

## Attitude of Medical Students towards Power Point, Overhead Projector and Chalkboard Teaching Methods in North India.

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**Abstract :** The objectives of the study was to assess the most effective mode of teaching and analyze the preferences for teaching aid of medical students. The comparative, open level study was conducted at the Moyo Institute of Medical Sciences. A 9 questionnaire regarding various teaching methods was handed out among 300 undergraduate medical students. 257(85.66%) are completed study while 43 (14.33%) were left out for being incomplete. **Result:** Majority of students 146 (56.8%) preferred PPT based on lecture while 111 (43.9%) in favour of chalkboard and none like OHP. The combination of PPT & chalkboard as for whole lecture were considered by 230 (89.49%) as most effective, 21 (8.17%) in the favour of only chalkboard, while only PPT were considered least effective 9 (3.50%). **Conclusion:** The combination of PPT alongside blackboard was preferred over other combinations.

### INTRODUCTION

Since 15–20 years, the presentation method in the classrooms has changed from the traditional chalk & talk to more advanced Power Point & smartclassrooms methods. The most accepted criterion for measuring good teaching technique is equivalent to the aggregate of student learning that occurs. There are consistently high correlations between students' ratings of the "amount learned" in the course and their overall ratings of the teacher and the course along with his presentation technique. Those who learned more gave their teachers higher ratings.<sup>1</sup>

The traditional chalk-talk methodology provides strong student-teacher interaction, but its effectiveness declines as the number of students in the class increases. Furthermore, maintenance of discipline and pupil attention may get hampered by it.<sup>2</sup> Introduced in the 1960s, OHP are the mainstay of teaching in medical institutions. Despite their popular use by instructors, students in general seem less than warm towards them. OHP lack the ability to display moving images, have dim visibility and poor optical focus. Writing style and font size are also issues that govern the readability of a transparency.<sup>3</sup> Introduction of microsoft PPT slides, accompanied with multimedia projectors, have remarkably revolutionised teaching. Texts as well as audiovisual clips can be easily played on PP slides.<sup>4</sup> Text colour; font and size may be modified with ease, and the visibility made catchy with contrasting slide backgrounds. Quality creation of a slide though lies in the hand of its maker, and heavy slides that basically comprise texts become tedious.<sup>2</sup>

Teaching and learning are active processes occurring simultaneously on a continuous basis.<sup>5</sup> Both teaching and learning are dependent on myriad contextual factors, including the teacher, the learner, the subject matter, environment(s) and the teaching methods. The responsibility lies on the teacher to ensure that student is given the opportunity to think in the classroom.<sup>6</sup> It has to be acknowledged that attention should be given to the teaching of thinking skills, such as reasoning, creative thinking, and problem solving; as thinking is essential to gain knowledge and knowledge is essential for thinking.<sup>7</sup> Additionally, teachers should ensure that students are given the opportunity to develop their met cognitive abilities. In

teaching and learning, strategies should be developed to use of PowerPoint appropriately in the classroom as a tool rather than as a toy.

The aim of this study was to compare the impact of the power point multimedia presentation, chalkboard and OHP in teaching by assessing the knowledge based on the marks obtained.

### MATERIAL & METHODS

A comparative open level study was conducted from Oct 2013 to Dec 2013 in Mayo institute of medical college, Barabanki, after getting permission from the principal and institutional ethics committee of college. We recruited two batches of medical students (n=300), one from 1<sup>st</sup> year (n=150) and another from 2<sup>nd</sup> year (n=150). We provided a questionnaire of 9 questions, the objective and importance of questionnaire was explained. The study questionnaire was designed carefully after literature review and some of the questions were adapted from similar previous studies. A total of 257 medical students completed the questionnaire and the results are shown with the help of bar diagram, pie chart & percentages.

### RESULTS

Out of the 300 forms, 257(85.66%) are fulfilled properly and 43(14.33%) were found incomplete, hence rejected. 146(56.80%) student like the power point while 111(43.9%) student like the traditional teaching methods (chalk & talk), and none like OHP by their teachers to present in their lecture.

99(38.52%) students find more attractive teaching method with Power point while 158(61.47%) students find more concentration and less destruction with traditional teaching method (Fig 1).

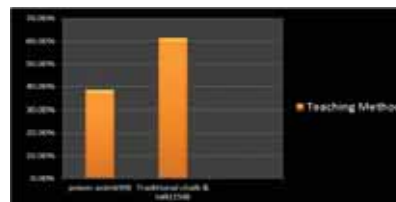


Fig-1: Comparison of teaching methods (attraction & destruction) between PPT and traditional method

When we talk about teacher changing the technique from one method to another we found 138(53.69%) have no difficulty and 58(22.56%) have less understanding, while 34(13.22%) were found to be confuse and 27(10.50%) have no effect during lecture (Fig 2).

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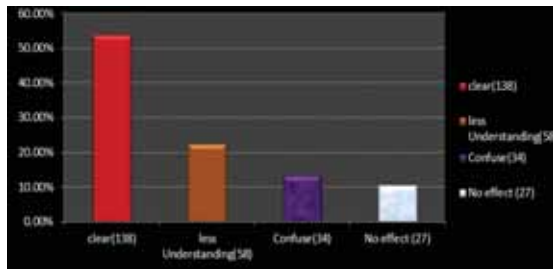


Fig. 2: Opinions of Medical student's for the changing lecture's made from one to another.

Similar to above trend, opinion taken from various students, 230 (89.49%) student would prefer to teach by both methods traditional and PPT respectively while 9 (3.50%) student like only power point and 21 (8.17%) in favour of traditional technique of teaching (Fig 3).

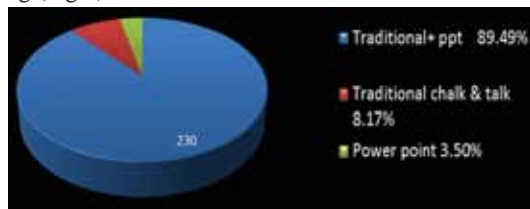


Fig-3: Opinion of medical student's for classroom teaching methods

138 (53.67%) student are in favour of traditional teaching in future while 119 (46.30%) in the favour of ppt. 138 (53.69%) students felt that their teachers were more comfortable with traditional teaching techniques while 119 (46.30%) students felt with PPT by their teachers in the lecture theatre.

On the other hand 168 (65.36%) students found comfortable to note down important points with PPT while 89 (34.63%) with traditional teaching technique.

According to students for the best method of memorizing is traditional teaching technique 178 (69.26%) and 79 (30.73%) are in the favour of PPT.

## DISCUSSION

Teaching is a complex process, in our studies we evaluate the opinion of MIMS students regarding the effectiveness of each mode. It is observed that gradually the use of electronic media has become common in medical colleges.<sup>8</sup> Conservative teaching methods that utilised blackboards have been progressively replaced by electronic, more visually attractive teaching aids.

Both conventional and non-conventional teaching aids were used for undergraduate medical teaching, and the students expressed familiarity with blackboard, PPT, transparency and animation forms of learning.

In our study we find that, students are more attractive in lecture with PPT (56.66%) as compared to chalk and talk (43.19%) technique. But we observe an interesting thing that majority of students (89.49%) had opinion to improve classroom teaching with the use of both PPT + chalk and talk teaching methods. This may be due to that the students memorize easily from diagrams when it drawn on blackboard and explain with the help of PPT.

Animations, having too small time per frame or those containing a lot of extra and irrelevant details in them, may lead to poor understanding.<sup>9</sup> The picturesque presentation of animations must be

facilitated with a verbal narration by the teacher.<sup>10</sup> Also making animations and multimedia videos is a tough task as they take a lot of time to create which can be frustrating.<sup>11</sup>

Many teachers lack the skill in developing their own animations and only rely on web-based ones that can cover limited topics. The study also revealed that most students believed effective teaching to depend on factors other than the teaching aids used.

This enforces the fact that the individual capability of the teacher in conceptually teaching and clarifying a topic is also vital, irrespective of the medium of instruction used.<sup>12</sup>

A good teacher knows to start at a basic point of the course, which students can understand and then lead them gradually through the new and more difficult points.<sup>13</sup>

Therefore, whatever mode of instruction the teacher is using, his/her own personal abilities of verbal oration and oral teaching play a pivotal role in educating the audience and transferring the essence of a topic to them.

## CONCLUSION

The medical students in our survey preferred an 'old meets new' combination of chalk and talk with use of PPT presentation over the other teaching methods. Regardless it seems that teaching aid is depends upon a way of lecture by their teachers.

So now days we require formal training from time to time in teaching technologies to develop good presentation skills.

## APPENDICES

### Appendices: The Questionnaire

- 1) *In a theory lecture which of the following technique you expect from your teachers?*  
a) Power point b) OHP C) Chalk & Talk
- 2) *Which teaching method you find more attractive?*  
a) OHP b) Power point C) Chalk & Talk
- 3) *In your opinion which methodology is best for memorizing?*  
a) Power point b) Chalk & Talk C) OHP
- 4) *In which method, it is easy to note down the important points?*  
a) Power point b) Chalk & Talk C) OHP
- 5) *Which method makes your teacher more comfortable during teaching?*  
a) Power point b) Chalk & Talk C) OHP
- 6) *Which teaching method makes your classmates more attentive & least disturbing to you?*  
a) Power point b) Chalk & Talk C) OHP
- 7) *Through which teaching method you intend to follow in future.*  
a) Power point b) Chalk & Talk C) OHP
- 8) *If a teacher changes his teaching from one method to another, what is the effect of this on your understanding of topic?*  
a) Clear b) Less understandable c) Confusing d) No effect
- 9) *Suggest your opinion to improve classroom teaching with the use of present teaching methods -*  
a) Power point - Y/N. b) Chalk & Talk - Y/N c) OHP- Y/N.  
d) Power point + Chalk & Talk e) Chalk & Talk + OHP

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