

## **A model of E-Learning Course for Teaching and Learning with Edublog and Social Network Services (SNS)**

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### **ABSTRACT:**

An educational blog (Edublog) is a group collaboration software tool based on Web server technology. Social network services (SNS) is the grouping of individuals into specific groups, like small rural communities or a neighborhood subdivision, if you will. When we add Edublog plus SNS equal double value .This study examines the use of an Edublog and SNS to facilitate teaching and learning in an academic setting. We present a case study about how an Edublog and SNS were used to support collaborative activities in a class at an undergraduate-level. Our findings suggest that Edublog and SNS can support collaborative knowledge creation and sharing in an academic environment. Success in attempts to provide such support may depend on: familiarity with Edublog technology, careful planning for implementation and use, appropriate class size, and motivation of students to engage in discovery learning.

### **Key Words:**

Edublog - Social Network -E-Learning Course – Teaching and Learning – web 2.00.

## 1. INTRODUCTION:

Nowadays edublogs and social network services (SNS) are increasingly important for activism and education. Weblogs can be used by professors to follow students learning process and it can be used by students themselves. One possibility is the use of weblog as a learning journal, where students reflect about what they are learning, what they are reading, what they are working on with colleagues, etc. (Namwar , Rostog, 2008, p.23).

Edublog can be used to communication, as instructional resources, as collaborative tools and showcases for student project (Ray, 2006, pp.175-177). It can be used to post class announcement for parent or providing schedule reminders for student. Edublog can be use instructional resources, in which teachers can post tips, explanation, or samples to help students learn (Wang, 2008, pp. 34-38). Within education and academia, Edublog are being embraced by both teachers and students. The web is an important and ever-evolving resource for teaching and learning (Judy & Kay , 2006, p33.).

Social network services (SNS) "According to encyclopedia" is web based and provide variety of way for users to interact, such as e-mail and instance messaging services. It has encouraged new ways to communicate and share information. The main type of social networking services are those which contain category divisions (such as former school-year or classmates), means to connect with friends and recommendation system linked to trust. Popular methods now combine many of these, with MySpace, Facebook, Twitter and LinkedIn being the most widely use in North America.

The use of collaborative technologies such as blogs and social networking site (SNS) leads to instant online community in which people communicate rapidly and conveniently with each other. Moreover, there are growing interest and concern regarding the topological structure of these new online social networks (fu, et al., 2008, p.675-684).

SNS can be supported learning, Now the use of social networking sites, blogs, wikis, social bookmarking and media sharing have become widespread. The existence of such online applications and services as Facebook and YouTube are well known amongst teachers, who are often users of this technology themselves in their private lives, but may not recognize the educational potential for their students (Toney, 2008, p.130).

In this research we provide a model for learning and teaching using Edublog and SNS. It is based on objective scientific and higher efficiency and productivity of more by presenting information and skills to students in line with recent trends. This idea is based on the learner and on the basis of their needs, aspirations and convictions. The research tries to benefit from modern technology available in the area of computer technology and its impact on technology education.

## **2. RESEARCH PROBLEM:**

The concept of the second generation of web 2.00 has appeared clearly with the information revolution, which means the available services on the internet that give visitors the opportunity to participate and build the content. The role of the user has been changed from being just a reader and a visitor to be a writer and a participant. The second generation services have given the confidence to the user and they have created an interactive social environment that are considered effective in promoting and enriching the educational process and they are considered the tools of the e-learning and accordingly the concept of the e-learning2.00 tools has appeared based on the web 2.00 services.

The web 2.00 services have been increased and developed quickly as social bookmark, sharing files, blogging, wiki and living chat. Also the educational blogging and social network services is widespread as a product of the web 2.00 technology. The *Edublog* and SNS have been used in presenting the content in many universities. The current research is trying to develop a proposed model for the use of edublog and SNS on the web hence applying it on the research sample to determine the effectiveness of using the proposed model in increasing learning and

enriching knowledge. Also getting the views of the research sample in using the educational blogging and social network in learning process. The research used (Rcom 411) course from department of computer science –the faculty of science and arts - Qassim University in Saudi Arabia as a model to make the experiment.

The research problem can be couched in the following:

- How is a suggested model of e-learning content based on Edublog and SNS services created?
- What is the impact of using this model in teaching and managing the course?
- What is effectiveness of the model in mastering the cognitive aspects and skills to the research sample?
- What is the opinion of the students (the research sample) in the suggested model teaching?

### **3. RESEARCH SIGNIFICANCE:**

This study offers a model for e-learning content based on Edublog and SNS for undergraduate students in the dept.of computer science – faculty of science and arts - Qassim University in Saudi Arabia. It also tries to examine the effectiveness on the student's academic achievement. The current research has the following significance:

- Designing a suggested model for e-learning content based on Edublog and SNS.
- Measuring the effectiveness of the model and its influence on students' academic achievement.
- Endeavoring to draw up a future form to an e-learning course in order to make the best use of the teacher and learner's effort.
- Designing a questionnaire to investigate the students' viewpoints on e-learning content applied in this research .
- Linking the technological changes with the educational process to meet the challenges of the next century.
- Studying the feasibility of the idea, analyzing its application and employing it to draw some conclusions in an attempt to contribute to the improvement and development of the educational process

and to make best use of computer technologies and the internet in opening up new horizons and prospects in this field.

#### **4. RESEARCH HYPOTHESES:**

- Using Edublog and SNS is effective in providing e-content to the research sample.
- There is statistically significant between the mean of students' cognitive attainment after teaching the course.
- There is statistically significant between the mean of students' skill performance after teaching the course.
- Positive views of students about teaching and learning method used in this research and there are statistically significant between student's trends for using Edublog and SNS after teaching.

#### **5. REVIEW OF LITERATURE:**

##### **5.1 What are the blog / Edublog?**

Blog (weblogs) is a web page containing brief, chronologically arranged items of information. A blog can take the form of a diary, journal, what's new page, or links to other web sites. Wikipedia defines a blog as a website where entries are made in journal style with entries displayed in a reverse chronological order. Blogs are usually conversational in nature and provide reflection, information, and/or commentary on a particular subject. Whereas most blogs are primarily textual, including hyperlinks, some include or may actually focus on photographs (photoblogs), videos (vlogs), or audio (podcasting) and are a part of a wider network of social media.

An Edublog is a blog written by someone with a stake in education. Examples might include blogs written by or for teachers, blogs maintained for the purpose of classroom instruction, or blogs written about educational policy. The collection of these blogs is called the edublogosphere by some, in keeping with the larger blogosphere, although that label is not necessarily universally agreed upon. (Others edusphere) similarly, educators who blog are sometimes called edubloggers.

Communities of edubloggers occasionally gather for meetup or unconference sessions organize using a wiki at edubloggercon.com.

Blogs always provide an RSS feed that contains posts that have recently been created. The benefit of using an RSS reader is that it shows new content from all feeds since the last time user viewed them (karrer, 2007, pp.20-22).

### **5.2 using Edublog in learning:**

Edublogs are now one of the most common types of website found on the internet. This accessibility and the reflective nature of blog authoring means that they are appropriate to many learning and teaching application.

Edublog provide a communication space that teachers can utilise with students whenever there is a curriculum need to develop writing, share ideas and reflect on work being undertaken in the classroom Teachers can simply create, manage, and moderate Edublogs for all their students, with a minimum of fuss. The interface makes it easy to add videos, photos, podcasts, and other Web 2.0 tools, and the customizable features and range of widgets make it a useful tool for many different levels of student.

### **5.4 SNS features:**

SNS is a web based and provides a collection of ways to communicate examples include:

- Myspace offers share capabilities with feature that include: talking online with friends, studying with study partners, keep in touch with families and sharing information with others (Sharon, 2008, pp.18-21).
- Wiki (modifiable collaborative web page) is a web communication and collaboration tool that can be used to engage students in learning with others within a collaborative environment (Kevin, & Joseph, 2007, pp. 57-71).
- Podcasting (subscription based broadcast over the web)
- Vodcasting (video podcast broadcast over the web)
- Rss (really simple syndication).
- Facebook

### **5.5 studies that have tackled the various sides of the current study:**

*Bloom Jared (2008)* carried out a study aimed to determine the extent to which an online community was observable in the teacher assigned blogs of secondary English students and the characteristics that helped to form the basis for the teacher assigned blogs. Open, axial and selective coding were used along with rich description, memos and categorizing as part of a virtual ethnographic methodology to determine the observability and the characteristics that helped to form the educational blogs. The data reported that online communities were observable in all 127 blogs used in this study. There were three characteristics that were found to form the basis of the teacher assigned blogs: commonalities, give and take relationship and commonalities. Based on the findings reported in this study, recommendations are made for future studies to be done to better understand how to use blogs in the secondary English classroom.

*Risinger (2006)* the use of weblogs in the classroom, which is a new approach to teach social studies on students. Weblogs for teachers can be interactive because they can pose questions and ask students to respond. Will Richardson, a supervisor of instructional technology of Hunterdon Central Regional High School in New Jersey said that with blogs, class does not have to end when the bell rings because there are some discussions that began in the classroom that can be continued in cyberspace. The author list some recommended websites about educational blogging that can represents well-designed, interesting, and fun blogs for students and teachers including teaching humanities with technology Edublogger, blogs catching on as tools for instruction, and history news network.

*Ellison, Nicole & Wu, Yuehua, (2008)* This exploratory study uses quantitative and qualitative data to explore (1) whether educational blogging is associated with gains in student comprehension, (2) the relationship between writing medium (online or hard copy) and student time on task, and (3) student perceptions of blogging in the classroom. College students (n=52) completed a series of writing assignments, submitted either as traditional, hard copy papers or as blog entries

(submitted online and reviewed by peers), and then completed a survey instrument probing comprehension of material and perceptions. Analysis revealed no significant differences in comprehension between blog and paper assignments, although students reported spending less time writing in the blogging condition. Qualitative data revealed a need for more guidance regarding the process of reviewing and critiquing the work of peers. Although specific comprehension gains as measured by exam items was not associated with the blogging medium, student comments suggest that blogging was associated with other specific instructional gains, such as exposure to more diverse viewpoints and increased commitment to writing and thinking. Pragmatic guidelines for instructors wishing to incorporate blogging into their classroom activities are discussed.

Catherin, (2007) carry out An online survey of two popular social networking sites, Facebook and MySpace, compared perceptions of trust and privacy concern, along with willingness to share information and develop new relationships. Members of both sites reported similar levels of privacy concern. Facebook members expressed significantly greater trust in both Facebook and its members, and were more willing to share identifying information. Even so, MySpace members reported significantly more experience using the site to meet new people. These results suggest that in online interaction, trust is not as necessary in the building of new relationships as it is in face to face encounters. They also show that in an online site, the existence of trust and the willingness to share information do not automatically translate into new social interaction. This study demonstrates online relationships can develop in sites where perceived trust and privacy safeguards are weak.

## **6. RESEARCH METHODOLOGY**

### **6.1 Research methods:**

The researcher used the experimental method as it cares to study factors and variables that affect the phenomena or problem and changing in some of its aspects with other stables to reach the causative relationship between these variables.

**6.2 Sample of research:**

The sample consists of 36 students from the department of computer science –faculty of science and arts - Qassim university in Saudi Arabia, are divided into two groups were chosen randomly. First group (*experimental*) consists of 20 students and the second one consists of 16 students (*control*).

**6.3 Case study:**

Designing and teaching a course that involved the use of a SNS and edublogging socialgo was chosen as an online platform to create a class social networking site and Edublog. Allowed student to create their own profiles, upload photos, audio, podcasts and video, create and joined discussion groups, send message and publish blogs and presentation.

Only class members in the course (*Rcom411*) were invited to join the class social network and edublog site. No guest or outsider was allowed to join and participate in the social network site.

**6.4 Selected content:**

The multimedia course has been chosen to be the educational content for the edublog, and then the content has been uploading on the website as files: videos, texts, images and flash files. Then the content has been divided into lectures. We allow students to put their comments and add their viewpoints in all items.

**6.5 Validity of content:**

to ensure the veracity of the content. We present the tools of research to the specialists to express their opinions on the content. Some of the points were corrected according to their views. 15 students were selected to examine validity and reliability of the research tools .

**6.6 Achievement test:**

The aim of the test is to measure the students' achievement for the knowledge and the information in the educational content. Quizcreator software has been used to design the test. The test questions are 50 include different kinds of questions as multiple-choice, true/false and fill in the blank types.

**6.7 Skills test:**

The aim of the test to measure the students' achievement for mastering the skills in the course (*Rcom 411*) .

### 6.8 Descriptive Measure:

The questionnaire was designed in order to indentify students' trends about effectiveness of the use of edublog and SNS. The questionnaire consists of 20 phrases and it has been presented to a group of experts to ensure the validity and reliability.

To statistically test the validity of phrases, a correlation coefficient was calculated for each phrase by the total degree of the dimension to which it belongs void of phrase degree. The findings indicate that the terms of the measure are characterized by a feasible degree of validity. To ensure the validity of the measure en masse, it is calculated by the statistical program called LISREL

### 6.9 Statistical treatment:

Spss software has been used to analyze result in this research.

## 7. DISCUSSION

### 7.1 The 1<sup>st</sup> Assumption:

Using Edublog and SNS is effective in providing e-content to the research sample. To test the validity of this assumption, the value of t-test is used to calculate efficiency the following table shows it as follows:

**Table 1: Shows the value of t-test for the statistical significance of means of the degree of the two groups:**

Group	M	sd	Df	T	Sig.
Pre-group	44.45	4.11			
Post-group	20.4	5.09	38	16.43	0.000

\*P <.05. \*\*p<.01.

Results indicate that there is a statistically significant distinction between the mean of the students' degrees of the 1<sup>st</sup> group (pre-group) in favour of the 2<sup>nd</sup> group (post-group). The distinction is essential and it doesn't trace back to the work of chance as  $t(38, N=20) = 16.43$   $p = .05$ . Which refer to the existence of the effectiveness of use Edublog and SNS in teaching and learning.

### 7.2 The 2<sup>nd</sup> Assumption:

There is statistically significant between the means of students' cognitive attainment after teaching the course. The value of t-test is used to

calculate the differences between groups .the following table shows it as follows:

**Table 2: Shows the value of t-test for the statistical significance of means of the degree of the two groups:**

Group	M	Sd	Df	T	Sig.
Experimental	44.80	4.11			
control	19.5	5.09	38	15.89	0.000

\*P <.05. \*\*p<.01.

Results indicate that there is a statistically significant distinction between mean of the students' degrees of the 1<sup>st</sup> group (experimental) in favour of the 2<sup>nd</sup> group (control) in student's cognitive attainment after teaching for knowledge. The distinction is essential and it doesn't trace back to the work of chance as  $t(38, N=20) = 15.89$   $p = .05$ .

### 7.3 The 3<sup>rd</sup> Assumption:

There is statistically significant between the mean of students' skills performance after teaching the course. The value of t-test is used to measure that. The following table shows it as follows:

**Table 3: Shows the value of t-test for the statistical significance of means of the degree of the two groups:**

Group	M	SD	Df	T	Sig.
Experimental	47.45	4.18			
Control	12.45	2.74	38	31.27	0.000

\*P <.05. \*\*p<.01.

Results indicate that there is a statistically significant distinction between means of the students' degrees of the 1<sup>st</sup> group (experimental) in favour of the 2<sup>nd</sup> group (control) in student's cognitive attainment after teaching for skills. The distinction is essential and it doesn't trace back to the work of chance as  $t(38, N=20) = 31.27$   $p = .05$ .

### 7.4 The 4<sup>th</sup> Assumption:

Positive views of students about teaching and learning method used in this research and there is statistically significant between students' trends for using Edublog and SNS after teaching. To test the validity of this assumption, the researchers, uses the general method of calculating  $X^2$  of the frequency table  $1 \times 2$  to work out the statistical significance of

frequency distinctions between the student's approvals and disapprovals of each phrase of the questionnaire around using class Edublog and SNS to teach and learn E-courses. The following table shows this as follows:

**Table 3: Shows f, p, M, SD,  $X^2$  values, for student' attitudes towards using class Edublog and SNS.**

N	Items	Agree		disagree		M	SD	$X^2$
		F	%	f	%			
1	I feel comfort to use the class edublog and social network site.	17	85%	3	15%	1.85	0.36	9.8*
2	My edublog and social network site allows me to interact and build a learning community.	18	90%	2	10%	1.90	.308	12.8*
3	My class edublog and social network site allows me to personalize page to express individuality and creativity.	16	80%	4	20%	1.80	.410	7.20*
4	My class edublog and social network site allows me to share photos, music and videos.	19	95%	1	5%	1.95	.224	16.20*
5	My class edublog and social network site allows me to pose questions to the community.	18	90%	2	10%	1.90	.308	12.8*
6	My class edublog and social network site allows me to hold forums to discuss topics interact.	19	95%	1	5%	1.95	.224	16.2*
7	My class edublog and social network site allows me to find and share educational resource.	15	75%	5	25%	1.75	.444	5.00**
8	My class edublog and social network site allows me to create a study group.	16	80%	4	20%	1.80	.410	7.20*
9	My class edublog and social network site encourages learners centered activities.	19	95%	1	5%	1.95	.224	16.2*
10	My class edublog and social network site provides collaborative learning opportunities.	19	95%	1	5%	1.95	.224	16.2*
11	My class edublog and social network allows me to share facebook, myspace, digg, delicious and twitter.	18	90%	2	10%	1.90	.308	12.8*
12	My class edublog and social network site gives me sense of belonging.	18	90%	2	10%	1.90	.308	12.8*
13	My class edublog and social network site promotes knowledge sharing.	19	95%	1	5%	1.95	.224	16.2*
14	My class edublog and social network site is a friend of the user.	16	80%	4	20%	1.80	.410	7.2*

N	Items	Agree		disagree		M	SD	X <sup>2</sup>
		F	%	f	%			
15	My class edublog and social network site allows me to send and receive information from other members through messages.	18	90%	2	10%	1.90	.308	12.8*
16	My class edublog and social network site is a great tool for class communication.	17	85%	3	15%	1.85	.366	9.80*
17	I will become actively involved in courses that use class edublog and social network site.	19	95%	1	5%	1.95	.224	16.2*
18	My class edublog and social network site can be used for professional development.	18	90%	2	10%	1.90	.308	12.8*
19	I would like to see more edublog and social network sites use in other class.	18	90%	2	10%	1.90	.308	12.8*

\*P <.05. \*\*p<.01.

The pervious table shows that X<sup>2</sup> value of all phrases concerned with the students' view points on using class edublog and SNS site is bigger than the X<sup>2</sup> (1,N=20)= 3.84 p=.05. This indicates that the distinction between the frequencies (f) and the expected frequency (fe) around the phrases concerned with that pivot is statistically significant and it doesn't, therefore, go back to chance factor. The distinction between the students' approvals or disapprovals to the phrases of the questionnaire is in favour of the use of using Edublog and SNS in learning and teaching method.

On other words, the students feel comfort with using the class edublog and SNS site. It allows them to personalize their pages to express individuality and creativity, share photos, music and videos, sent and received information from other members through messages; hold forums to discuss topics interact. They also described the Edublog and SNS site is a great tool for class communication. In addition, there is a general satisfaction among the students because of using more Edublog and SNS sites in other class. Thus, students feel completely satisfied with using the class Edublog and SNS site. They clarify that using the class Edublog and SNS site is better than the traditional methods of learning. The students, furthermore, strongly stressed the importance of using class Edublog and SNS site in all classes.

As the results indicate the existence of statistically difference between the means of students' attitudes towards the use of Edublog and SNS in learning and teaching. The following table shows that:

**Table 4: Shows the value of (*t-test*) for the statistical significance of means of the degree of the two groups:**

Group	M	Sd	t-test	df	Sig.
Pre-group	23.25	4.84			
Post-group	37.8	2.093	14.76	19	0.000

\*P <.05. \*\*p<.01.

The table above shows the existence of statistically significant difference between the means of the two groups (pre-post) toward the use of Edublog and SNS in teaching and learning for student after learning. The sense that the views of post-group has formed positive trend for the learning method used.

### 8. RESEARCH RESULTS:

- Edublog and SNS can support collaborative knowledge creation and sharing in the academic environment.
- The use of Edublog and SNS has effectiveness in learning and teaching.
- There is statistically significant between the means of students' cognitive attainment after teaching.
- There is statistically significant between the mean of student's cognitive attainment after teaching for skills performance.
- Students' viewpoints were positive about teaching and learning method used in this research, and there are statistically significant between the means of students' attitudes concerning using Edublog and SNS after teaching.
- The use of Web 2.00 technology and its components in the research can be used to develop learning and teaching at the undergraduate-levels.
- Edublog and SNS become as effective tools in learning and teaching.

### 9. RECOMMENDATIONS:

- Taking the advantages of the Web 2 technology in designing e-learning courses
- Training the students to use the applications of SNS in learning .
- Linking the SNS applications with LMS used in universities.
- Supporting the researches in the field of e-learning and distance education.

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