Quality Education in ODL: Evidence from the Tracer Study

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Abstract

The impact of the many initiatives undertaken by OUM to provide learning accessibilities through various aspects must be assessed from the perspective of its learners. Feedback through the tracer study conducted to learners who will be graduating is appropriate because they have gone through the entire cycle of learning. The feedback allows OUM to assess its performance in the provision of services to its learners. An online tracer study conducted by the Ministry of Education (MOE), Malaysia, in collaboration with all local universities, colleges and polytechnics was carried out via a set of standard questionnaire is, in part, to evaluate the responses from Malaysian graduates on the performance of their alma maters. This paper presents the results of the study conducted on a total of 4911 respondents of the 2013 batch of OUM graduates. It is gratifying to note that 2013 OUM graduates are generally satisfied with the services provided by the university and that the level of satisfaction in almost all aspects have improved over the past five years. The aspects covered in this study include: curriculum, assessment system, career guidance, teaching and learning, facilities, and knowledge and skills. In another aspect, the results showed that OUM study programmes have had a high impact on the holistic development of graduates, in terms of self-readiness such as maturity, reliance and teamwork. On comparing the 2013 data with that of the 2008 data, the result showed that there are significant improvements in the graduates' satisfaction on all aspects, except for the English language skills. This implies that the many initiatives that have been instituted over the last five years towards improving the quality of education has paid off as evidenced by the positive differences in satisfaction in the items covered in this tracer study.

Introduction

It has been proven over the centuries that higher education has the ability to change and induce change and progress in society (World Declaration on Higher Education for the Twenty-first Century: Vision and Action, 1998) . More so in the present knowledge society, higher education is inevitably the essential engine of socio-economic, cultural and environmental change that a society needs for sustainable development of individuals, communities and countries. This formidable task of higher education has landed itself with many challenges. The greatest of these challenges is to effectively prepare its graduates to contribute to the needs of society. Fortunately, in the twenty-first century, the world has the technology that can effectively assist higher education to improve the ways in which knowledge can be produced, managed, disseminated, accessed and controlled. However, the availability of the current information and communication technologies (ICT) also has its own challenges in the form of inequitable access to these technologies at all levels of education systems and across different strata of society, a phenomenon commonly referred to as digital divide .

A higher education institution in this era needs to be cognizant of these developments and rise to the challenge or be doomed to failure. To do that, it has to have the necessary and reliable information on its performance provided by none other than its learners and graduates, two groups of its stakeholders who are and had been receiving the services rendered by the institution, respectively. It is customary to have learners complete an evaluation of the course or programme of study that they had undertaken. This type of evaluation usually focuses on issues such as course content, instructional materials, use of ICT, course tutors/facilitators and others. For this purpose, a yearly Importance-Satisfaction survey is conducted (Latifah et. al, 2007; 2008 and Ramli et. al, 2008) to identify institutional strengths for marketing purposes, and weaknesses for improvement purposes. However, even though this kind of feedback provides useful information to the organisation, it does not measure the outputs and outcomes of education in line with those highlighted by Schomburg (2003), who identified the outputs as attributes such as knowledge and skills, and outcomes as transition to employment, work experience and service to society.

In line with the second quest to obtain outcome-based information, many higher education institutions today conduct Tracer Studies among its graduates. There are many reasons for this and they include: Firstly, to use it as a tool to gauge the perceptions of learners on curriculum, teaching and assessment which happen to be the key determinants in their approach to learning, and to measure the quality of the outputs and outcomes of the learning process. Secondly, to establish the contributions the university has made to its learners in their career promotions and in pursuing their studies to a higher level or in gaining entry to other institutions of higher learning. Thirdly, to guide the instituion's strategic planning exercise with a view to improve programmes and services to existing students. Finally, to benchmark the institution's performance with other institutions (Latifah, et. al.).

In Malaysia, the Ministry of Higher Education then (now Ministry of Education) initiated an annual National Graduate Tracer Study in 2006 on the graduates of both public and private HEIs and this is carried out at the time of their graduation. Open University Malaysia had participated in these studies since it inception.

Open University Malaysia

Open University Malaysia (OUM) was established in 2000 as the seventh private university of Malaysia. It is the first single-mode open and distance learning (ODL) university catering for the higher education needs of the working adults. Unlike its predecessors in the like of conventional and public higher education institutions, OUM provides opportunities primarily to working adults to continue their education for various reasons, the most common being to improve their knowledge and skills for career promotion or shift to a better job in order to attain an improved quality of life. In this regard, a major responsibility of OUM, in the eyes of its stakeholders, is to provide a satisfying and meaningful study experience, contribute to the achievement of short and long-term career goals and also to provide better workplace skills to their graduates. In this context, the Tracer Study conducted by MOHE/MOE has provided OUM with its much needed feedback on the success of its educational process from the perspective of its alumni. Hence its active participation in the study since its inception. The five constructs in the study, namely, *curriculum, assessment system*, *teaching and learning, facilities*, and *knowledge and skills*, fit very well to the mission of OUM in providing quality education for all.

Objectives

Drawing on the data obtained in the Tracer Study conducted on 2013 and 2008 graduates of OUM, this paper aims to provide the following:
1. To report on the result of tracer study for 2013.
2. To compare the results of the study in 2013 to those of 2008.
3. To describe some of the significant initiatives undertaken by OUM that had contributed towards improvements in the results.

Methodology

This paper is based on the survey data obtained through the Tracer Study database that was conducted by the MOE. The online questionnaire of the Tracer Study was posted in the MOE website (SKPGOnline: http://graduat.mohe.gov.my) and was linked to OUM's portal, under a special Convocation section in its Learning Management System or *myLMS*. OUM graduates were given three to four weeks to complete the online questionnaire before they collected their graduation gowns from the university. Upon submission of the fully completed questionnaire, graduates were asked to print out the verification slip as proof that they have submitted their survey forms. OUM's primary role was to monitor the progress of the online survey and carry out the required analysis of the raw data provided by the MOE.

In the survey, for the section on "graduates experience while studying at their alma maters", respondents were requested to rate their responses to several statements based on the Likert-type scale

of 1 to 5; with 1 (very dissatisfied), 2 (not satisfied), 3 (moderately satisfied), 4 (satisfied) and 5 (very satisfied). For the impact of OUM programmes on the graduates, respondents were asked to rate on a similar scale of 1 to 5; with 1 (very non-influential); 2 (non-influential); 3 (moderately influential); 4 (influential); and 5 (very influential) for 12 items. On OUM's reputation, the respondents were requested to rate 5 statements related to their perception of OUM according to the same scale of 1 to 5; with 1 (very non-reputable); 2 (non-reputable); 3 (moderately reputable); 4 (reputable); and 5 (very reputable).

Results

The Respondents

A total of 4,911 OUM graduates (36.1% males and 63.9% females) responded to the survey, the majority being bachelor's degree graduates (91.9%). The rest were diploma (2.6%) and post graduates (5.5%). Of this total, 71.9% were teachers sponsored by the Teachers Training Division (BPG) of MOE, while the rest (28.1%) were graduates from open market. Of the open market graduates, 11.5% were admitted via the Open Entry Admission System. Almost all respondents (98.9%) were working adults and only a handful (1.1%) were unemployed.

Overall Satisfaction

The results show that the ratings for all the constructs for 2013 graduates are high ranging from 4.2 to 4.5. There is also an overall improvement in the learners ratings in all constructs in 2013 when compared to those in 2008 (Table 1). This means that the 2013 OUM graduates are generally more satisfied than their 2008 counterparts.

Table 1: Satisfaction Mean Scores by Dimension

Dimensions	2008	2013	Difference
Facilities	3.8	4.2	0.5
Curriculum	4.1	4.5	0.4
Teaching & Learning (Tutors/Facilitators)	4.1	4.4	0.3
Assessment System	4.2	4.4	0.2
Knowledge and Skills	4.2	4.3	0.1

Among the five constructs, *Curriculum* recorded the highest ratings but *Facilities* exhibited the highest improvements, even though its rating is the lowest for 2013.

The mean scores of the items of each of the constructs are displayed in tables 2 to 6.

Facilities

The results show that the graduates were generally satisfied with the facilities provided by OUM (Table 2). All except 2 items in this construct scored more than 4.0 in their ratings, the exception being *Cafeteria/Canteen* and *Parking*. All items also show a tremendous improvement from 2008 as reflected by the positive differences in ratings ranging from 0.3 to 0.7.

Table 2: Satisfaction Mean Scores of Facility Items, 2008

FACILITIES	2008	2013	Difference
Laboratory (computer, science, etc.)	3.8	4.5	0.7
Library	3.6	4.2	0.6
Online digital library services	3.9	4.4	0.5
Lecture hall/tutorial room	3.9	4.4	0.5
Conducive learning space	3.9	4.4	0.5
ICT facilities	3.8	4.3	0.5
Online resources	4.0	4.4	0.4
Campus security	3.9	4.3	0.4
Cafeteria/canteen	3.2	3.5	0.3
Parking	3.6	3.9	0.3
Integrated online learning	4.1	4.4	0.3

Curriculum

All the four items in the curriculum construct for 2013 were rated highly satisfactory with mean scores ranging from 4.3 to 4.7 (Table 3). The item *Preparing Students for Working World* scored the highest level of graduates' satisfaction. Compared to 2008, the same item also shows the greatest improvement in the review period. The ratings for the other items also show very encouraging improvements over the period with differences ranging from 0.3 to 0.4.

Table 3: Satisfaction Mean Scores for Curriculum Items

CURRICULUM	2008	2013	Difference
Preparing students for working world	4.2	4.7	0.5
Suitability of the Study Programme	4.2	4.6	0.4
Balance between theoretical and practical/application component	3.9	4.3	0.4
Compulsory University courses	4.2	4.5	0.3

Assessment System

As for the *Assessment System* construct, the graduates were generally satisfied with the assessment system used in OUM with a score of 4.4 in all the three items (Table 4). The ratings of all items in 2013 exhibit an equal improvement of 0.2 when compared to those of 2008.

Table 4: Satisfaction Mean Scores for Assessment System Items

ASSESSMENT SYSTEM	2008	2013	Difference
Transparent, fair and easily understood	4.2	4.4	0.2
Marking schemes for assignments/ test/practical, etc.	4.2	4.4	0.2
Marking schemes for examinations	4.2	4.4	0.2

Teaching and Learning (Tutors/Facilitators)

In 2013, graduates were generally highly satisfied with teaching and learning (tutors/facilitators), where all the 13 items were given a rating ranging from 4.3 to 4.7 (Table 5). Compared to 2008, all items showed improvements ranging from 0.1 to 0.5. *Communication skills in Malay language* was rated highest with a mean satisfaction score of 4.7 and also exhibited the most improved item since 2008. *Online interaction* and *Qualification* were items with quite high levels of satisfaction but with marginal improvements of 0.1 when compared to those of 2008.

Table 5: Satisfaction Mean Scores of Teaching and Learning (Tutors/Facilitators) Items

TEACHING AND LEARNING	2008	2013	Difference
Communication skills in Malay language	4.2	4.7	0.5
Ability to relate teaching to current practices in the industry	3.9	4.3	0.4
Delivery skills	4.0	4.4	0.4
Communication skills in English language	4.1	4.5	0.4
Quality of academic counseling system	4.0	4.4	0.4
Academic counselling	4.1	4.5	0.4
Balance in both practical and theoretical knowledge	4.1	4.4	0.3
Interaction with students	4.2	4.5	0.3
Innovation/creativity in teaching	4.0	4.3	0.3
Ability to expose/update students on current knowledge	4.1	4.4	0.3
Academic staff easily contacted outside tutorial hours	4.1	4.4	0.3
Online interaction	4.2	4.3	0.1
Qualifications	4.4	4.5	0.1

Knowledge and Skills

The graduates were generally satisfied with the knowledge and skills acquired from their study programmes except for English language skill which was rated the lowest at 3.5 (Table 6). The rating for English language skill for 2013 was also lower than that of 2008.

Table 6: Satisfaction Mean Scores of Knowledge and Skills Items
Acquired from Study Programme

KNOWLEDGE AND SKILLS	2008	2013	Difference
Analytical skills	4.0	4.3	0.3
Interpersonal communication skills	4.1	4.3	0.2
Creative and critical thinking skills	4.1	4.3	0.2
Problem solving skills	4.1	4.3	0.2
Inculcation and practising of positive values	4.3	4.5	0.2
Exposure to general knowledge and current issues	4.2	4.4	0.2
ICT skills	4.0	4.1	0.1
Malay Language	4.6	4.7	0.1
Team work/group work	4.3	4.4	0.1
English Language	3.8	3.5	-0.3

Impact of OUM Programmes on Graduates' Self-Readiness

OUM's programmes have had very strong impacts on its graduates' self-readiness with an influence rating ranging from 4.5 to 4.6 (Table 7). These ratings have also improved over the past five years (2008 – 2013).

Table 7: Impact of OUM Programmes on Graduates' Self-Readiness

GRADUATES' SELF-READINESS	2008	2013	Difference
Develop self-confidence	4.3	4.6	0.3
Effective communication	4.3	4.6	0.3
Enhance self-maturity	4.4	4.6	0.2
Develop self resiliency	4.3	4.5	0.2
Enhance interest in learning	4.4	4.6	0.2
More sensitive towards current affairs	4.4	4.6	0.2
Ability to be independent/self reliance	4.4	4.6	0.2
Creative and critical thinking	4.3	4.5	0.2
Ready to face the working world and challenges	4.3	4.5	0.2
Problem solving and decision making	4.3	4.5	0.2
Teamwork/group working	4.4	4.6	0.2
Become more knowledgeable	4.5	4.6	0.1

Discussion

It is very heartening to note that both 2008 and 2013 OUM graduates rated all the constructs of the Tracer Study very positively indicating that they are satisfied with their learning experience with respect to its programme of study, facilities and services provided by the university. It is even more encouraging to find that the ratings by the 2013 graduates are generally higher than those of the 2008 graduates. This is the result of the various initiatives that have been undertaken by the university in the last five years.

Curriculum

In 2013, Curriculum construct was rated one of the highest when this was not so in 2008. Many factors have contributed to this improvement. Among them is OUM's initiative to incorporate some or all of the four core-basic courses namely, Introduction to Communication, Basic Concepts of Information Technology, Thinking Skills and Problem Solving, and Principles of Management, in all its study programmes. This was aimed at enhancing learners' soft skills. In the process, a total review of the curriculum was conducted whereby some of the courses were updated in line with the changing needs of the workforce. This apparently has improved the ratings for the university's curriculum.

To ensure that its programmes are well suited to the needs of working adults, OUM conducted feasibility studies prior to developing new programmes. In addition, OUM also regularly conducts internal review of its programmes and has even phased out those programmes that were not well received by market.

With respect to the balance between theory and practice, OUM has imposed stringent criteria for the selection of members for its Boards of Studies (BOS). Previously, the appointment of the members was made by respective faculties. Now, the members of BOS were carefully scrutinised by the Academic Management Committee (MJPAU) which provides a more neutral and an impartial evaluation of the candidates.

Assessment System

It is a known fact that adult learners are particularly sensitive to the assessment requirements that govern their courses. Many are "cue-conscious", that is, they depend on the hints from their tutors/facilitators. In the years before 2008, learners turn to their tutors/facilitators for guidance in their attempts to answer the assignment questions. Even though they are satisfied with that approach, the issue of non-uniformity in the marking of the assignments throughout the country has to be taken into account. This led to the introduction of rubrics as guides for learners in writing and completing their assignments and at the same time providing the e-graders the guide in marking the assignments. Besides introducing the rubrics, learners are required to submit their assignments online, which are later subjected to a similarity check. These changes explain the higher satisfaction ratings for each of the items for 2013 as compared to that of the 2008.

In every semester, all assignments and final examination questions are subjected to a moderation process by a committee of academics, comprising of senior lecturers, professors and also editors. This is to ensure that the examination questions are fairly distributed and developed according to the difficulty levels based on the Bloom's Taxonomy of Educational Objectives. The improvement in the ratings for the item "*transparent, fair and easily understood assessment system*" has most likely been attributed to the above initiative. In this regard, OUM provides an ideal platform for learners to assess their own learning and carry out self-reflections during their learning process.

Teaching and Learning (Tutor/Facilitators)

The favourable rating for *Teaching and Learning (Tutors/Facilitators)* must have been attributed to the initiatives that have been introduced after 2008. A significant portion of the learner-tutor interaction before 2008 was in the form of face-to-face, as required in the blended mode of delivery. Since then, the blended delivery mode has been shifted more towards the online mode, and the impact of this change can be seen from the 2013 ratings.

In this aspect, it is no surprise to see significant improvements in the items, "*Delivery Skills*", "*Interaction with Students*", and "*Academic Staff Easily Contacted Outside Tutorial Hours*". Having two different sets of tutors, that is, face-to-face and online, it is more likely for learners to be able to gain access to their tutors when required as compared to the time when they were more dependent on the face-to-face tutors. This strategy also leads to greater learner-tutor interaction as they are not constrained by limited tutorial times. The face-to-face tutorials are not compulsory and if learners are not happy with the face-to-face delivery, they always have the option of going online with their e-tutors.

One particular item, which is a cause for concern, is "*Online Interaction*". More training is currently being conducted specifically to e-tutors all over the country to improve their online skills in order to provide engaging and meaningful online learning experience by enhancing student-student, student-tutor and student-material interactions to ensure effective learning.

Among all the items, "*Ability to Relate Teaching to Current Practices in the Industry*" has been rated the lowest, both in 2013 and 2008. However, the improvement from 3.9 to 4.3 is considered quite remarkable. There has been greater emphasis on ensuring that the curriculum contents are relevant to industry, by carefully selecting the right industry experts to be involved in the early stage of the development of any new programme. Tutors are also trained to relate the contents in their teaching to current industry practices based on their experiences. In addition, learners are also satisfied with the "*Balance in Both Practical and Theoretical Knowledge*", and this implies that the refined processes of developing a new curriculum have indeed been very effective.

The following two items "*Quality of Academic Counselling System*", and the actual "*Academic Counselling*" process also showed good improvements. Prior to 2008, most of the counselling activities were carried out in a face-to-face manner. However, with the introduction of the online

academic counselling system in 2009, it has encouraged more learners to use the system as it is, firstly, more convenient in that they do not have to be at a certain location, and secondly, online counselling provides greater confidentiality. Learners do not feel embarrassed having to use the counselling facility.

Learners' rating of "*Tutor's Communication Skills in English*" has also improved substantially over the last five years. The regular tutor monitoring which incorporates evaluations by learners, peer tutors and Learning Centre Directors have been effective in weeding out the weaker tutors and maintaining the good ones. Tutors who are less competent in the subject matter and not so conversant and articulative in their delivery were gradually replaced with the better ones. Since most of the modules are in English, tutors are required to have a good command of English so that they can in turn help raise learners' level of English language proficiency.

A similar range of improvement was noted for "*Innovativeness and Creativity in Teaching*". The regular tutor colloquium held across the whole country has to a certain extent increased tutors' motivation, innovation and creativity in teaching. Numerous resources, printed and online materials have been developed to cater to the diverse group of learners; it is up to the tutors to be innovative and creative in using those resources and delivering them effectively.

Facilities

The improvement in the ratings for facilities is not surprising considering the number of initiatives that have been undertaken in the last 5 years to upgrade and improve OUM's teaching and learning facilities. In that period, OUM had increased the number of its own learning centres from 10 to 22. To have a learning centre of its own does provide many advantages, including the opportunity to invest and upgrade all the facilities to meet the needs of its learners and design the centre to be in line with the image of the university. Having its own learning centres also enable OUM to provide better computer laboratory services, physical library services, more well-equipped tutorial rooms, and better ICT infrastructure for a more conducive online learning environment. Another initiative is to relocate some of our faculties at the learning centre in the Kuala Lumpur/Selangor (Lembah Kelang) area. This helps to provide better services to our learners from those faculties since they are now closer to faculty members as well as its administrative staff.

In terms of online resources, OUM has introduced several initiatives that have really enhanced its online support to learners. For example, OUM introduced e-Gate to assist learners in enhancing their English language proficiency. OUM also developed the Mathematics Resource Centre (MRC) to help learners improve their Mathematical skills. Especially for the teacher learners, the Faculty of Languages introduced EPIC (Education Portal for Internet Courses), a special platform for online learning that incorporates very interesting, exciting and latest learning approaches. Other initiatives in this area include i-lectures, i-Casts (i-radio online learning segments) that learners can listen and save for later listening. OUM also has i-FEED, that is an intelligent feedback system where learners can pose questions related to learning content and they get immediate feedback from the application. Yet another new initiative is e-Schedule which is a weekly plan or schedule proposed to learners that they can use as a guide to focus on each week before they come to the classroom for discussion. Even tutors can use e-Schedule as their own guide in preparing for their tutorials. In enhancing mobile learning, the use of QR codes was introduced to learners so that they can scan their learning materials and other information through their mobile devices.

However, due to the limited availability of space, OUM has not been able to provide adequate "*Parking*" facilities for its learners who, being working adults come to their weekend classes in their private cars. For the same reason, OUM has not been able to provide good "*Canteen/Cafeteria*" services for its learners. Hence the low ratings for the items.

Knowledge and Skills

As an institution of higher learning, one of the objectives of OUM is to produce well rounded graduates, with good knowledge in their field of study as well as acquiring the soft skills that can help them to become a better workforce. In this respect, OUM managed to improve the perception of learners in the aspects of *"Analytical Skills", "Interpersonal Communication Skills", "Creative and Critical Thinking Skills"* and *"Problem Solving Skills"*. This improvement in soft skills is an indication of the effectiveness of the introduction of four core-basic courses to all its learners.

In the past five years, OUM has revisited the whole assessment system which led to introduction of rubrics which serves as a guide for the learners in preparing their assignment. This rubrics system has enabled learners to expand their creative and critical thinking skills as well as analytical ability.

As for the maximum learning outcome, OUM has also ventured into a new format of assignment questions for certain core courses offered by the faculty. The focus of the new format is more on problem-based learning and case studies while some courses require learners to make presentations for their coursework.

While OUM stresses the importance of English as the preferred medium of teaching and learning, the ratings for this item has worsened in the last 5 years. This could be due to the fact that in general the English language proficiency of OUM learners is quite low. However, in recognizing that, OUM has provided support for these teachers to improve their English on their own accord through the e-Gate, a portal that contains online resources for learning English.

Impact of OUM Programmes on Graduates' Self-Readiness

OUM, as an ODL provider, promotes the development of lifelong learning skills. In this regard, the main objective of OUM is to produce graduates who would have acquired the habits of "learning to learn".

The results of this study indicate that the teaching and learning environment at OUM has been successful in developing the relevant traits and attributes that would lead to a positive attitude towards lifelong learning. These traits include self-confidence, effective communication, self-maturity, self resiliency, independence/self reliance, creative and critical thinking, problem solving and teamwork. These are the traits that drive the lifelong learning attitude such as a keen interest in learning and be sensitive towards current affairs.

The provision of good curriculum, conducive facilities and infrastructure, suitable assessment system and excellent teaching and learning will facilitate the development of lifelong skills among the learners who have already been equipped with the right traits and attitude. This is in line with the model proposed by Latifah et. al. (2011), that the development of lifelong learning skills is a function of curriculum, assessment system, teaching and learning and facilities (Figure 1).

Figure 1: Factors Contributing to the Development of Lifelong Learning Skills

Conclusion

Student learning is a fundamental component of the mission of most institutions of higher education, thus the assessment of student learning should form part of an assessment of institutional effectiveness. As an institutional community, we would want to know how well we are doing in what we say we are doing, particularly in the aspect of supporting student learning. Tracer study represents one of the several instruments used by OUM for this purpose.

The feedback from its graduates in the 2013 Tracer Study discussed in this paper clearly indicated that OUM has fulfilled its role well. Its graduates are very satisfied with their overall learning experience at the university. The teaching and learning environment at OUM has been successful in developing the relevant traits and attributes that would lead to positive attitude towards lifelong learning. While it is important to gauge students' satisfaction level, it is even more important to know if learning has really been effective. The learning outcomes measured under the construct of "*knowledge and skills*" acquired from the programme does reflect the effectiveness of the teaching and learning.

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