Physiology

COMPARATIVE STUDY OF EFFECTIVENESS OF E-LEARNING TECHNIQUE AND TRADITIONAL TEACHING METHOD IN MEDICAL COLLEGE STUDENTS.

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ABSTRACT Web-based technology has remarkably changed the learning and teaching environment. The e-learning is online learning method using technology to get web based training. The present study was conducted to compare the effectiveness of e-learning technique with traditional teaching in medical college students. Data was collected by questionnaire method from 235 medical college students who were selected through random sampling method. For the analysis of the data basic descriptive statistics, percentage has been used. Our study results showed 94.89% medical students believe traditional teaching is more useful. Only 5.11% of medical students feel e-learning is better than traditional teaching. Without attending classes 24.7% students were able to understand the topic. Without attending classes and using e-learning only 29.4 % students were able to understand the topic. From our results we conclude that traditional teaching is better than e- learning.

KEYWORDS : e-learning, traditional teaching method.

INTRODUCTION:
The role of education is the most important factor in the development of society. Education should be of high quality, which can help to progress and bring desired changes in the students. Education has become a burden for the students as they try to mug up the concepts rather than understanding it. This leads to their poor performance in the examination.

Computers have been used for learning purposes since the 1960s and 70s. They were used more enthusiastically since 2000 with the help of the Internet. But many researchers think that the impact of computer technology on learning is less than its economic benefits. Computers did not show any benefit on learning in many cases. Most of the researchers are of the opinion that learning is acquired not with improvement in technology alone but with the content presented in the medium.[1]

The e-learning is defined as, the delivery of a training or education program by electronic device. E-learning involves the use of a computer system or electronic device to give web based training, educational material to facilitate learning anytime and anywhere.[2]

In the e-learning process the teachers are not able to trace the learner's activity. The learners also question about the validity and reliability of the content delivered.[3,4]

Teaching is the noblest profession of all. A doctor is treated as demigod who serves and saves the people's life. So in medical teaching and learning, suitable methods and skills are essential to produce a good number of good doctors who should have human and social outlook. It should be the motto of a teacher to instill social service mind and human attitude among the medical students. A teacher must be an incarnation of knowledge and a model to the students. Teacher's explanations enable students to understand the content.

Traditional methods had produced thousands of well-known, talented and successful doctors all over the world. Still there was increasing demand for structural basic changes in medical education to meet the needs of the community. So the present study was conducted to compare the effectiveness of the e-learning technique with conventional teaching as a method of teaching in medical college.

Research Hypotheses:
The following research hypotheses were formulated to guide the study.
H0: There is no significant difference in effectiveness of e-learning technique and conventional teaching method.

H1: There is significant difference in effectiveness of e-learning technique and conventional teaching method.

MATERIALAND METHODS:
The present cross sectional study was conducted in a medical college in February 2017. The questionnaire was prepared in order to get the responses by the students. The questionnaire was distributed to students. The questions were based on the pattern of direct asking. There were questions based upon either 'Yes' or 'No' responses. Questions were the same for all the respondents and English language was used. The participants were personally briefed about the study questionnaire. Instructions for filling the questionnaire were explained to them. Any doubt about filling of questionnaire was clarified by the investigators. 15 minutes time was given to fill the questionnaire.

Statistical Analysis:
For the analysis of the data, basic descriptive statistics, percentages, graphs has been used. Microsoft excel was used to analyze data and to create graphs and tables.

RESULTS:
Table no.1: Usefulness of traditional teaching in medical students.

Usefulness	Traditional Teaching	Percentage
YES	223	94.89%
No	12	5.11%
Total	235	100

Table no.2: Usefulness of the e-learning in medical students.

Usefulness	E- Learning	Percentage
YES	12	5.11%
No	223	94.89%
Total	235	100

Table no. 3. Without attending traditional classes ability of students to understand the topics.

Without attending Classes are you able to understand the topic	Frequency	Percentage
Yes	58	24.7%
No	166	75.3%
Total	235	100%

Table no.4. Using e-learning and without attending traditional classes ability of students to understand the topic.

Using e-learning and without attending conventional classes are you able to understand the topic	Frequency	Percentage
Yes	69	29.4%
No	166	70.6%
Total	235	100%

DISCUSSION:
Web-based technology has markedly changed the learning and teaching environment. In 1981 Ramsden and Entwistle explored the

impact of learning environments on learning outcomes. [5] Correlation between student's perception of social and psychological environments of their classes and learning outcomes was done by Haertela et al.[6]

In the present study, 94.89% medical students believe traditional teaching is more useful. Only 5.11% of medical students feel the e-learning is better than traditional teaching. Without attending classes 24.7% students were able to understand the topic. Without attending classes and using e-learning only 29.4 % students were able to understand the topic. Our study results showed that traditional teaching is better than the e-learning technique.

Some researchers believe that the e-learning is effective in potentially eliminating barriers. The e-learning also provides increased convenience, flexibility, customized learning.[7,8,9]

Students in an online environment may feel isolated, confused, and frustrated.[10, 11] Student's interest in the subject and learning effectiveness may be reduced. [12] Students who failed to make online connections with other learners in their group were reported feeling isolated and more stressed.[13]

An important component of classroom learning is the social communication between student and teacher. Student used to develop socially. Student's ability to ask questions, to share opinions are fundamental learning activities. Conversation, discussion and debate among students and also between teacher and students make the new concept clarified.

In medical field, old assumptions are challenged and skills are developed by practicing on patients during demonstrations. Doctor-patient interaction can be learned by traditional teaching very well as compared to e-learning.

Online learning requires adjustments by teachers as well as students for successful interactions to occur. Online courses often substitute classroom interaction with discussion boards, synchronous chat. In online teaching teacher's control is less. It is easier for participants to ignore teacher. In traditional teaching it is not so easy ignore teacher.

Contradictory to our result some researchers showed that interaction in an online environment promotes student centered learning, encourages wider student participation and produces more detail discussions than a traditional classroom setting does. [14, 15] Online discussions also encourage introvert students to participate to a greater extent.[16]

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