



EFFECTIVENESS OF COMPUTER AIDED TEACHING, AS COMPARED TO TRADITIONAL BOARD TEACHING, AMONG MEDICAL UNDERGRADUATES OF UDAIPUR

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ABSTRACT

Introduction: Even though it is a well known fact that computer aided teaching methods like power point presentations are far more advanced, popular and superior to traditional teaching methods like board teaching, there is always a constant debate among medical teachers and students about the best method for medical undergraduates. So an attempt has been made to find out the student's perspective, the popular teaching methods among them, the reasons for the popularity, the students view of advantages and disadvantages of board and computer aided teaching through a student feedback.

Aims and Objectives: To compare the effectiveness of computer aided teaching with board teaching through a student feedback, to find out the advantages, disadvantages of computer aided teaching and board teaching through a student's perspective and finally to find out the student's preference of best teaching tool for them.

Materials and Methods: 98 medical undergraduate students belonging to first year MBBS course of GMCH, Udaipur formed the subjects for the current study. All the students were given a standard MEU questionnaire used for microteaching for collecting their feedbacks.

Results: 95.92% preferred computer aided teaching method like power point presentation for understanding difficult concepts/ topic where as only 4 students that is 4.08% of students preferred board teaching. 97 students out of 98 that is, 98.98% of students mentioned that, maximum interest was generated in the topic, when both power point presentation and board teaching methods were combined together. 83 students out of 98 students that is, 84.69% preferred a combined teaching method for regular anatomy lectures.

Key Words: Computer aided teaching, Power point presentation, Board teaching

INTRODUCTION

Even though it is a well known fact that computer aided teaching methods like power point presentations are far more advanced^{1,2}, popular and superior to traditional teaching methods like board teaching, there is always a constant debate among medical teachers and students about the best method for medical undergraduates. All standard Medical education technology workshops^{1,2} world over insist on computer aided teaching methods rather than board teaching method because of its greater advantages and fewer limitations.

In the recent times computer aided teaching has become a necessary tool for teaching medical undergraduates,

especially due to decreased course period for MBBS. Though board teaching has certain advantages for small groups, the computer aided (like PowerPoint) teaching has a lot more advantages for both small groups as well as larger group teaching, mainly because of its speedy coverage of topics, concept building methods, striking and actual depiction of clinical pictures, Real Gross Anatomy pictures, Animations like showing mechanism of Drug action and so on. After all, it is evolution of teaching methods which has finally given rise to computer Aided teaching methods starting from black board.

In this study we have tried to compare the effectiveness of board teaching and computer aided teaching in a classroom setup for medical undergraduates.

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An attempt has been made to find out the student's perspective, the popular teaching methods among them, the reasons for the popularity, the students view of advantages and disadvantages of board and computer aided teaching through a student feedback.

AIMS AND OBJECTIVES

1. To compare the effectiveness of computer aided teaching with board teaching through a student feedback.
2. To find out the advantages and disadvantages of computer aided teaching and board teaching through a student's perspective.
3. To find out the student's preference of best teaching tool for them.

MATERIALS AND METHODS

98 medical undergraduate students belonging to first year MBBS course of GMCH, Udaipur formed the subjects for the current study.

All the students were given a standard MEU questionnaire used for microteaching for collecting their feedbacks, once during their first year.

Permission from Human ethics committee was taken for conducting the study.

The students were taught some topics using board alone, some topics with Computer Aided tools like PowerPoint and some topics using both board as well as power point.

The questionnaire dealt with various issues like advantages and disadvantages of board teaching, computer aided teaching, combined board and computer aided teaching, reasons for the same. It also dealt with popularity of the any single or combined teaching methods and the reasons for the same. It also dealt with teaching method/s which generated greater interest in the subject or topic taught. The questionnaire also contained questions pertaining to teaching methods which made them easier to understand and comprehend difficult concepts.

The study design is of descriptive comparative type.

The feedback questionnaire was collected from all the students during lecture hours and the percentage of responses calculated.

OBSERVATION AND RESULTS

Table 1: The teaching method which made the difficult topics easier to understand and stay alert throughout the lecture

Teaching method	Student's Preference in Percentage (%)
Board Teaching Alone	4.08%
Computer teaching alone	95.92%
Combined computer and board teaching	0%

Table 2: Teaching method which generated maximum interest in the subject or topic

Teaching method	Student's preference in Percentage (%)
Board Teaching Alone	0%
Computer teaching Alone	1.02%
Combined computer and board teaching	98.98%

Table 3: Percentage of students who preferred Board teaching alone, computer aided teaching alone and combined board and computer aided teaching

Teaching method	Student's Preference in Percentage (%)
Board Teaching Alone	6.12%
Computer teaching alone	9.18%
Combined computer and board teaching	84.69%

DISCUSSION

In the current study we found that 94 out of 98 students that is, 95.92% preferred computer aided teaching method like power point presentation for understanding difficult concepts/topic where as only 4 students that is 4.08% of students preferred board teaching (Table no.1). Supporting our result a study undertaken in people's medical sciences state that, majority of students, understand and retain better if taught by power point,³ stressing the importance of power point in the current scenario. This proves that computer aided teaching that is power point presentation is more effective than board teaching in making students understand difficult concepts/topic

97 students out of 98 that is, 98.98% of students mentioned that, maximum interest was generated in the topic, when both power point presentation and board teaching methods were combined together. Only 1.02% of students mentioned that computer teaching alone generated interest in the topic and 0% for board teaching alone for generating interest (Table no.2) there by emphasizing that a combined teaching method to be more interesting.

83 students out of 98 students that is, 84.69% preferred a combined teaching method for regular anatomy lectures, whereas 9 students that is 9.18% preferred computer teaching alone and only 6 students that is 6.12% preferred board alone (Table. 3). An earlier study⁴ done in King George medical university showed that 70.37% of students preferred a combination of power point presentation and traditional methods supporting our outcome. This proves that the best teaching tool according to students is a combination of power point presentation and board teaching. This is also supported by yet another study undertaken in Dehradun⁵.

CONCLUSION

1. Computer aided teaching that is power point presentation is more effective than board teaching in making students understand difficult concepts/topic.
2. Maximum interest was generated in the topic, when both power point presentation and board teaching methods were combined together.
3. The best teaching tool according to students is a combination of power point presentation and board teaching.

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REFERENCES

1. Medical Education-Principles and Practice. 2nded. Pondicherry: NTTC JIPMER Alumni Association; 2013.
2. Principles and Practice of Medical Education Technologies workshop manual. Ahmedabad: MCI Regional training Centre NHL Municipal Medical College; 2013.
3. Hanmant S. Amare, Silpa N. Kaore, Suresh V Vasvani. Evaluation of existing teaching methods used for lecture classes in pharmacology. Int J Pharm Bio Sci 2013;4(1):193-198.
4. Jyoti Chopra, Anita Rani, Archana Rani, R.K. Deewan, A.K. Srivastava and P.K. Sharma. Student's reflection on teaching methodology in Anatomy. AJMS 2014;5(1):47-51.
5. Sukhendu Dutta. Application of computer aided teaching in conventional lecture class. SEJME 2011; 5(2):60-63.