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 the various interventions implemented by Open University Malaysia, on the learners' level of Engagement in the Online Community developed through the interaction between the various participants; learners, instructors and management staff of the university. The intensity of the Online Community which is 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 1550 undergraduate learners of Open University Malaysia located throughout Malaysia using self-administered questionnaires. Results obtained from 1116 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 researcher to develop a tool to measure engagement of learners in the Online Community.

Keywords: *Online Community, Engagement, Commitment to stay, Learner-Learner, Learner-Tutor, Learner-Staff, Learner-Content, Feelings of Isolation*

Introduction

As the demand for tertiary education via open distance learning 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. It also 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 experienced 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.

Most universities that offer open distance learning (ODL) courses today have their own education portals which provide learning and administrative support. These portals now commonly known as learning management system (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 the Facebook to engage their learners as a supplement to their portals as it gives the 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 fours variables and their level of Engagement. The research attempts to find the impact of the level Engagement of learners on their Commitment to stay in their programmes.

Retention Initiatives Taken by OUM

Online learning forms part of a blended learning approached practiced at OUM with the use of LMS. A good LMS may not guarantee higher rates of retention of learners. However, it could 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, has 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 in order to survive in the open distance learning environment. The learners were also taught on how to navigate in the LMS environment. They were also exposed to the benefits of using the LMS to help them in their studies. According to Ng et al. (2008), 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 has benefitted new learners as they performed better in their examinations and their re-registration rate has also increased.

Pre-instructional workshops were also conducted for learners who are taking mathematic subjects so that they can interact via online using mathematical symbols with the aid of the Microsoft Equation Editor software. Ng et al. (2009) 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 participate and collaborate with other learners. Learners can interact with other learners and their tutors on a 24/7 basis and thus encourage better communication. Tutors can also use this feature to provide feedbacks to their learners. According to Abas and Fadzil (2009), online discussion forum has the potential to add value to the total learning environment in open and distance learning. Research conducted by Kaur (2004) on online discussion forum at OUM confirmed that learners are generally satisfied with the context, feedback, and interaction with their peers and tutors.

Abtar (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 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% (Abtar, 2004), with the introduction of Collaborative Online Learning (COL).

Ng (2008) in his research on tutors and learner's participation in the online discussion forum found that most of the posting made happened during the first four weeks of participation 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 COL 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 uploaded into their LMS together with other resources such as i-lectures, video clips, and course guide to help them. They were also supported with digital library available in the LMS.

The LMS were also used to provide administrative support 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 now channel their problems via an online help desk known as e-customers relation management (E-CRM) where all their enquiries and grievances will be handled by a team of specialised staff attached to the Learners Services Centre of OUM.

Literature Review

Attrition affects both traditional and non-traditional learners. The reasons are complex and multiple. When online learning or e-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 sense of community found in face-to-face traditional setting thus affect the students' success. 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. Sense of community in online learning environment can help foster the feeling of connectedness, which encourages and supports successful learning and increase 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 student's involvement, engagement and integration into the academic and social system of an institution are key factors in determining if the students persist or dropout. 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 researches suggested that low sense of community is a result of 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 community-centred approach, facilitative and supportive role, and 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 do. She however differed with them and added that we now have good and ample evidence that learners generally learn as much via online as they do in 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 to its members, members of the community must participate actively and contribute effectively by asking questions, providing information and expertise and sharing ideas. In their research on online community, they found that efficacy is a major factor affecting member's 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 a powerful tool in allowing members to meet, share ideas, and connect with one another. He added that organizations can use their online communities to encourage engagement among members and as a channel 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 have been targeted for this research from different cohorts.

(b) *The Instrument*

The instrument used in this research was a 63-item questionnaire adopted from established instruments such as the Sense of Community (SCI) Index (developed by Rovai, Lucking, & Cristol, 2001) the Job Description Index (JDI) (developed by Smith, Kendall & Hulin, 1969), the Intrinsic Motivation Self-Determination Theory (SDT) (developed by Deci & Ryan, 1986) and the Three-Component of Commitment Model (TCM) (developed by Meyer & Allen, 1991) to measure the learner's commitment to stay in their programmes. These established instruments have internal consistency above 0.8.

(c) *Variables and Conceptual Model*

The intensity of the Online Community is measured using four predictors; Learner-Learner, Learner-Tutor and Learner-Content Interactions as proposed by Moore (1989) and an additional predictor; Learner-Staff interaction as proposed by Jiang (2008). A higher level of interaction will lead to higher level of Engagement (Jiang, 2008). Lower level of Engagement very often leads to feelings of isolation. The dependent variable is the level of Commitment to stay. The conceptual model for this research is as shown in Figure 1 below.

(d) *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 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.
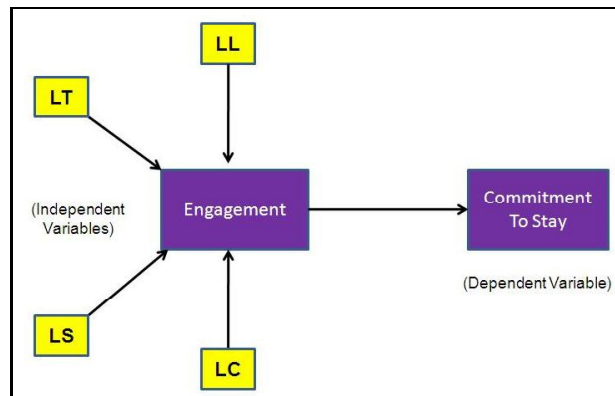
Figure 1: Conceptual model of the research

Findings

(a) *Samples*

From the 1,500 questionnaire distributed, 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

	Targeted Number	Actual Number			Response Rate
		Non At-Risk	At-Risk	Total Actual	
Year 1	300	355	17	372	124.0%
Year 2	300	206	15	221	73.7%
Year 3	300	184	30	214	71.3%
Year 4	300	141	24	165	55.0%
Final Year	300	101	43	144	48.0%
Total	N = 1,500	987	129	N = 1,116	74.4%

(b) *Demography of Respondents*

Of the 1,116 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 made up of 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 jobless, doing own business or studying "full-time". Most respondents financed their studies through own savings (554 or 49.6 percent).

(c) *Distribution of Mean Scores of TCM, Eng, LL, LT, LS, and LC*
The mean score and standard deviation of the variables are as shown in Table 2 below. According to Jiang (2008), a mean score of 3.51 to 5 is considered as high level, mean score of below 2.5 is considered low and mean score of 2.51 to 3.5 is considered an interim level.

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

	TCM	ENG	LL	LT	LS	LC
N	1116	1116	1116	1116	1116	1116
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

From Table 2 above, it was found that the mean score of LL (3.90) and LS (3.51) interactions were considered high according to Jiang (2008). LT (3.35) and LC (3.50) interactions are at interim level, which need improvement.

(d) *Pearson Product-Moment Correlation and Multiple Regression Analysis*
The Pearson Product-Moment Correlation was carried out on the five variables; Engagement, LL, LT, LS and LC to find their correlation. From the results obtained Learner-Learner ($r = 0.702$, $p = 0.000$), Learner-Tutor ($r = 0.243$, $p = 0.000$), Learner-Staff ($r = 0.332$, $p = 0.000$) and Learner-Contents ($r = 0.416$, $p = 0.000$) are all significant at 2-tailed. Thus there is a correlation between Learner-Learner, Learner-Tutor, Learner-Staff, Learner-Contents and Engagement. The multiple regression analysis carried out confirmed that LL, LT, LS and LC explained 54 percent of the variance of Engagement.

The Pearson Product-Moment Correlation carried out Engagement and Commitment to stay yielded a coefficient correlation of $r = 0.712$ and $p = 0.000$ indicating that there is a strong correlation between Engagement and Commitment to stay. The multiple regression analysis carried out suggested that Engagement explained 72 percent of Commitment to stay.

(e) *Independent Samples T-Test*
The Independent Samples *T*-test was carried out to find if there is a statistical significant difference in the mean scores of the level of Commitment to stay between learners who have a high mean score of Engagement and those who do not. Using the median score of Engagement of 4.0 as the cut-off point as suggested by Garson (2006), it was found that there was a statistical significant difference in the mean score of Commitment to stay ($t(836) = 28.8$, $p = 0.000$) between learners who have high level of Engagement and those have low level of Engagement.

Discussion and Conclusion

Generally, the retention initiatives taken by OUM have impact on the learners' interaction with fellow learners, their tutors and the staff of OUM. It was found that there is a statistical significant difference in the mean score of TCM between learners who have high level of Engagement and those who do not. The research also found that the four independent variables; LL, LT, LS and LC have a correlation with Engagement. The level of Engagement explains 72 percent of the variance of Commitment to stay.

This high level of engagement of learners has successfully improved on 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.

Most institutions of higher learning have some sort of portal and LMS. With proper management it can become a very powerful tool for retention of their learners. Online Community formed through the interaction in the LMS can encourage participation and engagement and reduce the feelings of isolation.

References

Abas, Z. W. and 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.

Baron, R. M. and Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182

Bean, J. P., and Metzner, B. S. (1985). A conceptual model of non-traditional undergraduate learner attrition. *Review of Educational Review, 55*, 485–540.

Brook, C. and 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.

Carroll, J. B. (ed.) (1997). "*Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf.*" Cambridge, Mass.: Technology Press of Massachusetts Institute of Technology

Deci, E. L. and Ryan, R. M. (1986). Self determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist.* 55(1), 68 – 78.

Garrison, D. R., Anderson, T. and 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. (2006). Data imputation for missing values. Retrieved: March 1, 2010 from http://faculty.chass.ncsu.edu/garson/PA765/missing.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.

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 Sukhotai Thammatirat Open University. *ASEAN Journal of Open Distance Learning, 1*(1), 1 - 10

Liu, Y. and 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. and 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., and Tam, M. (1999). Unraveling the complexities of distance education student attrition. *Distance Education, 20*(1), 96 – 108

Ng, R., Awang, A. I., Latif, L. A. and Bahroom, R. (2008). 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. and 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

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.

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., and Pratt, K. (1999). *"Building learning communities in cyberspace."* San Francisco: Jossey-Bass.

Pascarella, E. T. and 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.

Robertson, J., Fuller, M., Midon, N., Smith, B., Sadera, W. and 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. P., Lucking, R., and Cristol, D. (2001). Building classroom community at a distance. Paper presented at the American Educational Research Association Annual Meeting, Seattle, Washington.

Rovai, A., Ponton, M., Wighting, M. and 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.

Smith, P. C., Kendall, L. M., and Hulin, C. L. (1969). "*The measurement of satisfaction in work and retirement.*" Chicago: Rand McNally.

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/rcet/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%20 contribution%20in%20online%20communities'