



A COMPARATIVE INVESTIGATION OF E-LEARNING WITH TRADITIONAL LEARNING

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Abstract: E-learning based methods provide vital teaching methods for more than a decade. E-learning provides learners to have interactive e-content that is full of multimedia. It has been confirmed that it has a tremendous impact on the process of learning. The present work focuses upon a comparative examination of e-learning based methods with traditional teaching methods. The comparative examination performed on different user groups shows the preference of e-learning based methods over traditional teaching methods. The feedback regarding the two methods is collected from various user groups viz. students, researchers, instructors and staff. E-learning based methods provided outstanding feedback as compared to traditional teaching methods.

Keywords: E-learning; Traditional learning; WebGuru; LMS; Palmtops.

I. INTRODUCTION

Electronic learning or E-learning, is the distribution of learning and training through any digital resource(s). E-learning provides formalized learning with the help of electronic devices such as computers, tablets, laptops, palmtops, web-based learning, virtual classrooms, video modules, micro learning, and even through mobiles phones that are connected to the internet. It becomes easy for the users to learn at anytime, anywhere, with some constraints. In other words, it is a type of learning, training, or education delivered online with the help of a computer or any other digital device. Now days, there have been various advancements in the development of software in the educational domain [1]. Various learning strategies such as multi-modal, multi-channel and multi-source learning can be combined in order to optimize online and traditional learning methods. E-learning methods help learners to develop and enhance their learning capabilities. E-learning also helps learners to self-manage learning to best suit their education style and their way of working. E-learning software applications are mostly developed using web 2.0 tools, for instance mobile-based learning applications, twitter, YouTube, slide-share, Picasa, wiki-media etc. These software can be used to assist teachers in educating their students. E-learning is not only a form of distributed learning, online or virtual learning or networked learning but it also provides ways for testing and evaluating the feedback of students as well as instructors. E-learning provides effective interaction between the instructor and learners [2, 3]. E-learning is well suited for those who are already fully employed and are determined to continue their education or professional training. The percentage of companies providing e-learning assistance to their staff has scaled up from 38.5% in 2007 to 51% in 2011 [1, 2, 3, 4]. Any e-learning system not only contains the learning content, but also the complete infrastructure that permits methods of content creation, content storage, content access and the deliverables. E-learning supports methods for effective management of the learner and the learning process. So, e-learning is a unifying term used to

describe the fields of online learning or is simply usage of technology to deliver web-based training and educational materials [5]. Although many users have different opinions about e-learning. E-learning has also resulted in less personal teacher-student relationships [2]. A big question is how teachers can motivate students in e-learning, what factors can improvise e-learning [2]. In order to have better e-learning environment the teacher should keep in mind the followings [7]:

- Constant motivation should be nurtured amongst students.
- Effectively explain students how e-learning should be employed.
- Encourage student interaction and collaborations.
- Design student study groups so that no student feels isolated.
- Assist students to make friends by meeting different fellow students in the e-learning environment.
- Establish good student interaction through examining online presence of them. It can be achieved through continuous feedback.
- Design effective learning materials and environment to target the students.
- Assist in effective student interaction through teaching material and thereby focusing on the goal behind the chosen tasks.
- Do not let students get frightened, worried or nervous as it may have negative impact of e-learning.

All of the above strategies could be adopted to design new strategic teaching plans that might help the teachers.

The above strategies can be incorporated to have better levels of motivation for students [7]. Nowadays the different e-learning platforms in use are Learning Management System (LMS), Moodle, Blackboard learn, Canvas, Sakai, Schoology, Google Classrooms etc. Apart from these there are social media platforms also. Social media platforms provide widely useful avenues for e-learning. Social media has become a popular learning tool in part because services like Facebook, Twitter, YouTube and LinkedIn also offer good tutorials to many. Social media platforms are suitable for bringing communities of learners together and allowing them to share e-learning content. Facebook and LinkedIn users can create groups to share information and ideas, and members of the groups can communicate freely about the shared material. Groups created on LinkedIn might be perceived to have an added level of credibility because users display their career credentials on their profiles. Twitter can be used to connect learning communities over a specific topic or event by utilizing a hashtag. YouTube users can also post and access educational content for free on YouTube, as well as comment on and rate the videos.

The LMS offers the facility to the instructors for evaluation of student performance in an interactive learning environment [6]. The present work evaluates the performance of e-learning suit WebGuru. WebGuru [11] is used for teaching learning in Devi Ahilya University for enhancing the teaching learning skills. Comparative examination of e-learning suit WebGuru with traditional teaching methods namely Black-Board teaching, explanation of the topic, student understanding and classroom interaction is also performed. The work also presents the results of various experiments performed with different groups of students, research scholars, instructors and other staff. The present work is organized as follows – the Section II presents the review of the related literature. The Section III presents results and discussions. Finally, the section IV describes the conclusions drawn.

II. REVIEW OF THE RELATED LITERATURE

E-learning is a recent technology involved in teaching and learning process [10]. E-learning provides learners to have interactive e-content that is full of multimedia. It has been confirmed that it has a tremendous impact on the process of learning. The various blogs and wikis on internet have reported positive impact on learners. Majority of universities have introduced e-learning as an important learning tool worldwide. E-learning is any type of learning that includes the use of internet or intranet [5, 6]. In other words, any learning material which is delivered or enabled through electronic technology falls under the category of e-learning [8, 9]. But the authors in [4] emphasize that e-learning is an evolving and enhanced technology. Recent literature shows that most of the students who register for e-learning courses perform better than the students who study by traditional teaching methods [3]. A very good example is of American Carnegie Mellon University where examination results have shown tremendous improvements as an outcome of e-learning teaching methods [6]. But just including technology in the teaching-learning process does not mandatorily confirm that students get motivated. The e-learning methods most extensively practice online teaching like virtual learning, web-based e-learning and distributed teaching [5]. In this type of learning the lecture delivery, information transfer and communications technology can opt

for synchronous and asynchronous modes. It is evident from the information available, the role of communication and information technology is to offer opportunities in the domains of storing, capturing and distributing vital information [7]. Various media like radio and television also play a vital role in communication [8]. Video clips are used for role-play-based learning, have made the learning and teaching experience more appealing and revolutionary [7]. It is observed that the students who stay away from school are highly inspired by state-of-the-art e-learning methods. Topic related images, video clips and educational instructions delivered through multimedia have supported in enhancing the ability of instructors to signify information, in different ways within the school or college [8]. It is an important observation that with the fame of radio and television and usage of such other media increases the capability of instructor to communicate. Computers are also indispensable in providing technological innovation, both through the use of latest software and hardware, in the domain of appreciable e-learning process. Although, computers are used for imparting learning since 1960s but with the advent of internet, computers were taken up more actively between e-learning volunteers, students and teachers [9]. Though, there are various researchers who are of the view that the influence of computer technology on learning is less than its financial advantages and, in some cases, they did not show any advantage on learning. Some of the researchers are of the view that learning is attained not only with the development in technology alone but also through the content and also how its explanation is delivered to the students.

III. RESULTS AND DISCUSSIONS

Webguru software and related framework are used to perform the investigations. E-learning is assessed on the criterion of the personal experience of instructors and learners. The instructors prime focus is that they are not able to trace the learner's actions during their whole teaching session and the learner's prime worry is about the legitimacy and reliability of the content delivered during the e-learning process needs to be addressed. The experiment performed makes use of trials from instructors and e-learners that are using Webguru as their cybernetic framework for e-learning. For the purpose of experimentation, a sample questionnaire was formulated in order to retrieve the responses from sample user groups. The questionnaire was allocated to various user groups involving learners, researchers, instructors and other staff members. The questions were based upon the method of direct asking means yes or no type of responses. Questions were similar for all the respondents and the language chosen was English. On the basis of experiments performed some important results are shown below in Fig. 1 and Fig. 2. The Fig. 1 below shows the responses from various groups. Further Fig.1 also depicts that for all the user groups, e-learning methods are preferred as compared to traditional teaching methods.

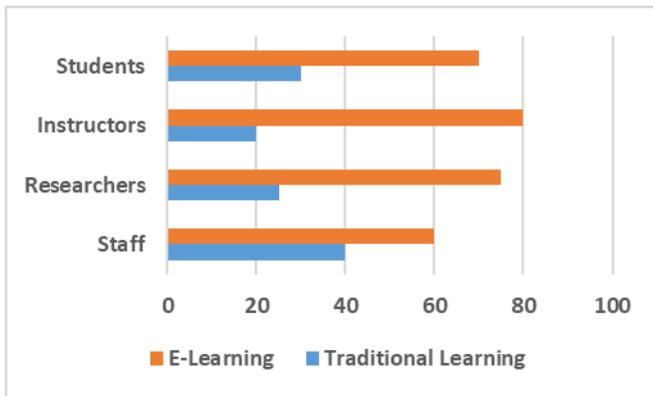


Fig. 1- Comparison between both the learning methods.

The Fig. 2 below shows the cumulative feedback collected from various user groups viz. students, instructors, researchers and staff. The Fig. 2 also shows that for all the user groups, e-learning methods have outstanding feedback as compared to traditional teaching methods.



Fig. 2- Feedback from different users

IV. CONCLUSIONS

E-learning provides formalized learning with the help of electronic devices such as computers, laptops, palmtops, tablets, web-based learning, virtual classrooms, video modules, micro learning, and even through mobiles phones that are connected to the internet. It becomes easy for the users to learn at anytime, anywhere, with some constraints. In other words, it is a type of learning, training, or education delivered online with the help of a computer or any other digital device. The present work showed the efficiency of e-

learning methods over traditional teaching methods. The work showed that e-learning methods attained best response as compared to the traditional teaching methods for all the user groups. Additionally, e-learning based methods had outstanding feedback as compared to traditional teaching methods.

V. REFERENCES

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