

**REACHING OUT TO VIRTUAL STUDENTS  
VIA MYLMS, THE OUM WAY:  
A CONTENT ANALYSIS OF ONLINE DISCUSSIONS  
AMONG CBMM2103 STUDENTS.**



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**ABSTRACT**

*The National IT Agenda (NITA) in Malaysia has paved the way for people to enhance their quality of life through ICT. At the Open University Malaysia (OUM), the mission is to reach out to all adult learners who seek to improve their quality of life through education. One of the many courses offered is CBMM 2103, a second-level undergraduate core course on Information Technology, Media and Society, offered by the Faculty of Information Technology and Multimedia Communication. In January semester 2005, the course attracted over 90 students throughout Malaysia. This study compares the frequency of online discussions between two groups of students. One group comprises personalized learning students, while the other goes through a hybrid blended learning solution. The online discussions of both groups were compiled for content analysis. The frequency and quality of contributions are then compared with the students' final grades in the course. The results of the study show that frequent and quality online discussions can produce high achievers among open distance learners. However, frequent contributions alone do not necessarily translate into good grades and quality learning. The study also provides valuable feedback in terms of identifying the strengths and weaknesses of the course content, delivery of online learning, and meeting the overall needs of open distance learners and tutors.*

**INTRODUCTION**

Education is one of the vital components for a better quality of life. At the Open University Malaysia (OUM), the mission is to provide opportunities to all who seek to improve their quality of life through education. This is in line with the National IT Agenda (NITA) and Malaysian national ICT policy objectives, which aim to promote a civil society where information-based services will provide the basis of continuing enhancements to quality of work and life; and facilitate the efficient allocation of resources such as skilled labour, capital, knowledge and national assets (Refer Communication and Multimedia Act 1998, p.18).

In fulfilling its mission, OUM offers a flexible mode of learning to students, namely self-managed learning, online collaborative learning, and face-to-face interaction with tutors. A special course, OUMH 1103, is offered to undergraduates to enhance their learning skills in open and distance learning (ODL), including basic ICT skills for learning, and searching for information.

The face-to-face (F2F) interaction with tutors are conducted five times per semester at more than 35 Learning Centres throughout the country. If the enrolment is less than 10 students at any of the learning centres, the current administrative policy is for students to opt for exclusively personalized learning. This makes online collaborative learning more crucial for effective mastery of content knowledge.

The primary aim of this paper is to evaluate the effectiveness of online discussions among distance learners, specifically undergraduates who were registered in CBMM 2103 (Information Technology, Media and Society), at OUM. This paper compares the frequency of online discussions between two groups of learners--those who had the advantage of all three modes of learning, and those who had to undertake total personalized learning and missed out on the five F2F tutorials. The frequency and quality of individual learners in both groups are then compared with their final grades in the course.

**MODE OF ONLINE COLLABORATIVE LEARNING**

Larger numbers of non-traditional students are now entering the market to further their education. There is also an increasing need for online education based on the changing demographics (Rustagi & Goel 2003: 67). Online education or distance learning often attempts to be a student-centred learning, though it is not always the case. Online collaborative learning (OCL) is defined by Abas & Kaur (2004: 814), as "a process whereby two or more parties support each other in attaining the other party's learning goal." In essence, the OCL process starts with the tutor posing a relevant and discussive question for learners to think and reflect, after which learners are expected to contribute further by posting their opinions, experiences and their conclusions on the question posed. An ideal OCL environment is when the students can eventually take charge of online learning, capitalize on each other's strengths, leverage on their prior knowledge and hands-on experiences.

A study was conducted by Abas & Kaur (2004) to evaluate the preparation of tutors for an effective OCL environment in OUM, and their perceptions of OCL. Their study found that OUM tutors were generally positive and receptive towards OCL; that learners were largely dependent on online tutors; and that tutors perceive OCL as having contributed to the learners' improved content knowledge.

Since OCL is an essential part of the learning process at OUM, tutor training is constantly provided by the ODL and Pedagogy Centre to ensure that tutors are fully prepared for the online collaborative environment. Great pains are also taken to provide a user-friendly managed learning environment for OUM's target clients. A Learning Management System known as MyLMS provides tutors and learners access to a multitude of course-related information including announcements, course content, support materials, assignments, references, digital drop box, and other information.

OUM students are allocated five percent of the course assessment for online participation (OLP). The plan is to increase the marks for active OLP "when it is assured that both students and tutors are ready" (Abas & Kaur: 2004, pp.814-815). To ensure an effective implementation of the OCL system, tutors are made to incorporate a set of seven rubrics into the online forum<sup>1</sup> and to be conscious of the fact that "a team of OUM academics will be keeping watch of online interactions" (Refer OUM's intranet communications, 17 February 2005).

### THE STUDY

This is a microscopic study of online collaborative learning (OCL) at the Open University Malaysia. The focus of the study is on OCL in a second-level undergraduate core course offered by the Faculty of Information Technology and Multimedia Communication, namely, CBMM 2103: Information Technology, Media and Society.

A total of 91 students registered for the course in January semester 2005. Of these, 31 students from one learning centre had the advantage of F2F tutors, while 60 students from 14 other learning centres throughout Malaysia had to opt for personalized learning with virtual online tutors. The course online discussion was also monitored by the Subject Matter Expert (SME) who co-wrote the course module, prepared the assignment questions, tests and final examination questions.

Transcripts of online discussions between mid-January and April 2005 were compiled for content analysis. The two units of analysis are: (a) Frequency of contributions, and (b) Quality of contributions. Both had been identified as important elements that contributed towards the success of online collaborative learning (Refer <http://lc.oum.edu.my/2005/issue8/index.php?op=view&page=19>). Points are then given for each category (see Table 1). In essence, this is also the assessment scheme introduced by OUM's ODL Pedagogy Centre in January 2005.

Table 1. Assessment Scheme for Online Discussions

Units of Analysis	Categories	Points
Frequency of Contributions	Contributions have been regular and varied without long lapses between postings (more than 5 postings)*	2
	Learner has been present online but postings have been few and far between; student has been a lurker more than an active contributor (between 2-4 postings)*	1
	Learner is rarely or never present online (only 1 posting or none at all)*	0
Quality of Contributions	High quality contributions focused on task; strong evidence of learner having generated discussion, analysed information, drawn conclusions and helped create a lively debate.	3
	Contributions have been focused on the task; some evidence of analysis, sharing and teamwork.	2
	Contributions have been minimal with little evidence of sharing and teamwork	1
	Few or no contributions have been made toward the discussion of task	0

(\*) No. of postings suggested by researcher.

### FINDINGS AND DISCUSSIONS

#### Frequency of Online Discussions

Data in Table 2 show relatively active involvement in OCL by tutors (37.7 %) and learners (59.5 %). In terms of frequency, Groups B and C had the most number of contributions. However, the study does not exclude low-level chatting and SMS-like comments in the learner contributions.

The content analysis also showed 17 (2.8 %) contributions by the SME who monitored the online discussions, and who had interjected several times in groups B and C discussions for the following reasons: (a) tutors had not responded to students' queries (in both cases, because of health reasons or technical problems) (b) to contribute new ideas, information and knowledge (c) to provoke higher order thinking (d) to encourage collaborative learning, and (e) to help solve students' logistical problems with their Learning Centres.

Table 2. Frequency of Tutor-Learner-SME Contributions in Online Discussion

Group	Tutor OLP f (%)	Learner OLP f (%)	SME f (%)	Total f (%)
A (PL)	95 (52)	86 (48)	-	181 (100)
B (PL)	65 (35)	105 (57)	14 (8)	184 (100)
C (F2F)	39 (23)	125 (75)	3 (2)	167 (100)
D (F2F)	29 (40)	44 (60)	-	73 (100)
Total	228 (37.7)	360 (59.5)	17 (2.8)	605 (100)

f = frequency

PL = personalized learning

F2F= face-to-face + blended learning

The frequency and quality of contributions by each individual learner registered for the course are then categorised according to the assessment scheme in Table 1. The findings in Table 3 show a total of 35 (38 %) students participating on a regular basis, with 27 (30 %) students joining in the online forum occasionally. Another 29 (32 %) students were rarely present or did not appear online.

Table 3. Frequency of Learner Contributions

Group	Frequency of Contributions f (%)			Total No. of students
	2	1	0	
A (PL)	10 (34.5)	11 (37.9)	8 (27.6)	29 (100)
B (PL)	9 (29)	9 (29)	13 (42)	31 (100)
C (F2F)	13 (54.2)	4 (16.7)	7 (29.2)	24 (100)
D (F2F)	3 (43)	3 (43)	1 (14)	7 (100)
Total	35 (38)	27 (30)	29 (32)	91 (100)

In the first two quarters of the semester, as indicated by dates in the transcription, students were encouraged by the SME and tutors to participate, share ideas, and be involved in discussions. Despite that, 8 PL students and 4 "blended learning" students remained uninvolved. Another 4 PL students from East Malaysia were found to be non-communicative, primarily because of infrastructure and accessibility problems. This was discovered only during the later part of the semester from personal communication between the SME and Learning Centre personnel. One PL student, a school teacher in a very remote area in East Malaysia, could only join in the online forum once when he had access to a cyber café in his home town during the school holidays.

#### QUALITY OF LEARNER CONTRIBUTIONS

Table 4 shows that Group C had the highest frequency (34.7 %) among the four groups. However, only 6 % was ranked 2 and 3, while about 81 % of the contributions were not directed to the group task or discussion (rank 0). Likewise, about 71 % of Group B discussions were also of low-level quality. In comparison, Groups A and D had relatively more meaningful discussions (ranks 2 and 3, totaling 22 % and 30 % respectively), with some evidence of sharing/teamwork (rank 1, totaling 35 % and 18 % respectively).

Table 4. Quality of Learner Contributions

Group	Learner OLP f (%)	Quality of Learner OLP f (%)			
		3	2	1	0
A (PL)	86 (100) [23.8]	12 (13.95)	7 (8.1)	30 (34.9)	37 (43.0)
B (PL)	105 (100) [29.2]	5 (4.8)	15 (14.3)	10 (9.5)	75 (71.4)
C (F2F)	125 (100) [34.7]	2 (1.6)	6 (4.8)	15 (12.0)	102 (81.6)
D (F2F)	44 (100) [12.2]	6 (13.6)	7 (15.9)	8 (18.2)	23 (52.3)
Total	360 (100) [100]	25 (6.9)	35 (9.7)	63 (17.5)	237 (65.8)

The content analysis showed that in Groups B and C, the SME had to persuade students to interact in the real spirit of OCL, and not merely requesting for answers, examination tips, short notes, and summaries of module topics, with no attempt to express opinions or share knowledge. Students should also be reminded at the very beginning of the semester that SMS-like communication, Internet chatting and colloquial language are to be discouraged and best used in other cyber chat forums, but not in MyLMS. The following are some examples of low-level contributions, including use of *bahasa pasar* (colloquial language):

**Examples of poor quality communication:**

- hi ms...i still can't understand the meanings..wht do he meant by "skeptis" and the other one..i need a simple explanation from u..thank u
- hi fren..its on the 6<sup>th</sup> March...tc
- Good evening mam..i would like to suggest tht it would be very helpful to get a past sem assignment which really can guide us to do well in this sem..we can just go through it..and learn things..!
- Sir, 18-19 sir said kuiz...what time? where? how sir?,,,plz explain..thanks

**Example of a more meaningful contribution:**

I feel that our media are controlled by the government. This control is not total control of media. Maybe the practice in Msia is a combination of Authoritarian and Libertarian. Why do I say so? Just look at the portrayal of current issues by the media. Example, a report about a place in Pahang where the roads have not been repaired for ten years. But after the report was broadcast in *Buletin Utama*, (TV3, Sunday 6.2.05), a minister came down and JKR acted immediately to repair the road. Maybe this can be categorized as libertarian, that is, the media play the role of a watchdog for the public good. It has become a trend whenever it's out in the media, then action is taken!! How about Authoritarianism. It's obvious in certain contexts control is imposed on the media. This includes use of Internal Security Act (ISA). If I am not mistaken, before any magazine enters the market it must have the approval of the Home Minister, and now the Minister in the Prime Minister's Department is establishing a Media Group on Crisis Management (See *Utusan Malaysia* 8.02.05; [http://www.utusan.com.my/utusan/content.asp?y=2005&dt=0208&pub=UtusanMalaysia&sec=Muka\\_Hadapan&pg=mh\\_07.htm](http://www.utusan.com.my/utusan/content.asp?y=2005&dt=0208&pub=UtusanMalaysia&sec=Muka_Hadapan&pg=mh_07.htm)) to control media and prevent the media from reporting on subjects that might confuse certain issues. If such a body exists, it is certain that the media are under government control. However, media have limited freedom. As long as they do not contravene any law or procedure, the media are free to publish. So maybe there could be a new theory, a hybrid of Authoritarian and Libertarian.

**Comparison Between Final Grades, Frequency and Quality of Contributions**

The study also compared students' overall academic performance in CBMM2103 with their frequency and quality of contributions.

Figure 1. Comparison Between Final Grade, Frequency, And Quality Of Contributions

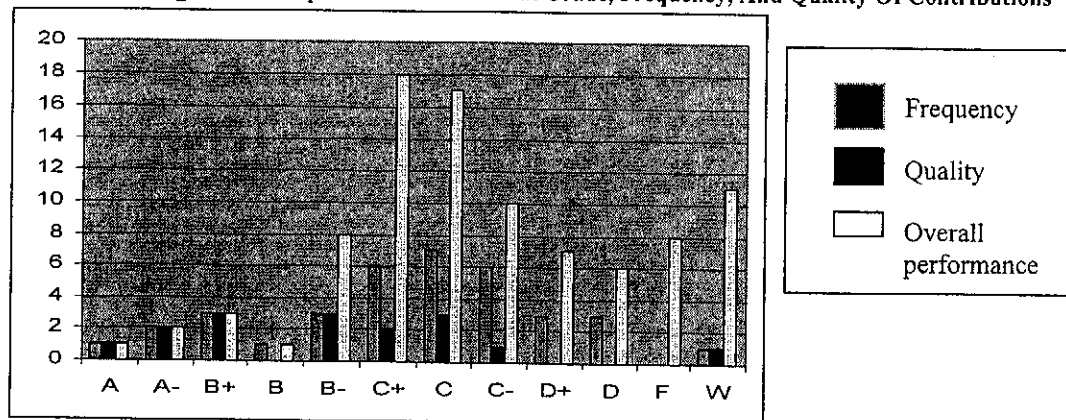


Figure 1 demonstrates a clear relationship between high achievers (A, A- B+) and quality contributions as well as active involvement in online discussions. However, frequent contributions do not necessarily translate into good grades as evident from those who scored C's and D's. One active online student who showed much potential decided to withdraw before sitting for the examination. Figure 1 also indicates that inactive students do not perform well, except for 3 students who scored B's without making their online presence felt. More extensive studies need to be carried out to address the issue of students who do not make their online presence, yet able to achieve good grades.

Table 5. Final Grades According To Group

Groups	Final Grades												Total No of Students
	A	A-	B+	B	B-	C+	C	C-	D+	D	F	W	
A (PL)			1		3	7	6	3	2	1	2	4	29
B (PL)			1		1	6	5	5	3	3	3	4	31
C (F2F)			-	1	1	5	6	2	2	2	3	2	24
D (F2F)	1	2	1	-	3	-	-	-	-	-	-	-	7
Total:	1	2	3	1	8	18	17	10	7	6	8	10	91

In Table 5, the high achievers seem to come from the blended pedagogy group (D). But then Group C should also have produced similar results. So, could the small enrolment (7 students) and high tutor-learner interaction (See Table 2) be a contributive factor to high achievement? This calls for more comprehensive studies (both qualitative and quantitative) to consider other intervening factors such as entry qualifications, accessibility factor as well as tutor effectiveness, impact of Personalised Learning (PL), and quality as well as frequency of contributions in OCL.

### CONCLUSION

The initial findings of this microscopic study show that frequent and quality online discussions can produce high achievers among open distance learners. However, frequent contributions alone do not equate with quality learning and high achievement.

To produce quality learning, it is crucial for tutors to become a role model by communicating well, engaging the learners in a meaningful way, and constantly encouraging higher order thinking. Needless to say, managing online collaborative learning is time consuming and therefore requires more commitment from tutors. Once involved in OCL, tutors would have to make more concerted efforts and use more creative ways to reach out to all their learners, particularly those who rarely join the discussion and those with little confidence in making an online presence.

Since this study is limited only to learner contributions, studies should also be extended to tutors to evaluate their online facilitation. Apart from frequency of contributions, the units of analysis could also include the seven rubrics (see endnote) to assess the quality of tutor contributions.

Raising the percentage of marks for OLP from the existing 5 % may encourage more learners to be involved. However, students also need to be reminded at the beginning of the semester that lurkers and those who make a one-time online presence should not demand marks from tutors. However, an alternative method would have to be decided for students disadvantaged by inaccessibility and infrastructure problems.

Studies also need to be carried out on a larger scale to find out if there are indeed differences between exclusively personalized learners and those in the blended learning system.

In general, this content analysis has helped the SME and tutors to identify the strengths and weaknesses of the module and student assignments. In fact, the study has provided valuable feedback that can be utilized to help update and further improve the course module.

### ENDNOTE

1. The seven rubrics are:- to motivate, communicate, encourage collaborative learning, engage in meaningful learning, build knowledge, higher order thinking skills, and maximum use of technology.

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