Online DiscussionUusing Facebook Module Versus Moodle Forum Module in a Moodle platform: Feedback From Secondary Students in the Kingdom of Tonga.

Hans Tobias Sopu, Kumamoto University, Japan
Yoshifumi Chisaki, Kumamoto University, Japan
Tsuyoshi Usagawa, Kumamoto University, Japan

Abstract
Students engagement in online discussion sometimes defines their learning attitudes. However, the tools that is being used for online discussion may also frame the attitudes of the students in online discussion. Facebook® has been considered by some researchers as a great platform for online discussion. Students engagement and attitudes are part of their objectives. Several educators have conducted research by using Facebook platform for online discussion. Several studies have proven Facebook as an effective platform for online discussion based on some factors. On the other hand, Moodle™, a free open source Learning Management System (LMS) is widely used by many learning institutions across the world. Moodle has a module for online discussion. In this study, we evaluate students online attitudes in using two methods of online discussions in a Moodle platform 2.4.3. The first method of online discussion is a Facebook module that allows students and teachers to participate in an online discussion using Facebook Comment Social plugin developed as a Moodle module. The second method is using the available Moodle module for forum discussion. The two methods were evaluated through a questionnaire. The results of the survey was analyzed and evaluated.

Keywords: facebook module, moodle, facebook, Kingdom of Tonga

Introduction

Facebook, a social network platform, plays an important role in connecting people across the globe. Facebook users share information, exchange ideas, comments, pictures even participate in group discussions with members that have common interest or any commonality. Anyone who is 13 years old or above, can become a Facebook user, Facebook, 2015. Researchers have considered if social networking platforms (including Facebook) could have a role in education, Santos, et al. (2009). Several studies had proven the effective interaction of students in Facebook. Others had also considered Facebook as a great platform for lecturing. Some educators have acknowledged the use of Facebook in academic community for various reasons (Visagie & Villiers, 2010; Mazer, Murphy & Simonds, 2007; Reid, 2011; Hew & Cheung, 2012);

- to maintain contact with group of students of the same course
- develop a network with other students
- to engage in communication with the teacher and with former colleagues
- to meet students with similar interests, and share all types of information

The acknowledgment of a student's use of Facebook is of crucial importance for the academic community, as well as for the teacher and students, since this application could have a large impact on teaching-learning dynamics. The use of Facebook, as stated by other researchers, has a great impact on the motivation of the students to turn, effective learning and climate in the classroom, (Hew, 2011; Selami, 2012). Several researchers have expressed their belief based on the outcome of their findings that Facebook has become one of the most prominent social network platforms among students and has potential for teaching and learning because of its unique built-in functions which offer pedagogical, social and technological affordances (Deng & Tavares, 2013; Monuz & Towner, 2009; Pempek, Yermolayeva & Calvert, 2009; Selwyn, 2009). One of the built-in features that is available in Facebook which has become part of the academic activities and researchers interest is Facebook Group. With the advent of groups on Facebook, which do not require members of the group to be friends, it became possible to create a study group in which students and instructors participate without being friends. Under these conditions, the possibility of using the Facebook Group as an alternative to a Learning Management System (LMS) becomes relevant.

On the other hand, Learning Management System (LMS), is a software that enable course sites to be created Sclater, (2008). These systems are purchased and maintained by the educational institution to provide students with a space for online learning. An LMS is usually a password-protected system which enables the educational institution to open multiple course environments with relative ease. Moodle, is a popular, free open source LMS. Moodle allows educators to create an online environment in support of teaching and learning activities. Within Moodle, there are features such as file uploads, discussion forums, assignment submission functions, calendar entries and grading options. One commonality shared by LMSs is that they are organized in a course-based mode, and linked with course enrollment. As in Moodle, which was created especially for academic purposes, contains online activities and online resources, and can be organized in a course-based either by weekly format or topically format. Forum (Online Discussion) is one of the online activities available.

Facebook Module in Moodle platform

A module was developed and introduced by Sopu, Chisaki & Usagawa (2014) for Moodle 2.4.3. The purposes of this module (Facebook module) were to allow students and teachers to use Facebook comment features for online discussions as one of the activities in Moodle as shown in Figure 1.
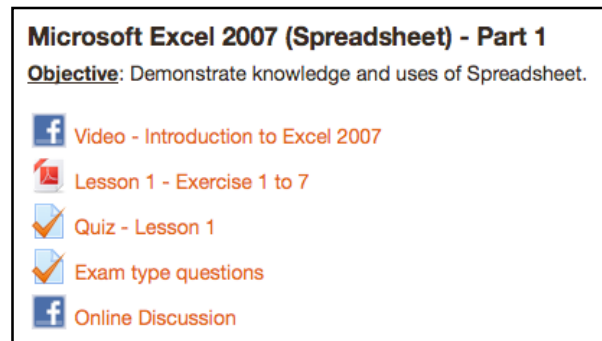
Figure 1. Online Discussion (forum) can be added as one of the activities.
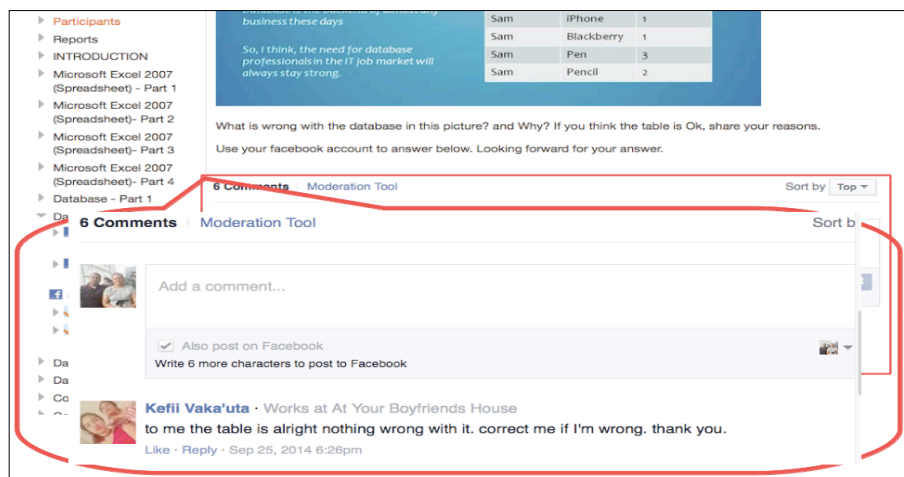
Figure 2. Online Discussion in Moodle using Facebook module.

This module allows the teachers to add an activity for students. This activity allows students to discuss online. A topic is given for students and teachers to discuss as shown in Figure 2. The students can use their Facebook account to participate in the discussion. Students could also login with their Facebook account. A more detail on this part was also provided by Sopu, Chisaki and Usagawa recent study. This Facebook module allows students to participate in the discussion or choose to post to Facebook Timeline and tag a friend who is not member of the class but may contribute to the discussions (lable 2 & 3, Figure 3). Students could view the whole thread of discussion in one screen view and reply directly to other students discussions (lable 4, Figure 3). The teachers can moderate the discussion (lable 1, Figure 3). Students could also get notification on Facebook about online discussion using Facebook module.

Figure 3.
Facebook module capabilities.

Forum module for online discussion in Moodle
This module is available in Moodle for online discussions. This module is part of the development of Moodle platform itself which its documentation is available for the public (for more information see https://docs.moodle.org/24/en/Forum_module).

As mentioned above, there were studies comparing online discussion in Facebook and other LMS such as Moodle. Two different platform were compared. With still open discussion in the literature on using Facebook group for online discussions as part of the online academic activities for students and teachers, this leads to the objective(s) of our study. This study aims to compare secondary students asynchronous discussion participation in Facebook forum module with Moodle forum module which both modules were available in one platform (Moodle platform).

Methodology

A Facebook module for Moodle platform 2.4.3 was created for this work. A full documentation of the technical process is described in a previous study in 2014 by Sopu, Chisaki and Usagawa.

A. Procedure
A class of 26 (year 12) secondary students (Facebook users for at least 1 year) participated in this study. A 12 weeks course was provided (weekly format) in Moodle, where a blended e-learning approach was utilized. Students attended their regular classes and were asked to spent 50 minutes on Moodle at least 3 times a week. The first half of the course (6 weeks), the students used the Facebook forum (Figure 1) for the weekly Online Discussion, which a topic was given relevant to the weekly topic, students and teachers were asked to participate in the discussion (Figure 2). The next half of the course (6 weeks), the students used the Moodle forum discussions. At the end of the course, a questionnaire was given as part of the activities of the last week to complete the course.

B. Questionnaire
A questionnaire with 15 likert format set of questions were given to the students as part of the last week activities. The same set of questions were give to the students to evaluate the Facebook forum compare to the Moodle forum. Some of the questions of the survey were adopted from the Attitude Towards Thinking and Learning Survey (ATTLS) Galotti et al, 1999. There were 5 responses expected from each question in

rank, Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D) and Strongly Disagree (SD) ranking from 5 (SA) to 1 (SD).

C. T-Test
The data is then analyzed, by using t-test. Each question was analyzed.

Results
There were 26 students participated in the course. The questionnaire was able to completed by 22 students at the end of the course.

Table 1. t-test result.

Item #	Moodle (mean±*sd*)	Facebook(mean±*sd*)	(*p*-value)
1. I feel the easiness of participation in forum discussion when using _____ forum			
	(4.38 ± 0.80)	(4.00 ± 1.26)	0.1388
2. Discussion made through Online Discussion using _____ forum really contributed to my understanding of this course? (layout)			
	(4.62 ± 0.67)	(4.33 ± 0.80)	0.1243
3. It's easy to keep track of the content in an online discussion when using __ forum			
	(3.81 ± 1.03)	(4.38 ± 0.86)	0.05519
4. When I participate in online discussion using _____, my comment is very academic?			
	(4.48 ± 0.93)	(3.67 ± 1.20)	0.00379**
5. When I participate in online discussion using _____, I view other students' comment to be very academic?			
	(4.10 ± 1.00)	(3.66 ± 1.2)	0.023291*
6. I always participate in the discussion when using _____ for online discussion.			
	(4.10 ± 1.34)	(3.76 ± 1.34)	0.1540
7. I am focus when I participate in _____ online discussion			
	(4.33 ± 0.91)	(3.51 ± 1.33)	0.01859*
8. In evaluating what someone says when I participate in _____, I focus on the quality of their argument, not on the person who's presenting it			
	(4.10 ± 1.00)	(3.76 ± 1.00)	0.0921
9. I like playing devil's advocate when participating in Online Discussion- arguing the opposite of what someone is saying			
	(4.62 ± 0.59)	(4.24 ± 0.83)	0.04758*
10. When I participate using _____ for online discussion, I try to point out weaknesses in other people's thinking to help them clarify their arguments.			
	(4.05 ± 0.97)	(4.24 ± 0.89)	0.2062
11. When I participate using _____ for online discussion, I tend to put myself in			

other people's shoes when discussing controversial issues, to see why they think the way they do.

	(3.67 ± 1.02)	(3.86 ± 1.01)	0.2393

12. I always get motivated to participate in the discussion when using _____ for online discussion

	(3.95 ± 0.80)	(4.10 ± 0.77)	0.3011

13. I always participate in the discussion when using _____ for Online Discussion

	(4.10 ± 1.34)	(4.10 ± 0.83)	0.1540

14. When I participate in online discussion using _____, I find it more comfortable to reply to other students' comments

	(3.90 ± 1.00)	(3.86 ± 1.15)	0.4370

15. When students participate in online discussion using _____, their comments are focus on the ideas of the discussion and not for socializing

	(4.10 ± 0.94)	(4.24 ± 0.83)	0.24017
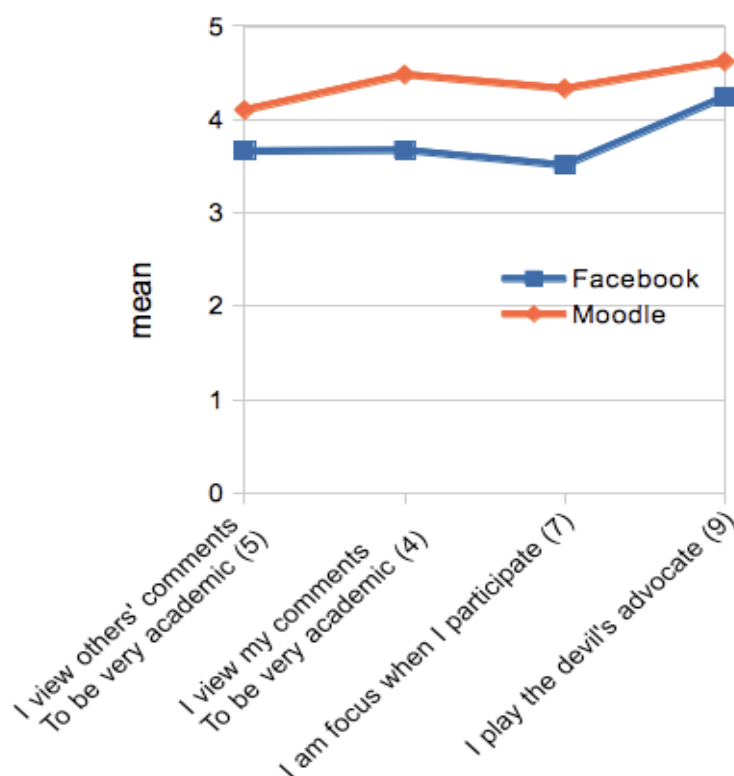
Figure 4. Items that has significant relations.

As shown in Table 1, out of all the 15 items, 4 items were statistically significant. In a more presentable ways, Figure 4 shows these four items.

- Students responded to item 4 "When I participate in online discussion using ___ my comment is very academic?" with a mean of 4.48 using forum available in Moodle and 3.67 using Facebook module in Moodle (p<0.01)
- Students responded to item 5 "When I participate in online discussion using _____, I view other students' comment to be very academic," with a mean of

4.10 for forum module available in Moodle, and 3.66 for Facebook module (p<00.05).

- Students also responded to item 7 "I am focus when I participate in _____ online discussion," with 4.33 to forum module and 3.51 to Facebook module (p<0.05).
- Students also responded to item 9 "I like playing devil's advocate when participating in Online Discussion- arguing the opposite of what someone is saying," with a mean of 4.62 for forum module and 4.24 for Facebook module (p<0.05).

Conclusion

As most previous studies observing two different platforms, Facebook and Moodle, This study obtained a conclusions of using two different ways of asynchronous participation in online discussion both available in one platform (Moodle).

When using the forum module for online discussions, students view their comments to be more academic than using Facebook module for online discussion in Moodle. Which is also correlated to when students view others comments, comments through forum module were still more academic. Which means, when students using forum module for online discussion, they are focus and made sure their comments were academic. Students engage by asking follow-up questions to others is another sign of their focus when using forum module for online discussion.

Future Works

As for the future work, other factors will be evaluated by teachers and administrators such as assessment, evaluation, etc.

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Contact email: tobias.sopu@gmail.com