

# The Use of Weblog as Innovative Tool for Environmental Advocacy of College and Graduate School Students

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## Abstract

Environmental deprivation is now becoming a grave concern in this century. The massive progression of technology somehow resulted to a negative rebound effect to the life supporting capacity of natural ecosystems. Despite of this technological downbeat, people are becoming dependent on technology, which is now reshaping the lifestyle of every person. This increasing technological dependence, however, makes it imperative for institutions to offer an innovative tool to optimize environmental awareness.

Recognizing the potential of technology on environmental advocacy, this paper presents a concrete innovation on how weblog be used to promote environmental sustainability to make it responsive to the sustainability mantra. Moreover, this study employed a descriptive-comparative design to determine the difference between the attitudes of college and graduate school students towards the use of weblog as a tool for environmental advocacy. Independent T-test was utilized to compare its mean difference.

Pulled by the increasing challenge on environmental sustainability, this successful innovation has been developed, and found to be significant and attainable. Results revealed that college and master's students have a positive attitude towards weblog as a tool for environmental advocacy.

Practical Implications - The key ingredient of this innovation is to utilize weblog as a platform to develop environmental advocacy for college and graduate students. This innovation is highly suitable for multi-disciplinary students; and is supported by the actual, students' output which can be found in the website.

**Keywords:** weblog, environmental advocacy, innovative tools

## 1. Introduction

The advancement and speedy escalation of Internet had transported numerous revolutions in today's teaching-learning practice. These transformations amplify the capability of the students to accomplish anything that is more than what is anticipated from them. Accordingly, Albrecht (2006) emphasized that the demands placed by technology should not be underestimated because each significant innovation potentially impacts the delivery of content and student's participation. While some faculty may have the skills to incorporate such new opportunities, others need support and training for them to use technology that will help them see its potential benefits for collaboration and experiential learning. Hence, the use of environmental advocacy blog is the best avenue for collaboration to get other people aware on the current environmental issues that affect the community. Chuang & Liu (2008) argued that as a community, the teacher's education advisor, student teachers, and student teaching peers must be encouraged to collaboratively reflect on each other's ideas and thoughts.

Moreover, researchers here believe that Internet is the primary source of information for most people whether a major event is taking place or not (Baranauckas et al., 2012). Similarly, as technology advances, the educational capacity increases correspondingly, which have convinced educators to find innovative ways to integrate technology into the course as an extension of their course outline to enhance the instructional experience and promote communication among their students (Karber, 2011; Green, 1996).

Environmental issues, on the other hand, are gaining popularity due to the numerous environmental problems experienced by humanity. One of the means to deal with this issue is by employing weblog as innovative tool for environmental advocacy or awareness. This will enrich the experience of both students and teachers at the same time boost the curriculum attuned for environmental sustainability. Similarly, it can invoke environmental

awareness to people in physically distant locale, which is the chief objective of environmental advocacy. Hence, the usage of weblog can be one of the best strategies that a teacher can employ.

Currently, several teachers are now invigorated to innovate. Concomitantly, the employment of weblog for environmental advocacy creates thought-provoking chance for better collaboration, engagement or interaction among students, teachers, administrators, NGO/GOs and other stakeholders. With this in mind, embarking studies on the use of weblog for environmental promotion is imperative. Thus, this study was undertaken to find out the college and graduate school students' attitudes towards weblog; as well as determine the benefits gained from weblog as innovative tool to enhance environmental advocacy among college and graduate students.

In addition, this study employed the descriptive- correlation method, which identified the significant relationship between the level of awareness on campus environmental concerns and students' attitudes toward the use of weblog at the same time determined the significant difference between the attitudes of college and graduate students towards weblog. Specifically, the study sought answers to the following questions:

- 1) What attitudes do college and graduate school students have towards the use of weblog?
- 2) What is the level of awareness of college and graduate school students on campus environmental concerns?
- 3) Is there a significant difference between the attitudes of college and graduate students towards the use of weblog?
- 4) Is there a significant relationship between their level of awareness on campus environmental concerns and their attitudes toward the use of weblog?
- 5) What are the benefits gained from the use of weblog as innovative tool to enhance environmental advocacy among college and graduate students?

## **2. Literature Review**

The revolution of technological progression compels several schools to be in a cutting-edge. In order for these institutions to continue robust for the millennium challenge, environmental advocacy, which is a requisite for environmental sustainability, must be encouraged to school administrators, teachers and students. Relative to this, Top (2011) argued that teachers should give their instruction focused on improving students' learning experiences, creating a classroom community and increasing students' computer expertise.

Nowadays, teachers seeking for new strategy may employ weblog as a platform for innovation because it maintains interactive and collaborative learning (Robles, 2012). Weblog is one of the web applications that exhibit serial entries, asynchronously expanded, and allowing users to easily maintain content or add new dated entries, with the advantages of inserting texts, audio, graphics, multimedia, and video (Lai & Chen, 2010; Deng & Yuen, 2011).

Weblog, commonly referred to as blog, is defined by Wyld (2007) as an article on an online journal that can be updated regularly, with entries typically displayed in chronological order. He emphasized that blogs encompass not only text, but video and audio as well.

Likewise, other people use blog for environmental awareness or as advocacy. The United Nation Environment Programme (n.d.) posited that action can be taken in a variety of areas to increase environmental awareness and education. Some of these categories are: environmental legal rights and responsibilities and associated consequences, use of the media, awareness raising campaigns, incorporation of environmental issues in mainstream education, increasing awareness and education in target groups and encouragement of public participation in environmental matters.

Joyce (n.d.) however, claimed that weblog can be used as advocacy to fight against an injustice and that people use blogs to fight a wide range of injustices, such as wrongful imprisonment, government corruption, environmental degradation, and human rights abuse.

For better understanding, a conceptual framework shown below explains the relationship of the independent and dependent variables.

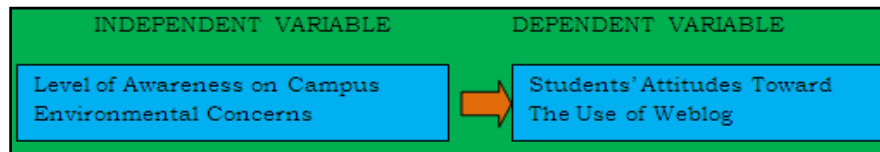


Figure 1. Conceptual Framework

In this study, level of awareness on campus environmental concerns refers to the extent of knowledge of college and graduate school students on the different issues on: the campus' environment-related activities, the use of fuel-efficient vehicles used in the campus, the utilization of renewable energy sources in the campus and the purchasing of the schools' recyclable or eco-friendly products. Attitudes toward weblog, on the other hand, pertain to the feelings or outlook of the college and graduate school students with respect to the use of weblog. Moreover, this covers the students' stance on the use of weblog for environmental advocacy for learning, sharing and networking.

The Office of Information Technology of Montclair State University (n.d.) stated that instructors are using blogs for: content-related blogs as a professional practice, networking and personal knowledge sharing or instructional tips for students, course announcements and readings, annotated links, and knowledge management. In the same manner, students use blogs for: reflective or writing journals, knowledge management, assignment submission and review, dialogue for group works, and e-portfolios.

Izquierdo and Reyes (2009), nonetheless, explained that blogs are relevant because it allows teachers and students to upload content pertinent to their courses on the web and reach out to people providing opportunities to promote student - teacher, and student-student, interactions. Secondly, weblogs are accessible to all who might be interested in making contributions in a relatively lengthy period of time, without moving physically or attending face-to-face (f2f) classes. Thirdly, weblogs are interactive and were proven to be of great use to courses because it exposes the students to real multimedia environment images, songs, podcasts, and videos. Lastly, weblogs arouse the interests' students because weblogs have the potential to democratize the classroom since each student is given the chance to participate equally.

One useful attribute of advocacy blog as a Web 2.0 technology, is that it makes online collaboration possible. Users themselves are able to edit, comment, create, and share content with other users. This collaborative feature of Web 2.0 comes along at a propitious time because many sources are increasingly considering collaboration to be an important factor in the success of educational, social, and technological endeavours, especially those pertaining to the web (Lemley & Burnham, 2008).

### 3. Method

Using descriptive-correlation research design, this paper explored how weblog as innovative tool enhances environmental advocacy of college and graduate school students. It compared the difference of their attitudes towards weblog. Similarly, it enumerated the benefits gained from the use of weblog.

The respondents of the study were the fifty-seven (57) Bachelor of Secondary Education (BSED) students of Mindanao State University (MSU), and total population of nineteen (19) graduate school students who were enrolled in SE 203 & SE 204 Graduate School of General Santos City, Philippines for Academic Year 2011-2012. The instruments used were validated by a panel of three experts: an ICT coordinator, Science Department Head and a Master Teacher in Mathematics.

The main teaching methods involved were: lecture, in-class discussion and hands-on experience with the integration of weblog for students who have: (1) acquired outlines of the course material including PowerPoint presentations of theoretical lectures, description and rubrics of the projects; (2) taken online quizzes and tests using QUIA; and (3) published project based weblog for environmental advocacy.

### 4. Results and Discussions

#### 4.1 Attitudes of College and Graduate School Student toward Weblog

Figure 2 shows the attitude of college and graduate school students toward weblog. The study revealed that exploring for other weblogs to learn more about the subject, environmental advocacy as well as technology, got the highest weighted mean of 4.49. Similarly, they like weblogs because it: develops their higher order thinking skills ( $w_m = 4.0$ ); encourages them to spend more time learning this subject and environmental sustainability issues ( $w_m = 3.89$ ); and enables them to use technology that makes learning easier and interesting ( $w_m = 3.70$ ).

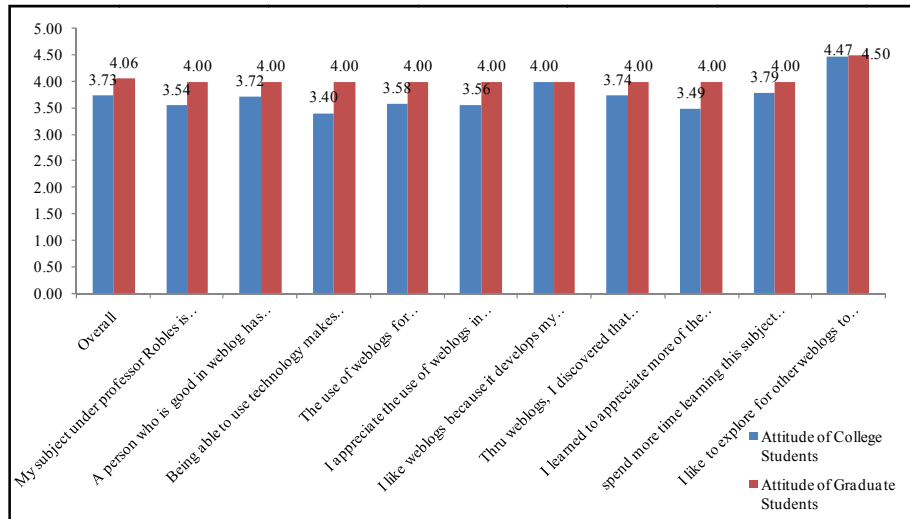


Figure 2. Attitudes of college and graduate school student toward weblog

The overall weighted mean of 3.73 for the college students and 4.06 for the graduate school students showed that they have a “Positive Attitude” toward weblog. These results disclosed that they were “Optimistic” on the use of weblog in their subject. This means that the students find blogging to be enjoyable at the same time effective in developing their skills, then later, it gives them positive attitudes and drives to explore for more. This result is similar to the study of Fageeh (2011) that blogging is a beneficial tool for developing their writing proficiency and their attitudes towards writing. It was also found that blogging gave them an opportunity to freely express their ideas and thoughts in English. The findings also agree with the study conducted by Kuzu (2007) that instructional use of blogs were primarily positive and that blogs empowered them to have a social interaction on peers and teachers.

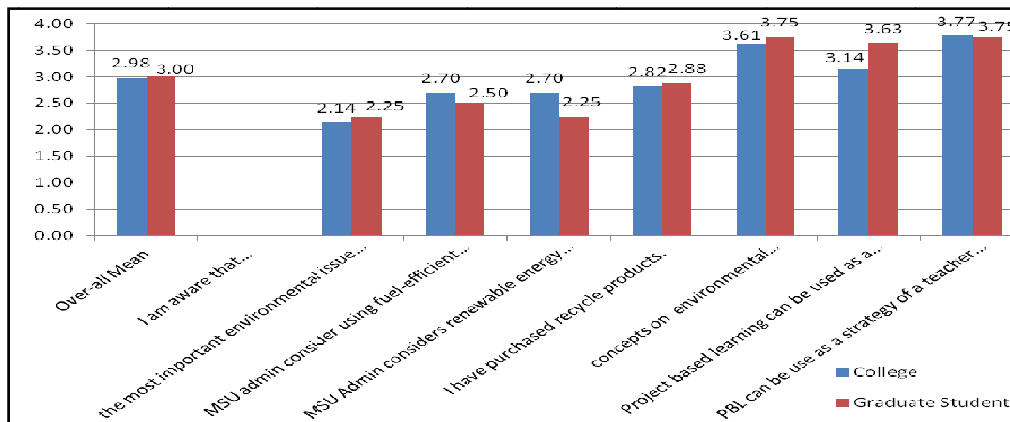


Figure 3. Awareness on campus environmental concerns

Figure 3 shows that the students’ level of awareness on campus environmental concerns have an aggregate mean of 2.98 for college students and 3.00 for graduate school students, described as “Moderately Aware”. These results indicate that college and graduate school students were moderately aware on campus environmental concerns; and that they were mediocre on environmental concerns of the campus. This implies that application of innovative techniques must not be overstressed; instead, it ought to be applied to increase their awareness on the existing environmental programs of the government. This affirms the findings of Mercado (1998) who concluded that the importance of education and advocacy as an integrated component of an environmental program cannot be overemphasized.

#### 4.2 Significant Difference between the Attitudes of College and Graduate Students towards Weblog

Table 1 reveals that there is a significant difference between the attitudes of college and graduate school students towards weblog (t-computed=3.84 and p-value=0.000), since a p-value of less than 0.05 leads to the rejection of the hypothesis of no difference. This indicates that the attitudes of college and graduate school students toward weblog were significantly different. This adheres to the study of Kavaliauskienė (2010) that learners' attitudes towards weblog have been positive even when they found it different and difficult to accomplish their written assignments to their satisfaction.

Table 1. Significant difference between the attitudes of college and graduate school students towards weblog

Indicator	Students				Remark	Decision
	College	Graduate School	t-value	p-value		
	$\bar{x}$	$\bar{x}$				
Attitudes	3.73	4.06	3.84	0	Significant	Reject $H_0$

#### 4.3 Significant Relationship between Students' Level of Awareness on Campus Environmental Concerns and Their Attitudes toward Weblog

Table 2 shows the relationship between the students' level of awareness on campus environmental concerns and their attitudes toward weblog. The computations revealed an  $r = -.011$  with a p-value = .930, which is not significant at .05 level of confidence, since the p-value of greater than 0.05 leads to the acceptance of the hypothesis of no relationship. This indicates that there was no significant relationship between the students' level of awareness on campus environmental concerns and their attitudes toward weblog.

Table 2. Correlation result between students' level of awareness on campus environmental concerns and their attitudes toward weblog

Descriptions	Mean	Correlation Coefficient (r)	P-value	Remark
Awareness on Campus Environmental Concerns	2.788	-0.011	0.93	<b>Not Significant</b> (Negligible relationship)
Attitudes toward Weblog	3.77			

#### 4.4 Benefits Gained from Weblog for Environmental Advocacy among College and Graduate Students

Figure 5 presents the benefits gained from weblog as innovative tool for environmental advocacy among college and graduate students. The results of the study reveal an overall mean score of 4.04 and 4.11 for the college and graduate school students respectively. These imply that all students "**Agree**" there were benefits gained from the use of weblogs.

This finding affirmed the study conducted by Pelones (2011) that the use of weblog has identified a number of benefits: it is effective in expressing one's opinion, commentaries, discussions, views, and forum relative to education, which enhances the quality of basic education. She further argued that weblog allows individual to explore, create and innovate teaching activities; promotes confidence and pride on one's work, improves social responsibility and initiatives.

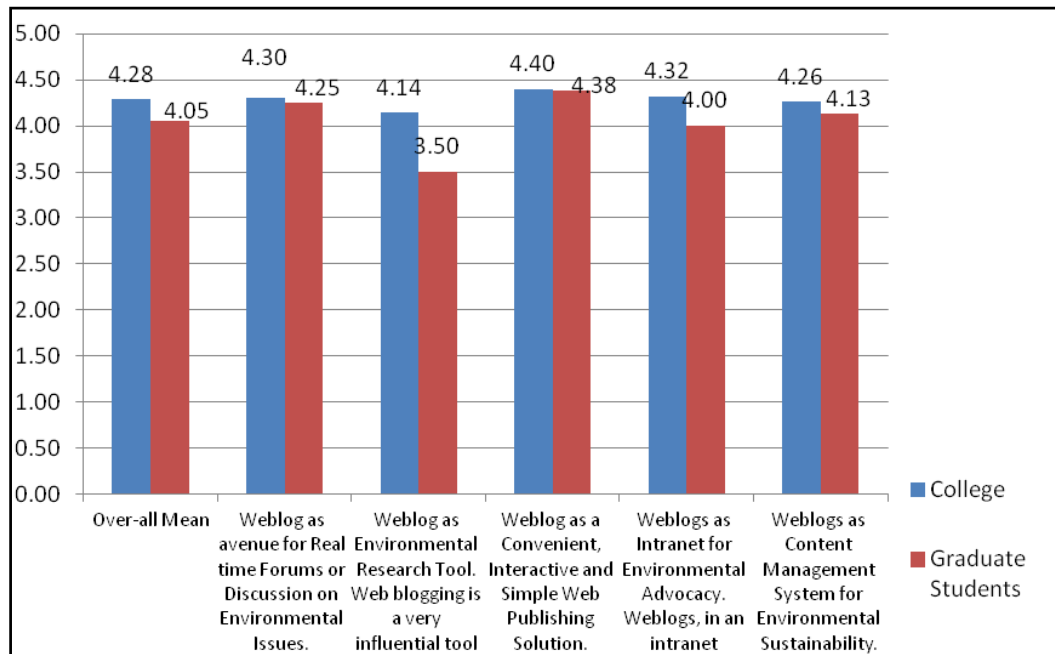


Figure 4. Benefits gained from weblog

Nowadays, people use weblogs for personal use. However, it was found out that weblog can be utilized for environmental advocacy, and that there were benefits gained from weblog as innovative tool to enhance environmental advocacy among college and graduate students, which are briefly explained as follows:

- a. *Weblog as avenue for Real time Forums or Discussion on Environmental Issues.* Discussions and interactions on environmental advocacy or issues may occur on the spot makes no postponement or delay of sharing information. With weblogs one may discover answers to one's queries with a fraction of a second.
- b. *Weblog as Environmental Research Tool.* Web blogging is a very influential tool to collect and have comprehensive research work, and powerful revenue to search and disseminate information for environmental advocacy. If a visitor comes to stopover a person's environmental blog and he likes the advocacy, he can permanently subscribe the blog through RSS feeds.
- c. *Weblog as a Convenient, Interactive and Simple Web Publishing Solution.* Weblog creates interest, generates curiosity on latest environmental concerns or advocacy. For environmental advocates, this may serve as best alternative for information dissemination or campaign because the updating, coding and uploading in the weblog become a quick process that does not require a web designer. Weblog activities will also allow individuals to contribute at a convenient time and place; giving them opportunities to interact or network meaningfully with other learners, organizations, environmental advocates, volunteers, or even government leaders. With blog, people can express their diverse views and opinions on environmental concerns/issues anytime, anywhere and on their most convenient time.
- d. *Weblogs as Intranet for Environmental Advocacy.* Weblogs, in an intranet environment, can be an outstanding way of contributing to environmental awareness or advocacy within the organization. One can have protected folders in which the blogger can dispense diverse access rights to different users of weblog. With this, people can give insightful comments from their visitors every now and then, making blogging as a very fulfilling endeavour as far as advocacy is concerned.
- e. *Weblogs as Content Management System for Environmental Sustainability.* Weblogs are considered exceptional content management systems because a web blogger can store and upload videos files, photos, and word documents pertaining to environmental issues and for environmental education.

## 5. Conclusions & Recommendations

In the light of the findings, the following conclusions could be made:

- 1) The college and graduate school students have a "Positive Attitude" towards weblog.
- 2) The students were "Moderately Aware" on the environmental concerns of their campus.

- 3) There is a significant difference between the attitudes of college and graduate students towards weblog. This implies that graduate students find weblog as a potent tool to bring about desirable or positive attitude towards learning compared with college students.
- 4) There is no significant relationship between students' level of awareness on campus environmental concerns and their attitudes toward weblog.
- 5) The college and graduate students "Moderately Agree" that there are benefits gained from weblog as innovative tool to enhance environmental advocacy.

Past efforts to resolve these environmental issues could not be sustained because of differing levels of access to resources, influence and application of technology. This research focuses on describing the level of environmental awareness and students' attitude towards weblog. It is guided by a framework that presents an outlook of how attitudes toward weblog relates to campus environmental concerns, as well as the identification of the benefits gained from weblog as innovative tool to enhance environmental advocacy. Similarly, the study serves as evidence that show the capability of students to apply the power of technology and utilize their networks to stay informed, disseminate information and to get things done. This research adds insights not only on the attempt that goes into their positive attitude towards constructing these weblogs for people who share common assumptions, values, rationale and objectives for environmental advocacy, but also developing interpersonal relations and possible dialogue.

From the foregoing discussion, it can be concluded that weblogs are positively viewed by college and graduate school students. The utilization of weblog increases environmental awareness among students as well offers various benefits that boost students' learning experiences.

The environmental weblog is focused on self-advocacy, which involved a sense of personal ownership on the environmental problem. In response to it, the blogger acknowledges the range of his assets, connections and influence. Knowing his ability to influence, the environmental advocate examines how these influences are put to be of benefit to the public in general. This brings the advocates to a deeper understanding of the environmental problem, its underlying causes and his possible contribution to it. One implication of this environmental blog is that it encourages people to take a personal answer, and obligate one's resources to the resolution of this environmental concern. Without this personal commitment, environmental advocacy purposely made for collaborative action with other people will not be sustained.

Another implication is that environmental blog require efficient preparation and advancement for educators to concentrate on crucial issues such as establishing appropriate and effective medium for blogging, their content, and enhancing students' capacity to move from a personal understanding and ownership of an environmental issue to a collective action to resolve the issue. Equally important is how learning and advocacy skills could be further developed. These skills must be given attention because it will enable students to make clever choice when making an environmental advocacy. However, at this time, limited empirical research supporting the reliability of these applications could be cited.

A broader connotation of this research is that with weblog, it is possible to convene people around the globe to have a dialogue to arrive at a common understanding on the environmental issues and concerns, and coming up with a collaborative response. Nevertheless, in building a common ground, trust is built among people with diverse background. Giving due regard to this aspect will enable the bloggers and visitors the ability to expand the ownership of the problem from him to a group, paving the way for a collective action.

In view of the implications of this study, more prospective research efforts could be made. Future studies might include a longitudinal component, analyzing the other indicators on how to have a successful advocacy blog. Further innovative studies often embrace accountability, participation and resource-sharing of bloggers with other environmental experts being consulted to enhance content, and commitment. To improve internal validity, other researchers might regard revisions in methodology dealing with issues of evaluation, apprehension, selection bias, and sample size.

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