Microteaching of Post Graduate Medical Students - A Modern Innovation in Teaching and Learning

**ABSTRACT**

Introduction: Microteaching is a concentrated, focused form of peer feedback and discussion that can improve teaching strategies.

Aims and Objectives: The purpose of this study was to evaluate use of microteaching for postgraduate medical students and to sensitize the faculty members towards microteaching.

Material methods: In this study, two seminars were conducted in two different departments in two different medical colleges in a period of two months from July 2015 to August 2015. Eight post graduate students participated in the study. The students underwent 2 microteaching sessions on two consecutive days. They received feedback on both the days. They were assessed on same points on both the days. The faculty members were asked to give feedback about the microteaching sessions.

Results: There was improvement in presenting skills by the students on second day. All the students had very exciting experience. All the students showed positive attitude towards microteaching sessions. Faculty members also felt that the session was quite helpful for postgraduate students while they present the seminars in various conferences, workshops, CME etc.

Conclusion: In medical colleges this microteaching session which is teachers training programme, should be implemented effectively. The post graduate medical students who are future teachers in medical colleges will have benefit of improving presenting skills.

**INTRODUCTION**

Medical education shows major changes since past decade. Presentations in various conferences, seminars, workshops, clinical meets have become must in medical field. Most of the health professionals, doctors are unaware about the preparation of their presentations and systematic way of presentation and are likely to face difficulties while presenting in front of a large group audience. Emphasis is being given on self-directed study. The application of new learning technologies are evolving.

In all medical colleges the seminar presentations by post graduate and undergraduate students is a routine, as a small group teaching method.

Teacher education is an integral component of the educational system. Medical teaching is different from school or college teaching. Medical teachers do not possess bachelors or master's degree in education, while school and college teachers are required the same degree to become eligible for their posts. For medical teachers it is not necessary to possess degree in education or to undergo prior special training in medical teaching.

The art of teaching is a complex process that facilitates and influences the process of learning. Micro teaching, a teacher training technique currently practiced worldwide. It aims at development of competence in teaching skills through the practice of microteaching.

Microteaching is a concentrated, focused form of peer feedback and discussion that can improve teaching strategies. It was developed in the early and mid 1960 by Dwight Allen and his colleagues at the Stanford Teacher Education programme. (Politzer, 1969).

The first reference to Microteaching in India was in 1967 when Tiwari initiated a project on Microteaching in Central Pedagogical Institute of Allahabad.

In medical colleges teachers are the major source of information but conventional methods of medical teacher training are not available. Microteaching improves teachers' behavior in teaching and learning environment. In microteaching trainee teachers find opportunities to develop skills in teaching. Further by observing the presentations of their friends they find a chance to observe and evaluate different teaching strategies & improve themself.

Since today's postgraduate medical students are future teachers in medical colleges, so they should improve their communication and develop their teaching abilities. To encapsulate the interest in systematic teaching this attempt was made.

**AIM AND OBJECTIVES**

The aim of this study is to evaluate the use of microteaching sessions for post graduate medical students who present the seminar in their respective department.

- To observe response of faculty members towards microteaching.
- To sensitize post graduate students and junior faculty about advantages of microteaching.

**MATERIAL AND METHODS**

This study was conducted at two medical colleges, at two different departments: One microteaching session was conducted at D Y Patil Medical College Kolhapur at OBGy Department. Another session was conducted at RCSM GMC Kolhapur, Medicine Department. Four postgraduate students from Dept of Medicine and four from Dept of OBGY gave consent to participate in microteaching sessions. The students were given brief idea about the project to be carried out. The project was done in the month of July & August 2015. The participants were informed about the presenting skills on which they were being assessed. 6 faculty members from 2 depts each were involved in the study. Those faculty members were also informed about the presenting skills. Four students selected blackboard and chalk and 4 selected AV aids for presenting their seminars. The time given for the presentation was one day. Each student was asked to repeat the session on next day after receiving feedback from the faculty members. The time allotted for presentation was 20 minutes and the audience was 12 undergraduate students of final MBBS. On both days the participants were evaluated under the parameters given in Table 1.
The faculty members were asked to focus on teaching methodology and not the subject.

At the end of session on day 1 the participants received feedback from faculty and the same session was conducted on day 2. On both the days’ participants were allotted point s to each presenting skills. Comparison of scores was done.

**OBSERVATIONS AND RESULTS**

The evaluation of participants was done as per the checklist on both the days. The scores of the participants according to the presenting skills were analyzed. The p value of the scores were evaluated and it is highly significant.

Feedback was taken from students regarding their experience of teaching session. All the students were positive about the effect of microteaching practices. They were enthusiastic and excited about the session. All the trainee teachers were happy. They shared their experiences with each other. They learned the presenting skills, some could overcome fear. They felt that their confidence in front of audience is improved. They realized the hard work that is required for preparation and planning a lesson. Some of them found controlling the class difficult. Also to gain audience attention is a difficult task. The participants in our study now are willing to present their seminar every week.

Feedback was taken from 12 teaching faculty. As per the feedback form 80% were aware of the microteaching concept. Only two teachers were unaware about the concept. Almost all faculty members (100%) found that microsession is useful for postgraduate medical students. They said that it is also useful for the newly joined teachers in department. Almost all the faculty members agreed that time limitation is the main obstacle because in small time span one can't explain all the aspects of a single topic

Table 2 shows that there is overall improvement in the presentation on day 2. Almost all the participants have selected proper topic and prepared appropriately. Few of them were nervous during their presentation. Everyone has used the teaching aid-blackboard and chalk, AV aids very effectively during both session. The presentation skills which were improved on second day session were confidence in their presentation, initiation of presentation, set induction, giving emphasis on important points, asking questions to the students, allowing questions from the students, changing the speech pattern, movement during presentation, focusing on particular points, concluding the class by properly summarizing the most important points asking questions to bring relevance to what they learnt.

**Table 1**

<table>
<thead>
<tr>
<th>Presenting skills</th>
<th>Components of skill</th>
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<tbody>
<tr>
<td>Planning</td>
<td>selection of topics i) orderly organization of material ii) contents were relevant</td>
</tr>
<tr>
<td>Wishing the audience</td>
<td>i) wished the class with cheerful expression ii) introduction of self</td>
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<tr>
<td>Confidence</td>
<td>i) entry into class with confidence</td>
</tr>
<tr>
<td>Set induction</td>
<td>i) able to gain students’ attention at the beginning of class by ii) questioning iii) writing date and name of topic(black board and chalk) iv) giving proper introduction of selected topic</td>
</tr>
<tr>
<td>Presentation</td>
<td>i) giving emphasis on important points ii) eye to eye contact with class iii) creating humour explanation with proper examples iv) repeating the points where necessary</td>
</tr>
<tr>
<td>Student involvement</td>
<td>i) asking appropriate questions ii) allowing questions from students iii) encouraging student participation iv) listening and identifying student difficulties</td>
</tr>
<tr>
<td>Use of teaching aids</td>
<td>i) effective use of proper teaching aids(AV aids or black board chalk)</td>
</tr>
<tr>
<td>Skill of reinforcement</td>
<td>i) positive verbal reinforcement ii) positive nonverbal reinforcement</td>
</tr>
<tr>
<td>Stimulus variation</td>
<td>i) movements ii) gestures iii) change in speech pattern iv) focusing</td>
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<tr>
<td>Skill of concluding the class</td>
<td>i) method of concluding the session by asking questions to bring about relevance of what they learnt ii) asking questions to know if students are able to relate with previous topic iii) future learning iv) summarize most important points in brief</td>
</tr>
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**Table 2**

<table>
<thead>
<tr>
<th>Score on Day 1</th>
<th>Score on Day 2</th>
<th>t- value</th>
<th>p- value</th>
</tr>
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<tbody>
<tr>
<td>x 19.375</td>
<td>21.875</td>
<td>5.401</td>
<td>0.0010**</td>
</tr>
<tr>
<td>SD 2.134</td>
<td>2.532</td>
<td></td>
<td>Highly significant</td>
</tr>
<tr>
<td>n 8</td>
<td>8</td>
<td></td>
<td></td>
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</table>

**DISCUSSION**

From the study it was found that the trainee teachers were having positive impact towards microteaching. Microteaching is a technique that is used in teacher education. In this trainee teachers find opportunities to develop teaching skills. Microteaching helps develop skills to prepare lesson, plan lesson, speaking in front of audience, to ask questions and use
evaluation techniques. Microteaching has several benefits. Because the lessons are short and they can focus on specific strategies. Microteaching is also an opportunity to experiment with new teaching techniques. Rather than trying something new with a real class, microteaching can be a laboratory to experiment and receive feedback. (Kuhn, 1968).

The principle of microteaching is based on plan-teach-feedback-replan-reateach-refeed back. Microteaching is so called an analogous to putting teacher under a microscope.

This type of exercise can be performed by medical teachers of any department of any medical college in a weekly or monthly basis. The feedback data can be reused. A microteaching session before presenting a seminar in large group audience is a helpful tool for the postgraduate students. They can develop communication skills and problem solving skills. The positive aspect of our study was benefit of gaining actual teaching practice. The second benefit was receiving and gaining feedback with respect to their and theirs peers teaching performances. The trainee teachers can develop observation, assessment abilities about teaching strategies. They can suggest the changes regarding teaching to their peers and can receive the same from the peers. The benefits of learning from observing their peers teaching was the most experiencing. They strengthened their communication and public speaking abilities, also understood the lesson planning and preparation of a lesson.

Finally in our study the microteaching session showed positive impact on trainee teachers and faculty members.

CONCLUSION
Medical colleges are the institutions where the responsible medical students become doctors. Not all good doctors are good teachers. Without proper training or vocation, most of the medical faculty lack skill. In this scenario microteaching is an innovative technique for improving their quality of their presentation and teaching ability.

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REFERENCE