

Implementation of Facebook Study Groups as Supplements for Learning Management Systems (LMS) in Adult ODL Environments

ISHAN SUDEERA ABEYWARDENA

Senior Lecturer, School of Science and Technology, Wawasan Open University
54, Jalan Sultan Ahmad Shah, 10050 Penang, Malaysia
Tel: +604-2180 484 Fax: +6042297 323
Email: ishansa@wou.edu.my

THAM CHOY YOONG

Professor, School of Science and Technology, Wawasan Open University
54, Jalan Sultan Ahmad Shah, 10050 Penang, Malaysia
Tel: +604-2180 485 Fax: +6042297 323
Email: cytham@wou.edu.my

Abstract

Being an Open Distance Learning (ODL) institution, Wawasan Open University (WOU) employs a blended approach for delivering courses to its undergraduate and postgraduate students who are entirely adult learners. In this approach, the use of a Learning Management System (LMS) is absolutely crucial for student support as well as the enhancement of the whole learning experience to compensate for the lack of face-to-face interaction between the students and the academics. WawasanLearn, the Open Source moodle based LMS system used by WOU, is a comprehensive online tool which enables students and academics to effectively interact in a virtual environment. However, the analysis of data from several semesters shows that the rate of student interaction is low on WawasanLearn with respect to sharing of knowledge.

In order to qualitatively and quantitatively identify the factors contributing to the rate of participation of students in WawasanLearn, a survey was conducted among the undergraduate students studying in various disciplines including science and technology, business administration, liberal studies, education, languages and communication. Feedback regarding what manner of support students expect from WawasanLearn was gathered from close to five hundred and fifty students distributed throughout Malaysia. Another aspect of the study was to identify whether and why students are drawn to participate more frequently in social networking platforms such as facebook (facebook.com).

Resulting from the findings, a pilot project was implemented to study the use of facebook groups as study groups for supplementing WawasanLearn. These study groups were run in parallel to WawasanLearn for seven course modules over a duration of two consecutive semesters. This paper discusses the findings of this pilot project with respect to the implementation of facebook groups as supplements to LMS in an adult ODL environment.

Keywords: Social Networking, Facebook, Moodle, Open Distance Learning, ODL, Learning Management Systems

1.0 Introduction

The core business of Wawasan Open University (WOU) is Open Distance Learning (ODL). The students of WOU are adult learners who pursue undergraduate and postgraduate degree programs on a part time basis in disciplines such as science and technology, business administration, education, languages and liberal studies. WOU adopts a blended approach for course module delivery. Due to the limitations in technology infrastructure such as bandwidth in the Asian region (Bates, 2001), self-directed learning materials are provided to the students on CDs with prescribed textbooks. The continuous academic interaction between teachers and learners is facilitated by a *moodle (ver 1.8)* based Learning Management System (LMS) named "*WawasanLearn*".

The course module delivery at WOU comprises of two components; (i) self-study using self-directed study materials specifically designed for ODL by academics functioning as *course coordinators* and instructional designers working in course development teams; and (ii) tutor support provided by subject matter experts through monthly face-to-face tutorial sessions, telephone counseling and online counseling via *WawasanLearn*. As the students of WOU are distributed throughout Malaysia, the university operates learning centers or regional offices in the regions Penang, Kuala Lumpur, Ipoh, Johor Bharu, Kota Bharu and Kuching to provide students access to physical libraries, tutorial sessions as well as administrative support. However, due to the geographic distribution of the WOU learners, the primary port of continuous interaction amongst students, tutors and course coordinators is *WawasanLearn*.

Given the importance of *WawasanLearn* in the course module delivery at WOU, a number of studies have been conducted to identify whether the student interaction is at a satisfactory level. Teoh et al. (2010) argues that the student interaction on *WawasanLearn* in both the undergraduate and postgraduate levels is low and further reduces as the semester progresses. Looking at other ODL institutions around the world, it becomes apparent that many of these institutions are heavily dependent on online student support systems for the effective delivery of course modules (Macintyre & Macdonald 2011) and that the lack of participation and interaction in online LMS is not a problem isolated to WOU. According to Mason and Weller (2000) more established distance learning institutions such as the Open University of UK too face low numbers when it comes to participation.

As a possible solution for overcoming the low rates of participation on dedicated student support channels, more and more institutions have started looking at web 2.0 technologies and social networking to include the "always on" learner (Baird & Fisher 2006). Wang et al. (2003) suggests that learner interaction on social networks becomes easier as the profile of each learner acts as an icebreaker for the interaction. It is also found that forming small study groups in more informal spaces is conducive to the progress of the student (Stacy 2002).

Facebook has become a popular social networking platform in the recent years and many studies have been done to identify the potential use of facebook in a formal learning environment. As discussed by Madgea et al. (2009) learners form connections with peers on facebook prior to joining higher educational institutions and tend to use facebook even more after joining. Learners even seem to gain self-

esteem and confidence through the use of facebook (Ellison, Steinfield & Lampe 2007). As Ophus and Abbitt (2009) have identified, many learners find use for facebook in their learning with respect to ease and convenience of communication. It is also found that learners tend to communicate and perform more as a response to self-disclosure of teachers on facebook (Mazer, Murphy & Simonds 2007).

The literature suggests that quite a number of studies on the use of facebook by students have been conducted in recent times. However, the possibility of supplementing the official LMS of a university with facebook has not been studied in detail. This research project attempts to marry *WawasanLearn* and facebook in a real world learning environment for fulfilling the learning needs of adult ODL students.

2.0 Methodology

The continuous interaction via *WawasanLearn* is critical in the successful delivery of course modules at WOU. To identify (i) how useful *WawasanLearn* is in terms of fulfilling students' learning needs and (ii) why students are drawn to participate more frequently in social networking forums such as facebook (facebook.com), a survey was conducted online as well as offline in all the WOU regional offices. 542 responses were collected from undergraduate students from various disciplines distributed across Malaysia.

The survey instrument was designed to identify (i) features which would increase the frequency of logins onto *WawasanLearn*; (ii) the extent of facebook use by adult ODL learners; and (iii) which features of facebook attract adult ODL learners to logon to it frequently.

3.0 Results

3.1 The features which would increase the frequency of logins onto *WawasanLearn*

A frequency analysis of the data was done to identify which features would invite students to login more onto *WawasanLearn*. Fig 3.1.1 arranges the features listed in Table 3.1.1 in descending order of importance according to the number of student responses.

Legend	Feature
A	More interactive and exciting material (video, images, animations, e-books, audio books and so on)
B	More quality discussions (the course coordinators and tutors initialising discussions about current happenings in the industry/research with respect to the course)
C	Faster response time (course coordinators and tutors getting back to you faster)
D	A better user interface (a more appealing and user friendly interface which would be inviting)
E	The ability to read about or view the research/other academic / professional activities of course coordinators, tutors and colleagues
F	A more intuitive and user friendly chat application which can be used through the LMS system
G	A proactive approach to discussions which would e-mail/SMS you as soon as a new post takes place

Table 3.1.1: The list of features

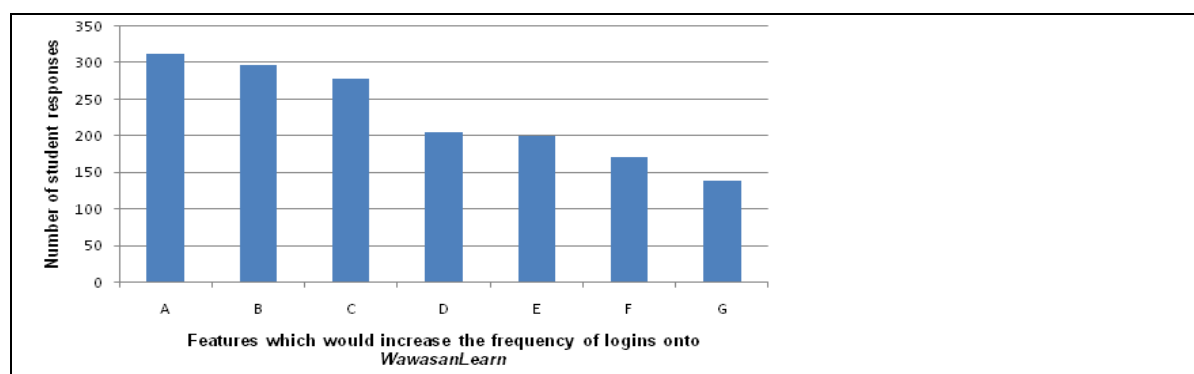
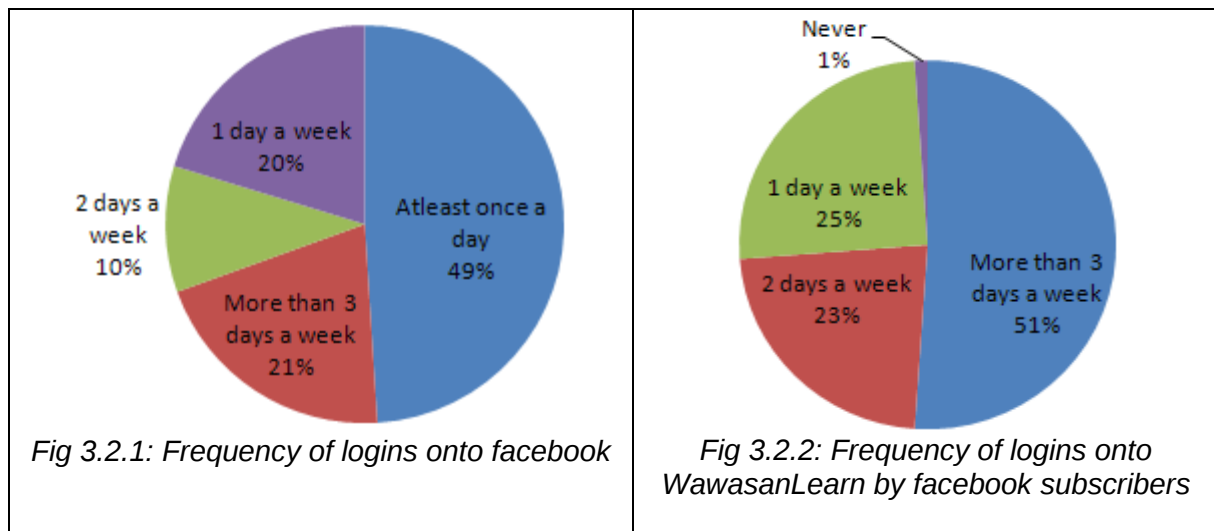


Figure 3.1.1: The features which would increase the frequency of logins in descending order according to the number of responses.

3.2 Extent of use of facebook by learners at WOU

The analysis of the survey results revealed that 83% of the adult ODL students subscribe to facebook. A frequency analysis of the number of logins onto facebook per week, shown in Fig 3.2.1, revealed that 70% of the students who subscribe to facebook login at least three days a week. Further analysis of the number of logins onto *WawasanLearn* for the facebook subscribers, shown in Fig 3.2.2, revealed that only 51% logged onto *WawasanLearn* more than 3 days a week. This comparison indicates that there is a possibility of increasing the teacher-learner interaction if facebook was used as the medium for it.



The following are the key attractions of facebook which were identified from the students' feedback:

- The ability to interact with friends, colleagues and family in a virtual space
- Instant updates via e-mails and SMS with respect to related activities
- User friendly interface which is easy to navigate
- The ability to follow the progress of friends and colleagues with respect to research and work
- The ease of organising events and inviting friends and colleagues to participate
- The ability to share images, links, videos easily and the ability to receive comments on them
- The ability to send out messages to an individual or a group from within Facebook
- The ability to view the profiles of friends and colleagues
- The ability to see who is online and instantly chat with them

4.0 Discussion

To effectively increase the frequency of logins onto *WawasanLearn*, the important features identified in section 3.1 will need to be incorporated into the LMS. The current *WawasanLearn* system, based on the *moodle* (ver. 1.8) platform, was found to be incapable of effectively addressing these requirements independently. As this was the version of *moodle* implemented at WOU during this study, the necessity for identifying an external platform which could supplement *WawasanLearn* was made prominent.

Considering the fact that 83% of the students who participated in the study were subscribers of facebook and 70% of them interact on facebook more than three days a week (Figure 3.2.1) in contrast to the 51% who interact on *WawasanLearn* (Figure 3.2.2), facebook was found to be a suitable candidate to supplement *WawasanLearn*. By comparing the top four features with respect to increasing the frequency of logins onto *WawasanLearn* (identified in section 3.1) against the key attractions of facebook (identified in section 3.2), it can be deduced that all the key features which are currently lacking in *WawasanLearn* can be supplemented through the use of facebook. Table 4.1 maps the key features learners require on *WawasanLearn* to the key attraction of facebook which increases the frequency of logins.

	Key features which would increase the frequency of logins onto <i>WawasanLearn</i> (as discussed in section 3.1)	The key attractions of facebook (as discussed in section 3.2)
01	A better user interface	• User friendly interface which is easy to navigate • The ability to view the profiles of friends and colleagues • The ability to follow the progress of friends and colleagues with respect to research and work
02	More quality discussions	• The ability to share images, links, videos easily and the ability to receive comments on them • The ability to interact with friends, colleagues and family in a virtual space • The ease of organizing events and inviting friends and colleagues to participate
03	Faster response time	• Instant updates via e-mails and SMS with respect to related activities • The ability to send out messages to an individual or a group from within Facebook • The ability to see who is online and instantly chat with them
04	A proactive approach to discussions which would e-mail/SMS you as soon as a new post takes place	

Table 4.1: Mapping of required features of WawasanLearn to key attractions of facebook

However, by analysing the findings from WOU's perspective, it was realised that facebook alone would not be able to effectively serve the needs of the adult ODL students. Therefore a more hybrid approach was needed which marries the pedagogical soundness of the *moodle* based *WawasanLearn* with the social interactivity of facebook.

5.0 WOU facebook study groups

A pilot project was initiated at WOU to study the feasibility of using facebook as a supplement to *WawasanLearn* with the aim of increasing student satisfaction. Facebook study groups were formed for several IT related courses in the School of Science and Technology (SST) as shown in Table 5.1.

	Course Code	Course Name	Duration of FB Study	No. of Participants
1	TCC222/05	Operating Systems	1 semester (S1/2010)	29
2	TEC305/10	Website Design and Development	1 semester (S1/2010)	07
3	TAI303/05	Intelligent Systems for Decision Support	1 semester (S1/2010)	05
4	TCC123/05	Visual Programming	1 semester (S2/2010)	33
5	TAI201/05	Human Computer Interaction	1 semester (S2/2010)	21
6	TCC236/05	Data Structures and Algorithms	1 semester (S2/2010)	12
7	TEC304/10	Electronic Commerce	1 semester (S2/2010)	07
	Total number of participants over 2 semesters (12 months)			114

Table 5.1 Facebook Study groups

These study groups were systematically structured, as shown in Fig 5.1, to allow effective student interaction with course coordinators and tutors. The course coordinator in charge of a particular course module was assigned the role of administrator which allowed him/her to moderate the postings, send out notifications to all the group members, organise events and manage the member list. Tutors were also invited to join the group. Only the students enrolled in particular course were allowed access to the study group for that course to ensure that the discussions and postings were kept confidential.

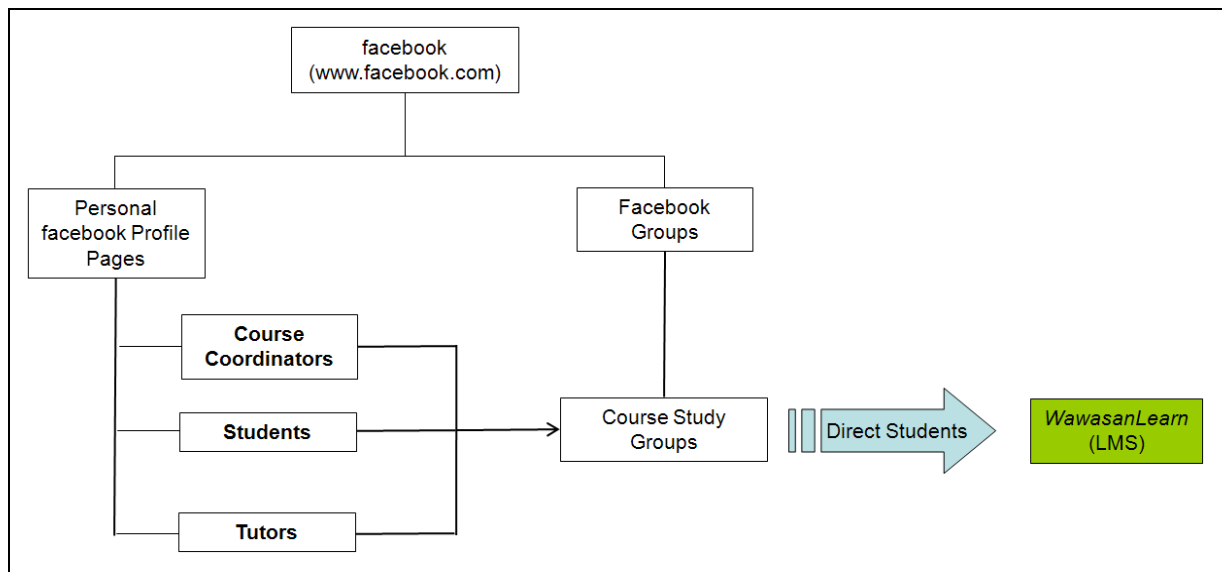


Fig 5.1 Setup of Facebook study groups

Results of the pilot study concluded that facebook study groups can be very effective in terms of supplementing *WawasanLearn*. However the best results were achieved when the facebook study groups were used as message boards to inform students of new developments, discussions or resources available on *WawasanLearn*. This approach encouraged the students to access the LMS more frequently due to the prompt communication mainly due to the posting on the study group “wall” appearing instantly on the students’ personal “walls”. In addition to this the “Message All Members” feature was used to send out instant messages to the study group members about new developments on *WawasanLearn*. This approach of push-information was found very effective as the messages are forwarded instantly onto the members’ e-mail addresses in contrast to the pull-information approach of the LMS where learners needed to proactively login to retrieve information. The pilot study also confirmed that facebook cannot be effectively used as a replacement for *WawasanLearn* but a supplement due to the inherent limitations of system such as the inability to host documents, presentations, multimedia materials and legal implications. However security and privacy was not found to be an issue as the groups do not have any access to personal profiles of the learners.

A follow-up survey was conducted among the pilot project participants at the end of the second semester of 2010 to gather their initial feedback. The majority indicated that they would want to join facebook study groups in the future but noted that they found it inefficient to switch between the two systems, namely *WawasanLearn* and facebook, to keep up-to-date on the latest information regarding their course modules. The students further indicated that they preferred to use only facebook to extract information directly available on *WawasanLearn*. As a result, a facebook application called “faboodle” is currently under development which would integrate *WawasanLearn* with facebook.

6.0 Conclusion

Analysis of the data from several semesters indicates that the frequency of participation on the *moodle (ver.1.8)* based LMS of WOU called *WawasanLearn* is found to be low. A study was conducted in the form of a survey among the adult ODL students at WOU to identify the factors which contributes to the frequency of logins onto *WawasanLearn*. The study also aimed to identify the extent of use of the social networking platform facebook (facebook.com) by the students and why they are drawn to participate more frequently in this social networking platform. 542 responses were gathered from students studying in various disciplines and spread across Malaysia.

The analysis of the data identified several key features which would increase the frequency of logins onto *WawasanLearn*. It further identified facebook to be an ideal supplement for *WawasanLearn* as these key features were already available in this platform. As a result, a pilot project was initiated in the SST which used facebook groups as study groups to supplement *WawasanLearn*. The pilot project was run for two semesters over one year and initial feedback from the participants was gathered at the end of the project. The feedback indicated that the students found the facebook study groups to be effective tools for their learning but indicated that facebook and *WawasanLearn* should be integrated instead of being run as two separate platforms. The next move for the authors is to implement a facebook application which effectively integrates facebook with *WawasanLearn*.

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