

**DEVELOPMENT OF EDUBLOG FOR ENHANCING THE PERFORMANCE OF
SECONDARY SCHOOL STUDENTS IN BIOLOGY**

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ABSTRACT

Educational blogs play significant role in the effectiveness of educational programme. This has been commonly accepted by the public as well as by professional educators. An edublog is a blog created for educational purposes. The current study was conducted for the development of edublog for enhancing the secondary school students performance in biology. the main objectives of the study was to develop an edublog for the 9th standard students, enhance teaching-learning process, introduce difficult topics through audio-visual technology (ICT),improve the interest and attention of students on biology and make web searching easy on biology topics. It has been revealed by the results that educational blog improves learning ability and academic performance, creates best learning environment and curiosity on Biology topics, interest and compatible with learning of biology, accelerate retaining and remembering ability of students, provide example of good teaching and learning process, reduces teaching and learning deficiency.

INTRODUCTION

Edublogs archive and support student and teacher learning by facilitating reflection, questioning by self and others, collaboration and by providing contexts for engaging in higher-order thinking. Edublogs proliferated when blogging architecture became more simplified and teachers perceived the instructional potential of blogs as an online resource. Weblogs were first named and described in 1997 by Jorn Barger (Blood, 2000) and then shortened to blogs by Peter Merholz in 1999. According to well-known New York Times journalist Tom Friedman (2005), blogs and “wikis” or Wikipedia (from the Hawaiian word for “quick”), the online encyclopedias created by intellectual commons collaboration, are two examples of how computer technology is contributing to the “flattening” of the world. Compared to other online discussion tools, blogs are easy to use and involve little cost. The use of blogs has become popular in education institutions including public schools and colleges. Blogs can be useful tools for sharing information and tips among co-workers, providing information for students, or keeping in contact with parents. Common examples include blogs written by or for teachers, blogs maintained for the purpose of classroom instruction, or blogs written about educational policy. Educators who blog are sometimes called edubloggers. Research suggests that people learn abstract, new, and novel concepts more easily when they are presented in both verbal and visual form (Salomon, 1979). Other empirical research shows that visual media make concepts more accessible to a person than text media and help with later recall (Cowen, 1984). Educationists are of the opinion that the educational problems relating to quantity and quality could be tackled by the proper utilization of instructional technology which is composed of modern educational technology materials. Educational technology is a systematic way of designing, carrying out and evaluating the teaching learning process. Educational technology makes instruction more effective, understandable and meaningful. All types of resources are used to make the learning easy. Traditional teacher-centered approach in the classroom has been shifted from teaching to learning. It is called student centered or resource-based approach, the student being the resource.

Classroom teaching is a demanding job. Most people outside education probably think teachers spend most of their time teaching, but teachers are responsible for many tasks that have little to do with classroom instruction. Beyond planning and implementing instruction, teachers are also expected to be managers, psychologists, counselors, custodians, and community "ambassadors," not to mention entertainers. If teaching sounds like an unreasonable, almost impossible, job, perhaps it is. Educational technology as compared to technology in education. There is a difference. Technology in education is often perceived in terms of how many computers or videocassette recorders are in a classroom and how they might be used to support traditional classroom activities, but this is a misleading and potentially dangerous interpretation. It not only places an inappropriate focus on hardware, but fails to consider other potentially useful "idea" technologies resulting from the application of one or more knowledge bases, such as learning theory. It involves applying ideas from various sources to create the best learning environments possible for students. Educational technologists also ask questions such as how a classroom might change or adapt when a computer is integrated into the curriculum. This integration means that the curriculum and setting may also need to change to meet the opportunities that the technology may offer.

PURPOSE OF THE STUDY

The purpose of this study is to examine the impact of educational blog on the remembering ability of secondary school students in biology in St.John's Model Higher Secondary School Nalanchira, Trivandrum.

This study would look into depth of educational technology and consider the impact on students remembering ability. It is hoped that this study would consequently unveil and expose the impact of Educational Blog in remembering ability of secondary students in biology.

RESEARCH QUESTION

Educational blogs play significant role in the effectiveness of educational programme. This has been commonly accepted by the public as well as by professional educators. This study is set out to answer the following questions.

1. How educational blog does makes impact on the retaining capacity of students?
2. Does the extent to which educational blog are practice in the classroom related to student's remembering ability?
3. Does the presence of educational blog on the teaching of biology enhance the learning and remembering ability of the subject in schools?

OBJECTIVES OF THE STUDY

- To develop an edublog for the 9th standard students.
- To enhance teaching-learning process
- To introduce difficult topics through audio-visual technology (ICT)
- Improve the interest and attention of students on biology.
- To make web searching easy on biology topics

HYPOTHESIS

- There is no significant relationship between the gender of students and remembering ability in biology using educational blog.
- There is no significant relationship between the class of the students and the use of educational blog strategy in remembering ability of students in biology.

SCOPE OF THE STUDY

This research work examines the impact of educational blog on remembering ability of secondary students in biology in St.John's Model Higher Secondary School Nalanchira, Trivandrum.

SIGNIFICANCE OF THE STUDY

This study would be relevant in the following areas:

- To help government personnel such as curriculum planner and education policy maker to encourage the uses and provision of educational blogs that relate to teaching subject in the secondary schools.
- To change the behavior of the students towards the uses educational blogs in the classroom.
- This study would therefore help the curriculum designers to know the areas in which emphasis should be laid in their future planning to yield better result e.g. activity centered and curriculum to fit the scientific and dynamic world of ours.
- To help teachers and school leaders in order to have the proper insight and knowledge on how integration of educational blogs will help the students outside the classroom since the students spend most of their time at home.

LIMITATIONS OF THE STUDY

- The study was conducted on a small sample size of 70 students.
- Delimited to only one school in Thiruvananthapuram.
- The data collection was a short time bound process.
- The data collected for the study through questionnaire.
- The strategy was confined Trivandrum district.

REVIEW OF LITERATURE

The purpose of this study was to investigate the effects of a Computer-assisted Instruction Material (CAIM) related to "photosynthesis" topic on student cognitive development, misconceptions and attitudes. The study conducted in 2002–2003 academic year and was carried out in two different classes taught by the same teacher, in which there were fifty two 11th grade high school students, in central city of Trabzon in Turkey. The result showed that using CAIM in teaching photosynthesis topic was very effective for students to reach comprehension and application levels of cognitive domain. (Salih Cepni, 2006)

Many educators have attempted to implement a blog in educational contexts to enhance the communication environment among students and teachers. This paper reviews prior studies and develops a model for the use of blogs in educational contexts by taking into account socio-technical systems theory. The model contributes to interactivity, an open system, a visualization tool, and a decentralized environment of online communication circumstance (Hyung NamKim, 2008).

The educational use of blogs has expanded to include diverse age groups and fields of study. Blogs can be used in education as individual platforms for sharing personal and professional commentary, as course platforms that invite comments on controversial questions from students (such as the class blog for the Harvard University course Justice: Moral Reasoning), and as collaborative research platforms. Harvard Law School's Berkman Center for Internet and Society has organized projects to explore the potential benefits of blog technology in a variety of educational and community-building projects and contexts (Rose H. Goldman, 2008).

Integrating technology in education has another important dimension from the teachers' perspective: Networking between schools both nationally and internationally, where educators and administrators can work collaboratively and share educational resources and practices. The concept of Personal Learning Environments (PLE) has become important as teachers and administrators all around the globe can exchange ideas, and share resources with the spread of technology and social networking sites like Twitter, Pinterest, Diigo and many others. In this amazing, rapidly changing era where we can enhance and accelerate learning by integrating technology in education, the schools that understand the importance of education technology and provide their staff and students with training and access to digital learning tools will certainly have a distinct advantage over the others who ban or disregard them (Aysin Alp, 2013)

Biology teaching should ensure the all-round development of the school child's personality. They developed active methods of bringing children into contact with nature, observations, nature walks, the description and comparison of things seen, etc. (UNESCO, 2006).

METHODOLOGY

Sample

70 students were taken from 9th standard from St.John's Model Higher Secondary School, Nalanchira, Trivandrum, 10 Biology Teachers from X, Y, Z Schools of Trivandrum city and 20 common people as sample.

Research Instrument

In this study, the instrument used was Questionnaires and Opinionnaires.

RESULTS

In analyzing the data, the researcher adopted percentage for the analysis.

Table 1: Analysis on Number of respondents from different categories

S/N	Samples	Number of Samples	%
1	9 th Standard students	70	70
2	Teachers (X, Y, Z Schools)	10	10
3	Common People	20	20
TOTAL		100	100

Selected 70 students of 9th standard (Division A,B,C), 10 teachers from different schools for the questionnaire survey and 20 online respondents for opinionnaire survey.

Research question 1: How does educational blogs makes impact on the Retaining capacity of students?

TABLE 2: Percentage responses on how does educational technology make impact on retaining capacity of students.

S/N	ITEM	YES	NO	%
1.	Does educational blog improve your learning ability?	65	5	93
2.	Does your teacher use educational blog while teaching biology?	5	65	7
3.	Do you have own educational blogs for your school?	4	66	6
4.	Do you prefer a class with educational blogs?	70	0	100
5.	Does educational blogs create the best learning environment?	68	2	97

From table, most students agreed with the question that educational technology improve their learning ability with rating score of 65(93%) respondents while 5(7%) disagreed that educational blog does not improve their remembering ability. Only 5 of the respondents (7%) agreed that their biology teachers use educational technology tools during teaching and learning process while 65 Of the respondents (93%) disagreed. 4 of the respondents (6%) agreed with the question that they have educational technology materials in their schools while the remaining 66 of the respondents (94%) disagreed which implies there is no educational technology materials in their school. All the respondents (100%) prefer class where educational technology materials are used and 97 % agreed that educational technology create best learning environment.

Research question 2: Does the extent to which educational blogs are practice in the classroom related to student’s remembering ability.

Table 3: Percentage response on extent to which Educational blogs are practice in Classroom related to Students remembering ability.

S/N	ITEM	YES	NO	%
1.	Does the use of educational blogs accelerate your remembering ability?	67	3	96
2.	Do you think that learning biology using educational blogs could supplement laboratory experience?	66	4	94
3	Does the use of educational blogs with 3D images and videos compatible for learning biology?	70	0	100
4.	Do you find the use of educational blogs is interesting?	70	0	100
5.	Do students get easily distracted when using educational blogs?	67	3	96

All the respondents 67 (96%) agreed that educational technology material accelerate their remembering ability. Majority of the respondents (94%) believed that learning biology using educational blogs could supplement laboratory experience. 100% of respondents pinpointed that educational blogs with 3D images and videos are compatible for learning biology and also all respondents (100%) conveyed the use of educational technology is interesting. 67 of the respondents (97%) disagreed that students are easily distracted when using educational technology.

Research question 3: Does the presence of educational blogs on the teaching of biology enhance the learning capacity and curiosity of students.

Table 4: Percentage responses on educational blog enhance the learning capacity and curiosity of students in biology.

S/N	ITEM	YES	NO	%
1	Does the use of educational blogs improve your academic performance?	70	0	100
2	Does the use of educational blogs develop scientific curiosity?	68	2	97
3	Does educational blogs provide example of good teaching and learning process?	65	5	93
4	Does the use of educational blogs have great impact to develop multisensory experience?	70	0	100
5	Does educational blogs make classroom environment lively?	67	3	96

All the respondents agreed 100 (100%) that the use of educational technology improve their academic performance while non disagreed which implies that the use of educational technology is the bedrock upon which all other components of education sector lies. 68 of the respondents agreed that the use of educational blogs develop scientific curiosity while 2 of the respondents disagreed. 65 of the respondents (93%) agreed that educational blogs provide good example of teaching and learning process. All the respondents agreed that the use of educational technology have great impact to develop multisensory experience and 96% claimed that educational blogs make classroom environment lively which indicate that the use of educational blogs helps students to be active all the time in the classroom with curiosity.

Table 5: Percentage responses on relevance and need of educational blog by Biology teachers.

S/N	ITEM	YES	NO	%
1	Does the Educational blogs are essential and important in teaching?	8	2	80
2	Does education blog enhance the learning capacity of children?	8	2	80
3	Are you using education blogs for taking topics in classrooms?	4	6	40
4	Does the use of educational blog helps teaching learning process effective?	7	3	70
5	Do the videos develop interest and curiosity in students?	10	0	100
6	Does the content of educational blog cover appropriate topics?	4	6	40
7	Does educational blogs create conducive learning environment?	6	4	60
8	Does the teaching using educational blog with 3D images and videos enhance the retaining capacity of secondary students?	10	0	100
9	Does educational blog increase the academic performance of secondary students?	8	2	80
10	Do you have an educational blog?	2	8	20

From the table, revealed that 80% of the teachers support the implementation of blog in teaching because it enhances the learning ability of students. Most of the respondents (70%) realized that use of educational blog helps teaching learning process effective. But 40 % teachers revealed that most of the educational blogs not contain appropriate contents about the topic. 100% respondents believed that 3D images and relevant videos will create interest and curiosity on students which helps to deal with difficult topics.80% teachers claimed that educational blogs increase the academic performance of each student. But unfortunately, only 20% respondents have their own blog to enhance teaching- learning process.

Table 6: Percentage responses on opinion of the online respondents after visiting the blog-www.edushore.wordpress.com

S/N	ITEM	YES	NO	%
1	The blog can easily searched using Google Chrome or other search engine	20	0	100
2	The blog contents were simple and understandable	20	0	100
3	I liked the appearance and attractive design of blog	16	4	80
4	The blog content was appropriate and presented in a structures manner	18	2	90
5	The contents included in blog improved my knowledge on biology topics.	18	2	90
6	The Videos uploaded were excellent and helps to make difficult topics easy and interesting	20	0	100
7	The selection of topics and contents were appropriate for secondary students	20	0	100

From the opinionnaire, 100% of the respondents appreciated about the insertion of appropriate contents, videos, easy searching format and selection of topics for secondary students.80% respondents liked the attractive design of the blog and 90% claimed that presentation of topics and selection of contents improved their knowledge on the specific topics.

Table 7: Overall Star rating of the online respondents after visiting the blog-www.edushore.wordpress.com

RATING OF WEBSITE/ BLOG (5 STAR RATING SCALE)						
How you rate Shafi's Edushore?		5 Rating				
S/no		1	2	3	4	5
1	Look of Website / Blog	0	0	0	2	18
2	Contents (Text)	0	0	0	2	18
3	Contents (Videos and images)	0	0	0	0	20
4	Overall	0	0	0	1	19

From the online rating, revealed that 100% respondents liked the videos and images included with each topic.90% of the respondents like the look of blog and text content on each topic and 95% rated it as great venture for secondary students

DISCUSSION OF FINDINGS

The current study was conducted for the development of edublog for enhancing the secondary school students performance in biology

It has been revealed by the results that:

- Educational blog improves learning ability and academic performance.
- Educational blog creates best learning environment and curiosity on Biology topics.
- The use of educational blog is interesting and compatible with learning of biology.
- The uses of educational blogs accelerate retaining capacity and remembering ability of students
- Educational blogs provide example of good teaching and learning process
- Educational technology reduces teaching and learning deficiency.

CONCLUSION

Educational blogs and websites allow students to learn and experience biology through various interesting activities. The students use the technology to develop explanations from their observations (evidence) by has learned. They learn discrete biology concepts and skills and how to solve problems using practical approaches. Incorporating technology into biology classrooms empowers students. They play an active role in their learning rather than the passive role commonly seen in traditional classrooms. Teachers can foster better experiences with technology in various ways and ultimately positively affect students' biology process skills and understanding of biology.

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Major Findings

1. Educational blog improves learning ability and academic performance.
2. Educational blog creates best learning environment and curiosity on Biology.
3. The use of educational blog is interesting and compatible with learning of biology.
4. The uses of educational blogs accelerate retaining capacity
5. Educational technology has great impact on remembering ability of students.
6. Educational blogs provide example of good teaching and learning process
8. Educational technology reduces teaching and learning deficiency.