

**USE OF POWERPOINT PRESENTATION FOR DEVELOPING COMPETENCIES OF  
MEDICAL STUDENTS AS A TEACHING LEARNING METHOD****Dr. Shreya Chaudhuri<sup>1\*</sup> and Dr. Sharmila S. Raut<sup>2</sup>**<sup>1</sup>Asst. Professor, Department of Microbiology, Indira Gandhi Government Medical College, Nagpur.<sup>2</sup>Professor and Head, Department of Microbiology, Indira Gandhi Government Medical College, Nagpur.**\*Corresponding Author: Dr. Shreya Chaudhuri**

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Article Received on 07/04/2018

Article Revised on 28/04/2018

Article Accepted on 18/05/2018

**ABSTRACT**

Different methods of teaching and learning are being employed among medical students. This study was conducted to evaluate PowerPoint presentation as a Teaching Learning method among medical students. It was conducted amongst the interns of a Government Medical College of Central India. A Session of PowerPoint presentation was conducted on Biomedical Waste Management among the interns. Pre-test and Post-test evaluations were done before and after the presentation. Feedback was also taken from students. **Result:** Before and after the presentation the scores of pre and post-test evaluation showed a significant difference. The students gave an opinion that PowerPoint presentations gave an audio visual impact of what is being taught and helps in memorising and recalling easily. All agreed that PowerPoint presentations are effective methods of teaching. They agreed that it is student friendly method. **Conclusion:** PowerPoint presentations not only helps to understand the teaching process better but also encourages easy recalling because of colourful pictorial visual impact, hence improving the quality of medical teaching.

**KEYWORDS:** PowerPoint Presentation, teaching learning method, medical teaching.**INTRODUCTION**

In medical education, understanding a topic is not enough, but reproducing it appropriately as and when required is equally important. Teaching process has to go along with learning. The learning is poor if lecture is nonrelevant, lecturer is poor communicator and students get bored if lecture is too lengthy.<sup>[1]</sup> Over the years, new modalities of teaching-learning have been added to improve learning outcomes.<sup>[2]</sup>

Among the teaching and learning methods employed in education, audio visual media are the most popular. These media provide a multisensory experience.<sup>[3]</sup> The different senses tend to play a key role in improving the memory of the student who can easily remember the content that is presented.<sup>[4]</sup> Teaching in primitive societies occurred through the oral tradition and memory retention. The story of technology in teaching and learning is a long one extending from the misty past of the early ages of human civilization to the present times. Before the introduction of PowerPoint a lot of time was spent drawing and writing on the board/transparencies /slides. Bob Gaskins and Dennis Austin developed the first version of PowerPoint called presenter in 1984 and Microsoft released the first version of the software in the year 1990. The introduction of PowerPoint thus saved millions of man-hours every year, as well as was found to be a new teaching method.<sup>[5]</sup>

The present study was taken as a pilot project to reveal the effectiveness of PowerPoint presentation as a teaching learning method, for training interns regarding biomedical waste management at a government medical college in Central India.

**MATERIAL AND METHODS**

The study was conducted at a government medical college of Central India, among the interns (batch 2013), who were about to start with their clinical training in wards. The training on biomedical waste management was given to the students via PowerPoint presentation showing them the actual colour coded biomedical waste bags and pictorial depictions of waste segregation and disposal. Pre-test and Post-test sessions were conducted before and after the presentation. Following which, feedback was taken from the students by providing pretested and validated questionnaires (Table 2).

**OBSERVATION AND RESULTS**

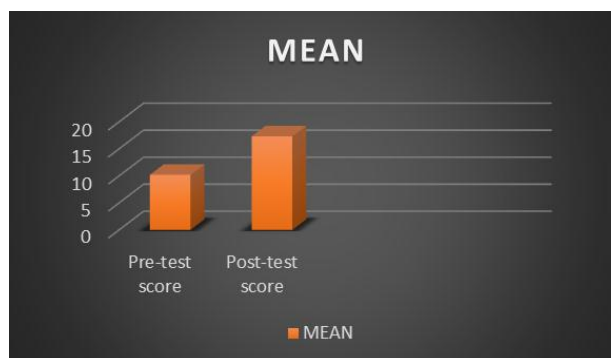
In this study, 100 Interns participated and gave their feedback.

The data obtained was analysed using SPSS 21.00 Version.

We applied paired T test for comparing the pre-test and post-test scores of the interns.

**Table 1. Analysis by paired T test for comparison between Pre-test and Post-test score.**

	Mean	N	Std. Deviation	P value
Pre-test score	10.1700	100	1.85894	< 0.00001
Post-test score	17.3000	100	1.81742	

**Fig 1: Comparison of pre-test and post-test score.**

**Inference:** (Table 1) The p value obtained from paired T test, revealed that the difference between pre-test and post-test scores were statistically significant.

**Table 2: Perspectives of the Interns on different aspects of PowerPoint Presentation.**

	Item	Interns who, Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	I can easily memorise and re-call after the PowerPoint presentation.	1	5	14	58	22
2.	I enjoyed learning from the Presentation	0	3	10	61	26
3.	I find that PowerPoint presentations work better than traditional chalk and board or OMR sheet presentations, as teaching learning method	0	1	8	43	48
4.	PowerPoint presentations helped to correlate with practical working in wards	2	8	7	48	35
5.	The pictorial depictions were helpful to memorise the topic	1	3	6	56	34
6.	I find this method student friendly, especially in large groups	0	3	1	32	64
7.	I would recommend such presentations for further trainings	0	0	6	33	61

Table 2 shows, out of the total 100 interns who attended the PowerPoint presentation, 80 (80%) could easily memorise and re-call the topic following the presentation and 87 (87%) enjoyed learning from it. 91 (91%) interns found PowerPoint presentations work as better teaching learning method, than traditional chalk-board or OMR sheet. 83 (83%) interns could correlate with practical working in wards. Huge agreement (90%), was there among interns regarding the fact that real pictorial depictions are very helpful. Almost all the interns (96%) found it to be a student friendly teaching method, especially when students are in large groups and 94 (94%) would recommend PowerPoint presentations for further trainings.

## DISCUSSION

PowerPoint presentation is a widely used programme that originated in the world of business but has now become commonplace in the world of educational technology.<sup>[6]</sup> Study conducted by Kamal sigli et al,

proved PowerPoint presentation to be an effective tool for teaching, concordant with findings of our study.<sup>[7]</sup> Similarly, study conducted by Gambhari et al also showed that students exposed to PowerPoint presentation (PPT) performed better than their counterparts taught with chalkboard method of teaching. The innovative technology using PPT, was found to be effective in teaching Technical Drawing and benefits high, medium and low achievers students.<sup>[8]</sup> According to Dr. Sajjad, "Research indicates that students are the most qualified sources to report on the extent to which the learning experience was productive, informative, satisfying, or worthwhile."<sup>[9]</sup> Our study was also conducted on interns (students) who were there to learn about biomedical waste management and its application in wards. A review by Xingeng, stated that PowerPoint presentations have advantages as producing better visual effects, high efficiency in information transfer, precise and systemic knowledge structure, which could also be noted in the present study. However, Xingeng also mentioned

disadvantages of PowerPoint, like it may be induced by irrelevant information in slides, neglect of interaction with students, uncontrolled speed in presenting or too strict order of slides, which was not encountered in our study.<sup>[10]</sup>

## CONCLUSION

Use of PowerPoint presentations as a teaching learning method is very effective as it helps to easily memorise and reproduce the topic. It could be a great teaching tool for students in large groups, especially in medical colleges, as it can present an actual pictorial depiction of clinical scenario, hence leaving a visual impact. Hence, use of PowerPoint presentation as teaching learning method should be encouraged particularly in medical colleges.

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