CONTINUOUS QUALITY IMPROVEMENT IN MODULE DEVELOPMENT IN AN ODL INSTITUTION

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ABSTRACT

Open University Malaysia (OUM) is an open distance learning (ODL) institution; adopting the blended learning pedagogy which provides flexibility and time-effectiveness for self-paced study to its learners. Learners do self-learning most of the time. This calls for quality learning materials to support the learning process in an ODL setting. OUM responded to this call by leveraging on Internet-based technology to deliver educational content such as e-modules, video lectures, e-forums etc. to its learners. Learners can now access the University's e-content (2,431 e-modules and 288 video lectures) anytime, anywhere, via OUM's learning management system, myINSPIRE. Using descriptive and inferential statistics as the main analytical tool, this study aims to gain insight into learners' feedback on one of the core learning materials – the e-modules. Responses from learners from various programmes and clusters were collected via online surveys for two semesters (January 2018 and May 2018). A total of 238 and 488 learners responded to the January and May surveys respectively. This paper discusses thee-modules in 10 dimensions from the instructional design perspective encompassing areas such as the design, formatting, self-check and activity questions, organisation of the content, ease of reading, graphics as well as overall satisfaction. The results of this study would be able to provide some insights to the education provider on the quality of the e-modules from the instructional design perspective.

Keywords: *Open and Distance Learning, Module, Instructional Design*

INTRODUCTION

Open University Malaysia was established with the vision of providing higher education using the latest Internet technology thereby allowing access to education for all. OUM is a private education provider and plays a vital role in encouraging innovation in delivery, assessment methods and curricular in higher education. Indeed, OUM is the first ODL (Open Distance Learning) institution in Malaysia that was set up in 2000 to fulfil the nation's aspiration to increase education opportunities for the people especially among working adults. Through the years, ICT and ODL have become synonymous with the way OUM delivers its programmes (UNESCO, 2002); indeed for OUM students Internet technology has increasingly become an inseparable component of learning and delivering of educational materials for OUM's students (Abu Zarin, et. al, 2008). Based on its blended pedagogy, this allows for limited

sessions of face-to-face tutorials with online learning materials as inputs alongside online coaching and forum discussions. In other words, its pedagogy is premised on self-managed learning (80%), face-to-face interaction (8%) and online learning (12%) (Abas. et al, 2008). While e-learning allows for freedom in self-learning, it requires much discipline and perseverance and from experience the institution has observed, this only strengthens a student's will-power to succeed and to achieve future advancement in his career. Certainly, this makes learning via OUM's methods a dualistic achievement – obtaining a degree (knowledge) and character building. Over the years, the University has developed and fine-tuned its web-education taking advantage of the rapid technological advances occurring globally. Self-managed learning carries the highest weightage of the teaching and learning process in OUM when teaching and learning through distance education can be challenging for both the educator and the learner. The challenges are further intensified for quantitative courses such as Mathematics, Accounting, Finance and Economics. In conventional settings, learning occurs during classroom activities whereby learners do hands-on exercises, trial-and-error practices, and obtain on-the-spot feedback from their teachers throughout the course. Distant learners, on the other hand, mainly struggle through these courses in isolation. The majority of OUM learners comprise working adults who may have left school for a number of years and has now returned to pursue higher education. Distance learners have different prior learning experiences, learning styles, preferences and coping strategies. Taking into consideration the unique characteristics of this group of learners, additional support must be provided to help them cope with the current demands of academia apart from developing learners' interest, motivation and understanding for a course.

These differences are important and must be addressed to meet the learners' diverse needs, and to improve the educational experience of distance learning. Although these differences are sometimes treated as marginal or remedial in conventional settings, they are central to distance learners. Learners who are actively engaged in the learning process and sufficiently supported will be more likely to achieve success. Learners who are dynamically occupied in their own learning will begin to feel empowered. They will be able to take charge of their learning, and as a result, their individual achievement and self-direction will rise. On the other hand, the opposite will be true for learners who do not have the 'right' skills, mindset and perspectives on distance learning, and whose problems may be worsened by lack of support from their respective distance learning tutors and institutions.

There is a total of 2,431e-modules developed to date in OUM for all clusters; Cluster of Education and Social Sciences, Cluster of Business and Management as well as Cluster of Applied Sciences. The Centre for Instructional Design and Technology (CiDT) plays a vital role in the development of these e-modules from the instructional design aspect. This study attempts to discuss three-modules in ten dimensions from the instructional design perspective encompassing areas such as the design, formatting, self-check and activity questions, organisation of the content, ease of reading, graphics as well as overall satisfaction. The results of this study would be able to provide some insights to the education provider on the quality of the e-modules from the instructional design perspective.

LITERATURE REVIEW

As an ODL university, OUM has developed a unique system for teaching and learning online. This system enables learners and tutors to interact online where courses and discussions are delivered and carried out digitally. This type of e-learning management system is aptly called My Inspire (myINSPIRE). myINSPIRE allows the integration of various features such as instructors' and students' tools, technical support, administrative tools and functions thereby facilitating the teaching and learning process.

The main challenge for ODL providers is to design and offer distance educational experience that encourages learning to its learners with vast backgrounds. As such, ODL providers need to ensure that its educational products and services are providing appropriate support and an encouraging learning experience to the learners. In order to achieve this aim, there are many factors that need to be considered in developing and delivering the courses. The provision of learning materials as a tool of support for

the learners by the institution is particularly important because many ODL learners are now "faced with a new learning environment and the expectation that they will have independent learning skills and the capacity to engage in activities that require self-direction and self-management of learning" (McLoughlin and Marshall,2000).

Malaysian ODL learners who have journeyed through 12 years of primary and secondary education (mainstream education) may not have an appropriate educational concept of ODL learning. Their educational experience and learning expectations could be very teacher-centred, and their learning is characterised by dependency on teachers as knowledge providers. Their transition into becoming DLs may not be an easy one (Saw et al., 1999). In other words, every learner, every institution, every curriculum is unique and each exhibit different strengths and weaknesses. Their diversity in age, educational background and working experience only magnifies the fact that each learner could be similar to or vastly different from other distance learners. OUM's module are being enhanced from time to time in terms of its content as well as the instructional design in order to keep abreast with the latest content and the to keep the design fresh and new. Nevertheless, there is no short of challenges faced to achieve all this and this paper serves to study the feedback from its learners for its design concept for the learning modules used in various clusters.

According to Dzakiria (2005), a learner who has left the educational setting for many years may feel incompetent and lacking in the learning skills needed to compete with other learners. The development of educational technology and the use of a wide range of media in ODL may add on to the 'complexity' of becoming a distance learner. In the present generation of ODL, learners are required to engage in 'new' ways of learning. To some students this new way of learning is accepted and does not impede learning. But to others, distance learning is 'not just a plea for knowledge', but a plea for continuous 'presence' of the teacher for learning to take place. Within the Malaysian context of distance education, the notion that 'the teacher is always there, but isn't' in distance learning is a significant reality. Findings shared in this paper for example suggest that the infrequent face-to-face (F2F) meetings between distance education tutors and learners, and learners' dependency on their tutors, cause frustrations and sometimes impede the learning process. Most ODL learners are not able to cope with distance learning expectations. They find that the new ways of learning and the sets of expectations that go with it too great. In such circumstances, some learners expect distance learning tutors to play an important role in helping them come to terms with the new ways of learning.

METHODOLOGY

A survey with the use of an online questionnaire was used for this study. A total of 238 and 488 learners' feedbacks were recorded and collected for the January and May 2018 semesters. There is a total of 2,431e-modules developed in OUM with academic clusters and CiDT plays a vital role in the development of the e-modules in particular the instructional design aspect which encompass the six major processes after the raw content has been screened for plagiarism, moderated and approved by the clusters. These processes encompass instructional design (ID), language editing (E), graphic design (GD), desktop publishing (DTP), internal review (IR), and quality control (QC). Upon completion of these processes, the e-modules are sent to the clusters for review and sign-off. Upon sign-off, amendments are done (if required) before CiDT chunks the e-module and upload them to myINSPIRE.

Table 1 shows the nine questions in the questionnaire which used the 5-pointLikert-scale. This paper focuses on the instructional design perspective with the following considerations:

- Overall design

- Formatting

- Alignment of components within the e-module (learning outcomes, content, self-check and activity questions, and summary)

- Sufficient number of self-check and activity questions

- Helpfulness of the self-check and activity questions

- Systematic organisation of content (easy to difficult, concrete to abstract).

- Ease of reading

- Graphics / illustrations enhance learning

- Overall satisfaction

The questionnaires were created using Google Forms and then posted online on OUM's myINSPIRE platform for access by OUM students. The feedback was collected over the course of two consecutive semesters – January 2018 semester (collected from 6 December 2017 to 10 April 2018) and May 2018 semester (collected from 11 April 2018 to 30 august 2018).

Table 1: Questions in the Questionnaire

Question	Descriptions
Q1	The overall design of the module was attractive.
Q2	The formatting of the module was well laid out.
Q3	The learning outcomes, content, Self-check and Activity questions and summary in each topic were well aligned to enhance understanding.
Q4	There were sufficient numbers of Self-Check and Activity questions in the module.
Q5	The Self-check and Activity questions were helpful.
Q6	The content was systematically organised to facilitate my learning (from easy to difficult, concrete to abstract).
Q7	The module was easy to read.
Q8	The graphics and illustrations were effective in enhancing learning
Q1-8	Average rating of the instructional design (ID) elements (covered by questions 1 to 8) in the module
Q9	My overall satisfaction rating of this module is:

FINDINGS AND DISCUSSION

For January 2018 semester, a total of 238 responses were received from the learners. A relatively positive feedback was received for the average rating on instructional design elements and overall satisfaction rating for the e-modules although they fell slightly below the targeted satisfaction of 80%.

- The average rating for instructional design elements in the module is 76.85% (below targeted 80% satisfaction by 3.78%).

- The overall satisfaction rating for modules: 76.22% (below targeted 80% satisfaction by 3.78%).

Meanwhile, the highest rating received is for Q5 regarding the helpfulness of the self-check and activity questions with a rating of 78.4%. Nevertheless, there are several areas of concern that can be improved (Refer to Table 2).

Table 2: Instructional Design Areas of Concern

Question	Descriptions	Average Rating
Q4	There were sufficient numbers of Self-Check and Activity questions in the module.	(75.8%)
Q6	The content was systematically organised to facilitate my learning (from easy to difficult, concrete to abstract).	(75.8%)
Q8	The graphics and illustrations were effective in enhancing learning.	(76.05%)

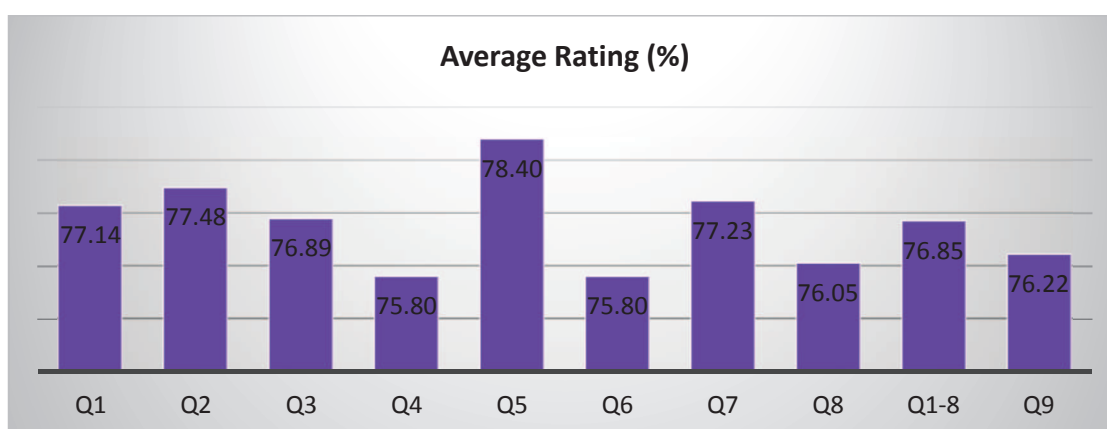Refer to Figure 1 for the average ratings for each question.

Figure 1: Average ratings for each question for January 2018 semester

As for May 2018 semester, a total of 488 responses were received from the learners. A significantly improved positive feedback was received pertaining to the ratings for the e-modules with average ratings slightly above the targeted satisfaction of 80% as detailed in the following:

- The average rating for instructional design elements in the module is 80.88% (above targeted 80% satisfaction by 0.88%).

- The overall satisfaction rating for modules: 80.41% (above targeted 80% satisfaction by 0.41%).

Meanwhile, the highest rating received for May 2018 semester are for Q2 on the formatting of the e-module and Q8 on the effectiveness of the graphics and illustrations with ratings of 81.6% and 81.52% respectively. Nevertheless, the areas of concern for thee-modules are Q4 pertaining to the sufficiency of the number of self-check and activity questions; and Q7 on the ease of reading with 79.51% and 80.37% respectively. Refer to Figure 3 for the comparison of average ratings for each question for January and May 2018 semesters. The feedbacks from its learners are positive compared between January and May 2018 semester. The reasons for this positive feedback may be due to the use of simple and clear design for the modules with clearer and better arrangements of its contents and explanations. The uses of graphic visuals are a forte as well, as adult learners tend to learn better and faster with the aid of graphic illustrations and examples provided.

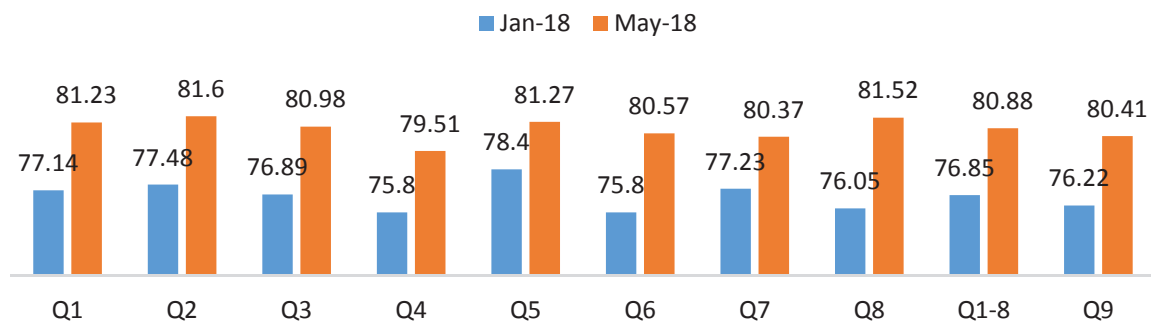**Comparison of Average Ratings by Semester (%)**

■ Jan-18   ■ May-18

Figure 3: Comparison of average ratings for each question for January and May 2018 semesters

CONCLUSION

The widespread demand for higher education is intensified with globalisation, increasing mobility and democratisation of education. All over the world, people are free to choose where, how, what and when to pursue their studies. The challenge of competition for students comes not only from within the shores of the nation, but globally where similar offerings can be obtained too. The challenge for transparency and the adherence to generally understood and accepted norms of quality will be the deciding factor in inducing more people to choose that particular institution of higher learning to continue with their education. Basically, universities are expected to respond to the demands from the labour market for quality graduates, which mean that they must be publicly prepared to be scrutinised in terms of their lecturers, services and facilities.

The design seems trivial but using the right visual to attract the learners' attention and to pique their interest is as important equally. The results of this paper will be able to highlight on the path that CiDT has been taking or doing, with positive feedback indicating moving the right path. Nevertheless, much effort and keeping alert with the current needs on the design to ease learning and managed to capture the learners' attention to important contents and exercises are vital.

The reasons for the significant increase in the overall rating for instructional design and overall rating for the e-module may be due to the effort of continuous improvement and enhancement of the modules. This shows that CiDT has been taking the right action and path in its instructional design for the modules. However, there are still areas that can be further improved such as the arrangement of the content and the graphics and illustrations for the e-modules. There are several further studies that can be explored particularly on the ratings for the e-modules based on clusters, the nature of the course etc. A continued research on distance learning is essential. This study offers research potential regarding learning support in distance education. In designing the learning support, this paper wishes to encourage the ODL providers to choose appropriate combinations of methods for particular learning contexts. ODL providers need to realise the importance of their role in providing learning support in distance learning and, more importantly, to stimulate thought, dialogue, and future research in providing learning support to ODL programmes and courses to its learners.

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