Engaging Students through Blogs: Using Blogs to Boost a Course Experience

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Abstract— Globalization is irreversible and the Internet is increasingly used to connect people and share information worldwide. The proliferation of digital information allows us to make choices about how we gather information and use technology to enhance learning. This is especially true in an academic environment, where the Internet is often used as a tool to facilitate deeper learning.

The focus of this study is to investigate whether and how to use blogs to boost student learning in a traditional learning environment where lecture based (didactic) instructional practices still prevailing. This paper will also look at Al-Ain University of Science and Technology (AAU) student perceptions of the benefits of blogs for enhancing college learning.

To explore these issues, Blogging was introduced to students in the Internet Technology class. A combination of one hundred and ninety-nine graduate and undergraduate AAU students answered an online questionnaire exploring their perceptions of blogs as a learning tool. Quantitative and qualitative data was also collected through open-ended questionnaires, student journals and reports, and end-of-class e-portfolios.

All statistical analyses were carried out with SPSS. Results indicate that blogs have the potential to empower and enhance student learning. Student response to using blogs in the course has been overwhelmingly positive.

Index Terms— education, blogs, thinking skills, e-tools, learning

I. INTRODUCTION

A blog is an online platform where an individual, or a number of people, is able to easily upload text, photo, video and other multimedia content, and share it with an unlimited amount of internet users. Blog pages set themselves apart from other online platforms for their interactive nature. The creation of blogs is very easy and common due to the availability of various hosting services, some of which offer free services, such as Blogger and WordPress.

Although blogs can be introspective and personal, as the creator(s) tends to be the sole moderator(s) of a self-created page, they can also be a tool to connect with the outer world and exchange ideas. The ability to comment on a blog, and transform a blog post into an active discussion, creates a space for ideas to flow, grow and change, and for feedback to be received from anywhere in the world. With a simple URL link, anyone can access a

blog post, no matter by whom, when or where it was created. Therefore, readers can feel involved in the content that they are consuming.

The process of blogging becomes a two-way street that is open for criticism, praise or discussions. This can be both negative and positive. Bloggers must be careful of what they choose to share and how the general public will react to it; once something is posted online, it can be very difficult to control who shares it, reads it, comments on it, re-posts it, and so on. It becomes a part of the public sphere, and often, the blogger no longer has sole ownership over what they have shared. Plagiarism can be seen as a cultural issue of this generation that loves to share their ideas (Gross, 2011). Accordingly, for those who post original content such as writings, photographs, graphics and more, the risk of plagiarism is present.

At the same time, the instantaneous nature of publishing on blogs is matched by the ease of editing. For instance, if a well-known publication publishes an article with a mistake in it onto their website, correcting that mistake before it hits their audience would be as easy as spotting it, entering the edit area, changing the mistake and saving the new version. This is unlike print publications, where you would often have to print an apology or redaction in an upcoming issue. Consequently, it is considered to be "a distinct form of authorship that can support the goals of higher education institutions and can complement and contribute to traditional forms of scholarly publication" (Powell, Jacob, & Chapman, 2011, p.2).

Therefore, in the realm of teaching, blogging can be a very important cognitive/mind tool. It carries many benefits for educators, including opening up new ways for diverse and new audiences and creating a learning environment that provides feedback and encourages creative thinking (Wheeler, 2011). Accordingly, a rising number of university courses are demanding students to create blogs as part of their course, perhaps considering it as a mandatory part of the assessment (McClurken & Meloni, 2010).

By requiring your students to maintain a study-related blog, you are encouraging them to think critically about the information they are consuming within the classroom, and encouraging them to place that information into a wider context. It has the potential to strengthen their analysis of the subject at hand. Blogging can be used as a platform to write homework, critically dissect information, and share ideas, theories, explanations, and more. The ability to 'comment' on a blog means students within that classroom can explore each other's blogs and leave feedback or ask questions, whilst learning from

different perspectives. According to Mortensen and Walker (2002) "Blogging encourages spontaneous, timely and concise expression of thoughts." (p. 268)

Those who engage in blogging must be aware that the information they post could be viewed for a long time by just about anyone, including future employers, which can be beneficial. Social media, and specifically blogs, has become a vital tool in today's educational process and can become the medium that transforms students from passive recipients of other people's knowledge into active builders of their own, thus strengthening their overall identity.

In spite of this observation, Smith (2004) notes that, "all too often our colleges and universities treasure tradition at the expense of today's knowledge, research, and needs. We practice an outdated model of education. Its effectiveness is limited. And it's time for a change." Researchers in the developing world in particular, including Kaser & Halbert (2009), also suggest that integrating new knowledge and skills into current learning and teaching activities will require a significant shift from existing and longstanding learning and teaching practices. Practices based on rote learning and memorization must give way to practices that support critical thinking, and problem solving. Hence, "there's an unprecedented need to understand the recipe for success, which involves the learner, the teacher, the content, and the environment in which technology is used" (Marshal, 2002).

Unfortunately, although technology is widely available across Arab countries, and affordable social media such as blogs is becoming increasingly popular in the region, it is still not maximized as an essential learning tool. In the Arab region, "the use of technology in teaching, i.e. technology as a means, is in its infancy" (Connect, 2003). Many faculty members that have been teaching in the Arab region for decades insist that the quality of education has declined. "Somehow we have failed to connect with students' brains to encourage them to think and use information intelligently," (Castillo, 2004).

As a result, an increased gap has formed between the knowledge and skills students are acquiring in schools, and the knowledge and skills needed to succeed in the increasingly global technology-infused 21st century workplace (Partnership for 21st Century Skills, 2005b). Addressing the above challenges requires bridging this gap through using technology, including blogs, as mind tools to promote meaningful learning. Accordingly, the point of the paper is to focus on how blogs improve the learning experience in a university environment at United Arab Emirates (UAE).

A. Objectives of Study

This study was intended to explore the effectiveness of blogs in:

- Promoting the development of the reflective competencies of AAU students and giving learners greater responsibility for their learning.
- Developing strategies to facilitate non-traditional learning.

The credibility and dependability of blogs as a leaning tool will be determined from students' points of view.

B. Research Questions

This study was designed to provide a definite, explicit answer to the following questions:

- Do AAU students see blogs as an effective learning tool that helps them be better learners?
- Do AAU student experiences with blogs change their perceptions of blog roles and effectiveness?
- Does a developmental difference in the use of blogs as a learning tool exists between undergraduate versus graduate students?

II. REVIEW OF LITERATURE

Many more recent studies have claimed and found a positive effect of social network sites on students' outcome. These include terms of the students' academic performance and their activities, enhancing their critical thinking and problem solving skill development, increase the students' satisfaction, improving the students' understanding of their subjects and effectively reinforcing active learning process (Aljumah, (2012); Venkatesh, Croteau, & Rabah (2014); Goh, Quek, & Lee, (2010). Social network sites such as Facebook, Blog and Twitter are creating a new way of communication for the teachers and students at the school environment. This study may take advantage of social network sites which are being claimed by many of previous studied done on Education field. Thus, there is a need to accelerate the implementation of social network sites in education institutions to improve students' performance. In order to do this, it is important to precisely measure students' perception and attitude towards social network sites.

Venkatesh, Croteau, and Rabah (2014) conducted research about perceptions of effectiveness of educational uses of technology in higher institutions in the Web 2.0 era. They explored the relationship between perceived use of diverse types of ICTs, including social media, and their perceived efficacies of use, and explained how perceived course effectiveness can be linked to perceptions of instructional methods employed by teachers and studying approaches adopted by learners. The questionnaire was used to collect data from 15,020 undergraduate students who participated from 12 institutions. The results of the study revealed that the perceptions of ICT use between the different genders. Also, the findings indicated that the way instructors lead their lectures, the individual and social use of ICT and the level of student's individual study and selfregulatory strategy use significantly contributes to students' satisfaction toward their courses. Moreover, active and self-regulated study strategies by using Social Network Sites have a positive and significant impact on students' perceptions of course effectiveness.

Furthermore, the effective uses of blog in education can be viewed in a study done by Aydan (2014). He discovered that blogging provides students with various advantages and improves their reading and writing skills. Students always feel motivated to attend class when learning using blogs is introduced; they also agree that class environment has become more active (Aydan, 2014). The result similarly was investigated by Aydin (2014) in his study about "The Use of Blogs in Learning English as a Foreign Language". Aydin (2014) found that blogs are significantly able to enhance students' capability in learning. Moreover, the uses of blog can enhance students' competency and develop interactions between them. Alike with the above result, Pursel & Xie (2014), discover that there is positive correlation between blogger entry and the incensement of Grade Point Average (GPA).

The result was revealed from the investigations of two years institutions blog data in United State, with a total of 12,786 participants.

Tang, Tang & Chiang (2014 Kilic and Gokdas (2014) have run a study on "Learning through Blogging: Use of Blogs to Enhance Perceived Learning of Pre-service ICT Teachers". The study was purposely done to examine the effectiveness of blog use among 75 undergraduate students. From the analysis of the result, it has been discovered that, blog uses successfully enhance the students' overall learning. This study also mentions that, the uses of blogs help students to share and discuss their learning easily. Furthermore, Ocak, Gokcearslan and Solmaz (2014) attested that the use of blog in learning is able to develop critical thinking among students. The study revealed that 174 students at Turkey University agree that, blog not only help enhance learning but it also helps critical thinking. In the same year of 2014, Reeves has successfully discovered the same finding in his study on "Blogging and Interculturality: Investigating "The Appropriateness of a Blog to Support a Cohort of International Students". Although in this study Reeves (2014) found that blogs failed to address intercultural issue, as a whole it is still beneficial to improve learning

Kitchakarn, (2012) claimed that blog has successfully become a useful learning channel for students and the students had positive attitudes towards using blogs as academic method in the classrooms. Tang et al. (2014) also mentioned that blog can motivate students' learning and increase their belief in learning. In another qualitative study that involved 26 female and male undergraduate students done by Birrell (2014) the result revealed that blog successfully increases students' metacognitive awareness. The effectiveness of blog uses precisely can be seen among lower achiever students. According to Tang and Lam (2014) there are two main factors that can contribute towards the effectiveness blog uses in enhancing learning which are: active participation and high qualities of interaction, and communication among students. When both of these factor where mole together students will easily get benefits from blog uses.

Other than the above mentioned study, Lu, Chang, Chang (2014) studied consumer attitudes toward blogger's sponsored recommendations and purchase intention: The effect of sponsorship type, product type, and brand awareness. The study examined the influences of sponsorship type, product type, and brand awareness on online users' attitude toward sponsored recommendation post. The researchers distributed 762 online surveys and only 613 respondents were valid to examine consumer attitudes toward sponsored recommendation posts and purchase intention. In this study researchers discovered that most of the consumers record positive attitudes.

Shahsavar, and Hoon (2011) conducted study to investigate the effect of cognitive style on bloggers' attitude in an online learning environment and to examine if bloggers' cognitive styles particularly field-dependency affects students' attitudes toward blogs. They used questionnaires and interviews to collect the data from 36 undergraduate students, the students were from different ethnicities: Malay, Chinese and Indian. The result of the study confirmed that blogs can be beneficial for the learners as well as for teachers; also the students have

positive attitude towards using blogs in a learning environment.

III. METHODOLOGY

A total of 199 AAU students were selected using purposive and convenience sampling; all students were registered in the 2011-2012 academic year.

Group one (G1) consisted of 76 undergraduate students (36 male and 30 female). They were enrolled in two sections of the Internet Technology general education undergraduate course. On the other hand, group two (G2) consisted of 123 female graduate students. They were enrolled in three sections of the equivalent graduate course, which is part of the graduate educational technology diploma program.

The courses cover many theoretical and practical topics, including blog usage on platforms such as Blogger, Daftaree and Posterous. Students were instructed to create an account with usernames and passwords, and log-on and posting instructions were also provided in the first week of the semester.

Students were also asked to do the following:

- Create a blog
- Post educational and meaningful content related to their field of specialization, and support their posts with resources (e.g., videos, PowerPoints, PDFs, audio files, pictures, charts, website links, etc.)
- Add comments and answer questions about the content of the lecture after each class, and add related resources if applicable
- Engage in a meaningful discussion on other student's posts and comments.
- Follow other students' blogs
- Follow and comment on the instructor's blog (optional)

During the course, the instructor demonstrated the main features of blogs and how to collaborate with others using blogs.

Consequently, blog usage was incorporated into the course in two ways. First, the instructor promoted blogs to students as a useful mechanism to assist with learning. Second, blogs were incorporated into the assessment regime via the inclusion of a blog-based course portfolio.

Furthermore, instructors gave bi-weekly assignments during the course where a question was posted on the course e-mail and students were expected to use their blogs to respond. In this case, students were asked to review the answer on another student's blog and assess it. Students were also instructed to publish a draft of their course work on their blogs, and each student was assigned another student's blog to review. Here, students were asked to provide qualitative feedback (e.g., what was good about the answer? What was missing?).

Students modified the answer to the posted assignments' question according to suggestions given by the instructor and other students and then presented the coursework in their blogs, which became an e-portfolio as shown in Figure 1.



Figure 1. A sample e- portfolio from study participants

A. Study Design

Both qualitative and quantitative approaches were employed for the study to help address the research questions and the data collection, analysis and integration procedures. The main source of data for analyzing student perceptions of the blogs was derived from end-of-semester on-line questionnaires given in the undergraduate Internet technology course (G1), and in the graduate educational technology course (G2).

The questionnaire consisted of 10 five-point Likert items followed by two open response questions. The questionnaire was generated from literature review and consultation with experts in the field. In order to reduce ambiguity and maximize the clarity of the questions and to verify its validity and reliability, the questionnaire was piloted with students, and then further modifications were then made based on the students' feedback.

In addition to the questionnaire, blog e-portfolios, student journals and reports were used to support the quantitative and qualitative data.

The study's independent variable was the integration of blogs into AAU-selected courses. The dependent variable was the impact of the blogs on student perceptions and course-end academic achievement.

B. Procedure and Data Analysis

Quantitative and qualitative data was collected during the academic year of 2011-2012. Data was gathered through five-point Likert scale questions, open-ended questionnaires, student journals and reports, and end-of-class e-portfolios. After students completed their blog assignments as partial fulfillment of the course requirements, they left their final blogs as e-portfolios for a more in-depth analysis by instructors/researchers. According to Radnor (2002), in interpretive research, "the researcher is the research instrument..." So in this study, the researchers were the primary human instrument of data collection and interpretation.

The analysis of qualitative data, using the interpretive technique, is accomplished by hermeneutical data analysis techniques (Klein and Meyers (1999). The hermeneutical mode of analysis enables a way of understanding textual data. "Interpretation, in the sense relevant to hermeneutics, is an attempt to make clear, to make sense of an object of study. This object must, therefore, be a text, or a text-analog, which in some way is confused, incomplete, cloudy, seemingly contradictory - in one way or another, unclear. The interpretation aims to bring to light an underlying coherence or sense." (Taylor 1976, p.153)

The idea of hermeneutic analysis is that, the "whole" consists of common meanings that were formed by interactions between specific points of view (Klein and

Myers, 1999). Thus, the qualitative data collected was recorded and stored electronically. Raw data was organized initially into categories and organized around the issues of the study. Written interpretations of the data were made available to be reviewed for verifying the facts and interpretations made by the researcher and confirming the correctness of quotes and descriptions. Conclusions were also verified with other researchers/research participants. Then efforts were directed toward forming generalizations through understanding the whole from the joined meanings of the parts and their interrelationships. For this reason, subjects must have access to shared linguistic and interpretative resources (Marshall and Brady, 2001).

Confidentiality of respondents was maintained throughout the process. Data was tabulated and statistical analyses were performed.

IV. INSTRUMENTATION

The evaluation strategy used in this study consisted of four instruments: five-point Likert scale questions, student journals, final reports, and end-of-semester e-portfolios as represented by the students' blogs.

A. Five-point Likert Scale

To gather student perceptions about blog usage, G1 and G2 were asked to respond to a questionnaire that consisted of 10 Likert-scale items. The items in the survey were quantified by a Likert-scale of 1 to 5 (5 = Strongly Agree, 4 = Agree, 3 = Not sure, 2 = Disagree & 1 = Strongly Disagree).

The five-point Likert scale was used to measure levels of agreement/disagreement of the participants (Bowling 1997, Burns & Grove 1997). Hence students were asked to respond to statements about using blogs as a learning tool and choose the extent to which he agrees with them.

TABLE I. THE FIVE-POINT LIKERT SCALE

Question	S. Agree	Agree	Not Sure	Dis- agree	S. Dis- agree
Blogs are an					
efficient method of					
learning as they can					
give instant support.					
Blogs bring new					
opportunities of					
learning by					
involving external					
people.					
Blogs are a more					
flexible method of					
learning as they can					
be done anytime,					
anywhere.					
Blogs improve					
communication					
between student and					
teacher.					
5. Blogs give a					
quicker method of					
getting feedback in					
learning.					
Blogs encourage					
learners to be active					
throughout the					
course period.					

Question	S. Agree	Agree	Not Sure	Dis- agree	S. Dis- agree
7. Blogs improve					
learners' writing					
competencies.					
Blogs encourage					
thinking and					
collaboration.					
Blogs make					
education demand-					
oriented and					
participant-centered.					
Blogs make sure					
more learning					
occurs outside					
formal educational					
settings.					

The questionnaires were distributed at the first (pre-test) and the last meeting (post-test) of the class. A total of (199) completed questionnaires were received from G1 (76) and G2 (123). The results of the Likert scale questions (post-test) are summarized in Table II.

TABLE II.
THE PERCENTAGE OF STUDENTS' RESPONSES TO THE FIVE-POINT LIKERT SCALE STATEMENTS

G1 (n=76)

32 35 35 31 31 32 37	24 25 25 21 29 30	12 11 10 11 7	6 5 5 7	2 - 1
35 31 31 32	25 21 29	10 11	5	1
31 31 32	21 29	11		
31 32	29		7	
32	-	7		6
	30		4	5
37		8	3	3
	27	10	1	1
30	29	12	2	3
30	30	9	3	4
30	29	9	7	1
323	269	99	43	26
1615	1076	297	86	26
	0			
81.5				
123)				
S. Agree	Agree	Not Sure	Disagree	S. Disagree
61	50	6	3	3
36		38		1
59	44	14	3	3
36	44	31	12	-
46	60	10	5	2
	38	16	4	4
63	44	7	6	1
42	49	16	12	4
64	43	_		4
11		15	32	48
			- D	70
	1704	480	186	70
			•	
	30 30 323 1615 3100/380 81.5 123) S. Agree 61 36 59 36 46 61 63 42 64 11 479 2395	30 30 30 29 323 269 1615 1076 3100/3800 81.5 123) S. Agree Agree 61 50 36 37 59 44 36 44 46 60 61 38 63 44 42 49 64 43 11 17 479 426 2395 1704 4835/6150	30 30 9 30 29 9 323 269 99 1615 1076 297 3100/3800 81.5 123) S. Agree Not Sure 61 50 6 36 37 38 59 44 14 36 44 31 46 60 10 61 38 16 63 44 7 42 49 16 64 43 7 11 17 15 479 426 160 2395 1704 480 4835/6150	30 30 9 3 30 29 9 7 323 269 99 43 1615 1076 297 86 3100/3800 81.5 297 86 123) S. Agree Not Sure Disagree 61 50 6 3 36 37 38 11 59 44 14 3 36 44 31 12 46 60 10 5 61 38 16 4 43 44 7 6 42 49 16 12 64 43 7 5 11 17 15 32 479 426 160 93 2395 1704 480 186

B. Student Interviews

To elaborate on the students' responses, the researcher developed an interview comprised of the following openended questions:

- What are your beliefs about blogging and how can they positively affect your academic performance?
- What are your beliefs about blogging and how can they negatively affect your academic performance?

Several students were interviewed during the development of the interview questions to assure that the questions and responses were interpreted as intended. However, because reasoning varied by student, questioning could result in answers other than intended. Interviews led to some unique findings in terms of misconceptions held by these students and accordingly the necessary modifications were made to improve reliability and reduce the risk of misinterpreting the questions.

The average length of time for the interviews was approximately 20-30 minutes per student. The questions were in English but to rule out the language barrier, English questions were translated to Arabic and students had the choice of answering the questions in English or Arabic

Based upon the analysis of the results, the distribution of students' positive and negative comments on blogs were as illustrated in Table III.

TABLE III. SCORING DISTRIBUTION FOR PARTICIPANT INTERVIEWS

Group	Positive Comments	Negative Comments
G1	N=77%	N=33%
G2	N=85%	N=15%

C. Student Journals and Final Report

In view of the fact that, interview data are always unnatural and provides incomplete understandings of a participant's point of view (Lankshear & Knobel, 2004), student journals and final reports was necessary to help provide another way to assess student learning and perceptions. These instruments can provide the instructor with valuable insight into the progress of individual students toward achieving the learning objectives and developing attitudes toward learning. Because students have varying abilities to express themselves orally, not all will contribute equally to interviews or class discussions. Thus, those students will often comment more openly in their personal journals or final reports.

For student journals/reports, study participants were asked the main research questions:

- Do you see blogs as an effective learning tool that helps you be better learners?
- Does your experience with blogs change your perceptions of blog roles and effectiveness?

To trigger students' insight and reflection, participants were provided with a series of questions, including openended questions, on the topic of blogs and how they perceive and use blogging skills in their own

teaching/learning and in their day-to-day lives. The questions are as below:

- Do you have your own blog? If so, do you use it for personal use or professional use?
- Why did you choose to have a blog instead of a traditional website?
- How do you personalize your blog (i.e. specific theme)?
- What kind of content do you post on your blog?
- How do you reach out to your target audience and gain readers for your blog?

Data attained from student journals and reports were collected and analyzed. In summary, the percentages of positive responses to the main research questions and comments regarding the blogging experience were: 84% from G1, and 80.5% from G2.

D. Students' e- Portfolios

E-portfolios, as represented by each student's blog, provided evidence of academic achievement at the end of the course, and/or progress toward course objectives and outcomes. Thus, concurrent with the development of the Likert scale, open-ended interview questionnaire, student journal and final report instruments, an outcome-based evaluation rubric was used to collect study data with regard to the e-portfolios.

In order for students to appropriately use a blog to ensure learning outcomes are achieved, they must have a clear rubric of how their work will be evaluated. A rubric is a performance-based assessment that seeks to measure the quality of student performance using a scoring guide. According to Suskie (2009), rubrics help universities and instructors understand student academic achievement of learning outcomes or course objectives. A five-point rubric, with performance scores ranging from "poor" to "excellent" was designed to focus on performance that typically address the main competencies in Internet technology course outcomes. Based on the course syllabus, three main elements with six criteria indicators were identified as learning outcomes. Each item was given a weighted score ranging from 0 to 4 points.

The student's final grade was based on a total summation of the rubric score expressed as percentages of the total possible score. Total rubric points are converted first to a numerical value based on a 0–100 scale with higher scores representing better performance and greater achievements. As illustrated below, an equivalent letter grade was assigned to the percentage of the final rubric score, with A being the highest and F denoting failure (see Table IV):

- 4 mean excellent (A). Each score of 4 will be worth 90-100% of the points available.
- 3 mean very good (B). Each score of 3 will be worth 80-89% of the points available.
- 2 mean good (C). Each score of 2 will be worth 70-79% of the points available.
- 1 means average (D). Each score of 1 will be worth 60-69% of the points available.
- 0 means poor (F). Each score of 0 will be worth 0% - 59% of the points available.

TABLE IV.
AN EVALUATION RUBRIC FOR STUDENTS' PORTFOLIOS

Aspect	Criteria	Grading Scale					Points
Scores		0	1	2	3	4	
Content	Blogging						/4
	technology was						
	used in support of						
	knowledge						
	generation to						
	augment the course curriculum.						
							/4
	Blogging technology was						/4
	appropriately used						
	to align with						
	existing course						
	goals and						
	objectives.						
	Blogging						/4
	techniques were						
	effectively						
	integrated into the						
	curriculum to						
	enhance student-						
T. 1 1	centered learning.						/4
Technology	Blogging						/4
	technology was not used to repeat						
	things that can be						
	done in other ways						
	but to do things that						
	couldn't be done						
	without it.						
	Appropriate						/4
	technology was						
	used to address						
	something that						
	could be done						
	without it, but a lot better.						
Resources	Used wide-ranging						/4
& Tools	resources and tools						/4
2 10015	that boost						
	achievement of the						
	learning goals						
	rather than to be						
	trendy.						
Total							/24
Grade							

All students in each single course represented in the study participated. The end-of-course portfolio features work samples that reflected the proficiency of blogging. Course instructors scored portfolios by using the scoring rubric above (Table IV). Based upon the analysis of the results, the distribution of students' e-portfolio scores are as illustrated in Table V.

TABLE V.
SCORE DISTRIBUTIONS OF PARTICIPANTS' E-PORTFOLIOS

Group	Grade A	Grade B	Grade C	Grade D	Total No.
G1	N=25	N=35	N=15	N=1	76
	(33%)	(46%)	(19.7%)	(1.3%)	
G2	N=63	N=50	N=9	N=0	123
	(50%)	(41%)	(10%)	(0%)	

V. SUMMARY OF RESULTS

Since research is merely a scientific methodical way to ascertain answers to questions used to discover new information or confirm logical theories, the data analysis for each research question will be addressed separately and combined, should yield detailed findings that clearly answer the research question(s).

Every research method comes with pros and cons therefore Patton (1990) confessed that, "What is certain is that different methods produce quite different information. The challenge is to find out which information is most needed and most useful in a given situation, and then employ those methods best suited to producing the needed information" (p. 196).

The research questions are as follows:

A. Perceptions of Blogs

Participants focused on how blogs impact their learning and the quality of that learning experience. The majority of participant comments and answers to the open-ended interview questions (77% of G1 and 85% of G2) supported the idea that blogs represented the best way to learn assess and understand their course outcomes as shown in Figure 2.

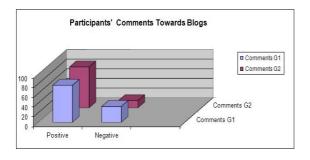


Figure 2. Participant's Comments about Blogs as a Learning Tool

Positive indicators were as follows:

- "This approach was the best; the most interesting way of learning that I've had here. It makes you think. We used to get information directly from the instructor."
- "Affordability is the chief reason why we ought to use blogs as a teaching tool"
- "Blogging Is a new way to learn better and faster than the traditional approach. This approach awoke in me more desire to learn."
- "Blogging!! Good idea and much more enjoyable than sitting and listening."
- "Through blogging, learning can become pleasant activities that the student can feel excellent about."

Negative Indicators were as follows:

- "It's hard to succeed in this approach without good computer and language skills."
- "Blogging takes a great deal of time. I am taking five courses, there was not enough time."

Accordingly, when analyzing whether student blogging affected learning, most members of the two research groups did respond positively to the blogging experience. The majority of participant comments (77%

of G1 and 85% of G2) indicated that blogs positively affected learning by motivating new ways of learning that maximize learner engagement and make learning easier, faster and more fun.

The end-of-course portfolio grades assigned by instructors were intended to convey the level of achievement of each student in the course. By comparing a student's overall end-of-course performance with that of all of the previous year's sections of the same course can also enrich/support the answer of the same research question.

Most of the participants 60 (78.9%) of G1 and 113 (91.8%) of G2 received grades between A and B (excellent to very good) as shown in chart 2). This is considered to be a high percentage compared with normal curve scores/grade distribution and compared to previous scores of the same course.

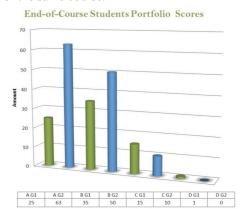


Figure 3. G1 and G2 participants' score distribution in the end-ofcourse portfolio

The analysis of the results of the open-ended questions interviews and end-of-class portfolios indicated that blogging in the course helped students control and enjoy their learning experiences and become better learners.

B. Roles of Blogs

The 10 items of the five-point Likert scale and openended questionnaire data were intended to gather supporting information and evidence to answer this second research question.

For this purpose, it was important to determine whether there was an improvement in students' academic and personal achievements after their blogging experiences in the examined course. This was accomplished by determining whether there was a statistically significant difference between the pre-test and post-test scores for students in the first group (G1).

For this, a pair of sample t-tests produced almost a vanish p-value (Sig. = 0.000) as shown in Table VI.

 $TABLE\ VI.$ The pre-test and post-test scores for students in the G1

		Mean	N	Std. Deviation	Std. Error Mean	Df	Sig. (2-tailed)
Pair 1	Pre_test_G1	1.8693	75	.22177	.02561	74	.000
Pair I	Post_test_G1	4.2413	75	.65885	.07608		

This give us strong evidence that G1 student scores dramatically changed in the post-test compared to the pretest scores. Therefore, the analysis of data confirms that students' positive perceptions of the blogs as teaching tools increased with exposure to and experience with the blogs.

C. Developmental Differences in Blog Usage

To answer this question, the comparison of the two groups was completed using the results of the Likert scale. To determine whether a developmental difference in the use of blogs as a learning tool existed between undergraduate versus graduate students, the two-independent-samples t test was used. Our hypothesis claims that there is no difference between the results of the post-test in the two groups (G1 and G2.) The SPSS outcomes indicate that there is no sufficient evidence to reject this hypothesis as shown in table 8.

This means that there is no significant difference between the results of the two groups (G1 and G2) in the post-test.

 $TABLE\ VII.$ The post-test scores for students in the two groups (G1 & G2)

	Post_test	N	Mean	Std. Deviation	Std. Error Mean	Т	df	Sig. (2- tailed)
	G1	75	42.4133	6.58847	.76077	1.060	196	.290
Result	G2	123	41.3415	7.08592	.63892	·		·

Although as indicated in the above chart, the undergraduate students showed a slightly higher percentage than the graduate students, the difference wasn't enough to be statistically significant as shown in table 6. This confirms that significant differences were not found between the undergraduate and the graduate students. An alpha level of 0.05 was used to determine significance.

VI. CONCLUSION

In the academic realm, blogging can be a very important tool. By requiring students to maintain a study-related blog, instructors are encouraging them to think critically about the information they are consuming within the classroom, and placing that information into a wider context. Using blogs as a teaching medium has the potential to strengthen student analysis of the subject at hand. Blogging can be effectively used as a platform to complete homework, share ideas, theories, explanations, and discussions. The ability to comment on a blog means students within that classroom can explore each other's blogs and leave feedback or ask questions.

In this study, students using blogs within the course were asked to assess their experiences. Their responses were encouraging, reflecting a range of reactions with more positive emphasis than negative, with the majority of participants indicating that they would use blogs again in class. Given the study findings, it was concluded that compulsory use of blogs in the course examined was beneficial and students found it a successful and worthwhile endeavor.

Findings from this research are expected to influence teaching policies and practices at local Arab region universities. This result confirms the United Nations Arab Human Development Report that concluded

"...a mismatch between educational output on one hand and labor-market and development needs on the other could lead to Arab countries' isolation from global knowledge, information and technology at a time when accelerated acquisition of knowledge and formation of human skills are becoming prerequisites for progress" (United Nations Development Program, 2002: 51)

An anticipated emphasis will be on integrating blogging tools with the current curriculum to enhance learning and thus help promote educational reform.

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