

## **A Case Study: Performance between Open and Distance Learners and Traditional Classroom-Based Learners**

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### **Abstract**

The recent change in the education platform, relying heavily on the use of internet, has caused a revolution in the education world. The use of technology has allowed many education institutions to reach learners in a mass and provides flexibility to learners in pursuing their tertiary education; they are able to complete their studies via open and distance learning (ODL) mode making learning without boundaries and assessable and open for all. ODL carries the lifelong learning banner for everyone everywhere. However, many concur ODL has less human touch/ face-to-face classroom with the facilitator as compared to traditional classroom-based learning mode. Many institutions become interested in documenting its learning-teaching pedagogy with the performance of learners; whether the learners' academic performance differs in these two different learning settings. This study aims to investigate on the academic performance of part-time learners via ODL and full-time learners via traditional classroom-based settings. Two quantitative courses would be selected for comparison in this study due to its nature of the course, "core" courses status in most programmes and the number of learners taking this course. The results would be able to highlight the need of certain additional workshops for certain learning-setting based to assist learners in their quest to higher education. Other than that, it may also show the future direction of the education industry in Malaysia.

Keywords: Open and distance learning (ODL), traditional classroom-based, quantitative courses.

### **Introduction**

According to UNESCO (2002), open and distance learning is a mean to increase the accessibility and flexibility of education, with the combination of work and education. Most of the ODL learners are distinctive students who encounter more time constraints as compared to students of the traditional learning environment, due to commitments such as work and family. ODL learners therefore require a good learning system that can be utilised to optimise and enhance their learning despite the many constraints. Aggarwal and Bento (2000) pointed out that advances in information technology and telecommunications has allowed web-based courses to replicate more seamlessly the features of face-to-face instruction through the use of audio, video and high-speed internet connections that facilitate synchronous and asynchronous communication in chat groups, web discussion boards and virtual forums.

The acceptance of open and distance learning (ODL) enrolment rates has increase at much faster rates than traditional enrolment; specifically in the higher education. ODL enrolment have grown 21% while only 2% for traditional classroom since 2002 (Allen & Seaman, 2007). Coping with the expansion on ODL education, higher institutions are struggling with the increasing concern of accountability demands as well as quality assurance of its programmes. This issue covers the public concerns' with accreditation bodies producing evidence that ODL learners reach articulated learning objectives (Suskie, 2004). These widespread concerns and pressures push education institutions to document their learning pedagogy on its effectiveness and also to maintain their continuous efforts to improve the learning outcomes.

Open University Malaysia (OUM), was established based on this concept of providing higher education using the latest Internet technology thereby allowing access to education for all. Indeed, OUM is the first ODL (Open Distance Learning) institution in Malaysia set up in 2000 to fulfil the nation's aspiration to increase education opportunities for the people especially the working adults. Through the years, ICT and ODL (UNESCO, 2002) have become synonymous with the way OUM operates its programs; indeed 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 a policy of blended pedagogy, this allows for limited sessions of face-to-face tutorials with printed learning materials as inputs alongside online coaching and forum discussions. In other words, OUM's pedagogy is premised on self-managed learning (80%), face-to-face interaction (8%) and online learning (12%) (Abas, Z.W. et al, 2008). While e-learning allows for freedom in self-learning, it requires much discipline and perseverance and from experience, OUM has observed that 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. The OUM has over the years developed and fine-tuned its web-education taking advantage of the rapid technological advances occurring globally.

### **Research Problem**

The development of ODL and traditional classroom trends in the education raises the question on the quality of online courses, particularly as compared to traditional classroom learning and in relation to individual learner needs, perceptions, and learning outcomes. This study aims to investigate the performance in terms of the results obtained by these two different learning settings. Two quantitative courses would be selected for comparison in this study due to its nature of the course, “core” courses status in most programmes and the number of learners taking this course. The results would be able to highlight the need of certain additional workshops for certain learning-setting based to assist learners in their quest to higher education. Other than that, it may also show the future direction of the education industry in Malaysia.

### **Literature Review**

ODL is becoming one of the most widespread and prevalent modes of continuing and furthering education. Teaching in open and distance mode is an extremely challenging function. Due to recent developments in education, such as more demanding parents or students, governmental policy with respect to accountability and accreditation and many more, education providers increase their efforts to measure and improve the performance of the educational processes.

ODL is missing one important component as compared to traditional classroom learning; social and communicative interactions between learner and facilitator. Learners have the ability to ask questions, share opinions as often, through conversation, discourse, discussion, and debate among peers and facilitators that a new knowledge imparted. Although it interactions may take place in the ODL setting as well, it requires adjustments by facilitators and learners to be highly active and have a synchronous chat via forums or chat rooms. The effectiveness of such a virtual interactive venue is not without its debate (Ni, 2003). This is because learner-to-facilitator and learners-to-learners are important in the design of ODL courses (Fulford & Zhang, 2993; Kumari, 2001; Sherry, 1996). ODL learners need to have the sense of belonging to enjoy mutual interdependence, sense of trust and have shared goal in order to have a smooth learning experience (Davies & Graff, 2005; Rovai, 2002).

There are studies suggested that interaction in an online environment promotes learner-centered learning and encourages wider learner participation and is able to produce wider and deeper discussions than a traditional classroom setting (Karayan & Crowne, 1997; D.Smith & Hardaker, 2000). This may be due to the fact that online setting can be less intimidating between individuals and

also less time pressure on learners than interaction in a face-to-face setting (Warschauer, 1997). However, online interaction may not be as realistic as it sounds when close connection among learner is absent. Haythornthwaite et al (2000) found that learners who fail to make online connections with other learners in the forum feel isolated, side-benched and will tend to drop-out due to stress. Refer to Table 1 provides a comparison of the two modes of learning.

Table 1: The differences between ODL and traditional classroom

Learning in a constructivist learning environment	Learning in a traditional learning environment
<ul style="list-style-type: none"> <li>• Demand driven</li> <li>• Learner-centred</li> <li>• Self motivated</li> <li>• Quality of learning depends greatly on the quality of instruction</li> <li>• Learning objectives can be negotiated and the learner determines his own learning pace</li> <li>• Flexibility in terms of time and space</li> </ul>	<ul style="list-style-type: none"> <li>• Supply led</li> <li>• Teacher-centred</li> <li>• Teacher provides motivation</li> <li>• Quality of learning depends greatly on the quality &amp; motivation of the teacher</li> <li>• The teacher decides on the learning sequence and the learning pace</li> <li>• Normally confined to the school and the classroom environment</li> </ul>

(Source: Omar et al, 2009)

### **Open University Malaysia (OUM) as an ODL institution**

OUM as the first ODL learning university in Malaysia has contributed to the field of education by offering multimode learning. Having set the trend, OUM continues to provide innovative approaches in the ODL environment that practices a blended pedagogy which comprises of three modes of learning namely self-managed learning, face-to-face tutorials and online learning. The university utilises the combination of printed learning materials as the main learning resource supplemented by face-to-face interactions at learning centres and online learning through a designed learning system; MyInspire. MyInspire's operates under the moodle platform and its essential feature is the asynchronous forum board that includes a series of functions such as forum, announcements, course material and course outline as well as online registration.

Open University has been working together with many foreign as well as local companies eg., Vietnam, Maldives, Bahrain, Yemen, Ghana, Kolej Tentera Darat (KTD), Jusco etc. Some of these collaborations are conducting OUM's programmes under the full-time with traditional classroom setting. In other words, local learners and collaborated- learners are using the same academic syllabus of OUM's programme. Hence, the question arises on whether there are differences in the learners' performance and achievement between these two learning environment settings.

### **Research Details and Discussions**

Two quantitative courses are chosen from OUM Business School as comparison in the academic performance due to its nature of the course as well as the status of these courses to OUM Business School programmes. These courses are primarily core courses for most programmes in OUM Business School. OUM Business School conducts its programmes with several foreign partners' universities without compromising its programmes quality in terms of delivery; adopting the same assessment format but different learning setting. Foreign partners; universities learners are full-time learners instead of part-time compared to local open market learners.

ODL setting learners' performance is based from semester May 2014; while traditional classroom learners' performance is based on September 2015. Total learners in the ODL setting consist of 349 and 546 for Principles of Microeconomics and Principles of Macroeconomics respectively. Meanwhile, total learners in the traditional classroom consist of 133 and 80 for Principles of Microeconomics and Principles of Macroeconomics respectively. There is a relatively significant difference in the total learners' sample for this study due to its different learning mode settings. ODL setting would be able to accommodate larger number of learners compared to traditional classroom settings. One factor to highlight in this comparison is the different between the learners' age and learning setting mode. The majority of ODL learners are matured adult with various family and career commitments as compared to traditional classroom settings learners, relatively younger in age and fresh high school leavers. Refer to Table 2 and Table 3 for the mean for various assessment components and grade distribution for Principles of Microeconomics course. While Table 4 and Table 5 shows the mean for various assessment components and grade distribution for Principles of Macroeconomics course.

Table 2: Comparison between ODL and traditional setting on the mean for various assessment components

	ODL Setting	Traditional Classroom
Course Title: Principles of Microeconomics		
Mean (Overall)	40.58	49.68
Mean (Final)	16.67	30.65
Mean (Assignment)	22.31	25.91

Based on Table 2, there is no much difference between the assignment mean marks which is based on 100% between the ODL setting and traditional classroom setting. Nevertheless, there is a relatively huge gap for the final examination mean marks; with 16.67 for ODL setting and 30.65 for traditional classroom setting. It is rather surprising that ODL setting learners are performing relatively on par with their counterparts who are doing their studies on full-time settings. This may be due to the fact that traditional classroom settings learners are doing their studies full-time with adequate time for revision. Another note to highlight, the ODL settings' e-facilitators may have provided sufficient and good support to learners in completing the assignments. Hence, the difference in the overall marks for both the learning environment settings.

Table 3: Comparison between ODL and traditional setting on the grade distribution

Course Title: Principles of Microeconomics		
	ODL Setting	Traditional Classroom
Grade	Percentage (%)	
A	0.67	9.8
A-	1.37	5.3
B+	2.74	6.0
B	3.77	8.3
B-	3.77	4.4
C+	9.25	8.3
C	17.47	9.8
C-	4.79	8.3
D+	14.38	8.3
D	13.36	6.0
F	28.42	25.5
Total	100	100

Based on Table 3, it illustrates that most of ODL setting learners achieve grade between C to F while there is a rather equal distributions in the grade by traditional classroom settings for all the grades for Principles of Microeconomics course. There is a significant differences achieved for Grade A between these two learning environment settings. This may due to the rather huge difference in the final exam performance; where ODL setting learners' performance in the final examination is below the traditional classroom settings. ODL setting learners are matured adult with heavy family and career commitments, where studies may not be one of their main priorities. There is a need for ODL institutions to provide relevant support for its learners such as relevant examination clinics, revision classes or prepare sufficient learning materials for the course.

Table 4: Comparison between ODL and traditional setting on the mean for various assessment components

	ODL Setting	Traditional Classroom
Course Title: Principles of Macroeconomics		
Mean (Overall)	47.38	58.34
Mean (Final)	27.5	44.38
Mean (Assignment)	23.93	25.04

Based on Table 4, this scenario is a mirror results for Principles of Microeconomics course. There is not much difference between the assignment mean marks which is based on 100% between the ODL setting and traditional classroom setting. Nevertheless, there is relatively big difference for the final examination mean marks; with 27.5 for ODL setting and 44.38 for traditional classroom setting. Hence, the difference in the overall marks for both the learning environment settings. The reason may be the same as Principles of Microeconomics as shown in Table 2 above.

Table 5: Comparison between ODL and traditional setting on the grade distribution

Course Title: Principles of Macroeconomics		
	ODL Setting	Traditional Classroom
Grade	Percentage (%)	
A	4.53	15
A-	3.35	11.25
B+	4.72	8.75
B	6.89	12.5
B-	8.27	15
C+	9.45	8.75
C	14.37	7.5
C-	4.13	2.5
D+	12.01	3.75
D	12.2	0
F	20.08	15
Total		100

Based on Table 5, it illustrates that most of ODL setting learners achieved grade between C,D+ and F while for traditional classroom setting ,most learners achieve Grade A-, B and F; showing a rather uneven gap of learners' performance in this setting for Principles of Macroeconomics course. There is a significant difference in between Grade A to C between these two learning environment settings.

In contrast to Principles of Microeconomics, the ODL settings learners for this course tend to perform better in their grade. This may be due to the fact that ODL learners have learnt to cope better in balancing their time between family, career and studies because this course is offered at a later semester compared to Principles of Microeconomics. ODL setting learners tend to perform averagely;

where most of them achieve between the grade C and D+. While there is a huge variance in the grade achieved for traditional classroom settings learners; where most of them achieved A, A-, B and F. However, both also have a relatively high learners getting Grade F with 20.08% and 15% respectively.

## **Conclusion**

This study shows that there is a relatively significant difference in the grade achieved between ODL learners and traditional classroom based settings particularly in its final examination component for both courses. This may be due to the fact that ODL learners are doing their studies in a part-time basis, tend to face more commitment such as career and family obligations compared to traditional classroom setting. Traditional classroom setting learners do their studies in a full-time basis, no obligations on family neither on career. Other than that, ODL learners are matured adult learners who may have left their studies more than a decade ago, while traditional classroom settings learners are fresh high school leavers. ODL institutions tend to be moving the right direction in assisting and providing support to its learners in the assignment. Nevertheless, there is a need for ODL institutions to look into ways to assist its learners in their final examination in order to boost the final examination results, and overall grade.

The results of this study shows that there is a need to integrate the web learning in the ODL approach as ODL has created tremendous opportunities for a wide spectrum of learners in a learning environment that is accessible to all. However, it is vital that ODL institutions adapts to changes in its learners' learning experience and needs so to gauge the learning gap via ODL as compared to traditional classroom setting. The traditional web-based learning systems which emphasise only nodes and links are suitable for content delivery, but inadequate for the delivery of effective instruction for a subject like economics, which requires visualizing, thinking, and knowledge constructing. Due to its limitations, web-based learning is often viewed as a medium to supplement the traditional lecture instruction. There is need for ODL institutions to look into the possibility of designing an alternative instructional system for effective learning. It is hope that more prototypes would be designed and developed by educationists in the future for the purpose of testing the efficacy of such a learning model. As such, the approach places less emphasis on the tutor and more on the learner and that positively encourage and make ODL a distinct and more attractive learning environment. Thus, this can be supported by technology for providing learners with effective access to advanced knowledge in the pursuit of ODL as an ongoing lifelong process, allowing any ODL institution including OUM in steering change for education using the elements of web-based learning model without compromising the its quality of delivery as par with other conventional classroom settings.

Ideally, the suitable and right instructional system will ensure ODL institutions remain uniquely a provider of higher education via ODL with the ability to narrow the digital divide in education. Indeed, ODL will live up to its policies of widening access to education, providing lifelong learning opportunities and giving everyone a second chance for education; universities that thrive on the preservation of knowledge and the socialisation of all.

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