awareness of both e-Learning and lifelong learning, as well as more concrete policies, legislation and regulation. With better management and funding, this will allow for greater adoption across all levels of education.

Chapter 6 Recommendations and Prospects for Malaysia

6.1 Introduction

Based on the current status of e-Learning in lifelong learning in Malaysia, it is clear that the country still has some ways to go to ensure a holistic enculturation of lifelong learning throughout every cross-section of the Malaysian society. While the various Government plans and policies prepared within the last two decades have outlined numerous recommendations and strategies towards this end, Malaysia has yet to be able to fully realise the potential of both lifelong learning and e-Learning in Malaysian education. In terms of readiness for e-Learning, Malaysia is still at an ‘embedding’ stage, featured by a general acceptance of ICTs by citizens, businesses and the Government at large; with the incorporation of e-business requirements in policies, legislation and regulation. Efforts have also been taken to enhance the international standing of Malaysian e-Learning.

The research that has gone into this publication has brought into view an assortment of lifelong learning initiatives that may or may not utilise e-Learning, and have met

with varying degrees of success. That said, the youthful, open and receptive nature of Malaysia points to a healthy outlook for a more comprehensive implementation of e-Learning in lifelong learning initiatives in the country. Higher education institutions have been and are likely to continue spearheading e-Learning development. Community colleges, labelled as the lifelong learning hubs for the country, have also utilised e-Learning, but its use could be widened further by incorporating best practices for e-Learning. In view of better funding obtained from either public or private means, e-Learning based CPD and WBL, as well as for-profit, by-demand and corporate e-Learning are likely to have a better foothold amongst Malaysian professionals. Informal lifelong learning activities, especially those that aim towards bridging the digital divide between urban and rural communities could also increase the use of e-Learning in lifelong learning with improved ICT infrastructure throughout the country.

For all the reasons stated above and in view of current progresses being made by the Government, the list of recommendations provided in this chapter is intended as suggestions to further enhance the e-Learning in lifelong learning initiative in Malaysia. This chapter will also provide a brief description of what the future scenario might be like for the nation.

6.2 Recommendations

A large number of education and training organisations, particularly universities, are now realising that there is a market outside of their standard sphere of operations. This market is present through courses conducted, either wholly or in part, via e-Learning. Private providers of non-formal training offer courses online to anyone with access to the internet, regardless of their individual ability or level of understanding. Community colleges and polytechnics, government and state agencies, GLCs, corporate agencies and SMEs have, to a certain extent, used e-Learning in

delivering short courses and training programmes. However, there has been no proper monitoring in terms of the impact of e-Learning in lifelong learning. Thus, in using e-Learning for lifelong learning to boost the employability of individuals and the productivity and competitiveness of organisations, the following recommendations are put forth.

1) To establish a National e-Learning and Lifelong Learning Council

Promoting and sustaining the culture of e-Learning in lifelong learning will require a designated body to act as the national advocate or champion. This body could function under the jurisdiction of the MOHE. The objectives and aims if this body will include:

1. To develop policies and strategies relating to e-Learning and lifelong learning and coordinate their implementation at a national level;
2. To monitor the implementation of e-Learning in lifelong learning as stipulated in the lifelong learning policies endorsed by the MOHE and the Malaysian Government;
3. To improve coordination amongst Government agencies, statutory bodies, education and training institutions as well as the private sector;
4. To ascertain that sufficient funding for e-Learning and lifelong learning initiatives are appropriately distributed to identified agencies as well as to manage the disbursement of the funds;
5. To provide adequate financial support to acculturate use of e-Learning in lifelong learning as a way of life;
6. To create a workable mechanism to increase participation and awareness and at the same time promote the use of e-Learning amongst all Malaysians in lifelong learning activities and programmes;
7. To upgrade the mechanisms, physical infrastructures and expertise in the area of ICT integration to facilitate the use of e-Learning in lifelong learning;
8. To maintain continuity and recognition of lifelong learning by creating clear pathways to connect, integrate and consolidate formal, non-formal and informal

lifelong learning;

9. To ensure the quality and effectiveness of education and training by instilling elements of creativity, innovation and entrepreneurship in all lifelong learning programmes, by incorporating the use of ICTs;
10. To put in place a QA system for all lifelong learning institutions/providers and their respective courses and programmes;
11. To accredit institutions on the basis of output or performance measures such as graduation rates rather than on the basis of input measures;
12. To set-up a national e-content development centre in order to:
 - i) Coordinate content development in the country;
 - ii) Act as a repository for quality e-content;
 - iii) Train and develop e-content experts;
 - iv) Develop and monitor e-content standards; and
 - v) Promote knowledge sharing among e-Learning and lifelong learning providers;
13. To initiate research in the applications of ICTs or use of e-Learning in teaching and learning and also in the area of lifelong learning itself; while at the same time to promote international collaborations in both areas; and
14. To ensure that e-Learning is fully integrated in the lifelong learning agenda and its potential is fully explored, as well as to accompany innovation processes that take place in education and training systems, including in the non-formal and informal contexts.

2) To establish a definition for lifelong learning in Malaysia

With a designated body to steer all national lifelong learning initiatives, Malaysia needs a national definition for lifelong learning. This definition has to be both operational and measurable and must take into account Malaysia's concept of the working age population in the context of lifelong learning. It is also necessary to note that lifelong learning that utilises e-Learning as a tool should also fall under the purview of this definition. As such, the recommended definition for lifelong learning in

Malaysia is:

“Learning engaged by (a) employed persons, (b) unemployed persons, (c) retirees and (d) homemakers to acquire additional academic or skill-based qualifications for improving their knowledge or/and skills.”

The concept of the working age population in Malaysia and its characteristics will be provided in the Appendix of this publication.

6.3 Prospects

The demand for a lifelong learning system is enormous in Malaysia. Like any other country, Malaysia will not be able to implement all elements of the system at once. Malaysia needs to develop a strategy for moving forward in a systematic and sequenced manner. This publication serves as an important step to identify Malaysia’s current stand, and from here, develop the future planning for the use of e-Learning in lifelong learning. Based on the present status, in order for Malaysia to fully utilise ICTs and e-Learning in lifelong learning in contributing towards achieving the goals of Vision 2020, the following aspects will need to be reflected upon. Malaysia will need to take a closer look at the approach towards ICTs for education and training. Among the important features in this regard include:

- ICTs as a basic education and training tool:

The infrastructure investment in ICTs needs to be fully exploited. One of the ways is to do so is to ensure that ICTs are fully embedded in pedagogical practices and educational systems. Greater efforts are called for in terms of pedagogy, especially for developing innovative teaching and learning tools that are made possible through ICTs. ICTs are also an enabler of teaching and learning processes as they can empower learners in various new ways, whether they are engaged in formal, non-formal

or informal learning.

- ICTs as an enabler of lifelong learning:

ICTs can extend the scope of education and training at all stages of life by providing unprecedented accessibility for anyone with the desire to learn. While existing developments need to be sustained, effort is needed to help the most disadvantaged groups, e.g. people in remote and rural areas, retrenched workers, the unemployed, the physically disadvantaged, homemakers, and et cetera. The appropriate use of ICTs or e-Learning can contribute towards employability, personal development and social participation. ICTs can also help to build and support a learning continuum, including formal, informal and non-formal learning, thus helping to achieve the lifelong learning agenda of the country. More should be done to increase confidence levels, to upgrade digital competencies and to shift from access to quality in the use of ICTs for learning.

- ICTs as a key driver for creativity and innovation:

Innovation is today seen as one of the main engines for long-term economic growth and social development; with ICTs as a key driver for change in many fields, including education and training. Intelligent use of ICTs can improve the core functions of education and build active learning communities in a networked society. In today's world, an increasing share of learning occurs at the workplace, in non-formal contexts and often through new ICT-based learning tools and methods. This shift towards informal and non-formal learning modes clearly shows that interactive learning, content creation, personalised and self-directed learning all play an increasing role in the ways people learn. The role of ICTs in enhancing collaboration has a clear relevance for lifelong learning.

- Benchmarking national systems of lifelong learning:

One way in which Malaysia could move forward would be by establishing national benchmarks for measuring lifelong learning outcomes. In the present environment, such measures are underdeveloped. Traditional measures of educational progress, such

as gross enrolment ratios and public spending as a proportion of the country's gross domestic product, are not able to capture important dimensions of lifelong learning. Traditional indicators also fail to capture learning in the non-formal and informal sectors, which are becoming increasingly important elements throughout the entire educational landscape.

APPENDIX

The proposed definition takes into account Malaysia's concept of the working age population, which can be characterised according to the following:

- For the purpose of defining the labour force, the age range of the working population is between 15 and 64 years old. In general, this implies that Malaysians can enter the working population at 15 years old and exit at 64 years old;
- However, for lifelong learning, the age range of the working population should include individuals at 15 years old and above, i.e. there should not be any upper cut-off age at 64 years or older. This is because at 64 years old and above, these adults may still engage in learning for various personal or professional reasons. Those below 15 years of age are excluded because ordinarily, they attend full-time formal schooling and are assumed not to be engaged in lifelong learning yet; and
- In terms of lifelong learning, the population is segregated into those within and outside the labour force. Those within the labour force include employed and unemployed persons, whilst those outside the labour force are subdivided into three categories, i.e. retirees, homemakers and full-time students (Figure D).

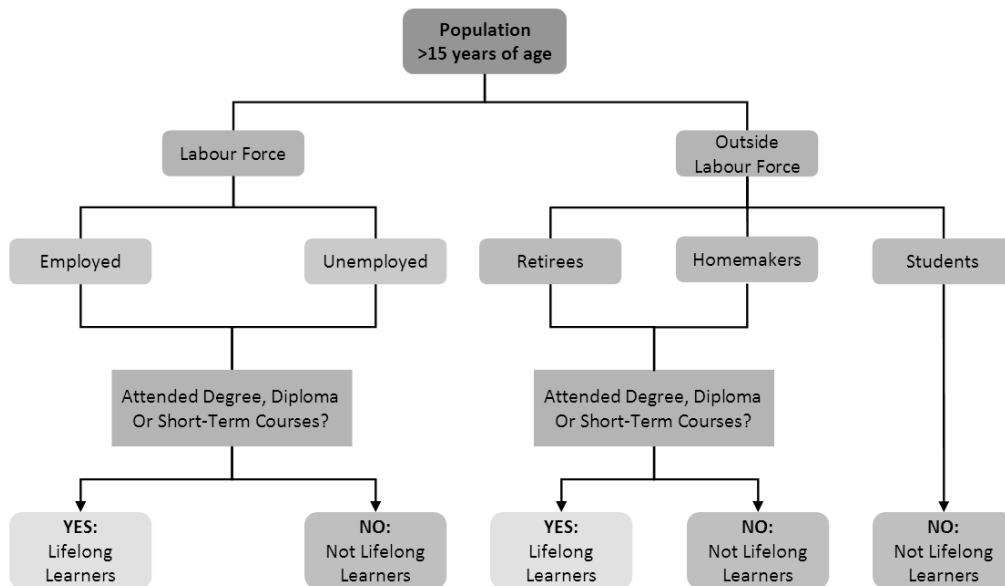


Figure I Distribution of lifelong learners in Malaysia



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Appendix : Figure I : Distribution of lifelong learners in Malaysia

LIST OF ABBREVIATIONS

9MP	: Ninth Malaysia Plan (2006-2010)
8MP	: Eighth Malaysia Plan (2001-2005)
ACD	: Asia Co-operation Dialogue
AeU	: Asia e-University
APEC	: Asia Pacific Economic Cooperation
APEL	: Accreditation of prior experiential learning
CBS	: Credit Bank System
CGPA	: Cumulative grade point average
CMS	: Course management system
COL	: Course On-Line
CPD	: Continuing professional development
EPF	: Employees Provident Fund
EPSA	: e-Learning for the Public Sector
EPU	: Economic Planning Unit
FE	: Flexible Entry
FELCRA	: Federal Land Consolidation and Rehabilitation Authority
GATS	: General Agreement on Trade in Services
GLC	: Government-linked company
HPES	: Hewlett Packard Education Services
HRDF	: Human Resource Development Fund
IAB	: Aminuddin Baki Institute
ICT	: Information and communication technology
IIUM	: International Islamic University Malaysia
IMU	: International Medical University
INCEIF	: International Centre for Education in Islamic Finance
INTAN	: National Institute Of Public Administration
IT	: Information technology
KEMP	: Knowledge-Based Economy Master Plan
LKIM	: Fisheries Development Board of Malaysia
LMS	: Learning management system
MAAI	: Ministry of Agriculture and Agro-based Industry

MARA	: <i>Majlis Amanah Rakyat</i>
MCA	: Malaysian Chinese Association
MCMC	: Malaysian Communication and Multimedia Commission
MCQ	: Multiple choice question
MECD	: Ministry of Entrepreneur and Co-operative Development
MEDIU	: Al-Madinah International University
MHR	: Ministry of Human Resource
MIDT	: Master of Instructional Design and Technology
MKM	: Co-operative College of Malaysia
MMU	: Multimedia University
MOE	: Ministry of Education
MOH	: Ministry of Health
MOHE	: Ministry of Higher Education
MQA	: Malaysian Qualifications Agency
MQF	: Malaysian Qualifications Framework
MQR	: Malaysian Qualifications Registry
MRRD	: Ministry of Rural and Regional Development
MyGfL	: Malaysian Grid for Learning
MYS	: Ministry of Youth and Sports
NeLCC	: National e-Learning Consultative Committee
NEP	: National Education Philosophy
NGO	: Non-governmental organisation
NHEAP	: National Higher Education Action Plan (2007-2010)
NHEF	: National Higher Education Fund
NHESP	: National Higher Education Strategic Plan
NITA	: National Information Technology Agenda
NITC	: National Information Technology Council
ODL	: Open and distance learning
OECD	: Organization for Economic Co-operation and Development
OPP3	: Third Outline Perspective Plan (2001-2010)
OUM	: Open University Malaysia
PID	: Rural internet programme
PLAR	: Prior learning assessment and recognition
PMB	: Pos Malaysia Berhad
PMR	: Lower Secondary Assessment
PSD	: Public Services Department
PSMB	: Human Resource Development Council
PTPTN	: National Higher Education Fund Corporation

QA	: Quality assurance
RPL	: Recognition of prior learning
SDF	: Skills Development Fund
SME	: Small and medium enterprise
SPM	: Malaysian Certificate of Education
STPM	: Malaysian Certificate of Higher Education
UiTM	: MARA Technology University
UKM	: National University of Malaysia
UM	: University of Malaya
UNESCO	: United Nations Educational, Scientific and Cultural Organization
UNIMAS	: Sarawak University of Malaysia
UNITAR	: University Tun Abdul Razak
UNITEN	: Universiti Tenaga Nasional
UPM	: Putra University of Malaysia
UPSR	: Primary School Achievement Test
USM	: Science University of Malaysia
UTM	: Technology University of Malaysia
UTP	: Universiti Teknologi Petronas
UUM	: Northern University of Malaysia
VOISS	: Virtual Online Instructional Support System
WBL	: Work-based learning
WOU	: Wawasan Open University