

## ORIGINAL ARTICLE

# Perceptions of Medical Faculty towards Teaching Aids- Blackboard versus Power Point (PPT)

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## Abstract:

Lectures were the most common form of teaching-learning method in medical school. It has its own merits and demerits. Use of black board in lecture was traditional method since ages. With the advance of technology, use of Power point presentation and smart boards became popular and preferred teaching aid than black board. In recent times the use of electronic media has become commonplace in Universities, as well as secondary and primary schools. Recent studies have sought to determine whether using PowerPoint or other such media are superior forms of delivery for lecturing over the traditional 'chalk and talk'. Many studies have reported about perceptions of students towards teaching learning aids PPT and chalk board. Present study was done to know perception of medical faculty (Clinical & Pre, Para clinical) towards teaching aids black board v/s Power Point Presentation. Total 90 faculty members were interviewed by prepared questionnaires using Likert scale. 87 faculties felt that PPT is an appropriate instructional aid for teaching present generation as against 59 for black board teaching. Majority of faculty agree that PPT helps better to organize the class instructions than chalk and talk method. 46 out of 90 faculty said that they need more time to prepare for the classes if they have chalk and talk as instructional aid as against 26 for PPT. Majority of them (84) feel that current generation of students usually prefer PPT as instructional aid than black board. Many agree that. Both instructional aid helps the students to be attentive throughout the session.

**Keywords:** Perception; Teaching aids; Blackboard; Powerpoint.

## Introduction:

Lectures have been the most common form of teaching and learning since ancient times.<sup>1</sup> Although discussion methods in small groups appear to be a superior method of attaining higher-level intellectual learning,<sup>2</sup> in India it is almost inevitable that medical students will experience lectures, as the number of students attending medical schools is too large in comparison to the teaching staff available. Hence, the lecture is here to stay, so it is immensely important that it should be as effective as possible.<sup>3</sup> During a lecture, both the visual and auditory senses are used to absorb information and here assistance in the form of a visual aid is useful.<sup>4</sup> A chalkboard is uniquely effective as a medium of classroom instruction and has been used commonly in lectures, while the use of transparencies with an overhead projector (TOHP) was also popular.<sup>5</sup> The once-popular 35-mm slide projector and TOHP seems to be headed for extinction. Recently the use of electronic presentations has become common and Microsoft PowerPoint (PPT) is now the most popular package

used out of all electronic presentations.<sup>6</sup> PPT-based lectures are increasingly being delivered in medical colleges as in other colleges and universities.<sup>7</sup> However, educationists are divided on the superiority of PPT with respect to the traditional chalk and talk method.<sup>8</sup> Various studies have been conducted to assess the effectiveness of lectures using PPT or other such media in comparison to lectures using chalkboard, or the use of TOHP. According to one study, traditional classes with blackboard presentation were the most favored by students from biomedicine and medicine courses<sup>9</sup> while another study observed that most students preferred PPT presentations over traditional presentations (eg, chalk and talk).<sup>10</sup> It has been suggested that the use of PPT can help teachers to 'help their students learn'.<sup>11</sup> Hence, there is a mixture of views based on the studies and it is not clear whether a particular lecture delivery method is superior to others. Moreover, most of these studies have been conducted in the developed countries and the area has not really been explored in the developing countries where factors like power disruptions are important considerations. Therefore, the present study was planned in a medical college in the state of Pondicherry, India, to assess the faculty's perceptions of the impact of PPT presentations in lectures compared with the traditional chalk and talk method.

## Materials and methodology:

This cross sectional study was conducted in a medical college

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using the structured and pre tested questioner. The faculty involved in teaching (Pre, Para & clinical departments) was included in the study. The structured and pre tested questioner was administered with closed ended questions to 90 consented faculty of various departments in medical college. The closed ended questions have been framed using five-point Likert Scale (Strongly agree, Agree, Neutral, Disagree, Strongly disagree). As a part of the questionnaire validation process, we invited three faculty and ten students, to pilot test the initial survey draft. The questionnaire was modified based on their feedback and used for collection of data.

The data obtained were coded and entered into MS-Excel 2010. The data was analyzed using descriptive statistics like mean, median, standard deviation and percentages.

**Results:**

A total of 90 faculty participated in the study. Majority of the faculty were from pre clinical and Para clinical departments. 60 % of the staff were females and the remaining 40 % were males. 23 % of the faculty were Professor, 25% were Associate Professor and remaining 52 % were Assistant Professor and tutor.

As seen in table 1 and 2, 20% of the staff strongly agreed that blackboard as an appropriate instructional aid whereas 56% of the staff perceived that PPT as an appropriate instructional aid. The perception of faculty regarding preparation for the class was that 53% disagreed for no much preparation required when black

board is used and 47% agreed that not much preparation required when PPT is used.

35.5% of the teaching staff agreed that they like to use PPT as a teaching aid. 49% of the study subjects agreed that they feel professional when using a black board where as 59 % perceived PPT to be more professional.

**Discussion:**

The teacher's job is to find a way to help students understand something new. They do this by interpreting the information in ways that make it digestible, relatable, and meaningful. They convey information largely by discussion, but sometimes media other than vocal delivery or through the greatest efficacy they possess. The four most common modalities for conveying information are visual, verbal, aural, and kinesthetic. A good teacher tries to use all four. An effective teacher can bridge the gap between the learner and the knowledge being taught. He knows what their instructional level is and sets conditions for success. There is an intimate connection between the teacher and the learner. Effective teaching is a dynamic relationship between a teacher and a student. It is creating conditions for success based on the needs of the learning. There is no more complicated and

Statements regarding perception	Black Board							
	Strongly agree		Agree		Dis-agree		Strongly disagree	
	No	%	No	%	No	%	No	%
I feel it is an appropriate instructional aid for teaching present generation	18	20	41	45	25	28	06	07
It helps to organize the class instructions	09	10	43	48	33	37	05	06
I usually look for availability of this instructional aid for my classes	19	21	38	42	26	29	07	08
I often use old prepared content for taking same topics for different batch of students every year	01	01	14	16	46	51	29	32
I need not prepare much for the classes if I have these instructional aids	02	02	10	11	48	53	30	33
I prefer to take class only with this instructional aid	11	12	20	22	43	48	16	18
This aid makes me feel confident when delivering instructions	21	23	43	48	22	24	04	04
I feel that current generation of students usually prefer this instructional aid	05	06	23	26	47	52	15	17
With this aid I can make the effective use of class time	17	19	32	36	33	37	09	10
This instructional aid helps me to cover vast content	02	02	22	24	51	57	15	17
This instructional aid helps the students to be attentive throughout the session	21	23	33	37	27	30	09	10
Technical problems/discomfort associated with this instructional aid often troubles the teacher	02	02	15	17	50	56	23	33
This aids my ability to present the information in a clear , organized & understandable manner	17	19	46	51	18	20	09	10
I feels professional with this instructional aid	17	19	41	45	24	27	08	09
This aid promotes my ability to express	31	34	47	52	08	09	04	04

Statements regarding perception	Power-Point (PPT)							
	Strongly agree		Agree		Dis-agree		Strongly disagree	
	No	%	No	%	No	%	No	%
I feel it is an appropriate instructional aid for teaching present generation	50	56	37	41	03	03	0	00
It helps to organize the class instructions	49	54	37	41	04	05	0	00
I usually look for availability of this instructional aid for my classes	41	45.5	41	45.5	07	08	1	01
I often use old prepared content for taking same topics for different batch of students every year	10	11	26	29	40	44	14	16
I need not prepare much for the classes if I have these instructional aids	12	13	42	47	26	29	10	11
I prefer to take class only with this instructional aid	17	19	32	35.5	32	35.5	09	10
This aid makes me feel confident when delivering instructions	33	37	48	53	09	10	0	00
I feel that current generation of students usually prefer this instructional aid	48	53	36	40	06	07	0	00
With this aid I can make the effective use of class time	38	42	48	53	02	02	02	02
This instructional aid helps me to cover vast content	54	60	31	34	02	02	03	03
This instructional aid helps the students to be attentive throughout the session	20	22	34	38	26	29	10	11
Technical problems/discomfort associated with this instructional aid often troubles the teacher	34	38	39	43	13	14	04	04
This aids my ability to present the information in a clear , organized & understandable manner	39	43	45	50	06	07	0	00
I feels professional with this instructional aid	30	33	53	59	06	07	01	01
This aid promotes my ability to express	28	31	49	54	11	12	02	02

finer art to understanding this relationship and bridging this gap. Due to advancement in the field of technology and the same are being incorporated in the medical education system. Hence the PPT presentations, an advancement in black board teaching is mode widely followed and also accepted method of teaching. PPT has become the common presentation and teaching tool in educational and professional settings all over the world. It provides encouragement and support to staff by facilitating the structuring of a presentation in a professional manner. In the present study 51.5% of the staff preferred to take class using PowerPoint the reason being enabling the user to create dynamic, informational slides through the use of text, graphics, and animation. But in a study done by Vikas Seth et al.<sup>15</sup> only 30.64% and in a study done by Nicholson DT<sup>16</sup> 40% of faculty used PPT for their teaching at least some occasions.

In our study highlighting the perceptions of teachers regarding the teaching aids showed that the maximum no. of teachers (56%) felt that PPT is an appropriate instructional aid for teaching present generation. 54% of faculty felt that the PPT helps to organize the class instructions. Similar observations were expressed in Vikas Seth et al study.<sup>15</sup>

Most of the faculty members (53%) agreed that the current generation of students usually prefer this instructional aid which was even echoed by the studies done by Nicholson DT,<sup>16</sup> Garg A et al.<sup>17</sup> and Vikas Seth et al.<sup>18</sup>

There was an agreement among 60% of the faculty that this instructional aid helps them to cover vast content and promotes their ability to express (49%). Similar opinions were expressed in the study done by Nicholson DT.<sup>16</sup>

Nowadays students and learners need a way to gain their knowledge in easy and interactive ways than before. The power point was an innovating tool that surged in the '20s. It changed, the way the classroom was made of giving the student audio-visual support. The communication and teaching tools have become interactive through the necessity of the market. The student and trainee stay in front of a screen over few hours, so the education must find a way to be more "aggressive", in terms of solutions and interactive proposal. The Learning Management systems, the evolution of the traditional education way, are the solution for this matter.

Blackboard is a basic LMS that offers many integrations and solutions to the users and institutions; it's been used a long time ago since the LMS started in the market. While using the blackboard, a teacher personally repeats to the students what he read and understood about the subject he teaches. It allows for a lower speed of information output (writing speed which is slower than reading speed), which in turn encourages note taking. This was seen as perception of the 71 % of the teachers in the present study who felt confident while using a black board during their teaching. Similar observations are there in studies done by Ethel LB Novelli, Ana Angélica H Fernandes,<sup>19</sup> (77.5% of students) and Vikas Seth et al.,<sup>18</sup> (41.83%) of dental students were favoring the traditional blackboard teaching. Both Power Point and blackboards are mere tools. And their use (or abuse) is determined by the skill of the teacher.

To summarise, the choice of the tool must be dependent on what you're trying to achieve. PowerPoint and blackboard serve different purposes.

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