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**Empowering Teachers Through
Capacity Building and Professional Development: A Collaborative Effort**

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Abstract

Teacher training and capacity building are important development imperatives for many nations including Malaysia. With the view to upgrade the teachers' academic qualifications, the Ministry of Education (MOE) takes a serious stand in the issue of teacher quality and upgrading by introducing the Special Degree Programme for Non-Graduate and In-Service Teachers to upgrade their academic qualifications. Open University Malaysia (OUM) has been chosen to be the partner in this programme, under which the university has successfully produced about 11,200 graduate teachers during the last eight years. This paper illustrates the salient features of the OUM-MOE collaboration that was, from the outset, strategically planned on the basic need to achieve quality education for the teaching profession. Thus, all aspects of the delivery system have been tailored towards this important imperative which includes the adoption of OUM's blended pedagogy.

It is also in this context that the leveraging on information and communication technology (ICT), via OUM's Learning Management System (myLMS), e-learning, iRadio and digital library, has become a significant component of the teaching and learning process. This paper will thus highlight how open and distance learning (ODL), through its flexibility and accessibility, has been able to benefit training and education as well as enable MOE to save substantial costs on every teacher trained. To ensure the success of this OUM-MOE collaborative effort, the university gives emphasis on the principal objective of this enterprise so as to instil professionalism, commitment, good ethics and quality awareness in teachers, thus contributing to the enhancement of the country's education sector.

Empowering Teachers Through Capacity Building and Profesional Development: A Collaborative Effort

Professor Emeritus Tan Sri Anuwar Ali

1. Introduction

While Malaysia, since its Independence, has made substantial progress in its education and human capital development, currently the nation's education system is said to have several constraints, among others the curriculum does not encourage the development of soft skills, such as critical, analytical and problem solving skills, which are critical in developing a knowledgeable and competent workforce. Another weakness is the poor command of English among teachers and students. In tackling these issues, we believe that the Ministry's efforts to raise the standards of teaching and learning by enhancing the profesional capabilities of teachers through the "Special Degree Programme for Non-Graduate Teachers" for all its non-graduate school teachers can alleviate these problems over time. Qualified or better teachers can impart their knowledge and experience to produce better students, and this in return will benefit the nation's human capital development.

It is this "Special Degree Programme" that provides the link between the Ministry of Education (MOE) and Open University Malaysia (OUM), under which an effective working partnership has been established to enhance the capacity and professionalism of the teaching profesion. OUM was set up in 2000 with the objective of offering open and distance learning (ODL). Established under a consortium of 11 public or state-owned universities, OUM is indeed a unique experiment as it operates as a private education provider, but owned by the said public universities. With its first intake of only 753 learners in August 2001, it now has a total enrolment of about 90,000 learners. To date, OUM has produced more than 20,000 graduates. The Faculty of Education and Languages (FEL) is one of the most important faculties with the largest number of learners in the university. Altogether OUM has trained about 35,000 in-service teachers, mainly those who are diploma holders, under the OUM-MOE collaboration.

The purpose of this paper is to assess OUM's capability in managing the teacher training programmes and the reasons behind its success as one of the main providers of teacher

training and teacher education in the country. What differentiates OUM from others in the country, both public and private alike, is the sheer number of learners who have enrolled at the university within a very short span of time, particularly in the first eight years of its operations. Equally important is the adoption of OUM's blended mode of learning which allows the OUM-MOE partnership to leverage on information and communication technology (ICT) via the introduction of OUM's Learning Management System (myLMS), e-learning, the digital library, iRadio and mobile learning as well. The learning process is based on the notion of flexibility, accessibility and affordability, which together ensures a winning formula for the OUM-MOE partnership.

2. The Faculty of Education and Languages: Leading the Initiative

The Faculty of Education and Languages (FEL) was set up with the aim of providing open tertiary education to fresh school leavers and working adults through ODL. With the current strength of 16 faculty members, 1,129 tutors in FEL per semester and extensively supported by about 9,730 tutors every semester nationwide, the areas of studies which the faculty covers include education, languages and related social science subjects. The programmes offered by the faculty are:

- Diploma in Early Childhood Education;
- Bachelor of Education with Honours (TESL);
- Bachelor of Education (Educational Administration) with Honours;
- Bachelor of Teaching (Primary Education) with Honours;
- Bachelor of Teaching (Pre-school Education) with Honours;
- Bachelor of English Studies with Honours;
- Master of Instructional Design and Technology;
- Master of Education; and
- Doctor of Philosophy (Education).

The collaboration with MOE constitutes an integral part of the Ministry's plan to ensure that 100% of its secondary and at least 50% of the 200,000 teachers in primary schools will possess the minimum of a Bachelor's degree qualification by 2010. Currently, out of 100,000 secondary teachers, 90% has degree qualification, however, as reported in the Mid-

Term Review of the Ninth Malaysia Plan (2006-2010), for primary school teachers this figure stood at 13.7% in 2007. With RM577.7 million (equivalent to USD164 million) allocated for the Special Degree Programme for Non-Graduate Teachers in the said Plan, it is clear that the upgrading of in-service teachers is thus considered a critical component of modernising the Malaysian educational sector; and will continue to come hand-in-hand with ever-changing global trends and sectoral restructuring of the national economy. While some of the existing primary school teachers have obtained degrees from local universities through distance education, a large number of them remain as non-graduates.

Similar to the United States of America No Child Left Behind Act, whose primary goal is to have a “highly qualified teacher” in every classroom, MOE approach to improve the academic standards of primary schools is by upgrading the academic qualifications of its teachers. The standard of primary schools has been a recurrent issue in Malaysian education; whereby the success rates, academic achievements and communication skills of the pupils have been directly correlated with the quality of the teaching staff. Several studies in the United States have indicate that students’ achievement at schools are somewhat related to teachers’ qualification (Darling-Hammond (2000), Ferguson (1991), and Alexander & Fuller (2005)).

FEL, in collaboration with the Teachers Education Division, MOE, was given the task of training in-service primary school teachers who fall in the second category, namely non-graduates or those who only have diploma level qualification. These teachers will enrol into two specific degree programmes, which are the Bachelor of Teaching (Primary Education) (BTPE) and Bachelor of Teaching (Pre-school Education) (BTPS). These programmes have been specifically designed for primary school teachers to ensure that at graduation, they would have acquired the necessary knowledge and skills in these fields.

The integrated approach of the curricula for both these programmes is designed to increase the learner’s skills and pedagogical verve so as to be able to stimulate learners’ intellectual interests in fourteen major and sixteen minor subjects (see [Appendix 1](#)), thereby giving them a sufficient level of confidence and sense of professionalism in their careers as educationists themselves.

Prior to the upgrading of programmes for primary school teachers, OUM has also had a similar programme for secondary school teachers. The programmes were:

- Bachelor of Education with Honours (TESL);
- Bachelor of Education with Honours (Science);
- Bachelor of Education with Honours (Mathematics);
- Bachelor of Education with Honours (Civil Engineering);
- Bachelor of Education with Honours (Mechanical Engineering); and
- Bachelor of Education with Honours (Electrical Engineering).

The following are current figures for all programmes in the OUM-MOE partnership:

Enrolment:	
a. Bachelor of Teaching (Primary Education) (BTPE)	16,206
b. Bachelor of Teaching (Pre-school Education) (BTPS)	877
c. Bachelor of Education with Honours (TESL)	1,661
d. Bachelor of Education with Honours (Science)	1,906
e. Bachelor of Education with Honours (Mathematics)	2,128
f. Bachelor of Education with Honours (Civil Engineering)	149
g. Bachelor of Education with Honours (Mechanical Engineering)	191
h. Bachelor of Education with Honours (Electrical Engineering)	69
Total enrolment of teachers (primary and secondary)	23,187
Latest batch to enrol in the September 2009 Semester (expected)	5,000
First batch to graduate for BTPE and BTPS (final semester in September 2009)	3,200
Total graduates (estimated)	11,200

**All figures as of September Semester 2009*

3. Leveraging on OUM's Blended Approach

Malaysia has been experiencing an exponential growth in Information Communication Technology (ICT) since the 1990s. Today as reported by the Internet Stats Website, the internet population worldwide has exceeded 1.7 billion netizens, with an average growth rate

of 362% since 2000. Malaysia's internet statistics too are phenomenal; from a few hundred in the early 1990s, the number of netizens had reached 19.9 million in 2009. The use of e-learning through ICT plays a vital role in democratising education in Malaysia. It provides a cost effective means of delivery and creates an educational experience that is more responsive to the learners' needs and aspirations. It is in this context that the establishment of OUM, which embarks on its motto as a "University for All", seems timely. Leveraging on ICT, it excels on making higher education, accessible, flexible and affordable.

From its inception, OUM has adopted a 'blended' approach of learning which employs multi-mode strategies. Heinze & Procter (2004) defined "blended learning" as learning that is facilitated by the effective combination of different modes of delivery, models of teaching and styles of learning, and is based on transparent communication amongst all parties involved with a course. OUM's blended pedagogy combines online learning – using the latest in ICT – with traditional methods of teaching such as face-to-face interaction and classroom-type tutorials.

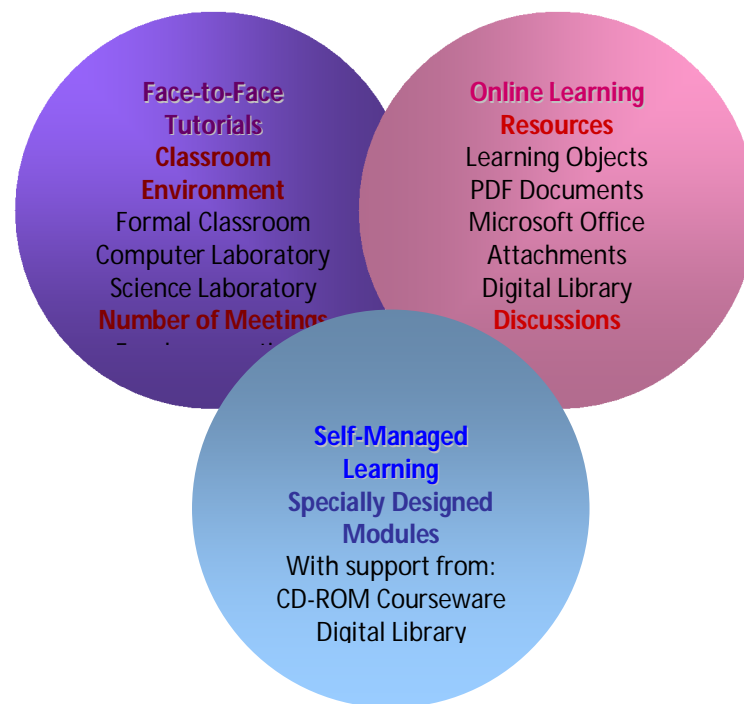
In fact, our experience at OUM has shown that e-learning can further enhance the quality of teaching and learning by providing learner-learner and learner-teacher interactivity, thereby enriching the entire learning environment. In a study by Marlia Puteh and Supyan Hussin (2007) it was noted that "OUM seems to move faster in its e-learning program within six years of its operation. Its uniqueness is not only seen in its dynamic continuous improvement in its myLMS but also the wider spectrum of its students".

An e-learning survey conducted at the university has indicated that importance and satisfaction rating for e-learning has improved significantly over the years. Our learners' readiness in e-learning is rather high; over 50% and in some cases 75% are competent in using the various ICT tools in their learning. Their positive perceptions on the use of ICT in learning has a mean value of 3.2 out of 4 which clearly indicates that learners have embrace ICT in the learning process and are appreciative of the advantages that ICT can bring to their learning (Abdol Latif et.al. 2009).

OUM's blended mode (See Figure 1) is designed to provide learners with the best of both worlds; by giving them a high level of attention and guidance parallel to that of an actual classroom situation, as well as the flexibility and freedom of learning at one's own pace

through printed modules and online learning facilities. This blended pedagogy is a focal point in ODL, aligned to the university's mission of making higher education affordable and accessible to anyone, anywhere; particularly for working adults and teachers – who make up the majority of the learners at OUM.

Figure 1 : Delivery System : Blended Pedagogy



As an important component of the blended mode, OUM's learners are provided with modules for self-managed learning. To further enforce the learning process, they are required to attend tutorial classes (Face to Face component) that are held every fortnight at the nearest learning centre. This means that learners do not have to travel far because they are more than 60 learning centres nationwide to choose from (Figure 2). When not attending classes, they should be actively involved in online forums set up by myLMS, to keep in close contact with their tutors and fellow learners.

Figure 2: Locations of OUM's Learning Centres



Being an ODL institution, OUM have to rely on technologies to further enhance the learning experience of the learners. In a rapidly changing education environment, there is little choice for education providers like OUM but to move forward effectively by adopting new and state-of-the art technologies; of course, taking into consideration the funding available. To date, we have been able to utilise our ICT infrastructure and e-learning very effectively.

While some learners might easily adapt to e-learning, others need more guidance and support. OUM's introductory "Learning Skills for Open and Distance Learners" course has been designed with a special module that aims to provide understanding of e-learning for those new to this approach. By making this course compulsory to all new learners, OUM tries to give them a strong foundation to begin their studies through ODL. Some of the technological innovations that have also been adopted at OUM include iRadio, a well-equipped Digital Library and mobile learning (m-learning).

- **Internet Radio**

iRadio is the nation's first internet radio station that is produced and managed by a university. It is one of the channels used by OUM to disseminate information and academic contents to its listeners. It streams module-related and infotainment programmes that can be accessed 24 hours a day, seven days a week; and even includes podcasts and audio downloads; thus

allowing learners to listen to any of the contents during their own spare time. This on-demand iRadio provides flexibility for learners to study at their own pace.

- **Digital Library**

In terms of resources, to date, OUM's Digital Library houses over 28,000 books, 72,000 e-books, 30,000 e-journals and about 2.4 million e-thesis titles, thus adding value to any of the university's academic programmes. All these resources are available for viewing by any learner with an Internet connection. The library has recently adopted the use of several Web 2.0 tools such as blogs, Facebook and Twitter.

- **Mobile Learning**

Another interesting development is the growth of mobile technologies in Malaysia. According to the Malaysian Communications and Multimedia Commission (2009), the number of mobile phone subscribers has exceeded the country's population. This is not surprising given the rapid decline in costs of mobile handset and subscription plans and thus increasing affordability amongst its citizens. It was also reported that in 2007, Malaysians sent out 50 billion SMS (Short Message Service) and was ranked sixth in the world after China, Philippines, Japan, Indonesia and India.

A study led by the Institute of Quality, Research and Innovation (IQRI) at OUM in late 2008 (Abas, Ch'ng & Mansor, 2009) indicated that 98.91 percent of OUM learners had a mobile phone and 82.84 percent stated that they could imagine themselves learning through a mobile device. OUM, as part of its decision to provide more learning opportunities and to benefit from the proliferation of mobile phones among its learners, offered mobile learning through SMS messages. The objectives of introducing mobile learning at OUM are to enhance the blend of learning modes currently used at OUM; to increase the flexibility of learning; and to encourage and support ubiquitous learning.

- **Mathematics Resources Centre**

The **Mathematics Resources Centre** (MRC) is another of OUM's latest innovation for its learners. It is observed that a good number of learners are having difficulty and are struggling in mathematics, perhaps due to lack of basic mathematics skills and lack of preparation for college mathematics. Thus, it is essential that the university provides additional support and services for learning mathematics, particularly in basic and lower level mathematics. Managed by the Centre for Teaching, Learning and Assessment (CTLA), the main function of MRC is to serve as a learning and resource centre for OUM learners who need help in basic Mathematics and/or would like to review early mathematics topics.

MRC is not meant to replace the online discussion forums, learning modules, and face-to-face tutorials, but will complement them and serve as an alternative for learners when they are unable to get help through regular channels. Thus, MRC will house a variety of resources for learners' use. Resources will include supplemental notes, supplemental practice exercises (PDF), interactive/multimedia tutorials, interactive practice problems, pencasts, and audio/video tutorials. There are also links to useful mathematics websites with external resources.

- **e-Kamus**

Another new initiative is OUM's online multi-lingual dictionary in the form of **e-Kamus** to all newly registered learners from the September 2009 semester. By providing learners with e-Kamus, OUM hopes to promote the understanding and use of the English language and respond to call by the government to increase the level of English proficiency among Malaysians. Comprising multiple dictionaries in English (e.g. Oxford and Collins), Malay and Chinese, terminology-based dictionaries in Science, Computing and Mathematics, as well as a pronunciation function.

e-Kamus is thought to be an excellent teaching and learning tool that will be able to serve as an educational aid for learning English and reference point for Malay spelling and grammar; and to help learners write assignments, search for and read reference materials for their studies. These technologies and innovations represent an important part of OUM's strategy to

reach out to our learners so that there are no barriers to education and educational resources. This is of particular significance to learners and teachers located in remote areas throughout Malaysia. In this regard, we will continue to capitalise on the latest appropriate technology for the benefit of our learners.

4. Adding Value via Strategic Collaboration

Strategic collaboration between an ODL institution and the teaching profession is not new. Internationally, for example Thailand and Indonesia, collaboration efforts with their respective Education Ministries to upgrade the quality of teachers in both countries have shown positive results. In Thailand, through collaboration with Sukhothai Thammathirat Open University, 100% of its teachers now possess degree qualification. In Indonesia, where there were 3 million teachers, more than 360,000 teachers are enrolled at Universitas Terbuka Indonesia, and this represents 75% of UTI total enrolment (Universitas Terbuka Indonesia (2008)).

While studying at OUM, teachers can still continue to serve at their respective schools without having to take an extended period of study leave as often happens if they are to enrol in conventional universities. To a large extent, this provides an avenue for MOE to maximise the utilisation of their school teachers whilst the latter are enrolled as part-time learners in OUM's programmes. The learning mode adopted by OUM allows for the teachers to read course materials either online or in the form of printed modules at their own leisure. While there are no formal or intensive lectures as in the conventional sense, they can interact with their peers and tutors through an online forum (within myLMS) in order to gain more depth and exposure on the content of their courses. This is the interactive component of the learning process which certainly enriches the learning experience of the learner as well as the tutor.

Since tutorial classes are only held fortnightly during weekends, their normal work schedules during the week are thus not affected. Furthermore, these tutorials are conducted only during the first and third Saturdays or Sundays of the month, thereby leaving the other two alternate Saturdays or Sundays free for them to participate in extracurricular and social or family activities.

Since the teachers are not required to go on study leave, there is no necessity for the MOE to appoint relief teachers to replace those going for further studies at OUM. It is for this very reason that a larger number of teachers can be targeted for selection to pursue higher academic qualifications under OUM's flexible learning mode. Apart from the teachers in schools that are located either in large or small urban centres or nearby villages (which are accessible to OUM's learning centres), a total of about 400 teachers in the remotest areas, especially in Sabah and Sarawak (two states in the island of Borneo) have been able to enrol in OUM under this flexible arrangement.

A considerable number of OUM's part-time tutors are lecturers who work at various Teachers Education Institutes (TEIs) throughout the nation. Their deployment by OUM can be seen as a form of capacity building for their own respective careers and these institutes as well. This is another important by-product of the partnership which enriches the academic experience of MOE and OUM as well. By utilising the expertise of these lecturers either as subject-matter-experts (SMEs) or tutors, OUM thus enhances the quality of teaching and dissemination of knowledge. Like most ODL institutions worldwide, OUM leverages on the strength of the wide experience of thousands of faculty members from other universities to assist us in terms of the academic input in teaching and learning. OUM, with a total of over 9,500 tutors nationwide, has therefore been able to galvanise the academic community of not only our consortium universities but also those from other public and private universities.

In addition, some TEIs derive tangible benefits from the OUM-MOE partnership by means of new computer laboratories and other teaching equipments. OUM currently rents 27 TEIs to be used as learning centres during the weekends. In lieu of rent, OUM has done extensive upgrading of the classrooms and equipped them with computers and LCD projectors. Studies conducted on OUM's teacher training programmes reveal that the level of satisfaction among the learners is very high because of several strengths embodied in this partnership. Among these are the availability of and easy access to learning centres throughout the country, state-of-the-art facilities, reputable faculty members and accreditation received by the Malaysian Qualifications Agency (formerly known as the National Accreditation Board). Success rate amongst learners is also excellent, with generally high passing rates and only a very small percentage obtaining below 2.0 CGPAs. What this means is that the programmes and the

teachers enrolled into these programmes are doing well. OUM believes that this initiative will always be relevant, both to the institution and the nation.

The experience gained from the OUM-MOE partnership since 2002 has paved the way for promoting Bachelor of Education programmes overseas as part of our internationalisation drive. The university's first success story with respect to international teacher training programmes is the partnership with Villa College, a higher education institution located in Malé, the Maldives. The OUM-Villa College collaboration, which kicked off in September 2008 with the offering of three of our undergraduate Education programmes, now has a student enrolment of about 200 teachers. This initiative is in line with the nation's objective of becoming a regional centre of educational excellence by exporting Malaysia's educational services.

Unlike all the traditional campus universities which are encouraged to enrol foreign students to study in Malaysia, OUM, given its flexibility and its blended pedagogy with the emphasis on ICT utilisation, has been able to locate a number of its learning centres in other countries such as Yemen, Bahrain and Singapore in collaboration with local educational institutions. Soon, we hope that our partnerships with the Accra Institute of Technology of Ghana and Hanoi University of Vietnam will materialise with the establishment of our learning centres in these two countries. Unlike our programmes in the Maldives, all our other overseas programmes are at the Master's or Ph.D. levels in business administration and information technology (IT).

Another significant milestone for OUM in terms of forging collaboration in the area of ICT development is the partnership between OUM and the Ministry of Higher Education (MOHE), the Kingdom of Saudi Arabia (KSA) during the last two years. Under this partnership, OUM with the technical backup of its sister company, METEOR Technology and Consultancy Sdn Bhd, have established the National e-Learning Centre in Riyadh with the objective of promoting e-Learning in all the KSA universities via the training of faculty members and IT staff of these universities and the development of courses utilising e-content. The successful implementation of this collaboration is also a reflection of the confidence in OUM's myLMS given by the Government of KSA.

5. Way Forward: Sustaining the Quality of Delivery

From the strong foundation that has been established since the OUM-MOE collaboration was initiated 8 years ago, the university is confident that this partnership will gain from strength to strength if the objective of quality education is sustained. In doing this, we have to face all the challenges ahead with appropriate strategies and innovate ideas to improve the delivery system. An integral component of teaching and learning is the learning materials, and in the case of OUM, the modules. Getting the modules written, printed and delivered on time are among the challenges faced in this respect. This onerous task is handled by the Centre for Instructional Design and Technology (CiDT) which employs a staff of about 60 including editors, instructional designers, desktop publishers, multimedia programmers and graphic designers, working together to produce over 800 modules required for all the courses at OUM.

Besides OUM's internal academic and support staff, another crucial aspect of the university is its tutors community, which come from other higher education institutions and industry. These tutors form the backbone of OUM as they are the front liners in dealing with learners. The appointment of tutors is also another concern that needs close monitoring especially in the selection process; all the more because they are part-timers and are sourced from many universities, both public (including TEIs) and private. The management of such a large number of tutors, currently more than 8,500 for the whole country, is handled by the Centre for Tutor Management and Development (CTMD). It is thus the responsibility of CTMD to ascertain that only those who are qualified and well-versed in ODL are selected as tutors at OUM. Continuous training for these tutors has become an important aspect of CTMD's annual activities.

To enhance the capability of OUM's tutors, frequent workshops and colloquiums are organised by CTMD. The colloquium represents an avenue for tutors from all over the country to get together to discuss and exchange ideas on how to take teaching and learning to the next level. Through this colloquium, not only the junior tutors are able to tap into the experience of lead tutors but shared OUM's expectation of them. Tutors are instrumental in the execution of strategies planned to improve learners' learning experience. Hence, being informed on the latest development of OUM, for example new assessment methods, findings

of learners' satisfaction survey, learners counselling, will facilitate the implementation of OUM's strategies.

Despite OUM's continuous effort to do the best to provide quality delivery, there are challenges ahead. For example, the main challenges for the Bachelor of Teaching programme for teachers in remote areas are as follows:

- a. The need to develop and maintain alternative communication channels between the Faculty/Learning Centres and the learners, where the latter do not have easy access to the Internet, telephone lines and postal services;
- b. The need to ensure that formal tutorial classes and study review sessions for the students, which are organised at seven Learning Centres during school vacations, are really effective in helping them with the study materials; and
- c. The need to ensure that the distribution of modules and the submission of assignments for concurrent semesters are systematically done when learners attend tutorial classes and study review sessions.

6. Concluding Remarks

There is no doubt that the OUM-MOE collaboration has provided in-service teachers with access to higher education; an opportunity that has presented itself through MOE's sponsorship as well as the flexibility of ODL. Through this collaboration, OUM is thus contributing to fulfil the nation's target of equipping thousands of the country's primary and secondary school teachers with a university qualification. Like all OUM's academic programmes, quality is the main hallmark in this programme, and the quality in OUM's education-based programmes will not be compromised; as they are closely monitored by at least three government agencies: the MOE (through its Teachers Education Division), Malaysian Qualifications Agency (MQA) and the stakeholders of OUM itself.

While much can be contributed to MOE's hands-on approach to teacher training and education, OUM's blended learning pedagogy, with special reference to e-learning and information technologies have made the partnership truly feasible for all parties. The flexible and accessible e-learning platform at OUM allows for the diffusion of technological awareness and has provided many practical applications that have proved essential in the deployment of our Education programmes for teachers. It is hoped that OUM will still continue to contribute towards the Ministry's principal objective of enhancing the quality of the teaching profession in the years to come.

Appendix 1

Major Subjects for **Bachelor of Teaching (Primary Education) (BTPE)** with Honours:

- | | |
|---------------------|--------------------------|
| 1. Malay Language | 8. Social Studies |
| 2. English Language | 9. Living Skills |
| 3. Chinese Language | 10. Visual Art Education |
| 4. Tamil Language | 11. Music Education |
| 5. Arabic Language | 12. Physical Education |
| 6. Mathematics | 13. Islamic Education |
| 7. Science | 14. Special Education |

Minor subjects for **Bachelor of Teaching (Primary Education) (BTPE)** with Honours:

- | | |
|---------------------|--------------------------|
| 1. Malay Language | 9. Living Skills |
| 2. English Language | 10. Visual Art Education |
| 3. Chinese Language | 11. Music Education |
| 4. Tamil Language | 12. Physical Education |
| 5. Arabic Language | 13. Islamic Education |
| 6. Mathematics | 14. Quranic Education |
| 7. Science | 15. Moral Education |
| 8. Social Studies | 16. Health Education |

Major subject for **Bachelor of Teaching (Pre-school Education) (BTPS)** with Honours:

1. Pre-school Education

Minor subjects for **Bachelor of Teaching (Pre-school Education) (BTPS)** with Honours:

- | | |
|-------------------------|-----------------------|
| 1. English Language | 6. Physical Education |
| 2. Mathematics | 7. Islamic Education |
| 3. Science | 8. Quranic Education |
| 4. Visual Art Education | 9. Moral Education |
| 5. Music Education | 10. Health Education |

Appendix 2

OUM's Achievements at a Glance

Items	August Semester 2001	September Semester 2009
Cumulative Enrolment	753	>89,000
Total Programmes Offered	4	72
Learning Materials Provided (Print & Web-based)	29	>800
Learning Centres	12	61
Tutors	100	> 8,500
Learners Graduated	-	> 20,000

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