

Traditional Blackboard Teaching And Modern Powerpoint Teaching. Which Is Better? An Opinion By First Year Medical Students For Anatomy Theory Class

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Abstract:

Objectives: To assess the preferred pedagogy i.e. Blackboard teaching, PowerPoint teaching or a combination of both by the first year Medical students, especially for the Anatomy theory lectures.

Methods: A cross-sectional questionnaire based study among 100 first year medical students from Government Medical College & Hospital, Chandigarh, India was conducted. They were asked to fill a questionnaire. The aim as well as the purpose of the study was explained to them. The study was conducted among students who were already exposed to these teaching aids for the last 6 months.

Results: It was found that 54% of the students like combined or integrated method of teaching whereas 40.5% students like Blackboard method and only 5.5% students like power point method. 71% of students felt that it was easier to memorize with traditional method and 75.5% of students thought that with traditional method it is more easy to concentrate and less distracting. Regarding their method of teaching in future - majority of them (54.5%) would prefer the combined method of teaching. 61.5% of them felt that a teacher is more comfortable with power point method of teaching.

Conclusion: The results of the present study suggest that both the pedagogies have some strengths and limitations. It can be concluded that Blackboard along with PowerPoint is mostly preferred by the students. Therefore, integrated (PowerPoint and chalkboard) method of teaching is more suitable tool of teaching and learning in an undergraduate medical school than PowerPoint or chalkboard alone.

Keywords: Blackboard, Power-point, Pedagogy, Anatomy.

I. INTRODUCTION

Learning is the cognitive processes whereby an individual acquires the professional and ethical values, the bio-medical, behavioural and clinical knowledge, reasoning and psychomotor skills necessary for professional competence. Furthermore, learning is relatively permanent change in the behaviour of the learner. This can be established when learners acquire the ability to express their gained insight, realization, facts and new skills. Teaching and learning are active processes occurring concurrently on a continuous basis.

Teaching is an art of facilitating and supporting learning and involves contingent functions. Thomas Angelo has famously said that "Teaching in absence of learning is just talking" i.e. A teacher's effectiveness is about student learning

During the past 15 to 20 years, the teaching method in the classrooms has changed from the traditional chalk and talk to more advance power point teaching (PPT). With the changing trends majority are getting acquainted with the latest teaching methods- like web based learning, problem based learning etc. Traditional classrooms are space bound and learning occurs within a physical boundary. The source of content is shift from

the textbook and the teacher to a student. The teacher is the sender or the source, the educational material is the information or message, and the student is the receiver of the information. In terms of the delivery medium, the educator can deliver the message via the “chalk-and- talk” method and overhead projector (OHP) transparencies. Traditional approach in classroom is of limited effectiveness in both teaching and learning. In such a lecture students assume a purely passive role and their concentration fades off after 15-20 minutes.

First year medical students face a huge challenge as the subject Anatomy itself has many subdivisions like Gross Anatomy, Histology, Osteology, Embryology and to certain extent Surface Anatomy, Radiological Anatomy also. Among these in our university Gross Anatomy and Histology deserves special mention. There are innumerable adversities faced by the new entrants in these subdivisions of Anatomy as they walk into the medical college.

Medical education is undergoing extensive and revolutionary changes in present times. With the advent of innovative teaching methodologies with the use of internet, electronic media, educative videos, conferences, CMEs etc, the traditional methods of teaching Anatomy are facing challenges. There is a need of the hour to address the true need of the students, assessing their problems in learning Anatomy and provide suggestions to solve the problems.

Curriculum review and teaching methodologies evaluation in Anatomy are normally carried out by the university heads senior faculty members and also by MCI (Medical Council of India). There is a need in this hour that we do take the views and regular feedback at appropriate intervals at least at the completion of each anatomical region of the students during their first year tenure and after completing first year into consideration. The students view cannot be totally overlooked and this can be extremely useful to bring about innovations in teaching and learning methodologies of clinical Anatomy.

AIMS & OBJECTIVES

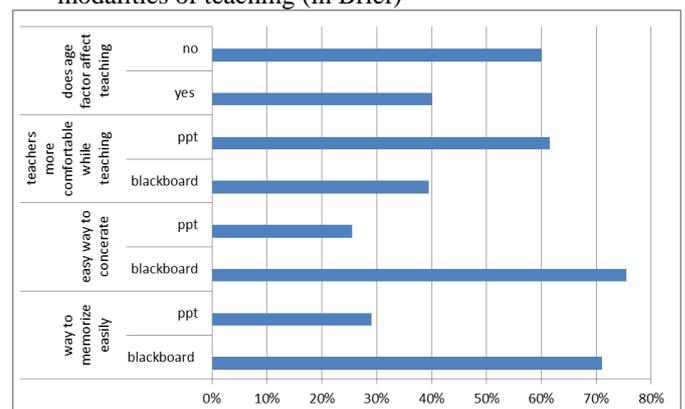
To assess the preferred method of teaching, i.e. Blackboard teaching, PowerPoint teaching or a combination of both by the first year medical students, especially for the theory lectures.

II. MATERIAL & METHODS

A cross sectional study among 100 first year medical students was done in Government Medical College & Hospital, Chandigarh in the year 2017 (January – March). A preformed questionnaire consisting of 9 multiple choice questions and 1 subjective type was distributed among them. The name of respondents was kept optional to improve authenticity of responses. As this was an open study the results are shown in percentages with the help of pie chart & bar diagram.

THE QUESTIONNAIRE

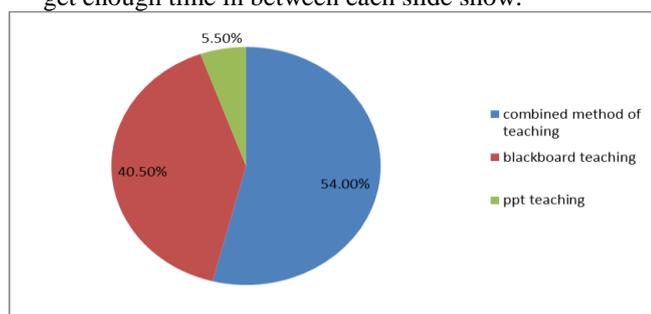
- ✓ Which teaching method you like your teacher to teach?
 - a) Blackboard teaching
 - b) Power point teaching
 - c) Both (a) and (b)
- ✓ In which method, you find it easy to memorize?
 - a) Blackboard teaching
 - b) Power point teaching
 - c) Both (a) and (b)
- ✓ In which method, it is easy to note down important points?
 - a) Blackboard teaching
 - b) Power point teaching
 - c) Both (a) and (b)
- ✓ In which method, you find it easy to concentrate and is less distracting?
 - a) Blackboard teaching
 - b) Power point teaching
 - c) Both (a) and (b)
- ✓ If a teacher changes from one method to another, what is its effect on your level of understanding?
 - a) More clear
 - b) Confusing
 - c) No effect.
- ✓ With which method, you intend to teach in future?
 - a) Blackboard teaching
 - b) Power point teaching
 - c) Both (a) and (b)
- ✓ Is there any effect of age of teacher on his or her method of teaching by either of the method?
 - a) Yes
 - b) No
- ✓ According to you, which method makes your teacher more comfortable during teaching?
 - a) Blackboard teaching
 - b) Power point teaching
 - c) Both (a) and (b)
- ✓ According to you, which method makes your classmate more attentive and less disturbing to you?
 - a) Blackboard teaching
 - b) Power point teaching
 - c) Both (a) and (b)
- ✓ Give your suggestions to improve upon the existing modalities of teaching (in Brief)



Graph 1: Showing different percentages of opinions of students

III. RESULTS

- ✓ It was found that 54% of the students like combined or integrated method of teaching whereas 40.5% students like Blackboard method and only 5.5% students like PPT method.
- ✓ 71% of students felt that it was easier to memorize with traditional method and 75.5% of students thought that with traditional method it is more easy to concentrate and less distracting.
- ✓ Regarding their method of teaching in future - majority of them (54.5%) would prefer the combined method of teaching. 61.5% of them felt that a teacher is more comfortable with PPT method of teaching.
- ✓ 60% of students felt that age is not a factor for teaching with any kind of method.
- ✓ Regarding the answer to the last question, most of them (66%) suggested that the teacher should give them enough time so that they can note down the important points or get enough time in between each slide show.



Graph 2: Showing different percentages of opinions of teaching methods by students

IV. DISCUSSION

In a study done in 2015 by Petimani MS and Adake P, it was found that most students selected blackboard teaching as the best teaching aid when compared to PPT teaching method. And also, the overall preference of students toward the best teaching aid was blackboard (60.43%) and remaining 39.56% preferred PPT teaching method. In another study done by Kumar MP in 2013, it was found that students preferred the use of PPT in lectures more than Blackboard. In the same year i.e. in March 2013, Mishra H, Kumar V and Modi PK had done a similar study and concluded that regardless of the teaching aid used, the impact of a lecture depends on the teacher. A teacher should guide without dictating and participate without dominating. Jadav et al in 2016 concluded that both methods chalk and talk and powerpoint have their own advantages and disadvantages, so a mixed method of teaching appropriate to topic shall be used. Teachers need to get equipped with the modern methods of teaching along with their standard methods of presentation. Combination teaching aid is most satisfied teaching aid because the inherent deficiency of one aid is compensated by the other. If individual teaching aids are considered Blackboard teaching aid is most satisfied because students can follow the teaching and understand the concept effectively as opined by Priyadarshini.

Serial No	Authors & Year	Preferred Method
1	Ethel L.B Novelli 2007	Black Board
2	Meo S. A 2011	Both
3	Mishra H 2013 March	Power Point
4	Gowri PM 2013 October	Both
5	Kumar MP 2013 December	Power Point
6	Present Study 2017	Both.

Table 1: Showing the Preferred Method of Teaching by different authors

PowerPoint presentation is an essential instrument of health professionals in teaching. It offers a tremendous number of options for personalizing slides. Having choices of font, colour, scheme, display options, sound, and graphics providing an opportunity to enhance a presentation in different ways. However, it should be kept in mind that inappropriate use of PowerPoint features can substantially degrade the quality of a presentation. In medical schools, it has also been seen that most of the physicians / teaching faculty do not pay adequate attention to appropriate preparation of PowerPoint due to their busy schedule and assign PowerPoint slide making to their secretarial staff. In such scenario, teaching faculty can neither deliver the lectures adequately, nor can they stimulate the students at active learning standards. A common fault of PowerPoint presentations is the use of slides with too many lines per slide, too many words per line, lines that extend too far inferiorly on the slide, spelling errors, distracting animation effects, too many graphs, and poor colour scheme.

Based on these studies, we have concluded the merits and demerits of both blackboard teaching and power point teaching.

BLACKBOARD TEACHING

Merits: Student-teacher interaction is better, it encourages taking down the notes and diagrams as the students follow the hands of the teacher, Power failure could not interrupt the lecture.

Demerits: Poor handwriting is not legible and sometimes the blackboard is dirty, especially if used several times in the day, and at times the chalk is faulty and it soils the clothes. Also fewer diagrams can be provided and less information can be covered in the lecture.

POWERPOINT TEACHING

Merits: Better quality text and diagrams. Complicated material can be made easy by 3d animations, cartoons and pictures, etc.

Demerits: Power failure, Some teachers go too fast and then students find it difficult to take down the notes and diagrams, dark room so distraction of students easy.

V. CONCLUSION

The results of the present study suggest that both the tools of teaching (PowerPoint or chalkboard) have some strengths and limitations. Summarising the results, it can be concluded that the preference of the students when the lecture is taken is

by Blackboard method followed by PowerPoint one. Therefore, integrated (PowerPoint and chalkboard) method of teaching is more suitable tool of teaching and learning in an undergraduate medical school than PowerPoint or chalkboard alone. This study is thus an attempt to show that there is a constant need for modification of the attitude of teaching Anatomy, planning and scheduling of lectures with keeping in mind abiding the syllabus and curriculum by Medical Council of India for undergraduate Anatomy teaching.

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