Comparative study between interactive structured tutorials and traditional tutorials in Forensic Medicine subject

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Abstract

**Background:** Medical education and delivery of it to students are varying across the globe in one or other aspects. Tutorial is one of the best methods in comparison to didactic lecture for better impartation of knowledge among students. The current study was taken up to compare the traditional tutorial with interactive structured tutorials making use of the principles of active learning.

**Material and methods:** 28 students of 2nd MBBS were exposed to one topic via traditional tutorial first and after one week new topic was covered via interactive structured tutorial with use of innovative teaching learning method like Think-Pair-Share. Before each tutorial, students were assessed with a pre-test having validated multiple choice questions (MCQs) and short answer questions (SAQs). Post - test was conducted for each student after the tutorials to assess recall. At the end of each tutorial session, students’ feedback was taken in the form of a questionnaire. Comparison of pre and post test scores of students was done using Wilcoxon’s sign rank test. Statistical analysis of feedback questionnaire filled by the students was calculated for evaluating attitude using Wilcoxon’s sign rank test.

**Results:** Students scored significantly more in post-test after both traditional and interactive structured tutorial. 25% of students scored less in post-test and 31% had same pre- and post-test scores in the traditional method as compared to interactive structured method where only 5% scored less in post-test and 9% had similar pre- and post-test scores.

**Conclusion:** Structuring the tutorials and making it interactive via incorporating innovative teaching learning methods like think, pair and share into it, allowed students to discuss amongst themselves as well as with the teacher in a guided manner which resulted in better understanding of subject as well
as promoted self learning. Interactive structured tutorial is far better than traditional tutorial in comparison.

**Key words**
Forensic Medicine, Traditional tutorial, Interactive tutorial.

**Introduction**

Medical education and delivery of it to students are varying across the globe in one or other aspects [1]. Various teaching learning methodologies have been utilized in medical education, which is an active area of educational research since years. Tutorial is a method of transferring knowledge and may be used as a part of a learning process. More interactive and specific than a book or a didactic lecture; a tutorial seeks to teach by example and supply the information to complete a certain task. In present scenario, tutorials lack structural uniformity and do not encourage participation of all the students. The principles used in active learning are said to promote student interactivity as well as encourage them to become self learners [2, 3]. Therefore, the current study was taken up to compare the traditional tutorial with interactive structured tutorials making use of the principles of active learning.

**Materials and methods**

Present study involved participation of 2nd MBBS students in subject of Forensic Medicine. Batch of 28 students was exposed to one topic via traditional tutorial first and after one week new topic was covered via interactive structured tutorial with use of innovative teaching learning method like Think-Pair-Share. Both topics taken for tutorials were already covered in theory via didactic lectures.

**Format of interactive structured tutorials**

**Interactive**
- Think-Pair-Share technique was used with active discussion.

**Structured**
- Defining the specific learning objectives of tutorial
- Structuring of content by classifying it in must to know – nice to know – good to know fashion
- Identifying difficulty index of topic and repetition of terms and concepts which require more in depth understanding.
- Summarization of important points at the end.

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**Results**

Students scored significantly more in post-test after both traditional and interactive structured tutorial. 25% of students scored less in post-test and 31% had same pre- and post-test scores in the traditional method as compared to interactive structured method where only 5% scored less in post-test and 9% had similar pre- and post-test scores. Significant number of students found the interactive structured tutorials to be better organised in terms of content, pace and presentation, ability to participate in the discussions and understanding of the topic. Also a significant number of students said they would prefer the structured interactive method of tutorial over traditional tutorials.
Discussion

The current study showed that by modifying the format of the tutorials, making it interactive and incorporating the innovative teaching learning technique like think, pair and share into it make it far better than traditional tutorial. When tutorial could be made more interactive it resulted in better recall of information in more number of students. Srivastava, et al. studied effect of interactive intra group tutorials, where they found significant difference in the post-test scores by interactive method as compared to traditional method [4]. Saleh, et al. compared didactic lectures with interactive sessions in small groups and found that students in interactive sessions, performed better. They also found a positive attitude among students toward interactive sessions [5]. When students learn to voice their ideas, it becomes the first step to their self-learning. Think, pair and share is a simple yet effective technique to ensure participation of all the students in a small group. Structuring of tutorials increases their effectiveness as well as results in less wastage of time.

Conclusion

Structuring the tutorials and making it interactive via incorporating innovative teaching learning methods like think, pair and share into it, allowed students to discuss amongst themselves as well as with the teacher in a guided manner which resulted in better understanding of subject as well as promoted self learning. Interactive structured tutorial is far better than traditional tutorial in comparison.

References