



## Comparative Study of Responses from Different Groups in Microteaching

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### Abstract

**Introduction:** *Microteaching is an excellent tool for teacher improvement. A well prepared feedback is the key instrument used in microteaching sessions. However the ideal person for giving feedback is not defined.*

**Objective:** *The objective of this study is to obtain feedback from groups of differing teaching-learning exposures on same microteaching session and compare the responses.*

**Materials and Methods:** *Ten microteaching sessions were conducted in front of four assessment groups comprising of two senior level faculties, two junior level faculties, two postgraduate students and two undergraduate students. Structured feedback obtained from all groups, using standard questionnaire. Feedback responses from all groups were analyzed.*

**Results:** *Responses from differing teaching-learning exposure groups were comparable. Differences between total scores obtained by the groups were not significant.*

**Conclusions:** *Microteaching is an excellent teacher development tool irrespective of the feedback provider's exposure to teaching-learning methods*

**Keywords:** *Microteaching, feedback provider, medical education.*

### Introduction

MBBS course is one of the lengthiest graduate programs that a student undergoes. But surprisingly, in India, a medical teacher is not trained formally in education technologies prior to induction into service<sup>[1]</sup>. Students gain subject knowledge from theory and practical or bedside classes and communication and affective aspects are learned from observing how their teacher handles various situations. Thus each student is

influenced by his teacher greatly. This leads to significant individual variations among students even within a batch. Medical Education Units in each medical college are sensitizing medical teachers in basic education techniques and one of the most useful methods among them for teacher improvement is Microteaching.

Microteaching originated in the 1960s at Stanford University, USA, as a tool for training of student teachers<sup>[2]</sup>. Microteaching sessions are miniature

of real life teaching sessions<sup>[3]</sup>, under scrutiny of observers who give immediate feedback to teacher about various aspects of teaching<sup>[4]</sup>, based on a pre-decided check list. Teacher uses this feedback to correct shortcomings of teaching methods and after repeated corrections; the teacher overcomes that particular defect<sup>[5]</sup>. This way each microteaching session directly and immediately benefits each teacher<sup>[6]</sup>.

What is unclear about microteaching sessions is regarding the qualification of the person giving the feedback. Feedback may be obtained from students<sup>[7]</sup> because beneficiary of each teaching session is the student population and their perception about teaching matters most. Feedback may also be obtained from teachers who are already experienced in teaching students. Even among students, undergraduates and postgraduates represent groups of differing teaching exposures. Similarly, Professors and Assistant Professors represent teachers of differing teaching exposures. In my study, I attempted to study the responses to each microteaching session from the above said four categories and to define who should be ideally giving feedbacks, if all are supplied with same check list.

### Materials and Methods

This was a comparative study conducted at an academic medical institution in Kerala. Ten microteaching sessions were conducted. Each of the sessions was scored on given check list by four groups of people. First group consisted of professors with more than twelve years of teaching experience; second group had Assistant Professors who had less than seven years of teaching experience, third had post graduate students and fourth, undergraduate students. All members attended all sessions together and were provided with same check list which had structured feedback. Every group had two members and each member of the group scored each session separately. The mean score for each group was calculated and used for comparison.

The study was approved by the Institutional Ethical Committee and informed consent was obtained from each of the participant.

### Statistical Analysis

The mean score for each group was calculated and used for comparison. Total score was taken as hundred and proportion of each group score was tested for significance. During analysis, special attention was given to consistency in responses across groups.

### Results

The mean score of the groups comprising of students was fifty four and that of the teacher population was forty six. In sub group analysis, highest score was awarded by the post graduate students (30%), followed by senior teachers (26%), undergraduate students (24%) and junior teachers (20%).

However the difference in scores awarded by each group in the study population was not statistically significant. Different components that were separately analyzed include lecturing strategies, discussion strategies and problem solving along with use of audio-visual aids and observer's perception about the particular teaching session. Consistency in answers within a sub-group was specifically looked for.

**Figure 1.** Difference in response from teachers and students.

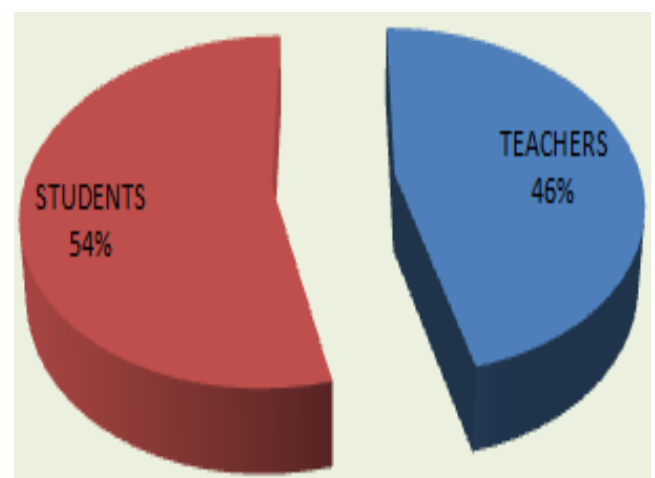


Figure 2. Sub-group analysis of responses

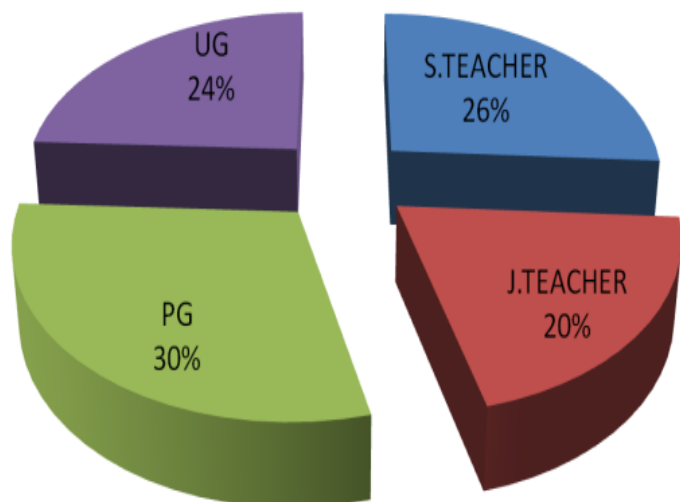


Table 1. Feedback form

**Lecturing Strategies**

components	0	1	2
Announcements			
Summarizing familiar information			
Introducing new information			
Relating new information to old			
Explaining/demonstrating concepts			
Providing analogies			
Relating stories/anecdotes			
Making jokes			
Other:			

**Discussion Strategies**

components	0	1	2
Inviting questions from students			
Redirecting obvious or easy questions			
Pausing to give students time to think			
Asking a fact-related question			
Asking a higher-order thinking question			
Inviting student examples/experiences			
Praising/acknowledging a response			
Helping a student respond			
Correcting misguided responses			
Other:			

**Problem Solving**

components	0	1	2
Conducting think/pair/share exercise			
Students work problems on board			
Students work problems in groups			
Students work on projects in groups			
Instructor actively monitors groups			
Instructor passively monitors groups			
Groups role play, compete, etc.			
Other:			
	Not done/poor	average	Excellent

- How would you describe the instructor’s use of the board, the overhead projector, PowerPoint slides, and/or any other use of instructional technology to bring additional audio-visual (or other sensory) dimensions to learning?  
1    2    3    4    5
- How would you describe the instructor’s oral communication with students? What indicates that the instructor is verbally reaching and responding to students effectively?  
1    2    3    4    5
- How would you describe the instructor’s body language toward students? Which gestures, movements, facial expressions, and other physical responses make the instructor more friendly and accessible? Which ones, if any, make him/her less friendly and accessible?  
1    2    3    4    5
- What student behaviours not mentioned previously did you witness in this session? Which of these behaviours contributed to a good learning environment? Which were distracting or disruptive?  
1    2    3    4    5
- What other comments do you have that might be helpful to the instructor (e.g., regarding the handling of session content, extenuating circumstances, etc.)?  
1    2    3    4    5
- How would you rate the overall effectiveness of the teaching in this session on the following scale, with “5” representing “most highly effective”?

### Discussion

Microteaching is an extremely powerful tool for teacher improvement<sup>[6]</sup>. However the feedback form is the most important critical object in using microteaching as a teacher improvement tool<sup>[7]</sup>. A very well prepared check list will look into all aspects of teaching - learning event and will provide the teacher with an opportunity to improve on all aspects of teaching skills. A poorly prepared feedback form will not only fail to serve its purpose, but also will give the teacher a false sense of perfection.

This study shows some direction into who should be actually giving feedback in a microteaching session. If the check list is made with caution and has covered all aspects of a teaching session and is administered in simple language, any person can be a feedback provider for microteaching sessions. A similar observation was noted in study done by Mary L Wagner et al which showed that self-reported, peer reported and faculty reported grades were similar in seminar sessions<sup>[7]</sup>. The observation that the feedback provider can be a person with varying teaching learning exposures has lot of logistic and practical implications.

Formal education technologies are still in early stages of implementation in Medical education sector in India. Studies about ideal feedback provider for microteaching sessions are not available in literature. In this context, this study opens a huge opportunity for research in this area, particularly in India. Further studies involving other categories of feedback providers and larger number of microteaching sessions will deepen our understanding about this very useful tool for teacher improvement.

### Conclusions

Microteaching is an excellent teacher development tool irrespective of the feedback provider's exposure to teaching-learning methods

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