



TRADITIONAL TEACHING METHOD OR MULTIMEDIA – WHICH METHOD DO STUDENTS PREFER - A OBSERVATIONAL STUDY

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ABSTRACT

Learning is the active process going on inside the student's mind and teachers main role is to facilitate this learning process.⁽¹⁾

In India, an application of technology in medical education is on the way to rise. In the recent trends of Information technology has made enumerable changes in medical education system in India at both the teaching level as well as at research level in the recent years. Availability of fast internet services had made data transfer very easy, and has been saving a lot of time. This created scope for presenting different kinds of information in many different creative ways.

In the present study we are trying to find out: traditional teaching method or multimedia – which method do students prefer. The present study is a non interventional, questionnaire based study, was conducted on 250 1st MBBS professionals of Andhra medical college, Visakhapatnam. A semi structured questionnaire is presented to them. They filled questionnaires with 15 questions, by selecting appropriate options. The merits and demerits of the two systems of teaching and combined method were analysed and discussed.

Ideal teaching is the basic requirement of improved learning.⁽¹⁰⁾ Combination of traditional chalk and board method with multimedia assisted teaching wherever necessary, is ideal for interactive and understandable lecture session. More effort should be made to teach noninteresting difficult topics according to students perspective.

KEYWORDS : traditional chalk and board, multimedia, combined method

INTRODUCTION:

Learning is the active process going on inside the student's mind and teachers main role is to facilitate this learning process.⁽¹⁾

In India, an application of technology in medical education is on the way to rise. In the recent trends of Information technology has made enumerable changes in medical education system in India at both the teaching level as well as at research level in the recent years. Availability of fast internet services had made data transfer very easy, and has been saving a lot of time. This created scope for presenting different kinds of information in many different creative ways⁽⁵⁾. Application of animation technology is progressing in Indian medical education system. Practicing the application of different aids had been increasing in teaching as well as in research: But the use of technology by using animation modules, Microsoft Power Point presentations, presentation aids in the audio-visual form, preparation of research work by using computer, laser jet printers, LCD projectors and all readymade applications available on internet in the form of full text articles as well as images for references.⁽³⁾

Teachers/Professors, teaching for higher education are under the pressure of providing more effective and efficient learning environments and educational experiences for their students. In colleges and universities, teaching is considered as an important vehicle for achieving institutional goals of enhancing students' knowledge and learning, as well as engaging them in the learning community to be prepared for their future citizenship. Therefore, teachers/professors are always looking for ways to make their educational initiatives more effective⁽⁴⁾

Improved teaching methodology is beneficial for education systems so that students can learn more effectively.

In medical education system, we can enhance learning of MBBS students by integrating various teaching methods.

There are various teaching-learning methods practiced in our education system, like traditional Chalk and board, overhead projector, PowerPoint presentation or clinical case/bed side teaching, etc. All the methods have their own merits and demerits.⁽⁵⁾

There are various methods of teaching that have been adopted by teachers/professors in order to present information to the students. Lecture method is one of the common methods of teaching in which teachers deliver lectures orally and is presented on the chalkboards with written materials on hand or by transparencies on an overhead projector. Nowadays another method of delivering lectures in which visual information can be directly projected onto the screen from computers has been extensively used in the recent years. For teachers to present information in this manner, most of the colleges and universities have classrooms equipped with the sufficient technology.⁽⁶⁾

The present study was done to know the teaching-learning method in which they are interested and is helpful for them in the process of learning i.e. preference and perception.

The introduction of different material based learning aids including computer based various softwares, use of Lcd projectors, internet and telecommunications has the potential of changing the face of medical education.⁽³⁾

Practicing the application of different aids had been increasing in teaching as well as in research. As of in the Department of Anatomy there is increasing usage of simulator. This is attaining a lot of importance because of its application of 3d view and even the usage of 4d axis which helps in easy anatomical understanding as well as anatomical reconstruction in student's memory which in turn aids the surgical skills by increasing the anatomical knowledge. This is of lot of use either in government or private medical colleges where the procuring of cadavers is difficult which might be due to geographical location or due to social stigma for donating

the human bodies for research purposes. But the use of technology by using animation modules, Microsoft Power Point presentations, presentation aids in the audio-visual form, preparation of research work by using computer, laser jet printers, LCD projectors and all readymade applications available on internet in the form of full text articles as well as images for references.

Seminars, group discussions, small group teaching, large group teaching, CMEs increase the knowledge of the students.

Student Information Systems (SIS) PROGRAMME which is a part of aetcom provides early clinical exposure for students not only helps in increasing the clinical skills but helps in development of communication skills hence developing healthy doctor patient relationship.

In the present study we are trying to find out: traditional teaching method or multimedia – which method do students prefer.

MATERIALS AND METHODS

The present study is a non interventional, questionnaire based study, was conducted on 250 1st MBBS professionals of Andhra medical college, Visakhapatnam. A semi structured questionnaire is presented to them.

They filled questionnaires with 15 questions, by selecting appropriate options.

1. Do you feel that only traditional method (chalk and board) is good as teaching method
2. Usage of multimedia (images,ppt etc) is the only good method for teaching
3. Felt both the traditional method and multimedia were helpful in gaining knowledge
4. Is displaying videos helpful to understand cycles
5. Which method helped you to understand the topic well
6. Did you feel attempting answering questions easy when both traditional method and multimedia are combined as teaching method
7. Method which created interest to you
8. Method which increased the concentration to you
9. Method which gave clarity regarding the topic
10. Method which met the pace of student's learning
11. Your opinion on traditional method as only teaching method
12. Your opinion on multimedia method as only teaching method
13. Opinion on combining both traditional and multimedia as teaching methods
14. Any other teaching method in classroom that you feel better to understand the topics
15. Any suggestions

They have been instructed to fill the questionnaire by selecting appropriate options without revealing their identity. Confidentiality is maintained at each level of the study. Based on the feedback received results are obtained.

RESULTS :

34% of the students said chalk and board is the best method.4.8% said it is not only the best method.12% said multimedia assisted teaching is the best method of teaching.84% said combining both chalk and board and multimedia assisted teaching is the best method,1.2% said it is not the best method. 62% felt attempting questions was easy when both the methods are combined for teaching,4.8% said not that much how ever there is no student who said no to this method. However 66.8% said combined method helps in understanding the topic well. Chalk and board was opted by 22% students 11.2% opted for multimedia, Regarding created

interest it was 66.8%, chalk and board was 22% and multimedia was 11.2%. Regarding increased concentration it was 66.8%, chalk and board was 22% and multimedia was 11.2%. Regarding clarity over given topic 55.2% opted for combined method .30.4 % opted for chalk and board and Multimedia 14.4%. Met the pace of the student's learning chalk and board was 40.8%, combined method 46.4%, multimedia was 12.8%. Conclusive of all the questions 84% opted that combined method is the best method.34% said chalk and board method is the best method. Students preferred combining both chalk and board method and multimedia assisted teaching over only chalk and board $\chi^2=33.091$ or only multimedia $\chi^2=41.299$ which is statistically significant ($p < 0.0001$)

Table 1

COMBINED METHOD * HELPFUL IN GAINING KNOWLEDGE Crosstabulation						
Count		HELPFUL IN GAINING KNOWLEDGE				Total
		NO	NOT THAT MUCH	SOME WHAT	YES	
ONLY BEST METHOD	NO	0	0	0	12	12
	NOT THAT MUCH	0	0	0	44	44
	SOME WHAT	0	2	10	97	109
	YES	3	2	23	57	85
Total		3	4	33	210	250

Table 2

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	33.091 ^a	9	0.000
Likelihood Ratio	39.352	9	0.000
N of Valid Cases	250		

DISCUSSION

Medical education system is the base of ideal doctors and hence a healthy society research on teaching and learning constantly endeavour to examine the extent to which different teaching methods enhance growth in student learning⁽⁷⁾.

The system mainly aims at producing quality doctors from students. Many studies have revealed that there is a close association between student's opinion and instructor's effectiveness. To enhance successful communication, medical teachers are increasingly using teaching-learning media. It is well known that the students learn when they are involved actively in learning than when they are passive recipients of instruction.⁽⁸⁾

With regard to teaching methods, a majority of students i.e. 84% of them suggested that combination of chalk and board method with multimedia is better in learning and even for understanding also. This was followed by chalk and board that was 34%. These findings are in correlation with the findings of Mehta M et al where they found 53% of students opted for combination and board with power point presentation. Followed by chalk and board presentation i.e. by 37%. A previous study of rituparna et al revealed that majority of the students favoured the mix of aids. Majority (81.6%) of the students showed a preference for the use of a combination of visual aids during the lecture classes. The studies conducted by Mohan L et al¹¹, Giri PA et al¹², Kumar A et al¹³ found similar results with 54.9%, 48.8%, 50.0% respectively, to the present study. Majority of the students feels AV-aids are essential for lecture delivery. In other studies done by Momi Baruah et al showed that power point presentation is preferred over other methods.

But there are pros and cons with each of the teaching methods⁽¹²⁾

Black board was the most preferred teaching aid followed by Power point presentation (PPT) according to study by Papanna KM et al.⁽¹³⁾

According to the present survey, the opinion of students on chalk and board method are:

student's concentration is increased, chalk and board method has created interest in them, this method helped them to learn line diagrams. It gave them better understanding, convenient in small group teaching, felt more connected to the topic being taught according to their pace of teaching matched with the pace of learning of the student. Experience of the teacher is added, gives an idea about the topic and also the manner in which the topic can be learnt.

But demerits expressed by them are:

3D approach is not possible, letters on the board are not visible to the back benchers.

Relations of organs to be taught can't be taught. Sometimes the pace is slow and time taking.

Not visible to entire class.

Multimedia : Merits and Demerits as expressed by students

Merits

Helps in understanding 3D view of the organs. Helps in better visualisation of topic being dealt. Useful for self-learning and grab student's attention. As audio and video are combined, and visual memory is also sustained longer, topic will be retained in memory of the student for long. Quick and easy method

Demerits

It has strain on eyes. Sometimes the pace of teaching may not match pace of learning of the student. Interaction with the teacher becomes less. Method of drawing the diagrams is not known. Tough to learn the diagrams. The main problems identified with electronic presentations were: that too much material was covered too fastly⁽⁹⁾

Combining both chalk and board and multimedia assisted teaching: Merits and Demerits as expressed by students

Merits:

Best way as said by students. Helps in understanding the topic quite well. Very efficient method if planned well for shorter duration of class. Imparts complete knowledge regarding topic. As both ways of teaching occur the deficits which are present in each type can be compensated by other type.

Demerits

Collaborating both chalk and board and multimedia assisted teaching in short period is a bit difficult task. Chalkboard had a slight edge over power point in terms of interesting nature of lecture and advancement in understanding the subject⁽¹⁴⁾

CONCLUSION

Ideal teaching is the basic requirement of improved learning.⁽¹⁰⁾ Combination of traditional chalk and board method with multimedia assisted teaching wherever necessary, is ideal for interactive and understandable lecture session. More effort should be made to teach noninteresting difficult topics according to students perspective.⁽¹⁰⁾

Combination Teaching Aid is most satisfied teaching aid as the inherent deficiency of one aid can be compensated by the other⁽¹²⁾

This will be more helpful in understanding and learning.

Proper and effective management of time is essential for maximum utilization of MBBS duration with optimum output for students⁽¹¹⁾

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