Latest Strategic Initiatives to Improve Teaching and Learning at Open University Malaysia

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ABSTRACT

Open and distance learning (ODL) as we recognise it today came into prominence in the 1960s, historically marked by the world's first open university in the United Kingdom in 1969. Aided by global high demand and priority in expanding education, as well as developments in communications technology, the impact and influence of ODL have certainly grown. Four decades on, the idea of studying virtually and at a distance is no longer foreign; many nations have embraced ODL as a viable way of making higher education accessible, affordable and attainable to all who seek it. Open University Malaysia (OUM), the nation's premier ODL institution, was established on similar grounds. As a relatively young private university, OUM now caters to over 86,000 learners enrolled into 71 academic programmes nationwide. Remaining relevant in the current higher education scene requires OUM to constantly search for new ways to meet the demands of learners, as well as explore novel strategies to enrich the ODL experience. This paper will illustrate strategic initiatives that have been implemented at OUM as a means to improve teaching and learning processes as well as make quality higher education a true possibility through ODL.

INTRODUCTION

Printing technology and the creation of universal postal systems in the 19th century provided the means for the world's first correspondence courses; an early distance education system that continued until the last half of the 20th century. When the Open University was established in the United Kingdom, its first Vice-Chancellor, Walter Perry, realised one very important principle, i.e. that if their teaching was carried out by mass media, the university could benefit from economies of scale; making higher education accessible to the masses. Sir John Daniel, the current President and Chief Executive Officer, Commonwealth of Learning (COL), defines the three major barriers in higher education, i.e. quality, access and cost, as its 'iron triangle' (Daniel, 2004). Perry, even as early as in the 1960s, had clearly recognised open and distance learning (ODL) as a means to break the iron triangle i.e. by the provision of quality education to anyone at any time and at a low cost.

In Malaysia, the restructuring, expansion and diversification of higher education in the 1990s, coupled with the Government's call for the democratisation of higher education (Lee, 2005) and the introduction of the Private Higher Education Institutions Act 1996 allowed for many private universities to be established as a means to provide greater access to university education. Open University Malaysia (OUM) was also set up in response to the Government's call. With the motto "University for All", OUM aims to make higher education attainable, accessible and affordable for those who wish to pursue it.

Established in August 2000 as Malaysia's first ODL institution, OUM is committed to providing a learning experience of the highest quality to its learners. To ensure that it meets the needs of its learners, it constantly self-assesses and focuses its efforts on internal improvement. OUM first opened its doors in August 2001 to an inaugural intake of 753 learners. To date, OUM has a cumulative enrolment of more than 86,000 learners and has produced more than 13,000 graduates. For any given semester, the average number of active learners is about 38,000. OUM currently offers 71 programmes at 61 learning centres located nationwide. Across the border, OUM has set up partnerships with local institutions in Bahrain, Yemen and Maldives. There are about 1,000 active learners enrolled with OUM's overseas partners, mostly in postgraduate programmes.

OUM's phenomenal growth signifies the acceptance of ODL as a viable channel for higher education in Malaysia. Being a relatively new university, OUM takes great pride in being able to attract quite a significant number of learners in a relatively short time. However, remaining competitive and relevant in today's scene requires OUM to keep abreast of current trends and technologies as the university strives to meet the needs and wants of its learners. With ever-evolving developments in information and communications technology (ICT), OUM must continue to introduce new strategies to further enhance its teaching and learning processes and make ODL a feasible option to attain higher education in Malaysia.

OUM'S STRATEGIC INITIATIVES

Teaching and learning at OUM are processes anchored to the university's blended pedagogy. These require continuous improvements to ascertain the overall quality of education offered by the university. As OUM also endeavours to break its own iron triangle and that of Malaysia, the frequent revisiting of these processes will allow the institution to design solutions to new challenges. OUM's growth has brought with it these new challenges. The strategic initiatives described in this paper have come about as a result of institutional research as well as inputs from tutors and learners. For the purpose of this paper, they have been categorised as the following: (i) the assessment system, (ii) the academic calendar, (iii) better utilisation of e-resources, and (iv) technologies.

The Assessment System

OUM's assessment system drives its teaching and learning approach. By deploying a holistic assessment model, the university could assess the quality of the curriculum, evaluate learning outcomes and also examine whether the system is aligned with the university's pedagogical model. Assessment allows the institution to support learning needs and optimise usage of learning resources.

The traditional mode of assessment used at OUM involves both formative and summative components in the form of assignments, a laboratory component, mid-term and final examinations. As a form of continuous assessment, online participation (OLP) of all learners is also given weight. Although this system has proven to be quite practicable, the university has noted that it leads to several significant shortcomings i.e.:

- A notable incidence of plagiarism and cheating;

- Evaluation of OLP that may be subjective and biased;

- A high processing cost for the university;

- High turnaround time for final examinations;

- Low reliability in marking standards; and

- Learners are unable to test their current knowledge for a course.

These issues have led OUM to introduce a new assessment system based on multiple-choice questions (MCQs). MCQs as an assessment format offers several benefits e.g. objectivity (by eliminating variations in marking styles), efficiency (because they can be used to test a greater range of the syllabus) and ease of marking (as this can be done automatically) (Higgins & Tatham, 2003). To facilitate this initiative, a question bank software was developed with the assistance of two external consultants who provided advice to the university.

In the initial phase in May 2009, seven compulsory courses were selected to use MCQs as their assessment format. Each course is assessed based on mid-term and final examinations, both of which comprise entirely of MCQs. To ensure their quality, the MCQs are carefully selected and moderated before migration into the bank. These questions are developed by incorporating Bloom's Taxonomy of Educational Objectives and cover all difficulty levels across the entire syllabus of a course. This is performed to ensure that every examination set is a complete representation of the content of the course module. Once they are deposited in the central server, the MCQs can be reused in subsequent semesters by generating different, non-repeating examination questions for each cycle. As examination questions can be independently generated by the bank's software and grading is performed electronically using an Optical Mark Recognition (OMR) machine, this can translate into cost-saving for each examination cycle, and also means a quick turnaround time. By relying on OMR, grades will also be very reliable, thereby eliminating the problem of subjectivity and bias in the marking exercise.

Another additional advantage of MCQs is that questions can be used to test the learners' understanding at the end of every topic in a module. Such practice questions can progressively facilitate teaching and learning processes throughout the semester. Thus far, OUM has made available practice examination sets for the seven core courses that are accessible through the university's learning management system, myLMS. When a learner has finished discussing or revising a topic, he/she can easily access the practice examination set to test how much he/she has learned. Every practice set has 20 MCQ problems. For every problem, one answer must be chosen from four options. Once submitted, the learner will discover immediately whether he/she has made the right choice. The system gives prompt feedback on the right and wrong answers and guides the learner to related sub-topics in the course module. The idea of providing on-the-spot feedback that also supports modules is anticipated to boost teaching and learning by encouraging learners to read the modules more frequently.

Post-administrative analyses of examination questions will permit the university to further improve the quality of the questions. Thus, the overall standard of the assessment system will be enhanced over time. In the long run, as the quality of MCQs becomes better and more controlled, and the question bank grows in terms of item number and diversity, the entire assessment process could even be computerised, thus yielding the following potential benefits:

- Cost effectiveness;

- Reliability;

- Instant scoring;

- Enhanced security;

- Better monitoring of learner progress;

- Standardisation of the assessment environment;

- Flexible scheduling for learners situated locally and internationally; and

- Inclusion of multimedia and other technologies.

The Academic Calendar

For eight years, OUM has operated on a yearly academic calendar that is spread over three semesters. Two long semesters begin in January and September; running for 17 weeks each with a five-week break before the commencement of the next semester. Typically, a learner registers for up to three courses for May and September, with 10 regular face-to-face contact hours per course. Examinations are held in the final two weeks of the semester.

The short semester begins in May and runs for only eight weeks. Learners are allowed to register for a maximum of only two courses. More often than not, courses that are offered in May are usually in the form of core university courses so as not to be too strenuous on the learners. While the January and September semesters provide ample time for teaching and learning to take place, the May semester, with its condensed academic calendar, has proven to be a challenge, both to the learner and operationally as well. Some of these challenges include:

- Learners cannot register for more than two courses; a constraint for those at the final stages of their programmes and urgently needing to complete their studies;

- Higher level courses cannot be offered;

- Mid-semester examinations cannot be administered. Thus, assessment is compromised;

- The short timeframe is an obstacle that ultimately affects the quality of teaching and learning;

What is apparent is that there is an obvious need to remedy the short May semester and search for the ideal semester that can be used as a standard. From what we have discovered, this ideal semester requires 15 weeks of teaching and learning and five weeks of break in between. The 15 weeks allocated for tutorials, writing assignments

and undergoing assessment will also allow the university to provide better operational support as the staff will not be racing against time to perform their administrative duties.

OUM has plans to revamp the current academic calendar by implementing this ideal semester for every semester. By providing more time to both the university and the learners, OUM hopes to resolve the abovementioned issues. Any course can be offered in any semester, and the assessment system can now be standardised throughout the academic year. Learners are able to register for up to three courses every semester, and this will translate into shortening their duration of study by an entire semester – a development that we believe will be much welcomed by our learners.

The proposal for this new semester system has been presented to the Malaysian Qualifications Agency and Private Education Department (JPS). OUM is currently awaiting approval by JPS before this new system is implemented.

Better Utilisation of e-Resources

Professor Emeritus Dr Gajaraj Dhanarajan, the former President and Chief Executive Officer of COL, now the Vice-Chancellor of Malaysia's second ODL institution, Wawasan Open University, once said:

> *"At the heart of all learning… are materials specially designed to exploit the full potential of the available technological assets. […] These resources along with appropriate learner support systems complete the educational or training environment."* (Dhanarajan, 2003)

Such resources, as afforded by ICTs and the World Wide Web, represent a vital part of the ODL teaching and learning processes. OUM's Tan Sri Dr Abdullah Sanusi (TSDAS) Digital Library currently holds electronic resources (e-resources) from almost 30 different databases. Nine of these also includes e-books; some multidisciplinary while others are specific to a particular field, such as the sciences, information technology, business and management, education and nursing sciences. Collectively, the TSDAS Digital Library has more than 22,000 volumes of books and subscribes to over 72,500 e-books and 30,000 e-journals – representing complete, relevant and up-to-date titles that would add value to any course or programme. One of the most significant advantages of this digital collection is its accessibility for all registered learners, regardless of where they are or when they need it. Full texts are retrievable at a single click and they can also print out specific chapters and pages for further reference. In this sense, the university intends to encourage its learners to make full use of the learning resources that are readily available in the TSDAS Digital Library.

Beginning in 2009, OUM is also planning to further promote the utilisation of the TSDAS Digital Library's resources by incorporating them in the design of the university's academic programmes. Previously, programme development had not featured the e-resources as a main reference point for learners. Thus, these e-resources, though ample, have not been well-utilised throughout the university.

Where appropriate, suitable and relevant e-books will be identified and adopted as textbooks for the courses in a programme. Hence, the course content and learning materials will correspond with selected e-books within the TSDAS Digital Library's subscription. Implementation is essential at the programme formulation stage to ascertain that the contents of print modules and other references adhere to the contents

of the e-books. This move is anticipated to improve teaching and learning by ensuring that learners and tutors have the same easy access to textbooks for a course as well as foster a more comprehensive use of the resources in the TSDAS Digital Library.

TECHNOLOGIES

OUM considers technology as the linchpin to overcoming barriers in higher education. By affording a myriad of creative solutions that have revolutionised the way higher education is delivered, technology makes it possible to engage academics and tutors across geographical distances and in a cost-effective manner. There have been four recent technological developments at OUM i.e. (i) mobile learning, (ii) i-Radio, (iii) web-based technology and (iv) e-dictionary.

Mobile Learning

Ninety-nine per cent of OUM learners possess mobile telephones. With about 38,000 geographically distributed learners active during any given semester, it is imperative for the university to stay connected to all learners to ensure that they remain interested in studying and in so doing, keep the university's attrition rate low. Mobile learning (popularly abbreviated as m-learning) is the newest technological development embraced towards this end. Effective from the May 2009 semester, all new learners enrolled in the compulsory OUMH 1103 "Learning Skills for Open and Distance Learners" course are involved in a pilot m-learning project. Each learner who has registered a mobile telephone number with the university will receive two to three short text messages per week during the entire semester. The messages are in the form of small 'chunks' of content, reminders and motivational phrases.

These text messages are designed to engage and connect with learners, encourage them to learn and give them a sense of belonging to the university. With the condition that the messages are well-formulated, m-learning should be able to bring considerable benefit to the learners as well as the university, especially by keeping the learners interested and motivated in order to maintain retention levels at the university.

i-Radio

Besides m-learning, OUM has also ventured into i-Radio, which is broadcast via the Internet. It airs both module-based and general infotainment programmes. The most practical characteristic of i-Radio is its downloadable audio files and podcasts. Learners who miss a broadcast can download its file into a personal computer, MP3 player or a mobile telephone. Learners can subscribe to the audio materials that are updated at no charge and listen to podcasts at their own convenience, any time, anywhere. This innovation is particularly useful for remote learners. When learners travel to learning centres for tutorials, they can access i-Radio from computer laboratories and download the podcasts into their mobile telephones or laptops. They can listen to the podcasts when they return to their home or workplace, without the need for Internet connection. Podcasts offer great flexibility to learners, constant access to learning materials and freedom to choose materials that suit their learning styles. For visually-impaired students, OUM has also developed audio books. Currently, there are 13 audio books that are made available not just for the visually-impaired but for all other learners as well.

Web-based Technology

The Internet is a goldmine of new technologies and cultures which could have an impact beyond the wired world, including education as a subset. Consider the open source (OS) movement as a simple illustration. The Massachusetts Institute of Technology (MIT) offers free online course materials through its OpenCourseWare initiative, whereby anyone with Internet access can retrieve course syllabi, lecture notes, problem and answer sets, reading lists, videos and other special features for 1,900 of MIT's courses. Another application that has potential educational benefit is online social networking. As highlighted by Montgomery Kasik (2008), Ewan McIntosh had commented in the January 11, 2008, issue of The Economist that social networking will "help learners become more world-aware, more communicative, learning from each other, understanding first hand what makes the world go around." In this sense, the concluding testimony may be that the Internet has brought with it various means of communicating; an integral part of delivering education in ODL.

With reference to online social networking, several of the new applications that have been adopted by OUM include Twitter and Facebook. The former is an up-and-coming micro-blogging service that allows its users to post and read real-time short messages over multiple networks and devices, while the latter is a very current free-access social networking utility used by over 200 million people worldwide. Thus far, Twitter has been used in the m-learning pilot project, where messages that are sent to learners' mobile telephones will be listed as Twitter entries in the designated profile of the "Learning Skills for Open and Distance Learners" course. Properly leveraging on such new trends will certainly boost the learning experience at OUM, making the delivery of ODL more efficient and smooth through the effective dissemination of relevant information.

E-Dictionary

OUM made a complete migration to the English language in 2009. Resultantly, all teaching and learning components – tutorials, online forum participation, assignments, examinations and learning modules – will be conducted and prepared in English. Realising this may prove to be an obstacle to many non-native speaking learners, OUM decided to purchase licences for ¬e-Kamus, an electronic dictionary software package that would be made available to learners as an aid to improve their linguistics skills.

E-Kamus is the first of its kind in Malaysia. It is a bilingual dictionary software suite that includes a 'scanning' function, allowing users to scan words in their web browser, word processing software and all other text-based applications to reveal meanings, synonyms and translations from English to Malay and vice-versa. 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;

- Serve as a reference point for Malay spelling and grammar; and

- Help learners write assignments, search for and read reference materials for their studies.

Through the use of e-Kamus, OUM hopes to promote better understanding and use of the English language among its learners. As such, the software will be given for free to all newly registered learners beginning the September 2009 semester. At a corporate price of about USD70 each, OUM is providing the software at a subsidised price of just under USD6; and this will also apply to all senior learners who are interested in purchasing the software for themselves. Although e-Kamus is also being used by other educational institutions in the country, purchasing the software licences at an institutional level is a first for Malaysia. OUM believes it will boost teaching and learning by helping learners to improve their command of and confidence in the English language, thus enhancing the quality of education at OUM.

THE WAY FORWARD

Even as the current initiatives are being pilot-tested, run or implemented, OUM is looking into future strategies that would be of value to the teaching and learning processes of the university. One area with great potential is artificial intelligence. The virtual nature of ODL may cause learners to feel isolated from the university, as learners spend most of their learning time independently or in an online setting. To help alleviate this sense of detachment and enrich the teaching and learning experience, OUM plans to develop an Intelligent Agent (IA) within OUM's present learning management system, myLMS. The IA will be programmed to analyse queries entered by learners and provide responses accordingly. Deriving from the learners' line of questions, the IA will progressively develop its own knowledge base, becoming more intuitive and thus, serving the learners better over time. Human intervention will be at a minimum, required only for cases that call for higher order thinking. By integrating the IA into myLMS, learners will find their learning to be a more personalised and learner-centric experience.

In view of the popularity of social networking portals described earlier, OUM is also exploring the possibility of incorporating its functionalities within myLMS. Learners who are registered in the same course might be able to connect with one another in a similar fashion to such networking portals. This may give them a feeling of cordiality that could encourage them to use myLMS further.

For learners who experience difficulty in tackling specific subject areas such as Mathematics and English, OUM will provide 24-hour online support via dedicated portals. Through this initiative, learners with problems could touch base with academics and tutors who provide round-the-clock assistance to improve their skills and confidence in the subjects.

Another teaching and learning initiative which is in planning is the development of a portal dedicated to developing skills pertinent to learners in the 21st Century. This portal will provide tips and guidelines for learners to develop information technology skills (such as using basic software, information seeking and sharing) as well as skills in leadership, critical thinking, presentation and public speaking, entrepreneurship as well as communication. It is hoped that such a service will provide learners with a well-rounded education and help create a more holistic teaching and learning environment at OUM.

CONCLUSION

When Walter Perry took the job at the United Kingdom's Open University in 1969, he foresaw something revolutionary – that providing education at a distance was not only possible but was also something that could achieve world-class academic and pedagogical standards. He had even told the university staff to "create a teaching and learning system that could serve 'a lighthouse keeper on an island off the Scottish coast'" (Daniel, Kanwar, West & Uvalić-Trumbić, 2008). As an ODL provider, this vision is something that OUM hopes to achieve. Ultimately, OUM's teaching and learning system must be able to serve all its learners, even those in the remotest areas and with the most limited capacities.

Sir John Daniel once said:

> *"… the secret of quality distance education is to take the teaching and learning process apart into its component elements […], focus on doing each one as professionally as possible, and then put the process back together."*
> *(Daniel, Kanwar & West, 2007)*

The strategic initiatives described in this paper attempt to do just that, i.e. to provide quality ODL to OUM's learners. Operational activities and schedules must work to the advantage of both the learners and the university. By using the best available resources in the most intelligent, cost-effective way and by improving teaching and learning processes through the introduction of new innovations, OUM could provide learners with the best education possible and help to make quality higher education a true and tangible possibility for all who seek it.

REFERENCES

Daniel, J. (2004, September*). International perspectives on open learning and distance education*. Speech presented at the National Policy Consultative Forum on Open Learning and Distance Education, Kenya.

Daniel, J. (2009). *Open and distance learning in a changing world: Selected speeches of Sir John Daniel and colleagues 2007–2008*. Vancouver, Canada: Commonwealth of Learning.

Daniel, J., Kanwar, A., & West, P. (2007, June). *Open educational resources: Help or hindrance to open learning?* Opening Address presented at the International Conference on Open and Online Learning, Penang.

Daniel, J., Kanwar, A., West, P., & Uvalić-Trumbić, S. (2008, October). *Distance education across borders*. Keynote Address presented at the 22nd Asian Association of Open Universities Annual Conference, Tianjin.

Dhanarajan, G. (2003, November). *Enhancing higher education through e-learning*. Inaugural Address presented at the Dialogue on Enhancing Higher Education through E-Learning, New Delhi.

Higgins, E., & Tatham, L. (2003, February). Exploring the potential of multiple-choice questions in assessment. *Learning and Teaching in Action*, 2(1). Retrieved February 6, 2009, from http://www.celt.mmu.ac.uk/ltia/issue4/higginstatham.pdf

Lee, M. N. N. (2005). Global trends, national policies and institutional responses: Restructuring higher education in Malaysia. *Educational Research and Practice*, 3, 31-46.

Montgomery Kasik, M. (2008). Been there done that: Emerged, evolved, and the ever changing face of e-learning and emerging technologies. In McFerrin, K., et al. (Eds.). *Proceedings of Society for Information Technology and Teacher Education International Conference 2008*, (pp. 5136–5139). Chesapeake, VA: AACE.