

OPEN DISTANCE EDUCATION IN MALAYSIA

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INTRODUCTION

Within the context of rapid technological change, shifting market conditions and the emergence of a knowledge-based society, the global education system is now required to provide increased educational opportunities to meet the challenges arising from the change. In Malaysia, the provision for education is the biggest challenge for the government as the nation strives to become a fully industrialized country by the year 2020. Universities are taking up the challenge by changing not only the content of the curriculum and programmes but more importantly, the delivery systems. This has been accepted overwhelmingly by Malaysian and has been answered by developing off-campus programmes - that is open and distance education. This short paper seeks to provide a snapshot picture of open and distance education in Malaysia.

Malaysia

Covering an area of 336,700 sq km, Malaysia consists of two regions; West Malaysia or more commonly called the Malay Peninsular (with 11 states) extending south-south-east from the border of Thailand and East Malaysia with the states of Sabah and Sarawak (East Malaysia) located on the north-western coastal region of the island of Borneo. The Malay Peninsular consists essentially of an east and west coastal plain with central mountain ranges running roughly north to south. The states of Sabah and Sarawak consist in general, an alluvial coastal plain with more hilly rolling country further inland

and mountain ranges in the interior. In Sabah, the central mountain ranges rise more abruptly from the west coast with Malaysia highest peak, Mount Kinabalu (4100 m).

The natural vegetation of Malaysia is tropical rain forest which, on the plains, has been replaced by 4 million acres of rubber plantations, palm oil, paddy fields and cities. In the highlands there is considerable variation in flora (Vijesurier, 1998: 6).

The total population of Malaysia stands at 23.97 million based on the statistical analysis of the year 2000. Of these, 65.1% are Bumiputeras, 26.0% are Chinese and 7.7% are Indians. In Sarawak, the Iban population is 30.1%, while Chinese are 26.7% and Malay are 23.0%. In Sabah, from the total population, Kadazan stands 18.4%, Bajau, 17.3% and Malay, 15.3%. Malay is the national language, English is used commercially and other languages are Chinese, Tamil and Iban dialects. The government is based on parliamentary democracy. The head of the government, the prime minister heads the Cabinet of Ministers (Vijesurier, 1998: 6-7).

From a country dependent on agriculture and primary commodities in the sixties, Malaysia has today become an export-driven economy spurred on by high technology, knowledge-based and capital-intensive industries. The current exchange rate is approximately USD 1.00 = RM3.68. The main exports are manufactured goods (electronic products, chemicals and plastic products, wood products, iron and steel products, metal products, and petroleum products). While the major imports are intermediate goods (thermionic valves and tubes, primary and processed industrial supplies, parts and accessories of capital goods, primary and processed fuel lubricants, and parts and accessories for transport equipment). The total export in 2005 was USD135.3 billion and the total import was USD112.5 billion.

THE EDUCATION SYSTEM

The Government has initiated major educational reforms by formulating new legislations on education to develop world-class quality education and meet the demands and requirements of the new millennium as well as to affirm the position of English as a second language. These were tabled in the Parliament from 1995 to 1997, and cover all levels of education, from pre-school to higher tertiary education. Malaysia is indeed becoming a dynamic and exciting regional centre for educational excellence.

The Malaysian philosophy of education is the guiding light for all our endeavors

"Education in Malaysia is an on-going effort towards further developing the potential of individuals in a holistic and integrated manner, so as to produce individuals who are intellectually, spiritually, emotionally and physically balanced and harmonic, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens who are knowledgeable and competent, who possess high moral standards and who are responsible and capable of achieving 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, 1996)

Our national education system aims to develop a world-class quality education system which will realise the full potential of the individual and fulfill the aspiration of the Malaysian nation.

In Malaysia, basic education consists of at least nine years i.e. six years primary (ages 7-12) and three years lower secondary (ages 13-15). Then there are two years upper secondary (ages 16-17) and two years post-secondary (ages 17-18) before continuing at tertiary level. There are three types of primary schools: the national schools using Malay, the national-type Chinese schools using Chinese language, and the national-type Tamil school

using Tamil language as the medium of instruction. For all secondary to tertiary education, the language of instruction is Malay.

In upper secondary education, the students are streamed into academic, technical or vocational schools. At the post-secondary level, students have several options; they can choose to enter matriculation or sixth form classes, enter teacher training colleges, apply for certificate/diploma programs in polytechnics/universities, or they may join the workforce (Saleh, 1998: 46).

Higher education provides opportunities for academic pursuit and the advancement of knowledge. It aims at producing professionals to meet national manpower needs and requirements besides providing facilities for research and consultancy services. Institutes of higher education include universities, colleges and polytechnics. University and college education is co-ordinated and monitored by the Higher Education Division, while the administration of polytechnics falls under the purview of the Technical and Vocational Division, Ministry of Higher Education. In Malaysia there are 18 public universities, 27 private universities and university colleges, and 533 registered private colleges providing undergraduate and postgraduate studies (Ministry of Higher Education portal, 2006).

HISTORY OF ODE IN MALAYSIA

In recent years, open distance education in Malaysia has seen rapid growth due to the government attempt in establishing information-rich society and a knowledge-based economy. The advancement of networking technologies and increasing bandwidth has enabled ODE courses and programs to continue to grow in local higher education centers.

Distance education in Malaysia started off with correspondence schools to cater for students who could not gain entry into government funded schools. Private institutions like Stanford College, Raffles College, Malaysian

Correspondence College, Adabi College and Federal College offered correspondence courses. Some of these continue to operate to this day.

All of Malaysia 11 public universities except USM and UiTM, first began offering ODE programmes in or after 1995 in response to a directive from the Ministry of Education to increase access to higher education through distance learning. Distance learning in the Malaysian public universities was first initiated by University Science Malaysia (USM) in 1971 in the form of correspondence courses and offered: Bachelor of Arts degree in geography, history and literature; Bachelor of Social Science degrees in anthropology, sociology, economics and political science; and Bachelor of Science degrees in maths, biology, chemistry and physics. Distance learning became more prominent after 1990 when the Mara Institute of Technology or (UiTM) penetrated the distance market with its first distance learning program which included diploma programmes in Business Administration, and Public Administration. This was followed by the National University of Malaysia (UKM) in 1993, the University of Malaya (UM) and in 1994, University Putra Malaysia. This was followed by the Northern University of Malaysia (UUM) in 1995, Universiti Telekom (UNITELE) in 1997, and finally University Tun Abdul Razak (UNITAR) in 1998. All the above mentioned universities started their distance learning programs by extending the on-campus programs except for UNITAR which created its programs purely for the distance or virtual learning mode.

Public universities have spent a substantial sum of money to set up specialized centers to cater for distance learning programs such as the Institute for Distance Education and Learning (IDEAL) by UPM and the Extension Education Center (PPL) by ITM. The number of public universities that offer distance education programs has increased from two (1990) to seven today. The number of students has increased from a few thousand to 17,756 in 1996 and 20,000 in 2000. Since then, the programs have expanded rapidly and it is intended that under the Eighth Malaysia Plan (2001 and 2005) Malaysia will have 60,000 distance learners yearly.

Dedicated units or centres were set up to co-ordinate the programs within the Universities. Such centres include the Centre for Distance Education (CDE) at USM; the Institute for Distance Education and Learning (IDEAL) at UPM; the Centre for Instructional Resources Distance Education (CIRDE), at UUM, the Centre for Innovations in Education (CiE) with a Distance Learning Unit at UNETELE, the Centre for Continuing Education at ITM, and the Centre for External Degree Programs with a Distance Learning Unit (CDL) at UM.

The demand for higher education among the adult working population for self-development and upgrading of skills increased tremendously in the country. Due to the demand, many universities and institutions tried to adopt and implement distance education either 'crafted' in their conventional faculties, or through the establishment of a special unit or institution under the universities.

To further enhance the visibility of distance education in Malaysia, a group of 11 public universities deliberated on the concept of setting up open and distance education. Arising from this, a consortium called METEOR (Multimedia Technology Enhancement Operations Sdn Bhd) was set up by the eleven public universities in 1998. In 1999, METEOR submitted a proposal to set up an Open University. The proposal was approved and UNITEM (Universiti Terbuka Malaysia) was established in 2001. UNITEM was registered in May 2001 and its first intake of students was in August 2001. Subsequently, UNITEM assumed a new name: Open University Malaysia (OUM).

RATIONALE FOR ODE

The higher education system is a major catalyst in generating a knowledgeable, skilled, and competent human resource to fulfill the needs and vision of the nation. The Malaysian government has always perceived the higher education system as significant in nation building to produce

intellectuals needed by the government. In the 9th Malaysian Plan, 200 billion Malaysian Ringgit will primarily be spent on education and training (20.6 %), transport (15.9%), energy and public utilities (10%), commerce and industry (10%) and defence (7.6%). The increased spending on education reflects the seriousness of the government in education and training to develop Malaysia human capital towards a knowledge-based economy. Public tertiary institutions have been urged by the government to promote and conduct more distance learning courses to increase productivity and employability of citizens.

The total enrolment at public and private tertiary education institutions (universities, university colleges, polytechnics and community colleges) is expected to grow from 731,698 in 2005 to 1,326,340 in 2010. The target is to achieve a 40% participation of the age group of 17-23 years. At the postgraduate level, enrolment for master and doctor of philosophy (PhD) programmes will account for 16.2% of admissions to public institutions and 3.8% at private institutions.

The Malaysian government has embarked on a process of curtailing student flows abroad while positioning itself as a regional higher education provider well prior to the economic crisis. This resulted in cancellation of 20,000 students on government-sponsored scholarships (Scott, 1998). Educating students overseas is expensive and the 1997 economic crisis highlighted the economic burden and resulted in an emphasis on home-grown programmes and transnational programmes conducted locally (Suleiman, 2002). These attempts are primarily meant to expand the access to local institutions and reduce the huge amounts of foreign currency that the students studying abroad have to pay.

At the same time, the Malaysian government has been sponsoring many scholarship holders in universities and colleges abroad especially in UK, US, Australia, Canada and New Zealand (Lee, 2001). There are about 95,000 students studying abroad (NST, 2002). The 95,000 Malaysians studying

abroad spent some RM6 billion in 2002 compared with RM7 billion spent by 115,000 students overseas in 1998 (NST, 2002). The demand remains, however, higher than the offer: in 2005, there were an estimated 11,900 government-sponsored students enrolled in institutions of higher education abroad (Malaysia, 2005).

One of the recommendations included in the formulation of 9th Malaysia plan to create excellence in the education system was providing opportunity to those who did not have the chance to pursue higher education earlier on, by increasing the number of community colleges throughout the country or distance education program and the wider use of Internet for higher education.

Expanding the access to higher education locally is a good idea to not worsen the current economic slowdown and restrict the outflow of local currency. The local higher education which is cheaper will ease the burden of the parents who have to make sacrifices to send their children abroad. The economic slowdown has increased the popularity of distance learning where it serves as a tool to update and upgrade knowledge and skills, thus meeting market demands. Distance learning also plays an important role in promoting lifelong learning. In Malaysia lifelong learning is associated with employability and productivity. Malaysia believes that it must leverage on ICT to further promote and provide lifelong learning opportunities in the country.

By widening access to higher education, the distance mode provides opportunity to all those who are unable to pursue their higher education through traditional system. It is argued that the distance educational system has an upper hand to traditional education system because it allows educationists to reach a wider student audience, meet the needs of students who are unable to attend classes, link students from different social, cultural and experiential background, allow self-paced learning, provide innovative and flexible cost-effective education and provide learning materials that are self-explanatory, user friendly and appropriate for target group.

Education for adults was included in the 7th five-year plan by the Malaysian government with a view to improve accessibility to education and to increase participation at all levels through expansion of physical facilities and distance learning programmes. The second chance education was introduced in the country so as to provide opportunities for advanced education and career enrichment for adults who missed these opportunities through initial education system or due to constraint of working schedule. Public Universities in Malaysia have spent a substantial sum of money to set up specialized centers of distance education and at present, eleven educational institutions in Malaysia are offering the distance education programmes besides other private institutions and non-governmental organizations.

Education plays a crucial role in developing human capital and becomes a critical success factor in shifting the economy towards a k-based economy. Education increases the knowledge, skills and competencies of individual workers, allowing them to accomplish particular tasks better and to adapt more easily to changing job requirements. In the words of the former Prime Minister:

Human resource development is the foundation to the success of any nation. With an educated and trained human resource, a nation could overcome any challenges and obstacles boldly. The education and training sector is pertinent towards providing the nation with knowledgeable and skilled manpower. It has been proven that a nation could develop and progress if it has a highly knowledgeable and skilled human resource (Dr. Mahathir Bin Mohamad, 25 September 2001).

Open and distance education serves as a very crucial platform to increase knowledge among the Malaysian workforce. There is a great demand for adult education among the working population. Malaysia has a good communication infrastructure for distance education in terms of print materials, radio and television broadcasts, telephone, postal services and telecommunications.

There are several forces driving the development of open and distance education in Malaysia which includes (Boucher, 2000 as cited in Nawawi et al, 2006):

- Demand for a skilled workforce and professionals who are conversant with information technology issues and uses;
- Flexibility and suitability of Information and Communications to educational applications, together with the continuing decrease in the cost of hardware. People in Malaysia are seeking opportunities for lifelong learning, and with diverse personal circumstances, they require flexible access to learning opportunities and venues;
- The realization that the quality of the learning experience can be enhanced by applying learning technologies; and
- The demand from isolated learners for more equitable educational access and services.

Open and distance education, which is regarded as more flexible and cost effective, has increasingly been acknowledged as a desirable alternative. Open and distance education has not only been valuable for the local population but also for attracting foreign students whose fees boost the economy. Open and distance education also provides the basis of hope that the country can achieve its goal of democratizing higher education, making it accessible to the majority of the people.

Open and distance education has a major impact on thinking and practice throughout the whole educational system, regarding such critical matters as how students learn, how they can best be taught, and how educational resources might more efficiently be organized to deliver the instruction that is needed. Open and distance education is closely linked to innovation in information and communication technologies, to the identification of new learning needs and new ideas about how information may be accessed and applied in the information society. With open and distance education there is greater specialization of labour and investment in capital to replace certain

human activities. It is this different form of structure that makes the technology effective and leads to lowering costs while increasing access (UNESCO, 2002).

THE ROLE AND NATURE OF ODL

a. Accepted concepts and definitions of ODL in the country

Open or distance education are terms used to describe alternatives to traditional taught courses where the teacher and student interact directly through face-to-face contact (Howarth et al., 2000 as cited in Reviere, 2002). The basic features of distance education are: separation of learner and teacher in space and time; it uses technical media in the presentation of concepts and processes; as much as possible it provides means of two-way communication; it provides for possible face-to-face interaction among learners and teachers; and it adopts the "industrial" approach to education (Librero, 2004). With the new developments in ICT advancement and in methods of delivering education, the Open component was developed hence the creation of the Open and Distance Learning (ODL). Distance refers to remote operation or the separation of teacher and student. The term Open refers to the accessibility of the material being taught to those not otherwise able to acquire it. It is also characterized as learner-centered, flexible, and provides opportunities to the learner to learn at any time, anywhere, and at his/her own pace. In a learner-centered system, the learner takes responsibility for his/her learning. Rowntree (1992), as cited in Muthusmay and Fadzil (n.d) suggests that three main constructs have to be looked into determining the openness in open learning. They are:

1. Who? The ease with which someone can become a learner without restriction of age, qualification, wealth, job, etc;
2. What? The extent to which a learner is free to decide the contents, objectives and assessment methods of the program; and

3. How? The extent to which a learner is free to decide the pace of learning, the teaching and learning strategies used and the manner of collaboration with peers and experts;

The term open and distance learning reflects both the fact that all or most of the teaching is conducted by someone removed in time and space from the learner, and that the mission aims to include greater dimensions of openness and flexibility, whether in terms of access, curriculum or other elements of structure (UNESCO, 2002).

b. Institution that provide ODL from elementary to higher education

Public universities have spent a substantial sum to set up specialized centers to cater for distance learning programs such as the Institute for Distance Education and Learning (IDEAL) by UPM and the Extension Education Center (PPL) by ITM. The number of public universities that offer distance education programs has increased from two (1990) to seven today. The number of students has increased from a few thousand to 17,756 in 1996 and 20,000 in 2000. Since then, the programs have expanded rapidly and it is intended that under the Eighth Malaysia Plan (2001 and 2005) Malaysia will have 60,000 distance learners yearly. Currently, the list of public and private Institutions offering distance education programmes are:

1. Universiti Sains Malaysia (USM) ~ 1971
2. Universiti Teknologi Mara (UiTM) ~ 1990
3. Universiti Kebangsaan Malaysia (UKM) ~ 1993
4. Universiti Malaya (UM) ~ 1994
5. Universiti Putra Malaysia (UPM) ~ 1995
6. Universiti Utara Malaysia (UUM) ~ 1997
7. Universiti Multimedia (MMU) ~ 1999
8. Universiti Tun Abdul Razak (UNITAR) ~ 1998
9. Universiti Islam Antarabangsa (UIAM) ~ 2000
10. Universiti Terbuka Malaysia (OUM) ~ 2000

With the exception of OUM, most of the Institutions mentioned above are dual-mode Institutions. In other words, these institutions offer both full time study and distance education. OUM is the only institution that focuses on open and distance learning (Ahmad & Fadzil, 2002).

Institutions with open and distance learning programmes enroll students from all the 14 states of Malaysia and a good number from other countries including: Indonesia, Thailand, Singapore, China, and Korea. The types of programs vary from certificates to post-graduate degrees with a majority of institutions offering first degrees. However, the first distance learning program started by offering first degrees in a variety of disciplines such as the arts, sciences, engineering, education and management (USM, 1999).

Diplomas are being offered in Public Administration, Banking, Business Studies and Accountancy (ITM), and Business Management (UUM). A keen contender of USM at the first-degree program is UPM, which is offering 11 first-degree programs ranging from Computer Science, Arts, Education, Sciences, Science with Education and Communications. Other first degrees include Engineering, Computer Science, Information Technology, Malay Studies, Economics, Business Administration and Accountancy at UM, Business Management at UUM, and Business Administration and Information Technology at UNITAR. The following programs are offered at the Master level: Distance Education, Biological Sciences, Social Sciences, Human Sciences at USM; Human Resource Development and Corporate Communication at UPM; Information and Multimedia Technology, Information Technology Management and Business Administration at UNITAR. UKM has developed a unique post-graduate distance education of its own in Medical Sciences specialising in Family Medicine.

First intake of UM in ODE programmes in UM started with three programs, namely the Bachelor in Engineering, Bachelor and Certificate in Computer Science. Students numbered about 150 and in 1999 another 150 students were enrolled. By the end of 1998, there were 644 students enrolled in ODE programmes. Video-conferencing was used to deliver lectures and tutorials.

This was dropped for certain programs in favour of other interactive modes such as face-to-face and video-recorded lectures due to cost constraints and the realisation that the interactive content tended to be rather minimal in a lecture situation. The Centre for Distance Learning (CDL) had the responsibility to run video-conferencing and to record lectures.

The programs offered through distance learning in CDL, UM were:

1. Bachelor of Engineering in:

- Civil Engineering
- Electrical Engineering
- Mechanical Engineering
- Bachelor in Computer Science
- Bachelor in Information Technology
- Bachelor in Malay Studies
- Bachelor in Economics
- Bachelor in Business Administration
- Bachelor in Accountancy

The School of Distance Education, Universiti Sains Malaysia (SDE, USM) to date has produced over 8,000 (most recent figure - 8,391) graduates. The delivery system has evolved from basic correspondence education packages to supported distance education approach. Since 1988 information technology has played a major role supporting the print materials beside face-to-face contact at the 20 Regional Centres and mandatory intensive course for 2-4 weeks at the main campus and branch campus. Audio teleconferencing was introduced in 1988, and was upgraded to audio graphic teleconferencing in 1991. Full-motion video conferencing was integrated into the system in 1995, virtual library was launched in 1997, and on-line education was launched in 1999 (Saleh, 1997; 1999a; 1999b).

Distance learning in UiTM was launched in 1990 with the objective of providing working adults with academic opportunities to improve and enhance their academic qualifications, knowledge and work efficiency.

Diplomas in Public Administration, Banking, Business Studies and Accountancy are currently offered at all of its branch campuses.

UNITAR, the virtual university was started with two undergraduate programmes namely Bachelor of Business Administration (BBA) and Bachelor of Informational Technology. By end of the year 2002, there were three other approved programmes being offered which included Foundation of Management and Bachelor of Management and Bachelor of Information Systems. Within the first year it offered four Masters programme and Phd programme by research (Masters in Business Administration, Masters in Information technology Management, Masters of Science). It also targeted students who failed to gain places on full-time courses, and provides access to students in employment. By 2002, UNITAR had a total number of 6,141 students where undergraduates represented the vast majority (94%), postgraduates (4%) and preparatory students (2%). UNITAR fulfils a niche market - tertiary education provided to adult learners as it reduces the need to be present on campus. The virtual university learning and instructional model offered by UNITAR is designed around the use of interactive multimedia courseware and an intranet designed for faculty use in teaching and learning. Both asynchronous and synchronous modes of communication are used. UNITAR has developed the web-based courseware which can be viewed both offline and online using any browser. Until 2003, UNITAR has developed more than 300 titles of courseware in CD format and more than 30 titles of web-based courseware for university level courses both in-home and locally. Virtual Online Instructional Support System (VOISS) is the main delivery system that contains about ten different functions, such as online tutorials, forums, emails, bulletin boards and announcements. The most utilized functions are the online tutorials, forums and emails.

IDEAL (UPM) runs a successful and expanding distance learning programme and currently is offering Master and Bachelor degree programmes to ten thousand and one hundred students (554 Masters and 9556 Bachelors students). The enrollment of students has increased considerably. IDEAL distance learners are adults, the majority (78%) above 30 years of age and

with an average age of 34 years and 22% above 40 years old. Almost all the students (98 %) are working in the private sector, the government and for NGOs. During the initial stage of the distance program, the majority of the students were teachers from primary and secondary school in line with the government policy to upgrade non-graduate teachers. However, recently the distance program has attracted a working population from the private, governments and non-government organizations. They include policemen, army, journalists, clerks, managers, nurses, and even the housewives and pensioners. At UPM, most of the DE course materials come in the form of printed modules. However, courses conducted online, require students to use the web to access course materials and emails to interact with their respective lecturers or tutors or other students.

With the establishment of OUM, distance education in Malaysia is set to grow at an even faster pace. For OUM, which does not have on campus students, the curriculum has been specially developed so that it is suitable for delivery through distance education. For the first intake, the following four courses were offered:

1. Certificate in Foundation Studies
2. Diploma in Management
3. Bachelor in Management and
4. Bachelor in Information Technology

Three additional new courses were added to the list of courses for the second intake. These are Diploma in Information Technology, Bachelor in Business Administration and one double major course which is Bachelor in Information Technology and Management. In the middle of 2001, the following six new courses were developed under the Graduate Program For Teachers:

1. Bachelor in Education (TESL)
2. Bachelor in Education (Mathematics)
3. Bachelor in Education (Science)
4. Bachelor in Education (Mechanical Engineering)

5. Bachelor in Education (Civil Engineering)
6. Bachelor in Education (Electrical Engineering)

Currently OUM is also offering Masters programmes which include:

1. Master of Business Administration
2. Master of Management
3. Master of Information Science (Competitive Intelligence)
4. Master of Information Technology
5. Master of Multimedia Communication
6. Master of Environmental Science
7. Master of Education
8. Master of Science (Business Administration)
9. Master of Science (Engineering)

Doctoral programmes offered by OUM are:

1. Doctor of Philosophy (Business Administration)
2. Doctor of Philosophy (Information Technology)
3. Doctor of Philosophy (Education)
4. Doctor of Philosophy (Engineering)

As for the delivery system, a combination of one or more of the following has been adopted:

1. Face to face,
2. Videoconferencing,
3. Online learning and discussion,
4. Radio conferencing, and
5. Self learning packages.

For online learning and discussion, OUM uses the myLMS delivery platform which is wholly created by OUM. When it comes to learning materials and

delivery mechanism, OUM believes in the concept of multimode. Thus OUM students enjoy both the conventional and modern way of learning.

ODL POLICIES

a. Institutional Level

In line with a rapidly changing learning scenario, affected mainly by globalization and far reaching innovations in information and communication technology (ICT), the Malaysian Government has embarked on an initiative to involve the private sector vigorously as providers of educational services. This become very visible since the mid-1990s, during which a number of legislative edicts were introduced propelling the growth of private sector education.

While responding to the changing global environment, the demands for more places at the university level meant that educational reforms must be initiated and thought through by our policy makers. Thus, new legislations, particularly in the realm of higher education which were put in place; included the following:

1. Education Act (Amendment), 1996;
2. National Accreditation Act, 1996;
3. National Council of Higher Education Act, 1996;
4. Private Higher Educational Institutions Act, 1996;
5. Universities and Universities Colleges Act (Amendment), 1996; and
6. National Higher Education Act, 1997.

The government is aware that there have to be stringent measures to ensure that the quality of higher education is not compromised by its rapid expansion in a number of forms, one of them being ODE. Through legislation, the LAN (Lembaga Akreditasi Negara) or National Accreditation Board was established in 1996 to formulate policies on the standard and quality control of courses of study.

The board was also empowered to monitor, review and oversee the standard and quality of courses of study in all institutions of higher learning for accreditations of certificates, diplomas and degrees.

b. Programme Level

Any programme offered through distance learning mode must follow the same structure as the equivalent on-campus programme. A draft curriculum is usually prepared by a select committee made up of internal experts. The curriculum development committee discusses thoroughly the draft before getting approval from the board. The proposal is sent to the academic planning committee, then to the senate for scrutiny and approval. This is normal practice in the public universities offering D.E programmes. However, unlike the case in some other countries (e.g. Brazil), the distance-learning version of a previously approved campus-based course is not treated as a completely new programme, requiring separate approval from the LAN. The "minimum standards" set by the LAN are equally valid for both conventional and distance-learning versions of the same programme.

In the case of a new programme, whether to be campus or distance delivered, the typical procedure is as follows. The university senate will form a board of studies where the members of the board will comprise representatives from the private and government agencies, professional bodies, individuals who are experts in the respective field, librarian to go through the proposal together with the internal experts and the university top management. The duty of this board of studies is to study the programme thoroughly and make recommendation, in a complete report to the senate for approval. The senate will ask for approval from the Ministry of Education for implementation and funding.

The Board of Studies normally comprises the following: the Vice Chancellor as Chairman, the Deputy Vice Chancellor as head of academic, all deans concerned and representatives from: the Ministry of Education, department

academic board, professional bodies and the private sector. Apart from them, other experts such as librarian and registrar are included.

The Board of Studies normally uses the systems approach as follows:

- Needs analysis
- Goals and Objectives
- Course Curriculum Development
 - aims, goals and objectives
 - selecting media
 - resources
 - assessment
- Writing the instructional material
- Evaluation
- Revision

There are two steps involved in the curriculum development i.e. the program and the course curriculum, which is part of the program development. Then, the writers will write the instructional materials based on the approved course curriculum. The case of University Sains Malaysia (USM) may serve to illustrate the typical details (Saleh, 2000).

"The USM senate is very concerned with the quality of the graduates who go through the distance learning programme. Therefore, since the start of DE activities in 1971, it has been the policy of the university that only those programmes that are already offered on-campus can be considered to be offered through the distance learning mode (this is now standard practice in all public and accredited private universities). Even then, it must go through rigorous study by the internal experts and the school board first before the board of studies make recommendations to the senate for approval. Then, the proposal is sent to the Ministry of Education for the final approval before offering.

Each new programme must go through this strict procedure thoroughly even though the programme follows the same curriculum and the same or equivalent course structure as on-campus courses."

In the case of OUM, most of the above processes apply and more. It not only consider feedback from experienced academics from other institutions but also undergoes the process of approval by Department of Private Education of Ministry of Higher Education and LAN. This process involves a proper documentation and review by, independent panel of academics (mostly from public universities and appointed by LAN). This panel evaluates the programmes based on documentation, visitations and interviews of students and lecturers. About 6 months after the implementation, the individual panel of evaluators appointed by LAN evaluates how the programmes are being conducted. At OUM the requirements are met through a set of interconnected processes conducted by Quality Management Unit under the centre of quality management and research innovation. It has a documented set of OUM policies and procedures that fulfills all of the applicable ISO 9001:2000 requirements.

c. Entry Qualifications

With regard to entrance requirements, all institutions of higher learning in Malaysia require entry requirement such level, Diploma or an equivalent qualification. Most institutions do provide credit transfers for holders of recognized and related Diploma qualifications.

In CDL (UM) the entrance qualification for distance learning students are similar to normal on-campus students and are outlined in the table below.

Table 3: Entrance Qualification

Program	Basic Qualification	Special Qualifications (in lieu of basic qualifications)
Beng, BCSc, BIT, BEcon, BBA, BAcc	Credits and passes in Malaysian Higher School Certificate (equivalent to GCE Levels) and Malaysian Certificate of Education (equivalent to GCE Levels)	Relevant Diploma from approved institutions/work experience in relevant fields
Bachelor in Malay Studies (BMS)	Credits and passes in Malaysian Higher School Certificate (equivalent to GCE A Levels) and Malaysian Certificate of Education (equivalent to GCE Levels)	Relevant Diploma from approved institutions/Teaching and certificate/work experience in relevant fields

At Open University Malaysia, however, the entrance requirement is slightly different so as to meet the desire to democratize education. Apart from academic qualifications, OUM also practices the concept of recognition of prior learning (RPL). The table below illustrates a various possible ways in which the student can gain access to tertiary education at OUM.

Table 4: Entry Requirements using the RPL Approach

Qualification	Courses
2 credits in any subjects at SPM (O Level)	Diploma
2 credits in any subjects at SPM (O Level) plus 3 years working experience	Degree
1 principle and 2 subsidiaries at STPM (A Level)	Degree
Basic Degree with Honors Master	Degree
Basic Degree without Honors but with working experience	Master

OUM also introduced open entry where the applicants need to only fulfill the minimum requirements. Open entry refers to non-restrictive entry requirements for a degree programme, applicable to adults who possess learning experience which can be assessed and matched against the learning outcomes of an academic course.

Undergraduate Programme

1. Be at least 21 years old on 1 January 2006; and
2. Possess PMR or equivalent.

Note: PMR is Penilaian Menengah Rendah

Masters Programme

1. Be at least 35 years old on 1 January 2006; and
2. Possess STPM or equivalent.

Note: STPM is Sijil Tinggi Pelajaran Malaysia

The candidates have to undergo Prior Learning Assessment. This assessment requires enrolling students to either sit for a test or show proof of their experiences by providing a portfolio. The portfolio will enable OUM to determine whether candidates have the necessary skills and knowledge to immediate enrollment into the Degree or Masters Programme. The assessment will be carried out through interviews with our panel of academic staff who are subject-matter experts in various fields of studies. In addition to the portfolio, candidates may be required to sit for a challenge test. The results from the assessment will decide whether candidates will be enrolled directly into the Degree / Masters Programme or need to undergo a preparatory or bridging course. As for candidates requiring assistance in the preparation of portfolio, classes will be held at our learning centres throughout the country. Candidates will be admitted into the programmes of choice upon successful completion of the Preparatory or Bridging Course whichever is appropriate.

QUALITY ASSURANCE

Some of the areas where quality assurance is often carried out are listed below:

1. Educational policy, planning and research
2. Human resource development
3. Management and administration of internal processes
4. Budget and financing
5. Learner needs, learning support, assessment and communication
6. Design of study programmes, curriculum development and course design, and learning media. (OUM, 2004)

In the field of ODL, quality education means that learners receive learning materials and instruction that is of a high standard. It also means that procedures for implementing processes that are inherent in an educational

system, such as selection of instructors, evaluation criteria, examinations and administration are transparent and clear to all personnel. At IDEAL (UPM), the learning modules are largely developed internally. IDEAL (UPM) evaluates its distance learning through various committees i.e. Module Evaluation Committee, Examination Committee, Head of the Programme Committee and Research and Development. For external evaluation, IDEAL is subjected to ISO 9000, which supports total quality, administration and management.

Malaysian Multimedia University (MMU) which offers internet-based Degrees implement various activities to ensure the quality assurance of their distance learning programmes. A curriculum committee is set up at the Faculty and Centre level to prepare the curriculum, which will be vetted by an external examiner. Then, it will be sent to the university level curriculum committee and Senate for final approval. Finally, the curriculum will be forwarded to LAN for approval. The faculty and centre will appoint the writers or subject matter experts to write the course content. After completion, the content will be reviewed by the external reviewer. After revising the content, it will be submitted to the faculty coordinator for final check-up before it is submitted to the Design and Development Team.

At the MMU, The course delivery is via a university owned LMS (Learner Management System), which is administered by a qualified team of system engineers, and computer technicians. Students can contact the technician if they face technical problems, the administration officer if they have problems (like registration etc.) and the program coordinator or their respective lecturers for any academic problems. Students are given a hotline number to call or sms. The courses are 100% delivered online through various means: learning objects, word/pdf lecture notes, PowerPoint slides, and video-streaming. Online discussions are held every week using either the forum or CHAT facility. Students meet lecturers only 12 hours per semester, (6 hours each time during weekends) at MMU campuses and via satellite system (for Sabah, Sarawak and Penang). The course delivery is monitored by the

administration manager and the programme coordinator. The administration manager and programme coordinator has to submit a report to the Dean of the Faculties, and the Head of the Centre, which will be reported by them to the Vice President of MMU (Academic Services).

There is formative and summative assessment for each course in every semester which will be conducted among students and lecturers on course content, delivery, and administration & student services. A report will be given to the Deans and Head, as well as the Vice-President of MMU (Academic Services).

In SDE (USM) from 1983 the course development procedures followed the house style in self-instructional modular form that suitable for adult learners studying at a distance. Therefore the writers (normally the expert in those particular field and experienced face-to-face lecturers) will be expected to work with a team of experts identified by the school. The course team normally comprises instructional designer, media and subject experts, and the writer (who will become the course manager at least for the first year of the course offering), and is led by the deputy director (production) and also external assessors.

In SDE (USM) the academic quality is also observed in terms of the course evaluation. At SDE the practicals and assignments are conducted in regional centers. Quality for distance courses is maintained to the equivalence of on-campus courses. Therefore, the practical sessions are conducted and supervised by qualified part-time tutors appointed by the university and reports must be submitted at the end of each practical session. The rules and procedures of the final examination are strictly followed. And the final examination is conducted under the supervision of the examination unit of the state education department, which also conducts examinations for the University of London external degree under Malaysian Examination Council. The rules and regulations for the examination are printed in a guidebook, which is provided to every new-registered student.

UNITAR strongly believes in the philosophy that learning should be a continuous and lifelong process, motivated by the desire to seek for knowledge and competence. Students should be allowed to choose the most suitable mode of learning and be able to learn in creative, innovative yet effective manner. Keeping that in mind, UNITAR provides students with flexible and customized quality education with an affordable price. The lecture delivery is digitized and the materials are put in multimedia format (CD or web). UNITAR also provides tutorials which are in three forms (face-to-face, online and forum). For the purpose of monitoring student achievement in different centers, UNITAR has established the Department of Academic Affiliation and Collaboration which deals with the UNITAR appointed coordinators in each centre.

OUM learning materials are developed principally in collaboration with Subject Matter Experts (SMEs) from Malaysian public and private universities and are developed in-house by the Centre for Instructional Design and Technology (CIDT). The main functions of this centre are:

- To develop printed modules;
- To develop web based modules;
- To develop other forms of learning materials such as CD-ROM, audio and video tape, Tutorials;
- Coordinate video conferencing.

As for the delivery system, a combination one or more of the following has been adopted:

1. Face to face,
2. Videoconferencing,
3. Online learning and discussion,
4. Radio conferencing, and
5. Self learning packages.

The following support systems and services have been put in place to strategise the internal processes so that OUM learners will be engaged in an enriching and rewarding learning experience throughout their study years:

1. Learner Services Centre
2. Digital Library
3. Learning Management System
4. Integrated Student Management System
5. Distributed Learning Centres
6. ICT Services, and
7. Academic Counseling Services

For online learning and discussions, OUM uses the myLMS delivery platform. When it comes to learning materials and delivery mechanism, OUM believes in the concept of multimode. Thus OUM students enjoy both the conventional and modern way of learning. The research and development efforts have been fundamentally directed towards improving institutional performance.

In this regard, our research activities have been focused on areas such as service quality, learners priority and satisfaction, collaborative online learning, module development processes, e-learning readiness, effectiveness of academic counseling, development of e-content and performance of tutors. The results of these researches have been dissected and debated amongst the faculty members; after which they are used to improve our internal processes and operations (Anuwar Ali, 2005).

Quality and innovation goes hand-in-hand at OUM. As such, the Centre for Quality Management and Research & Innovation (CQMRI) was established to serve the following objectives:

- To provide quality assurance services including planning, facilitating and monitoring of OUM quality assurance processes
- To provide pre-award management services for research and innovation including projects dissemination of contractual information

- To gradually grow from a cost centre into a cost recovery centre (OUM portal, 2006)

CQMRI is supported by 2 main units. The Unit for Research & Innovation is responsible for the management and planning of research and innovation activities in the university. The unit aim is to facilitate research in organizational performance management, and disseminate findings to the academic and the wider community. The unit is responsible for preparing OUM to engage and to lead research and innovation, particularly in the ODL field. The research and innovation activities included the following:

- Integrated Research Management;
- Projects and Research;
- International Research Grant;
- Conferences and Seminars;
- Research and Innovation Bulletin;
- Learning Resource Management Systems (LRMS); and
- Integrated Research Management System (i-RMS).

The Unit for Quality Management is responsible for all quality-enhancing initiatives at OUM. Among the key activities conducted by this unit are training for quality management, commissioning and coordinating quality management activities, developing and maintaining electronic database and document control and tracking system, providing expert advice and specialist services (Education and training services, project management for ISO implementation).

FUNDING OF ODL

a. National and Institutional Level

Until the 1980s, the Malaysian government was the main provider of higher education. The government provided complete funding to all public institutions of higher learning through budget allocations as well as lump-sum funding for development and capital expenditures. As consumer advocate, the government kept tuition fees low by heavily subsidizing all public institutions.

Funding for open and distance learning comes from the universities where they are based, although open and distance learning programmes are moving towards self-financing status. Student enrollments at the tertiary level have risen dramatically in the past decade. In 2000, the participation rate of students in higher education stands at 19.6 percent or an estimated total enrollment of 450,000. About 30 percent of the development budget of the Ministry of Education is spent on higher education. The ministry faced budgetary constraints in meeting the ever-increasing demand for higher education. The state had to relinquish its role as the main provider of higher education by encouraging public institutions to seek revenue elsewhere and by pressing the private sector to set up independent higher education institutions. In 1998, five public universities were given greater institutional autonomy to generate revenue through research contracts, consulting, business ventures with industry, and other forms of investment. To cover some of their operating costs, some of these universities have increased tuition fees at the graduate level. Malaysian Ministry of Education does not now differentiate that much between distance-delivered and campus-based versions of the programmes, there is a little concern the institution-level financial provisions that are specific to distance education (Nawawi, 2006).

b. Individual Programmes

MMU allocates about RM 1.5 million per year for its ODE programmes. The programmes currently offered in MMU are Diploma in Information Technology, Bachelor in e-business, Bachelor in Management and Bachelor in Information Technology. It spends about RM 150,000 for content development, delivery and lecturer fee for diploma degree; and RM 250,000 for degree programme. Basically, the total operating cost for course content development for diploma and degree programmes is within RM 10,000-RM 20,000 per subject.

The total expenditure of technical infrastructure including broadband access, satellite access fees and server hosting is RM 41,000-RM 50,000 per year. In USM, students pay very low fees compared to other institutions since it is highly subsidized by government. As mentioned before, due to the move by the Ministry of Education to corporatize all the public universities, the newer (since 1995) public universities involved in distance education operate on a business based on cost recovery and self sufficiency. USM meanwhile is still an alternative mode for adult learners and highly subsidized by the government (up to about 80%). Fees for diploma programmes at OUM are within the range of RM13,000 - RM20,000 and RM20,000 to RM25,000 for bachelor programmes. The fees for master programmes offered in OUM are as following:

- Master of Management : RM 17,650
- Master of Business Administration : RM 21,490
- Master of Science (Business Administration): RM 12,640
- Master in Education : RM 12,990
- Master of Science (Engineering) : RM 15,640
- Master of Environmental Science : RM 24,290

While for doctoral programmes the fees are as follows:

- Doctor of Philosophy (Business Administration) : RM 20, 010

- Doctor of Philosophy (Education) : RM 23, 450
- Doctor of Philosophy (Engineering) : RM 26,010

Challenges faced by ODL institutions in Malaysia

MMU, as a private institution and with no other source of income, has to ensure that the programmes are marketable and that the targeted number of students registered for each semester in each programme is achieved. Currently, MMU is facing a lack of qualified and experienced instructional designers. So, training is provided to lecturers to be instructional designers themselves and focus on rapid development of courses. The pool of Instructional Designers that MMU has will only review and advice lecturers on the content given.

In the case of UNITAR, it has to face stiffer competition as all the eleven (11) public universities have formed an open university, OUM which offered programmes in almost the same mode as that of UNITAR at almost half the price. There are also a number of other private universities working towards offering on-line education. Recently, the Wawasan Open University was set-up.

With regard to the management of ODE, the lack of expert human resource is seen as major challenge. This is due to lack of interest towards staff training and development for upgrading skills in the teaching and management of ODE programmes. Institutions like OUM provide tutor training on ODL pedagogy to the tutors to familiarise them with OUM teaching and learning modes. These include a two weeks online course followed by one day intensive training and post training support.

Early student retention is also becoming one of the problems faced by ODE institutions in Malaysia. There are increasing cases where students stop their studies halfway. Besides that, there are also students who register but do not attend the classes nor participate in learning activities (discussion forums,

tutorials). The shortage of lecturers / tutors and administrators is also becoming a challenge. As a result, the learning centers find difficulties to monitor and provide good administrative support to the large number of students who are registered in the centres. Some tutors do not participate actively in discussion forums and thus, it affects the interest and motivation of the students. The students who are from working adults groups often face problems that are associated with life-related commitments. They have to juggle between study, work and family. To support students to efficiently manage themselves as open distance learning in OUM, a compulsory course: Learning skills for Open Distance Learning has been made compulsory for all students.

Future plans for ODE in Malaysia

Collaboration among public universities and private universities is seen as an important means to enrich open distance education in terms of course materials, technology, varied programmes, research and development. Currently most ODE institutions in Malaysia are collaborating with several universities overseas.

MMU is planning to improve course content development and delivery with advanced technology applications while continuing to upgrade instructors skills and student services. MMU have franchised its programmes to a few institutions in South Africa, China, and Middle Eastern countries, and it is looking for other partners to deliver their programmes.

OUM International was established to spearhead entry into international markets by forging relationships with various overseas institutions. These smart partnerships contribute towards intellectual and professional variety that further enhances the uniqueness and quality of programmes provided at OUM. Some of the activities include international linkages through various business developments trips to the Middle East, Europe and some Asian countries. In order to bring about mutual benefits, 11 MoUs/MoAs were signed with universities in the region and beyond.

- MoU and MoA with Universitas Budi Luhur, Jakarta
- MoU with Ta'aheel, Dubai
- MoA with Universitas Riau
- MoA with Universitas Padjadjaran
- MoA with University of Science & Technology, Yemen
- MoU with Open University Sudan
- MoU with Istedod Foundation of the President of the Republic of Uzbekistan
- MoU with Open University Bangladesh
- MoU with Korea National Open University
- Mou with Polytechnic LP3I and STIAMI Indonesia (OUM, 2005).

Throughout 2005, OUM welcomed 44 delegations from overseas. OUM aims to forge ties with other established universities and organizations internationally allowing for the effective transfer of knowledge between academia and industry.

Conclusion

To propel Malaysia into the 21st century and to equip the nation for the attainment of its various aspirations and resolution such as Vision 2020, MSC project, increasing access to higher education through ODE is a requirement. Even though the technology can be created and developed, which can be integrated into the open distance education system, based on many ODE institutions experiences, factors such as accessibility, human acceptance cost effectiveness, pedagogical suitability should be considered.

Since the Ministry of Higher Education has allowed other local higher institutions to have their own distance education programs since 1995, there is a tendency to duplicate many of the programs offered. This approach can

lead to inefficient use of resources, both materials and human resources. Perhaps it is high time to review this approach and look forward to a formation of an agency under the Ministry of Education to optimize the whole operation from basic education to postgraduate and continuing education. All these ideas are based on years of experience, and are well in line with Malaysian vision in creating the Multimedia Super Corridor (MSC) for the development of IT in the next century. Lastly, quality assurance of the graduates produced by the local institutions via distance education should not be compromised.