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Designing educational blogs effect on the student's knowledge acquisition in the secondary stage: Case study of KSA Schools

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Abstract

This research aims to identify the effect of the difference between blogs in design and form on the student knowledge acquisition process in the High stage in Bisha governorate in KSA. Two designs were chosen from blogs designs; one depends upon the hypertext while the other depends upon the super graphics. The following supposition was tested: There is no statistical difference ($\alpha = 0.05$) between the degrees average of first experimental student group (who depend upon the hypertext) and the degrees average of second experimental student group (who depend upon the super graphics) to test the students' knowledge acquisition in Mathematics.

The scientific approach proposed for achieving these research goals depends upon the experimental design approach (Pre-experimental measurement- After experimental measurement) for two experimental student groups; the first group depends upon study by using blogs designed by hypertext while the other one study by using blogs designed by super graphics. The research sample consists of 48 students appointed from Prince Sultan High School. Such sample was divided into two experimental groups; the first group studied textually while the other studied graphically. The unit of Engineering Diaries (Reflection- Displacement- Rotation) was chosen from the mathematics curriculum for the first secondary stage to perform the study effect test. The researcher designed knowledge test of the unit of Engineering Diaries in the mathematics curriculum as measuring instrument. Knowledge test was performed on both groups before and after the experiment.

Key Words: (General Education- E-learning- Educational Blogs- Knowledge Acquisition- Mathematics- Experimental Approach- Experimental Group)

1. Introduction

Educators always seek the best means and instruments to provide effective educational environment to attract the students' attention and argue them to exchange opinions and experiments. IT that already represented by computer, internet etc are considered to be one of the most successful means that provide enrichment educational environment that allow performing co-projects between different schools. Student can develop their knowledge using important subjects by contacting with their fellows and experiments who concerning about the same important subjects. The student shall be responsible for the information search then framing such information in order to develop their thinking skills. For the educational process, logging on the web allows the educator to reach to educational experiments and experiences which are hard to be reachable by another. Internet allows people to be contacted across far distances and access to different information resources. Technology use increases the learning chances in a better way from schools. Such process called "E-learning" which is considered to be one of the most important privileges of the future schools.Kouwena and Hevelid stated that using several systems in the World Wide Web "internet" shall change the life and work style by technology and providing ability to

contact the student with schools, universities, research centres, libraries etc., which help to spread, transfer and share information. Internet use in the education field has a positive impact on the educator and student performance in the class or lab. Internet is a tool helping for search about information. It converted the educational process from the traditional way which spends a lot of time, money and effort to be Autistic or Open Collaborative International Learning which help to learn and share information between students to be reachable in few seconds. Internet saved spending more time, money and effort in the information research process. Internet is a new learning technology which made reading books, magazines, periodicals, scientific researches, articles and different information by Search Engines. Blogs became popular and spread widely after eleven September events and during the war against Iraq as blogs considered as mean for the western opponents to express their opinions and political situations regarding war. For Arab, blogs started at 2003 [6]. Blogs' started as index in which personal notes and daily events could be typed on their own pages. Blogs usage was developed and expanded to be included several purposes and general and/or specialized subjects. Blogs users number was increased by internet users as was widely followed by continuous readers who have the same interests in order to discuss several subjects.[7] The report made by Nielsen Online mentioned, besides publishing this report through Ministry of Communication and Information Technology website, that using networks and blogs consumes about 10% of the time used to browse the internet pages, the report added that one minute out of eleven minutes is used to browse the internet generally. This minute is used weather in browsing blogs or social networks. [8]. After the fast spread of blogs among users is considered to be the second revolution in the internet world after E-mails; and now in addition to E-mails and Wiki is regarded as one of the showed internet services. [9].Blogs have several definitions, but we are going to review some as follows: "it is a dynamic internet pages that changes timely according to the proposed subjects, where subjects are being viewed at the top of the blog according to the date of its publication (the newest to the older than the older and so on). [10].

2. Literature Review

The purpose of the study [11], entitled "Measuring the impact of social networking via the Internet as one of the Web 2.0 tools on the achievement and perception towards cooperation", the study group was formed of 400 students of Chicago schools, the students were divided into two groups, one control and other experimental considering using blogs and wikis and the results of the study found the lack of statistically significant differences in achievement between groups with no statistically significant differences at the level (.05) in the perception towards cooperation in favour of the experimental group. The study [12] was aimed to identify the impact of the integration of blogs in ten chapters in five classes on students' skills and the degrees they achieve in the final tests for those classes by comparing the academic level of the students before and after the use of blogs, the study concluded that the use of blogging as a kind of duty led to the development of the school academic achievement and strengthen ties and relations among students and the curriculum to enjoy. A study [13] entitled "Description how students take advantage of blogs in achieving the desired interaction between students, teachers and build academic community and a database in the official study site," The study included eleven doctoral students are studying the courses East Carolina University curricula have been allocated Blog to each student to provide some instructions on how to use them, and the study found to outweigh the use of blogs on teaching using classroom discussions. The study [14] entitled "The effectiveness of using educational blogs in development attainment and the trend towards the female students in Al-Qassim University," where this study found there were statistically significant differences at the level (0.05) between the mean scores of gain for the students of experimental group (who are studying the use of blogs) and students of the control group (who were studying in the traditional way) in achievement test for the experimental group, the researcher has observed differences between the designs of educational blogs as they are used as a tool to help in the education process, where the designs vary in terms of the form of blogs and blog topic.

3. Blogging applications in the educational process:

Bloggers can use multiple objects of an educational tool tailored to the needs of learners, and can have some of the possible applications summarized in the following areas:
- **In explaining courses**:
- **An aid for discussion and argue:**
- **Students and teacher are trained on specific skills:**
- **Public, academic and universities libraries**: