

Engaging the Open Distance Learners: A Strategy to Increase Retention and Improve Graduation Rates

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ABSTRACT

This paper investigates the impact of various interventions implemented by Open University Malaysia on learners' level of Engagement in the Online Community developed through interaction between the various participants; learners, instructors and management of the university. The intensity of the Online Community as the result of the interventions was measured using four variables: Learner-Learner, Learner-Tutor, Learner-Staff and Learner-Content interaction. The learners' level of Engagement and Commitment to stay in their programmes were also measured and a correlation was then established. Data for the research were collected from 1,500 undergraduate learners of Open University Malaysia throughout Malaysia using self-administered questionnaires. Results obtained from 1,116 respondents showed that there was a strong correlation between Learner-Learner, Learner-Instructor, Learner-Staff, Learner-Content, Engagement and Commitment to stay. Multiple regression analysis carried out showed that the learners' Engagement explains 72 percent of the variance of their Commitment to stay. This study is important as it will help future researchers to develop a tool to measure engagement of learners in the Online Community.

INTRODUCTION

As the demand for tertiary education via open and distance learning (ODL) has increased over the last decade, especially from among working adults, it is important that educational institutions take pro-active steps to ensure their aspirations to obtain the required qualifications are fulfilled. High attrition rate is often perceived to be associated with poor academic and service support quality. This reduces the revenue and thus the sustainability of the institution. It is also a known fact that the cost of getting a new learner is six times the cost of retaining him/her.

Despite the strong demand for tertiary education, non-traditional universities also experience high attrition rate. According to Ng (2010), the rate can be as low as 25 percent and as high as 80 percent. Attrition is not something new. It is one of the most highly researched areas in education since Vincent Tinto's first acknowledged research in 1975. Carr (2000) estimated that attrition among learners in non-traditional universities is higher than learners in traditional universities by 20 percent to 50 percent.

Most universities that offer ODL courses today have their own portals which provide learning and administrative support. These portals, commonly known as learning management systems (LMS), have interactive communication capabilities which can actually be used to engage their learners, lecturers and administrative staff. In fact, many universities have also started to use Facebook to engage their learners as a supplement to their portals as Facebook gives users more empowerment to post text messages, photographs and video clips. Palloff and Pratt (1999), Reisman (2003) and Rovai et al. (2007) have opined that attrition among distance learners are due to their feelings of isolation.

RESEARCH OBJECTIVES

The objective of this paper is to investigate the level of intensity of learners' participation in the Online Community formed as a result of the continuous use and involvement in the LMS of Open University Malaysia (OUM) by its learners, tutors and management staff. The level of intensity is measured using four variables; Learner-Learner (LL), Learner-Tutor (LT), Learner-Staff (LS) and Learner-Content (LC) interactions. A correlation is then established between these four variables and their level of Engagement. The research attempts to find the impact of the level of Engagement of learners on their Commitment to stay in their programmes.

RETENTION INITIATIVES TAKEN BY OUM

Online learning forms part of the blended learning approach practised at OUM with the use of LMS (known as myVLE, or my Virtual Learning Environment). A good LMS may not guarantee higher rates of retention among learners. However, it can be used to increase engagement and reduce the feelings of isolation among open distance learners and thus increase their retention if managed well.

According to Ali (2008), up-to-date and well-equipped Information and Communication Technology infrastructure is the key for open distance learning operations. This infrastructure must also be enhanced and improved to correspond to ever-evolving technologies. He added that e-content development, which is one of the six innovative ICT efforts of OUM, started in 2007 in order to "enhance the ODL teaching and learning experience with interactive, engaging and effective e-learning materials." (p. 4).

At OUM, all new learners were made to attend the Learning Skills enhancement workshop to equip them with the necessary skills to survive in the ODL environment. The learners were also taught how to navigate in the LMS environment and introduced to the benefits of using the LMS to help them in their studies. According to Ng et al. (2008a), the concept of ODL, time management, assignment preparation, ICT and understanding the LMS have positive impact on the learners' level of readiness. Latif, Sungsri and Bahroom (2009) also found that the workshop benefitted new learners as they performed better in their examinations; the re-registration rate also increased.

Pre-instructional workshops were also conducted for learners taking mathematical subjects so that they can interact online using mathematical symbols with the aid of the Microsoft Equation Editor software. Ng et al. (2008b) in their research found that there is a statistical significant difference in the rate of participation and final exam scores between learners who have attended such workshops and those who have not.

The online discussion forum implemented in 2003 forms part of the LMS. It allows learners to collaborate with other learners. Learners can interact with other learners and their tutors on a 24/7 basis. Tutors can also use this feature to provide feedback to their learners. According to Abas and Fadzil (2009), online discussion forum has the potential to add value to the total learning environment in ODL. Research conducted by Kaur (2004) on the online discussion forum at OUM confirmed that learners are generally satisfied with the context, feedback, and interaction with their peers and tutors.

Kaur (2004) noted that students' participation is often minimal without an instructor's participation. She suggested that planned, focused and guided online discussion can result in successful learning experience. Providing feedback, especially encouraging comments, pointing out errors and correcting them and using leading questions in an online discussion helps in guiding and directing students to follow and continue their posting. She added that providing timely feedback is important as questions posted by students left unanswered for too long will discourage posting.

Abas and Fadzil (2009) in their research on the online discussion forum using the Community of Inquiry instrument found that the quality of interactions differs from tutor to tutor. They added that those found to be effective have succeeded in creating a warm social environment encouraging their learners to participate actively. Ng and Wagner (2007) in their research found that the participation of learners increased to 84% from 64% (Kaur, 2004) with the introduction of Collaborative Online Learning.

Ng (2008) in his research on tutors and learners participation in the online discussion forum found that most of the postings happened during the first four weeks and gradually reduced from midway towards the end of the course. He opined that such behavioral pattern is due to technological barriers faced by both tutors and learners. For

Collaborative Online Learning to take place, learners and tutors must be equipped with the technological know-how.

Learners were also provided with course materials in the form of html modules uploaded into their LMS together with other resources such as i-lectures, video clips and course guides to help them. They were also supported with the digital library, available via the LMS.

The LMS also provided administrative support in aspects such as course registration, exam registration, course schedule, financial information and other related matters. Learners basically have all the information required to support their studies. Learners who have problems can channel their problems via an online help desk known as e-customers relation management (E-CRM) where all enquiries and grievances will be handled by a team of specialised staff attached to the Learners Services Centre at OUM.

LITERATURE REVIEW

Attrition affects both traditional and non-traditional learners. The reasons are complex and multiple. When online learning was introduced in the early nineties, many researchers were sceptical about its ability to reduce attrition because they believed that technology will cause more barriers to learning. However, it was not the learning mode but rather how it was managed.

According to Robertson et al (2008), distance education lacks activities that promote the sense of community often found in face-to-face traditional settings. They added that there has been an increased interest and attention given to the study of community and its relationship to student learning and success. A sense of community in online learning environment can help foster the feeling of connectedness, which encourages and supports successful learning and increases retention and graduation rate.

Even Tinto's (1993) Student Integration model and Bean and Metzner's (1985) Student Attrition model, which have guided many attrition studies, have suggested that students' involvement, engagement and integration into the academic and social system of an institution are key factors in determining if the students persist or drop out. Astin (1993) noted that the student's tendency to drop out of college is inversely related to the degree of direct involvement in the academic and social life of the institution. He added that the strongest indicator of retention is the degree of connection to peers and faculty that a student makes.

According to Morgan and Tam (1999), evidence from previous research suggested that low sense of community is a result of the feeling of isolation, which is related to student characteristics associated with attrition. Pascarella and Terenzini (1991) noted that the more intensely students are engaged and involved in their own education, the more likely they are to do well, be satisfied with their educational experience, and persist in their studies.

According to Liu and Oh (2007), successful online learning requires active participation, which otherwise will lead to isolation and disconnectedness. Higher participation results in higher sense of community. However, technology posed great challenges. They

added that institutions need to incorporate a community-centred approach, facilitative and supportive roles, and a social support network.

According to Swan (2003), “when online learning was first conceived and implemented, a majority of educators believed that it could never be as good as face-to-face learning” (p.1). She opined that many still share this belief. She, however, differed from them and pointed out that there is ample evidence to show that learners learn as much online as they do via traditional classroom environments. Garrison, Anderson and Archer (2000) opined that online learning occurs through the interaction of three domains; Social Presence, Cognitive Presence and Teaching Presence.

Kearsley (2002) concurred that a high level of interaction is desirable and positively affects the effectiveness of any distance education course. Olgren (2004) pointed out that faculty interaction with their learners have impact on learner dropout rate. According to him, it is not the type of interaction that is the problem, but rather the lack of interaction. According to Brook and Oliver (2003), social phenomenon of community is becoming increasingly recognised and may be put to good use on the support of online learning.

Wang and Fesenmaier (2003) opined that for an online community to evolve and prosper and bring benefits, members of the community must participate actively and contribute by asking questions, providing information and expertise, and sharing ideas. They found that efficacy is a major factor affecting members' active online participation besides instrumental and expectancy. Thus they opined that interaction is the key to online learning.

Graves (2009) suggested that social networking and online communities can become powerful tools in allowing members to meet, share ideas, and connect with one another. He added that organisations can use their online communities to encourage engagement among members and serve as channels for promoting thought leadership and prevent attrition.

RESEARCH METHODOLOGY

a. Samples Selection

The research sample was drawn from a population of 39,218 undergraduate learners studying at OUM throughout Malaysia. A total of 1,500 learners from different cohorts were targeted for this research.

b. The Instrument

The instrument used in this research was a 63-item questionnaire. The Three-Component of Commitment Model (TCM) developed by Meyer & Allen (1991) was incorporated to measure the learners' commitment to stay in their programmes. This instrument has internal consistency above 0.8. It also included items on measuring the intensity of the Online Community using four predictors; Learner-Learner, Learner-Tutor and Learner-Content Interactions as proposed by Moore (1989) and Learner-Staff

interaction as proposed by Jiang (2008). Engagement of learners in the Online Community was also measured in this instrument.

c. Research Questions:

The research is guided by the following questions:

- (i) What is the impact of OUM's intervention on learners' level of intensity in the Online Community?
- (ii) Does the level of intensity of learners in the Online Community have impact on their level of Engagement and Commitment to stay?
- (iii) Is there a statistical significant difference in the mean score of learners' Commitment to stay between learners who have high level of Engagement and those who have low level of Engagement?

d. Conceptual Model

The conceptual model for this research is as shown in Figure 1 below.

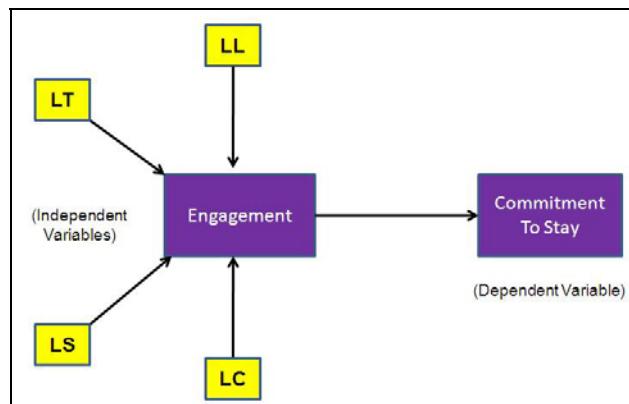


Figure 1: Conceptual Model of the research

e. Data Analysis

Data obtained were analysed using the Statistical Package for Social Sciences (SPSS) software where Pearson Correlation was used to find if there is any correlation between the variables. The Independent Samples *T*-Test was used to find if there is a statistical significant difference in the mean scores of level of Engagement between learners who are Committed to stay (TCM) in their programmes and those who are not.

FINDINGS

a. Samples

A total of 1,116 valid responses were received yielding a response rate of 74.4 percent. The distribution of the samples for each category is shown in Table 1.

Table 1: Distribution of Target versus Actual Samples

Cohort	Targeted Number	Actual Number	Response Rate
Year 1	300	372	124.0%
Year 2	300	221	73.7%
Year 3	300	214	71.3%
Year 4	300	165	55.0%
Final Year	300	144	48.0%
Total	N = 1,500	N = 1,116	74.4%

b. Demography of Respondents

There were 461 male respondents or 41.3 percent compared with 655 female respondents or 58.7 percent. Malays made up the biggest ethnic group with 726 respondents or 65.1 percent followed by Indians with 181 respondents or 16.2 percent. Chinese respondents were the third biggest group with 162 respondents or 14.5 percent. Majority of respondents (82.4 percent) are below the age of 40. 714 or 64 percent comprised respondents who are married and 372 or 33.3 percent single. In terms of work status, 981 or 87.9 percent were found to be working and the rest were either unemployed, doing own business or studying full-time. Most respondents financed their studies through own savings (554 or 49.6 percent).

c. Answers to Research Questions:

- (i) *What is the impact of OUM's intervention on learners' level of intensity in the Online Community?*

The mean scores and standard deviations of the variables obtained are as shown in Table 2 below.

Table 2: Mean Score and Standard Deviation of TCM, ENG, LL, LT, LS and LC

	Commitment to Stay	Engagement	LL	LT	LS	LC
Mean	3.87	3.88	3.90	3.35	3.51	3.50
Std. Deviation	.50	.51	.49	0.83	.76	.67
Variance	.25	.26	.24	0.69	.57	.45

According to Jiang (2008), a mean score of 3.51 to 5 is considered as high, a mean score of below 2.5 is considered low, and a mean score of 2.51 to 3.5 is considered as an interim level.

From Table 2 above, it was found that the mean scores of LL (3.90) and LS (3.51) interactions were considered high. LT (3.35) and LC (3.50) interactions are at interim levels. Note also that the mean scores of Engagement (3.88) and Commitment to stay (3.87) are considered high.

- (ii) *Does the level of intensity of learners in the Online Community have impact on their level of Engagement and Commitment to stay?*

The Pearson Product-Moment Correlation was carried out and the results are as shown in Table 3.

Table 3: Correlation Coefficients of Commitment to Stay, Engagement, LL, LT, LS and LC

		Commitment To Stay	Engagement	LL	LT	LS	LC
Commitment To Stay	Pearson Correlation Sig. (2-tailed)	1 .000	.848(**) .000	.608(**) .000	.238(**) .000	.389(**) .000	.493(**) .000
Engagement	Pearson Correlation Sig. (2-tailed)	.848(**) .000	1 .000	.675(**) .000	.238(**) .000	.326(**) .000	.394(**) .000

** Correlation is significant at the 0.01 level (2-tailed).

The results above show that the learners' level of intensity has impact on their level of Engagement and Commitment to stay with p -values below 0.01.

- (iii) *Is there a statistical significant difference in the mean score of learners' Commitment to stay between learners who have high level of Engagement and those who have low level of Engagement?*

The Independent Samples T -test was carried out using the median score of Engagement of 4.0 as the cut-off point as suggested by Garson (2008). The results are as shown in Table 4. From the table it was found that $t(836) = 28.827$, $p = 0.000$ is significant at 2-tailed test.

Multiple Regression analysis carried out to test the relation between Engagement and Commitment to stay found that the adjusted r^2 was 0.719.

Table 4: Independent Samples T-Test of Commitment to Stay

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval of the Difference	Lower
Commitment to stay	Equal variances assumed	30.947	.000	30.000	1114	.000	.6834	.02278	.63873	.72812
	Equal variances not assumed			28.827	835.985	.000	.6834	.02371	.63689	.72996

DISCUSSION AND CONCLUSION

Generally, the intervention carried out by OUM to increase engagement of learners has impact on the learners' interaction with fellow learners, their tutors and the staff of OUM. According to Jiang (2008), a higher level of interaction will lead to higher level of Engagement. Lower level of Engagement very often leads to feelings of isolation. The intervention has successfully increased the level of LL and LS. However, the level of LT and LC are at interim levels and need further intervention. This can be done by providing more training to tutors to engage the learners. Learners must be trained on how to use the content provided in the LMS.

The level of learners' intervention in the Online Community has impact on their level of Engagement and Commitment to stay. This was revealed by the Pearson Product-Moment Correlation coefficients where they were all found to be highly correlated according to Garson (2008). Engagement was also found to be highly correlated to Commitment to stay. Multiple Regression analysis carried out found that Engagement explains 72 percent of the variance of Commitment to stay.

Independent Samples T-Test revealed that there is a statistical significant difference in the mean score of Commitment ($t(836)= 28.8, p = 0.000$) between learners who have high mean score of Engagement compared with those who have lower level of Engagement.

This high level of engagement of learners has successfully improved OUM's retention rate over the years. According to Ng (2010), OUM has a retention rate of 25 percent in 2010 compared to most non-traditional universities which have recorded as high as 50 percent.

As most institutions of higher learning today have some sort of education portal and LMS to support learning, these can become powerful tools to engage learners if managed properly. What these institutions need to do is to provide pre-tutorial workshops to teach new learners on how to handle the LMS. These institutions must also ensure that their contents are always updated and easy to access. Their lecturers and tutors must also be trained to engage their learners via LMS. Learners must also be supported well by the staff of the institutions by providing online helpdesk who respond to the problems of learners as early as possible.

REFERENCES

- Abas, Z. W. & Fadzil, M. (2009). Towards a more effective engagement of learners and tutors in online discussion forums. *AAOU Journal*, 4(1), 60 – 67.
http://aaou.ut.web.id/jurnal_aaou/2009/zoraini.pdf
- Ali, A. (2008). Moving forward with e-learning: The experience of Open University Malaysia. Retrieved: April 23, 2010 from
http://iqri.oum.edu.my/v2/pdf/tan%20sri/Moving%20Forward%20with%20E-learning_1.pdf

- Astin, A. W. (1993). *What matters in college*. San Francisco: Jossey-Bass.
- Bean, J. P., & Metzner, B. S. (1985). A conceptual model of non-traditional undergraduate learner attrition. *Review of Educational Review*, 55, 485–540.
- Brook, C. & Oliver, R. (2003). Designing for online learning communities. Proceedings of Ed-Media. Retrieved: May 31, 2007 from <http://elrond.scam.ecu.edu.au/oliver/2003/em2.pdf>.
- Garrison, D. R., Anderson, T. & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education* 2(2–3), 87–105
- Garson, G. D. (2008). Scales and standard measures. Retrieved: June 23, 2011 from <http://faculty.chass.ncsu.edu/garson/PA765/standard.htm>
- Graves, R. (2009). Top 10 ways associations can use online communities to increase member acquisition, retention, and drive revenue. Retrieved: March 15, 2010 from <http://thedreaminaction.com/2009/06/04/use-online-communities-to-increase-acquisition-retention-revenue/>
- Jiang, J (2008). Exploring the relationship between the feelings of isolation among distance learners and the levels of interaction built into online course. Unpublished doctoral dissertation. Indiana State University. In Proquest (OUM Digital Collection)
- Kaur, A. (2004). The effectiveness of online discussion forum at OUM. Research Paper funded by OUM. Kuala Lumpur: Open University Malaysia.
- Kearsley, G. (2002). Is online learning for everybody? *Education Technology*, 42(1), 41 – 44
- Latif, A. L., Sungsri, S. and Bahroom, R. (2009). Managing retention in ODL institutions: A case study on Open University Malaysia and Sukhothai Thammathirat Open University. *ASEAN Journal of Open Distance Learning*, 1(1), 1 - 10
- Liu, Y. & Oh, E.J. (2007). Literature review: Students' online learning communities in higher education. In T. Bastiaens & S. Carliner (Eds.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2007* (pp. 2086-2092). Chesapeake, VA: AACE. Retrieved: May 17, 2010 from <http://www.editlib.org/p/26663>.
- Meyer, J. P. & Allen, N. J. (1991). A three-component conceptualisation of organisational commitment. *Human Resource Management Review*. 1, 61 – 69
- Moore, M. (1989). Three types of interaction. *The American Journal of Distance Education*, 3(2), 1-7
- Morgan, C. K., & Tam, M. (1999). Unraveling the complexities of distance education student attrition. *Distance Education*, 20(1), 96 – 108

- Ng, R. (2008). *Online discussion forum: What tutors and learners do and how they do it? An analysis of Management Mathematics course and Community of Inquiry concept*. Paper presented at the LYICT 2008 Conference in Kuala Lumpur in June 2008
- Ng, R. (2010). *Impact of online community on e-learners' intention to stay in their programmes at Open University Malaysia*. Unpublished doctoral dissertation. Open University Malaysia.
- Ng, R., Awang, A. I., Latif, L. A. & Bahroom, R. (2008a). *An empirical study on the effect of learning skills workshop on learning readiness in an ODL environment*. Paper presented at the 8th SEAAIR Annual Conference in Surabaya, Indonesia from 4th – 6th November 2008.
- Ng, R., Kaur, A., Latif, L. A., Bahroom, R. & Mohamed, S. F. S. (2008b). *E-Mathematics: How pre-instruction and online supplemental instruction affect learner's online participation behavior and results*. Paper presented at the 22nd AAOU Conference in Tian Jin, China from 14 – 16 October, 2008.
- Ng, R. & Wagner, K. (2007). *Impact of COL on the participation behavioural pattern of learners and tutors in the online discussion forum*. Paper presented at the SEAAIR 2007 Conference held at Assumption University, Bangkok, Thailand from September 4th – 6th, 2007
- Olgren, C. (2004). *Reasons for attrition*. Distance education certificate program, University of Wisconsin-Madison. Retrieved: December 3, 2007 from <http://uwmad.courses.wisconsin.edu/d2l/tools/files/accessFile.asp?file=6847687&code=641915067>
- Palloff, R. M., & Pratt, K. (1999). *Building learning communities in cyberspace*. San Francisco: Jossey-Bass.
- Pascarella, E. T. & Terenzini, P. T. (1991). *How college affects students*. San Francisco: Jossey-Bass
- Reisman, S. (2003). *Electronic learning communities: Issues and best practices*. Greenwich, CT: Information Age Publishing. In Books24x7 (OUM Digital Collection)
- Robertson, J., Fuller, M., Midon, N., Smith, B., Sadera, W. & Song, L. (2008). Relationships between community and student success in online learning. In K. McFerrin et al. (Eds.), Proceedings of Society for Information Technology & Teacher Education International Conference. Chesapeake, VA: AACE. Retrieved: May 10, 2010 from <http://www.editlib.org/p/27246>.
- Rovai, A., Ponton, M., Wighting, M. & Baker, J. (2007). A comparative analysis of student motivation in traditional classroom and e-learning courses. *International Journal on E-Learning*, 6(3), 413-432. Chesapeake, VA: AACE. Retrieved: May 26, 2010 from <http://www.editlib.org/p/20022>.

Swan, K. (2003). Learning effectiveness: What the research tells us. In J. Bourne & J. C. Moore (Eds) *Elements of quality online education, practice and direction*. Needham, MA: Sloan Center for Online Education, 13-45. Retrieved: June 5, 2007 from

<http://www.kent.edu/racet/Publications/upload/learning%20effectiveness4.pdf>

Tinto, V. (1993). *Leaving College: Rethinking the Causes and Cures of Student Attrition* (2nd Ed.). Chicago: University of Chicago Press.

Wang, Y. and Fesenmaier, D. R. (2003). *Understanding the motivation of contribution in online communities: An empirical investigation of an online travel community*. Retrieved: October 24, 2005 from:

<http://www.ttra.com/pub/uploads/011.pdf#search='understanding%20the%20motivation%20of%20contribution%20in%20online%20communities'>