

Original Article

Preferred mode of teaching – For attitude, aptitude and effectiveness of dental students



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ABSTRACT

Introduction: The study was designed to assess perception of dental students towards various teaching aids used for providing study method. A comparison between traditional methods of teaching such as blackboard and chalk with lecture delivery using projectors and transparencies and PowerPoint presentation.

Materials and method: First year dental students were asked to fill a questionnaire regarding their perception towards various study method delivery systems. The students were also interviewed after analysis of result.

Results: Majority of dental students (42%) preferred blackboard and chalk whereas 31% preferred PowerPoint presentations and only 26% preferred projectors and transparencies.

Discussion: The students preferred lectures over PowerPoint presentations; however, there was no clear cut demarcation as to superiority of any method. Main preference was interaction with teacher as came out in interview with students. Thus it highlights that in hands of a trained teacher any prop is useful. It also highlights the need for training teachers to better use recent advances in technologies to better deliver and further motivate students.

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1. Introduction

There have been many advances in methods of teaching but still lectures are the most preferred form of learning. Lectures stimulate both visual and auditory senses; also various forms of aids can be utilized during a lecture. A chalkboard is also an effective form of prop for delivering instructions to students. Within the recent years there has also been an incorporation of transparencies with over head projectors, at present the use of electronic presentations has become the most in thing with the help of use of Microsoft PowerPoint and laptops.¹

PowerPoint presentations (PPT) are the most common form of teaching in dental colleges and hospitals. However, there is a division of opinion regarding the superiority of method of teaching.

Various studies have been conducted to assess the effectiveness of teaching methods in various colleges and universities. One study suggested a preference of PowerPoint over traditional use of board and chalk.² Another study showed that PPT was preferred over transparencies and overhead projectors.³ An extensive study done

to compare the superiority of PowerPoint and transparencies over each other showed no difference in opinion of students while in another there was marked difference in opinion and power point by far replaced use of transparencies.^{4,5} Henceforth there is no clear cut opinion as to regarding the preferred method. Also no study gave an insight on the opinion of dental students over the methods of teaching. Therefore the current study was designed to analyze the most preferred method of teaching for dental students and their attitude towards teaching aids.

2. Materials and methods

A survey was carried out in the form of questionnaire designed to establish the opinion of dental students regarding the preferred method of teaching. The study was conducted for first and second year undergraduate dental students of Santosh Dental College and Hospital, Ghaziabad. A total of 100 dental students were incorporated in the study (38 males and 62 females).

The students were asked to fill the questionnaire regarding their perceptions towards different aids of teaching. The students were asked to rank each question on a five-point scale of: agree, strongly agree, no opinion, disagree and strongly disagree. The sums of all grading for each parameter were used to calculate final

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weight score. The overall preference was established using weight average method. Statistical analysis was done using one-way ANOVA test. The students were further interviewed after the analysis of the result obtained.

3. Results

Majority of the students preferred chalk and board method (42%) whereas 31% preferred PowerPoint presentations and only 26% preferred transparencies and overhead projectors. However, the difference in preference over method of teaching aids is not statistically significant ($p > 0.05$).

Important points were noted by teachers from interviews with students that would further prove to be useful for application. Chalk and board method is preferable as it provides an interactive session with the teacher. The lectures are understandable and simple, matter provided is clear and, thus provides better understanding of subject.³

With electronic PowerPoint presentations, lectures delivered are more organized, all information is accessible, less wastage of time in noting down points and with transparencies, lectures are clearly audible and informative.

3.1. Blackboard and chalk

The main reason for preference of chalk and board method is for a better student and teacher interaction. There is a direct connection established between a teacher and student while taking down of notes and making diagrams. Main reason for dislike, however, is poor handwriting of staff or rushing the subject matter and also presence of old and dirty props.

3.2. PowerPoint presentations

PowerPoint presentations provide better quality of presentation and good pictures and diagrams can be displayed, making it more interesting and catchy. But it has certain drawbacks – (1) takes longer time to setup and (2) has issues with power failure. PowerPoint presentation lectures can be too fast at times and without proper interaction may get over the head and becomes very difficult. The darkening of rooms makes it irritable and poses difficulty in taking notes.

3.3. Transparencies and overhead projector

Transparencies and overhead projector covers more information in short duration and avoids issues of dirty blackboards.

However, there are certain drawbacks: (1) it becomes boring and monotonous and (2) there are issues related to poor handwriting and visibility.

Teaching aids preferred by dental students are shown in Fig. 1.

4. Discussion

Teaching is an art. A teacher can teach the students by making the best use of different teaching aids available to make them understand, learn and reproduce well. Thus, in turn, improves both attitude and academic performance of the student.

A lot of new technologies have come into the field of teaching. A judicious use of these newer technologies can be very useful in terms of saving time and provides better material and presentation. An evaluation by the students can provide us with lot of information to work with, so as to provide better and best education to them.

Many such studies have been done in various colleges and universities. In order to apply it in the dental field of education, the current study was designed to know the attitude of students towards various modes of teaching and their point of view regarding the result of the same.

A questionnaire was prepared to evaluate the perception of dental students towards various modes of teaching. A survey was carried out and the questionnaire was filled by first and second year dental students. Each question was ranked on a five-point scale. After analysis of the results the students were also interviewed regarding the opinion on results to get important points from them which may be further used by teachers to improve their method of teaching.

In the current study, chalk and black board was the most preferred method. When the students were asked for their opinion on result, they said that it was the best method to establish student–teacher interaction. However, there were certain drawbacks such as old and dirty props, more time consumption and less topic being covered in the given time.

On this basis, transparencies were considered better as they provided more matter in given time and a proper format could be followed. But, it was boring and monotonous and the students lost interest after certain time, especially, if there was no interaction. However, this mode could be used along with lectures as side aids to highlight certain points.

A study carried out by Chaudry et al. also showed that majority of students (67.1%) favoured a combination of teaching aids.⁶

The second most preferred method was PowerPoint presentations. The students said that it provided better and clear understanding as lot of diagrams and flow charts could be incorporated. But the purpose will be lost if only PowerPoints

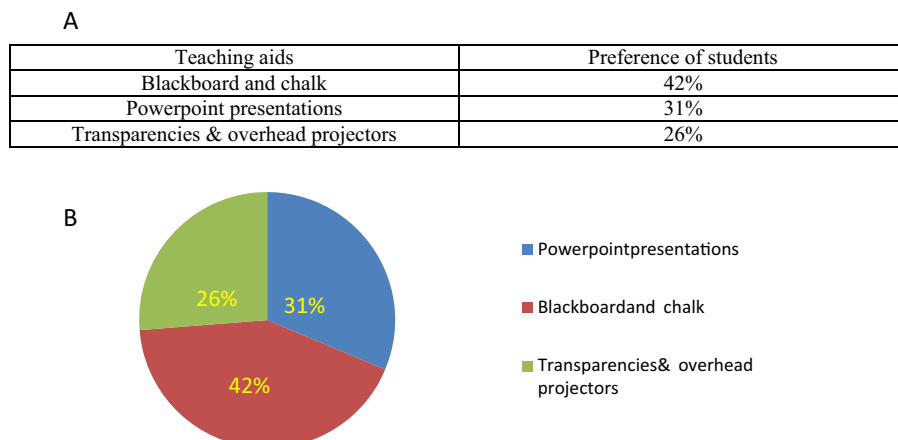


Fig. 1. (A and B) Preference of teaching aids.

were presented and the presenter is not good enough or if no proper explanation or description is provided along with the slides. But they are good in terms of audio visual aids. Less time is consumed but on the flip side, less time is provided for taking down notes and can be too fast at times.⁷

Garget et al. analysed students' opinion and showed that 81% of the students wanted teachers to incorporate audio visual aids in their methods of teaching.⁸

Kulkarni et al. showed that audio visual aids enhance the effectiveness of blackboard teaching.⁹

Certain recommendations that gained attention during discussion with students were:

A good interaction with teacher is essential. First hand info in terms of black board and chalk still provides the best feeling of being taught. Transparencies and projectors should be used along with black boards for highlighting of certain points. PowerPoint can be used as aids in interactive sessions and not the main event. Judicious use of PowerPoint invokes more interest in subject and also has a lasting impact.

5. Conclusion

Considering the results and student responses towards them, it can be concluded that students prefer a combination of teaching aids rather than a single mode of teaching. Among various combinations, blackboard and PowerPoint presentations together are the preferred most as they provide better perception of the subject. Also both complement each other in terms of compensating each other's drawbacks.

Thus, for individual teaching, chalk and black board still remains the most preferred method. Using of overhead transparencies and

PowerPoint alone is not as effective. However, there were no significant differences between the methods and therefore no method in itself can be considered superior. The study hints on a need to review our methods of teaching and provide with proper training to the teachers to deliver the best based on the student needs.

Conflicts of interest

The authors have none to declare.

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