A Case Study on Blog's Effects as a Learning Activity in Higher Education Environment

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Abstract: Web 2.0 refers to the huge numbers of technological developments which facilitate teaching and learning, while they can be accessible anytime and anywhere and motivate learners to expand their knowledge through further exploration. Blogging as one of the popular web 2.0 possibilities has been used for educational purposes especially in higher education context. It has been analyzed in many studies based on different aspects. This paper presents a case study based on using blog as a supportive tool that consider the technology in higher education. Finding of this research may provide a foundation for future studies into the possible use of such activity in similar educational environments.

Key words: Web 2.0 · Blogging · Learning Activity · Higher Education

INTRODUCTION

Web 2.0 as an outcome of the growth of ICT refers to the huge numbers of technological developments to facilitate teaching and learning activities. The spark of using Web 2.0 potentialities in teaching and learning is flamed since they are adapted for educational aims as well. They prepare an individual environment for learners to be independent in their study. They encourage learners engagement and participation, while prepare opportunities to work collaboratively online. They can be accessible anytime and anywhere which motivate learners to expand their knowledge through further exploration into topics that interest them. They reinforce the sense of ownership while learners publish their work online and then can see the others' idea, to improve their work [1].

Media sharing, online games, social networking website, wiki, social bookmarking and blogging are some examples of Web 2.0 possibilities. However, among different kinds of Web 2.0 applications, blogging has became one of the most popular possibilities [2-4]. As [5] expresses blog can be defined as a personal dairy, a daily pulpit, a collaborative space, a proper soapbox, a breaking-news outlet, a collection of links, an environment to share private thoughts, a place to collect and share interesting things and finally as a place for memos to the world.

The age of 'weblog'-shortened to 'blog'- refers to the early 1999, when Peter Merholz coined it [6].

It is a web-based note that can be updated alternatively [7], however, easy updating, organizing automatically of posts and less demanding of computer knowledge [8] make a blog more different from an ordinary site. It can be defined as a digital log which might be fertilized by a combination of multimedia elements, such as images, audio and video. Moreover by considering comment facility, interactivity is another factor which enhances connections between author and viewers [9]. New posts show up at the top and viewers can read the recently added, then viewers are allowed to put comment [10]. So, blog offers instant communication power to the author by writing thoughts and ideas.

Many educational applications of blog show the blog potentiality in teaching and learning. Learners can get a great benefit offering by blogs which is accelerating the learning processes [11]. To explore the potential of blog as learning aspects in higher education, [12] concluded that blog can support positively teaching and learning. [13] examined the usage of blog to facilitate student integration and combination of learning in designing the human experience. They explored how it can definitely influence students' knowledge, awareness and skills in design engineering. [8] verified blog as a construction tool for the physical presence class. [14] found blog as an interesting tool which can support and reinforce instruction precisely. Moreover blog has potential to promote the student perception [7]. [9] considered blog to encourage student's engagement

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for learning. Considering the influence of blogging on instructional practice was conducted by [15] and supporting classroom reflection and promoting learning were his finding.

Despite such positive effects, some factors must be considered using blog as a learning tool. [16] believe that there is no guarantee of true communication and reflection among learners. Moreover, less motivation for non English speakers and not being a proper approach to assess the student achievements are other factors that must be verified.

This paper presents a case study to consider using blog as a supportive learning tool in higher education in the context of Malaysian universities.

Overview of the Case: As a background of subject, Web-based multimedia development is a 3-credit point subject offered as a postgraduate course for educational technology students in Educational Multimedia department in Faculty of Education at Malaysia. Since this course has one prerequisite subject, usually postgraduate students take it on second or third semester. In this course, students expose to the popular communication tool which is the Internet and how to use it in teaching and learning efficiently. Students are given the chance to develop a website/portal for interactive teaching and learning using programming skills obtained from the previous courses. They also have the chance to evaluate the effectiveness of the developed website by using several testing and evaluation techniques which are introduced in this course.

Besides, as an individual assignment, it is focused on personal blog development. Every student has to develop his/her own blog using any free blog service such as blogspot etc. The blog must be updated with new information regarding the learning process throughout the course. For whole semester, all the students are expected to participate in such learning activity by putting post in their own blogs and also putting comments in their friends' blogs. Although this assignment has just 10% of the total mark, but duration of it is longer than the other which it starts from the first week of the semester until the end.

During the first semester of 2009 academic year, 11 students were registered in the subject. One of them was as a PhD student and just attending the class and the rest were master students which they took the subject as a core subject. Three of students were occupied as a teacher. 27.18 was the average age of the students. The majority of students were female where just 2 of them were

male. Two of the students were international students and the rest were local. After the first week lecture, students created their own blogs to convey and share their ideas.

Analysis the Learning Activity: Table 1 demonstrates monthly user activity by putting post. As can be seen in Table 1, the first month of academic year had a high rank of posts. However the second month also had almost the same amounts, they decreased in the fourth month to one of third. On the other side, 4 and 28 are the numbers of minimum and maximum posts during the whole learning activity while 2.55 is the average amount. Five participants had more posts than the average while the rest had less.

Regarding to that none of the students had no experience in making blog before and also the high rank of putting posts in the first month, seems students in first face were absorbed in capabilities and attractiveness of blog. One of the students wrote about such feeling in her blog at the first post which shows her great eagerness of using blog:

Yes! I'm a blogger now.... I have no experience in web development whatsoever, but I trust myself as a quick learner. So I take the challenge and we will see in the next post…and I'm so thrilled!

The significant point in Table 1 is, although the lecturer did put posts less than mean, but the students continued their tasks. So it shows the role of lecturer as just a pointer who starts an activity and let the students to take part in such activity that it goes beyond the classroom and also facilitate more collaboration among pupils. In such environment, learners interact with environment and events and thereby obtain a meaning

Table 1: Monthly user activity by putting post

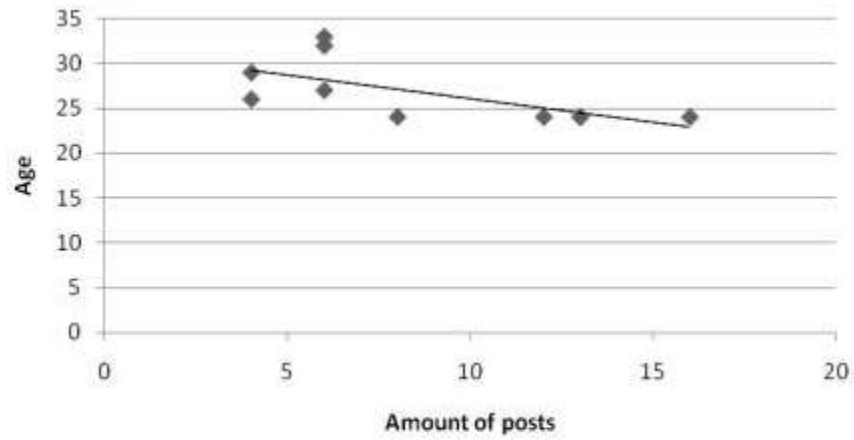|	Jan	Feb	Mar	Apr	Total	Mean
Lecturer	2	4	1	-	7	1.75
Az	1	2	1	4	8	2
Al	3	1	-	-	4	1
Di	3	1	2	-	6	1.4
Fa	7	3	3	-	13	3.25
Ho	11	9	5	3	28	7
Hu	3	1	1	1	6	1.5
Ir	2	2	-	-	4	1
Iz	6	6	2	2	16	4
Mi	2	10	-	1	13	3.25
Nu	1	2	5	4	12	3
Po	4	2	-	-	6	1.5
Total	45	43	20	15	123	2.55

Fig. 1: Correlation between age and amount of posts
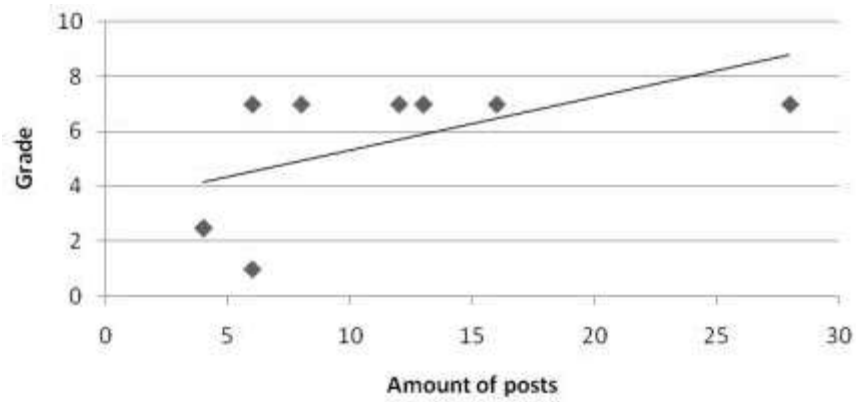

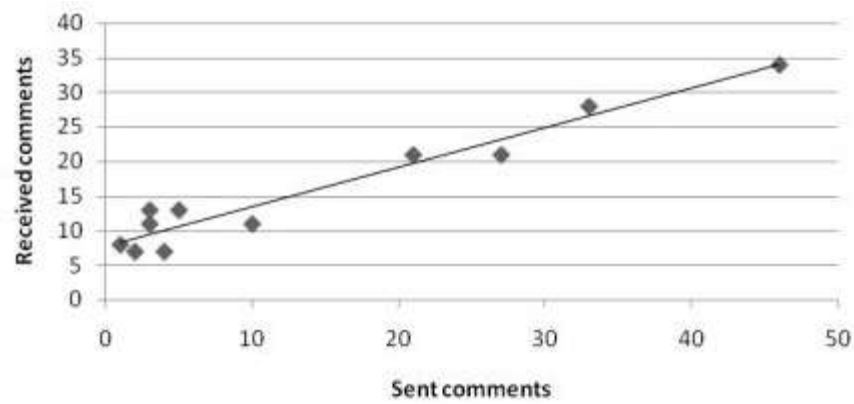Fig. 2: Correlation between the amount of posts and grade

Fig. 3: Correlation between sent and received comments

and understanding of the characteristics of such environment and its events. The learners individually transfer the new information to their mind and construct their own conceptualization based on their previous beliefs and ideas and the role of teacher is to enter into a discussion with the learner to help him or her to clarify their understanding. Constructivism proposes that the learner is much more actively involved in a joint enterprise with the teacher to construct new meaning [17].

Figure 1 demonstrates the correlation between age and amount of posts. There is a relatively strong negative correlation (r = -0.66) between age and numbers of posts. It shows students who were younger had posted more messages in their blogs. Findings of [18] also support this claim. However in this study one pair of data has been eliminated from the graph which was belonged to a 32 years old student with most posts than others.

Regarding gender, female students were more active than male students to update their blogs. In average, females had 11.72 posts whereas males had just 2. The difference between females and males activity in updating blogs indicates that females had been more absorbed by the attractiveness of blogs. Maybe blogging make a proper situation for female students to disseminate their feelings and knowledge. However, findings of [18] indicate that males in such range age (27.18) are majority in blogging to compare with females.

Considering the occupied status shows that the students who were not employed did put post 2 times more than the occupied. They had 12.85 posts in average whereas employees had 6.5. So, maybe beside the job responsibilities, employed students had no enough time to update their blogs efficiently. As [19] stresses 'insufficient teacher time' is one of the most important obstacles to integrate technology in education. Such factor can be extended for students in some particular aspects.

The final grades obtained by the students had a moderate positive correlation to the numbers of posts. Figure 2 shows such relationship after ranking whereas who had high ranks in updating blog they got good marks. However the correlation coefficient (r = +0.57) is not strong but it shows an approximate relationship between such variables. Moreover, [16] also believe that the use of blog cannot be a proper approach to assess the student's achievements.

All the posts put by users has been divided into 2 groups: Emotional or informational, indicated in Table 2. An emotional post refers to a post that had been affected by the class atmosphere, while an informational post had been put to share knowledge and information.

Table 2: Kinds of posts

	Emotional	Informational
Lecturer	2	5
Az	4	4
Al	3	1
Di	6	-
Fa	3	10
Ho	15	13
Hu	2	4
Ir	-	4
Iz	5	11
Mi	6	7
Nu	5	7
Po	5	1
Total	56	67

As can be seen there were totally 56 emotional posts and 67 informational which there is no significant difference between the amounts of posts. The considerable number of emotional posts shows that students used blog to explain their feeling. As [20] stresses, emotional factor is a significant characteristic in social networks. Actually blog as a social network activity provides an environment to share senses, does not matter is a sense of gladness and happiness or unhappiness and sadness. People are found that they can be connected with a circle of friends to share their sense.

Regarding to numbers of informational posts, [20] expresses that the user-based factor is a main characteristic of social networking tools. Without users they would be an e mpty space filled with empty forums, applications and chatrooms. It means users themselves cater information and contents of website which is the exact characteristic that made social networks so much more exciting and dynamic for Internet users. So the great number of informational posts proves the user-based factor in blog as a kind of social networking tools.

Table 3 determines the amount of sent and received comments. Each row shows the number of comments which one user has been sent for others whereas each column indicates the number of comments which the user has been received.

The remarkable point in this table is its diameter from the up corner in left to the bottom corner in right, which indicates the number of comments that someone put in his blog. Almost all the participants put at least one comment in their blogs. It shows the viewer's ideas were important for the blogger and so he or she had tried to explain more about his post by putting comments in his blog. In other words, the student as a blogger by putting comments in his blog tries to clarify his ideas.

Table 3: Sent and received comments

Received Comments		Sent Comments												
		L	Az	Al	Di	Fa	Ho	Hu	Ir	Iz	Mi	Nu	Po	Total
	Lecturer	1					6		2			2	2	13
	Az	1	2				1			4	1	1		10
	Al	1		2										3
	Di	1			2									3
	Fa	1	1	1	2	8	3		2	4	3		2	27
	Ho	4	4		3	3	6	5	3	4		1		33
	Hu	1					1	-						2
	Ir	1							3	1				5
	Iz	2	2	3	3	4	6	1	3	13	6	1	2	46
	Mi	1		2		2	4			5	6	1		21
	Nu	1	2					1				-		4
	Po												1	1
	Unknown			3	3	4	1			3	5	1	1	
	Total	15	11	11	13	21	28	7	13	34	21	7	8	

Figure 3 presents the correlation between exchanged comments. It shows that sent comments were highly and positively related to received comments ($r = +0.97$). The high and positive correlation coefficient shows a mutual connection between viewers and blogger. In other words, whenever a blogger receive a comment from other friends, tries to replace their regards by putting comments on their blogs.

CONCLUSION

This paper reported a case study that tried to analyze blog's effects as a learning activity in order to consider it as a supportive tool in higher education contexts.

Overall, it could be determined that using blog in such learning environment will be terminated to positive outcomes. However the result of this study could not be generalized, but they provide an illustrative outlook for possible use of such technological tools in the same environments. Moreover, they can be used as a base for future studies.

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