

Impact of Educational Blogs on Students' Learning and Collaboration as Perceived by Pre-Service Teachers in Federal University Dutsin-Ma, Katsina State

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Abstract

This study examined the impact of educational blogs on students' learning and collaboration as perceived by pre-service teachers in Federal University Dutsin-Ma, Katsina State. The target population was all the pre-service teachers at the Faculty of Education, Federal University Dutsin-Ma, Katsina State. A total of four hundred (400) pre-service teachers were used in this study and this sample was selected using simple random sampling technique. The instrument used for this study was an adapted questionnaire of Eylem and Ibrahim (2014) on use of blogs to enhance the perceived learning of pre-service ICT teachers. The instrument was pilot-tested using 20 students who do not take part in the main study and the reliability co-efficient of the data collected were computed using test re-test method and the value obtained was 0.76 which shows that reliability co-efficient value was good for the study. The data collected after its administration was sorted and analysed using descriptive statistics of frequency count, percentages, mean, standard deviation, and t-test statistical analysis to answer and test both the research questions and hypotheses raised in this study. The decision is taken at 2.50. Mean above this 2.50 is accepted while mean below 2.50 is rejected. The findings of the study revealed that pre-service teachers at the Federal University Dutsin-Ma agreed that using educational blogs will produce positive learning outcomes and ensure meaningful collaboration among peers. It was also confirmed that there is no significant difference in the mean rating regarding the difference on how educational blogs impact learning and collaboration among FUDMA students based on gender. Based on these findings, it was recommended that Government (Federal, State and Local) should encourage the use of educational blogs for teaching/learning activities in and outside the school environment.

Keywords: *Educational Blog, Collaboration, Learning, Pre-service Teachers, Perception, etc.*

Introduction

Information Technology was born at the era of web 1.0 which gives opportunity to both teacher and students to have access to various research information or learning materials on the internet or web-based platform. Information and Communication Technology which is an extension of information technology was born in the era of web 2.0 which gives opportunity to learners to have access to learning materials and as well gives room for learners to create content and air their own views on the internet and other social networks platform.

Web 2.0 is a term that describes the changing trends in the use of World Wide Web technology and Web design that aim to enhance creativity, secure information sharing, increase collaboration, and improve the functionality of the Web. These have led to the development

and evolution of Web-based communities and hosted services, such as social-networking sites (i.e., Facebook, Myspace), video sharing sites (i.e. YouTube), wikis, blogs, etc. Although, the

term suggests a new version of the World Wide Web, it does not refer to any actual change in technical specifications, but rather to changes in the ways software developers and end users utilize the Web. Web 2.0 is a catch-all term used to describe a variety of developments on the Web and a perceived shift in the way it is used. This shift can be characterized as the evolution of Web use from passive consumption of content to more active participation, creation and sharing. Web 2.0 Websites allow users to do more than just retrieve information. Now users can build on the interactive facilities of Web 1.0 to provide "network as platform" computing, allowing users to run software-applications entirely through a browser. Users are able to co-author the data on a Web 2.0 site and exercise control over it. These sites have an "architecture of participation" that encourages users to add value to the application as they use it. This stands in contrast to traditional Websites, which limit visitors to passive viewing and whose content only the site owners can modify (Joshua, 2020).

One of the benefits webs 2.0 brought to education is the use of educational blogs among others. The first person to mention the word 'weblog' in 1997 was Jorn Barger as reported by Blood (2000). The term weblog was later shortened to "blog" as asserted by Merholz (2002). A blog is primarily a website that is frequently updated with new posts. The posts are arranged in reverse chronological order, with the most recent entry at the top of the blog (Paquet, 2003 and Ward, 2004). Blogs are web logs that are updated on a regular basis by their author. They can contain information related to a specific topic. Merriam-Webster Online Dictionary (2004) defines blog as a short term of "web log" which is an online chronological collection of personal commentary and links. A blog is part of the Web 2.0 family, the second generation of web adventure.

A blog is a website that is maintained by an individual or group with regular updates of information; this information could include diary entries, descriptions of events or in this case educational material. In most blogs readers can supply comments to blog entries, this allows them to ask questions, add information to the blog post or simply comment on a good/bad post. Recently blogs have become more media focused with the inclusion of art (artblog), photographs (photoblog), sketches (sketchblog), videos (vlog), music (MP3 blog) and audio (podcasting) (Morris and Terro, 2005). A person that has a blog is called a blogger and when you are maintaining, adding to or reading other blogs, this is referred to as blogging (Hill, 2005).

Blogs can be used to enhance reflective thinking because blog posts are sequenced chronologically and allow users to see how their thinking has changed over time (Ellison & Wu, 2008). Reflection can be defined as an internal change brought on by thinking or writing, and by exchanging ideas and reflecting together with others (Clarke, 2003). It helps students to express themselves and to practice valuable knowledge and skills. In a study, it was found that using blogs is an effective tool for engaging teachers in reflection and communication with their colleagues (Ray & Hocutt, 2006). Recently, considerable research has been conducted to find out the value of blog use in the educational context. Hew and Cheung (2013) made a review about the use of Web 2.0 in higher education. Six studies were reviewed that examined the impact of blog use and made a tentative conclusion that the use of blogs enhances students writing and critical thinking skills rather than learning psycho-motor skills. In another study, it was found that blogging contributes to perceived learning for students in different contexts (Churchill, 2009 and Halic, 2010).

Blogs give you an opportunity to write content that is unique to you and your practice. While some people are uncomfortable with self-promotion, your blog gives you an occasion to interact with your visitors while promoting who you are and what you do. Today blogs are being used for all sorts of purposes. You have companies that use blogs to communicate and

interact with customers and other stake holders. Newspapers incorporate blogs to their main website to offer a new channel for their writers. Individuals also created blogs to share with the world their expertise on specific topics and so on.

There are many types of blogs, such as LibBlogs (library blogs) and EduBlogs (education blogs). A blog can be regarded as an online journal, and it is very easy to maintain a blog. A blogger enters posts into a blogging application and save the post. Blogging does not require programming languages or server knowledge from bloggers. The posts can include text, hyperlinks, images, or multimedia components. The content is available online and users who have subscribed to the blog will be alerted about the new posts. Visitors can read the posts and submit the comments. Most blogs are primarily textual, but there are also audio blogs, video blogs, and photo blogs. There are both advantages and disadvantages for blogs. Blogs engage people in knowledge sharing and reflection, and they often attract a large readership. Instead of providing static information, blogs allow users and readers to respond, to create, and to connect. It is also simple to create and maintain blogs. Compared with discussion board, blogs have greater sense of permanence. After a course is over, the discussion board is no longer accessible to the students. When a student creates a blog, he or she also has a sense of ownership. Library bloggers have much to say about the value of blogs. Blogs are a great investment of technology and time to engage with our customers directly as well as an opportunity to test out how to augment employee communications (Brookover, 2007). There are also some downsides of blogs such as inaccuracy of the information, intellectual property issues, and the volatile nature. Blogs are often produced and maintained by individuals, so they may include biased or inaccurate information. Intellectual property is another area of concerning for higher education since the blogs may include content that has been used without proper attribution. Blogs are highly volatile. Bloggers can edit and delete posts. This transient nature makes blogs difficult to archive or index.

There are two major categories of software: hosting services and installed applications. A hosting service refers to a website that gives access to everything needed to create a blog. People who use hosting services do not need any knowledge about HTML and the web servers. The best-known hosting service is Blogger (<http://www.blogger.com>) and Live Journal (<http://www.livejournal.com>). Blogger is a free resource, and it is easy to use and offer many degrees of comment controls. It is web-based and very popular, so Blogger is often slow to publish posts. Installed applications refer to a piece of software obtained from the provider and install on your own website. People using installed applications are more knowledgeable about technology applications. The most well-known installation applications are WordPress (<http://www.wordpress.org>) and Six A part's Movable Type (<http://www.moveabletype.org>). WordPress is a free installation resource which has many useful plug-ins, comment spam-fighting features, and user-friendly interface. It requires more technology knowledge.

There are a number of reasons to integrate blogs into the curriculum. A blog could make education demand oriented and participant-centred which is excellent for self-driven learners who need individual feedback. This open approach to information allows the user to be curious and imaginative. Blogs can encourage pupils to be active throughout the period of learning and allows access to information in any time or place. There are also drawbacks however as supply orientation is a large part of the educational structure of many schools and some have other commitments and cannot visit a blog as much as others. It is also worth noting that within the comment system, people may not feel the need to ask questions as questions will be made public.

According to Ray (2006), blogs in education or Edu Blogs can be used to communicate, as instructional resources, as collaborative tools, and showcases for student projects.

As an electronic bulletin board, an Edu Blog provides a fast and efficient means of communication. It can be used to post class announcements for parents or providing schedule reminders for students. EduBlogs can be used as instructional resources, in which teachers can post tips, explanations, or samples to help students learn. Instructors can post hyperlinks to websites that provide assignment-related homework helpers and resources. Edu Blogs can also be used as collaborative tools for student projects. Edu Blogs have some advantages in the context of teaching and learning. They can enhance learning, motivate students and foster collaboration among learners (Holzberg, 2003). Students can develop and express their ideas and receive feedback from others. The posts and comments on a blog can be updated easily and promptly (Clyde, 2005). Blogs also provide instructors an opportunity to extend learning and engage students beyond the walls of the classroom (Downs, 2004). Ellison and WU (2008) discussed several benefits of using blogs in education. Blogs can potentially enhance analytic and critical thinking skills because the critical skill of writing is central to the act of blogging. It helps in teaching and enhances the knowledge sharing between students as well as between the instructor and the students. The ability to express oneself on blogs also enhances the development of digital literacy. Additionally, incorporating blogs into curricula also has the potential to shift learning from a time- and space-bound activity that occurs only in the classroom to an activity that is ubiquitous and embedded in real world issues and events. Richardson (2006) listed four things that blogging allows students to do: (1) reflect on what they are writing and thinking as they write and think it; (2) carry on writing about a topic over a sustained period of time; (3) engage readers and audience in a sustained conversation that leads to further thinking and writing; and (4) synthesize disparate learning experiences and understand their collective relationship and relevance.

Downs (2004) discussed five major uses for blogs in education. First, teachers use blogs to replace the regular class web page. Instructors post materials such as class times and rules, assignment notifications, suggested readings, and exercises. Blogging software makes such posting much simpler for instructors. Second, instructors begin to link to Internet items that relate to their course. For example, people can maintain a blog to pass along links and comments about different topics. Third, blogs are used to organize in-class discussions. Fourth, some instructors also use blogs to organize class seminars and to provide summaries of readings. Finally, students may be asked to write their own blogs as part of their course work.

Pre-service teachers are the teachers who are undergoing training to become teachers in future after their training. They are students who may have certificates in education to be practiced as professional teachers in their various fields in education. These students may have NCE certificates, Bachelor in Education, and post graduate diploma in education in various institutions. Pre-service teachers in Federal University Dutsin-Ma are the education students at the Faculty of Education and Centre for Continuing Education at the Long Vacation Training programme studying various courses in the university.

At this digital age, every teacher either pre-service or in-service teacher needs to be digitally inclined. This is because the contemporary students in our societies are digitally alert and the future teachers need to prepare adequately for this generation. It is on basis that this study is out to verify the impact of educational blogs for learning and collaboration as perceived by the pre-service teachers using Federal University Dutsin-Ma as a case study.

Research Objectives

The main objective of this study is to examine the impact of educational blogs on learning and collaboration as perceived by pre-service teachers in Federal University Dutsin-Ma, Katsina State. Specifically, the study examined the:

1. Impact of educational blogs on learning and collaboration among FUDMA students.
2. Difference in the impact of educational blogs on learning and collaboration among FUDMA students based on gender.

Research Questions

The following questions are used to guide the conduct of this study:

1. How does educational blog impact learning and collaboration among FUDMA students?
2. Is there any difference in how educational blogs impact learning and collaboration among FUDMA students based on gender?

Research Hypothesis

This hypothesis is tested at 0.05 significance level:

H₀₁: There is no significant difference in the mean rating regarding the difference in how educational blogs impact learning and collaboration among FUDMA students based on gender.

Methodology

This study adopted a descriptive survey research. The target population was all the pre-service teachers in Federal University Dutsin-Ma, Katsina State. Purposive sampling technique was used to select all registered pre-service teachers who are in three hundred (300) level that offer Educational Technology (EDU 311) Course. Simple random sampling technique was used to select four hundred (400) students for this study. Two hundred (200) female students and two hundred (200) males from total population of six hundred and sixty-seven (667). The instrument used for this study was an adapted questionnaire of Eylem and Ibrahim (2014) on use of blogs to enhance the perceived learning of pre-service ICT teachers. This was called adapted questionnaire because it was modified to suit this current study. The content of the questionnaire was related to the impact of educational blogs on learning and collaboration. The face and content validations of the instrument was done by two lecturers at the Federal University Dutsin-Ma, Katsina State, Nigeria. The instrument used has 4 – points Likert scale format distributed as Strongly Agree (SA) 4 points, agree (A) 3 points, disagree (D) 2 points and Strongly Disagree (SD) 1 point. The instrument was pilot-tested using 20 students who do not take part in the main study and the reliability co-efficient of the data collected were computed using test re-test method and the value obtained was 0.76 on research questions which show that reliability co-efficient value was good for the study. The data collected after its administration was sorted and analysed using descriptive statistics of frequency count, percentages, mean, standard deviation, and t-test analysis was used to test hypotheses raised in this study. The decision is taken at 2.50. Mean above this 2.50 is accepted while mean below 2.50 is rejected.

Results

Research Question One

How does educational blog impact learning and collaboration among FUDMA students?

Table 1: Mean rating of the pre-service teachers' opinion on impact of educational blogs on learning and collaboration among FUDMA students

Items	X	Std	Decision
The blog discussions will help me to share my knowledge and experience with my peers.	3.513	0.6697	Accepted
Incorporating blogs with teaching can enhance my learning experience in general.	3.499	0.6719	Accepted
The use of blog will stimulate me to do additional readings or research on topics discussed in class.	3.435	0.6906	Accepted
In comparison to my other classes, the amount of my interaction with other students in this class has increased due to the blog.	3.620	1.6067	Accepted
My point of view has been acknowledged by my peers and/or discussion leader in this course using blog channel	3.4690	0.9202	Accepted
Using the EDUblog has helped me learn.	3.533	0.8235	Accepted
The blog helps me feel connected to other students in this course.	3.400	0.8700	Accepted
Blog makes me feel better part of classroom community	3.223	0.8760	Accepted
Other students' comments on my blog posts are important.	3.158	0.8844	Accepted
Blog discussions help me understand other points of view	3.264	0.8112	Accepted
Blog discussions have made me think about the concepts discussed outside of the class	3.203	0.7519	Accepted
Grand Mean=	3.3924		

The results in table 1 revealed that the grand means of respondents are higher than the decision mean of 2.5 (that is $3.3924 > 2.50$), which indicated that the pre-service teachers at the Federal University Dutsin-Ma agreed that using educational blogs will produce positive learning outcome and ensure meaningful collaboration among peers.

Research Question Two

Is there any difference in how educational blogs impact learning and collaboration among FUDMA students based on gender?

Hypothesis One

Ho1: There is no significant difference in the mean rating regarding the difference in how educational blogs impact learning and collaboration among FUDMA students based on gender.

Table 2: t-test analysis of the difference in the mean rating regarding the difference on how educational blogs impact learning and collaboration among FUDMA students based on gender.

Group	N	X	Std	df	t	Sig. (2-tailed)	Decision
Male	200	37.25	5.444				
				398	0.221	0.825	Ho1 Accepted
Female	200	37.38	5.604				

The result of independent t-test in the above table shows that, there is no significant difference in the mean rating regarding the difference on how educational blogs impact learning and collaboration among FUDMA students based on gender. This is because $t(398) = 0.221$; sig (2-tailed) = 0.825 and $p > 0.05$. The hypothesis two is hereby accepted.

Discussion

The finding of this study indicated that pre-service teachers in Federal University Dutsin-Ma, Katsina State perceived the use of educational blogs to have positive impact on their learning outcomes and collaboration among peers. The result is consistent with the study conducted by Churchill (2009) and Hall and Davison (2007) that found students' support for peer feedback

on their blog post. However, the reverse result was found in Halic (2010) study which confirmed that only few respondents value peer comments on the blogs. A similar result was found in Xie, Ke, and Sharma (2008) in that peer feedback does not support the expected outcome for learning.

The finding of this study revealed that there is no significant difference in the mean rating regarding the difference on how educational blogs impact learning and collaboration among FUDMA students based on gender. This is in support of the finding of Bello (2020) on the impact of e-learning on academic performance of upper basic science and technology in Kaduna State, Nigeria where both male and female interest to learning using e-learning platform are the same.

Conclusion

Based on the findings of this study, it can be concluded that using educational blogs will have positive impact on pre-service teachers' learning outcomes and collaboration among peers. It also means that both male and female students have similar decisions on the potential of educational blogs for learning and collaboration.

Recommendations

The following recommendations are given based on the findings of this study:

1. Government (Federal, State and Local) should encourage the use of educational blogs for teaching/learning activities in and outside the school.
2. School authority should make provision for enough educational blogs in the school to ensure meaningful interaction between teachers and students in Nigeria.
3. Training and re-training on how to develop and use educational blogs for teaching and learning activities should be encouraged in the school for both teachers and students.

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