

## Participatory tutorial as teaching technique for medical students

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### Abstract

**Introduction:** Participatory tutorial is a technique in which student-led seminars are held. In such small group teaching method understanding and critical thinking of the subject is more than didactic lectures.

**Objective:** To introduce innovative teaching technique & assess satisfaction of students.

**Results:** Total 150 students participated in the seminar. Out of students participated, 91% were satisfied with this teaching technique. 89% students agreed that it assisted their learning and 88% students agreed that it stimulated their thinking process.

**Conclusion:** Participatory tutorial is one of the form of interactive teaching method. Implementation of such method would be beneficial for students and would help them to understand the subject more interestingly.

**Keywords:** Participatory tutorial, Innovative teaching technique, Student led seminars, Interactive learning.

### Introduction

A tutorial can be taken in many forms, ranging from a set of instructions to complete a task to an interactive problem solving session (usually in academia). A tutorial is a method of transferring knowledge and may be used as a part of a learning process. It is an important tool as it provides students with an ideal setting in which they can clarify misunderstandings, test hypotheses and evaluate ideas.<sup>1</sup> More interactive and specific than a book or a lecture, a tutorial seeks to teach by example and supply the information to complete a certain task. This educational intervention has many advantages when compared to other strategies such as large group lectures. Specifically, it encourages a more complete understanding of a subject rather than superficial learning where the emphasis is on memorization.<sup>1</sup>

A tutorial can be taken in many forms, ranging from a set of instructions to complete a task to an interactive problem solving session (usually in academia). It supposes that on one hand a comprehensive knowledge of particular topic is imparted and on the other hand, to teach the methodologies or skills of special work related to the seminar topic.<sup>2</sup> In majority of the medical colleges in India theory classes are being taken by didactic lectures, which is a passive method of teaching. In this method, there is little retention of memory and student attention decreases after 20 minutes. The interactive teaching strategies may involve range of activities to engage the learners in the teaching-learning process.<sup>3</sup>

Therefore, there is a need to introduce interactive teaching methods like interactive student-led seminars and small group discussions.<sup>4</sup> Literature identifies certain important issues with respect to challenges and limitations of conventional tutorial method.

The departments of medical colleges have a greater responsibility in making the study methods of their subject innovative, interesting and participatory for the undergraduate students.<sup>2</sup> The prime focus is to make learning multi-directional by involving other students and tutors. Exploring students' point of view, allowing time for

discussion, and inculcating self-directed, reflective learning skills remain the mainstay of an effective tutorial session.<sup>5</sup>

### Aims and Objectives

1. To implement interactive teaching technique during tutorials among medical students.
2. To find out the satisfaction of participatory tutorial technique among students.

### Materials and Methods

The present cross sectional study was conducted in private medical institution in central India. The study was carried out among the students of seventh semester who were posted in Department of Community Medicine. After the Ethical clearance from IEC and Informed consent from students was taken, the batch of 150 students was divided into 20 groups, i.e. 7-8 in each group. They were allotted the topics which were already covered in previous semesters, the schedule of which was displaced on the board in advance which was randomly selected by the students. The one single question was given to each group on a piece of paper at the start of tutorial. The each group of 7-8 students was expected to answer one question with 3-4 sub questions in succession, in this way the complete topic was covered within 45 minutes.

The questions were formulated in such format, that full topic would be covered in 18-20 questions. These questions were formatted in such fashion that they would cover LAQ, SAQ and MCQs related to that topic for their examination. The teacher had power point presentation with question on one slide and its expected answer on successive slide. The students were also given opportunity to open their books at the start of tutorial so that they can answer them with confidence. If the question was not answered by one group, it was passed to next group. Then expected complete answer displayed on power point slide so that they could know the lacunae's before teacher moves to next question till the topic is covered in specified time.

The complete activity had dynamism and active student's participation with teacher working as facilitator. The tutorial was summarized by teacher in the end and the students were given the feedback forms to be submitted to their teacher.

Scoring system was used to assess the satisfaction of students with score 1 and 2 for very satisfactory and satisfactory respectively. While dissatisfaction was assessed by score 3 and 4 i.e. dissatisfied and very dissatisfied respectively. The data was analyzed by using percentages and mean deviation by using EPI info™ statistical software.

## Results

Amongst the total 150 students, 53% ranked such tutorial as very satisfactory and 38% ranked them as satisfactory. (Total-91%)

**Table 1:** Satisfaction of students about the participatory tutorial teaching technique.

Question	Mean	SD	Rank			
			1 - Very Satisfied	2 -Satisfied	3 - Dissatisfied	4 - Very dissatisfied
Overall how you rank this tutorial?	1.604 (40.1%)	0.753	65 (52.8%)	44 (35.7%)	11 (8.9%)	3 (2.4%)
How was your Learning?	1.782 (45%)	0.719	44(35.7%)	66(53.6%)	9(7.3%)	4(3.2%)
Are your satisfied with your participation?	1.862 (47%)	0.836	47(38.2%)	53(43%)	17(23.8%)	6(4.8%)
Had this tutorial added new knowledge about subject?	1.725 (43%)	0.796	57(46.3%)	50(40.6%)	11(8.9%)	5(4%)
Does would it helped in your examination preparation?	1.903 (48%)	0.883	47(38.2%)	53(43%)	14(11.3%)	9(7.3%)
Had this tutorial would helped you for preparation of MCQ's?	2.064 (52%)	0.858	36(29.2%)	54(43.9%)	26(21%)	7(5.6%)
Had this tutorial helped you in generation of the subject interest?	1.854 (46%)	0.771	45(36.5%)	61(49.5%)	12(9.7%)	5(4%)
Had this tutorial changed your attitude towards this subject?	1.93 (48%)	0.759	40(32.5%)	60(48.7%)	20(16.2%)	3(2.4%)
Had this tutorial helped you to improve your practical skills?	1.927 (48%)	0.839	46(37.3%)	53(43%)	18(14.6%)	6(4.8%)
Please rank your teachers approach in preparation of this tutorial	1.483 (37%)	0.651	81(65.8%)	35(28.4%)	5(4%)	2(1.6%)

## Discussion

In this study we found that almost half of the participants were satisfied with this new teaching technique. Another Study conducted by Dr. Helena Ferris from Trinity College, Dublin, Ireland<sup>1</sup> also highlighted the importance of active participation & autonomous learning in medical education to develop participative leadership amongst students. Another related study conducted by Ardashir Afrasiabifa in Iran,<sup>6</sup> had

reported similar results about satisfaction of this method of learning.

Maximum number of students reported that they gained new knowledge and got benefited. Similarly, Dr. Kasi Babu A. et al from Andhra Medical College, Vishakhapatnam<sup>2</sup> also reported the benefits of interactive learning techniques for self-development among students.

In this study most of the participants had an opinion regarding tutorial technique that it helped them in preparation of examination of subject. Richard B Golbloom from McGill University, Montreal<sup>7</sup> had reported that tutorial system serves an important role, complementing the normal curriculum in undergraduate medical education. Eiman Abdel Meguid et al<sup>8</sup> in their study reported similarly that this method helped students to achieve a better insight into students' understanding of the concept.

Dr. Supriya Panda et al from MIMS, Vizianagram AP,<sup>4</sup> reported that 80% of students agreed that it stimulated them to think critically while 94% agreed that it assisted their learning. This teaching method was reported to be more effective in deep understanding of the subjects and development of communication skills amongst students.

Author found that maximum number of participants felt that it has changed their attitude towards the subject. Similarly, Dr. Tripti K Shrivastava from DMIMS, Wardha<sup>5</sup> also highlighted the importance of tutorial in developing professional competencies such as interpersonal & self-directed learning skills & advised such tutorials to be based on local need & its relevance among medical students.

## Conclusion

Participatory tutorials with the open book approach, around 88% of students were satisfied. (Mean 1.604 with the SD 0.753).

The use of the new trend in education i.e. participatory tutorial technique might enhance the academic achievement of the students. This teaching program gives more scope for having more interactions in the class-rooms thus making the learning process more interesting and joyful.

This study acknowledges for the permission & support from Dean & the constant encouragement from department of MET.

## Acknowledgement

We would like to thank all the participants who consented to participate in the study.

## Source(s) of support

Nil.

## Conflict of interest

None.

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