Small group teaching learning methods: An effective strategy for teaching first year medical students

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Abstract:

For medical teachers around the world, teaching duties have expanded beyond the regular classroom. Hence it is essential to train the medical faculty in basic educational theory and specific teaching skills as well as to encourage a flexible and learner-centered approach to teaching. This is especially helpful in the first year of medical education for the students to get on track of medical learning. Small group study methods are vital to propel the institutes towards promoting and aiming for uncompromising excellence in medical education. The tips described in this article introduce a multidimensional approach to improving the overall quality of teaching in preclinical phase.

Introduction:

The study material presented in medical colleges is not conceptually more difficult than many rigorous undergraduate courses, but the volume and flow rate of information per hour and per day is much greater frequently described as "drinking from a fire-hose" [1]. This becomes all the more difficult for first year medical students, who have less than a year to complete the preclinical syllabus. In this short period, they are required to learn tremendous new information before they appear for examination. Therefore, they have little or no time left with to review what they have learnt.

The overload of information creates a feeling of disappointment due to inability to handle all the information at once and succeed in the examination. Many students struggle in their own capacity to meet the demands of the medical curriculum [2]. In addition to this, the first year student is also struggling with other problems such as adjusting with new environment, new friends, hostel, mess and seniors. Students need time to settle down before they start studying, whereas, time for studying itself is pretty less.

To overcome all these difficulties, specific study strategies should be incorporated in medical teaching; especially in the first year, for better understanding of the subject considering its short duration and enormous portion to cover.

Several studies overwhelmingly support the claim that students learn best when they engage with course material and actively participate in their learning [3]. Active learning shifts the focus from the teacher to the student and his active engagement with the material. Active learning involves providing opportunities for students to meaningfully talk and listen, read, write and reflect on the content, ideas, issues and concerns of an academic subject [4]. This review presents a few active learning techniques that can help mitigate the limitations of most classroom situations.

Teaching large groups

Lectures are an efficient means of transferring knowledge and concepts to large groups and are used routinely. They stimulate interest, explain concepts, provide core knowledge and direct student learning when delivered appropriately [5].

However, lectures are not an effective way of teaching skills, changing attitudes, or encouraging higher order thinking. Large group teaching learning methods tend to encourage passive learning. Students receive information but have little opportunity to process or critically appraise the new knowledge offered. This can be achieved successfully in small group teaching. Getting the students interacting with each other in small groups aids in the icebreaking process and helps in building confidence and mutual respect as they are also learning from each other.

Teaching small groups:

Small group discussion plays a valuable role in

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medical education. It helps students to negotiate meanings, express themselves in the language of the subject and establish closer contact with the teachers than the more formal methods [6]. Discussion can also develop the more instrumental skills of listening, presenting ideas, persuading and working as part of a team monitoring their own learning and thus gain a degree of self-direction and independence in studies. Seminars and tutorials are the routinely used small group teaching methods in medical colleges. However, students who are timid may not involve actively in these activities. Some of the other small group teaching methods which allow better student interaction are:

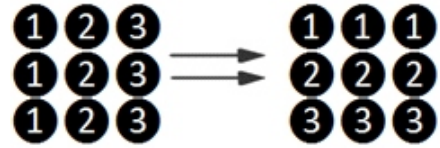
1.Group round: Each person in the group has a brief time (30-60 seconds), to say something on a particular topic. The direction in the group can be decided by the first contributor, or students can speak in a random order.

2. Buzz groups: During a discussion, students could be asked to turn to their neighbour (buzz group) to discuss any difficulties in understanding, to answer the question or to speculate on what they think will happen next in the proceedings. This will bring a sense of participation and some lively feedback [7]. Buzz groups enable even the timid students to express their difficult area which can be clarified then and there by the teacher.

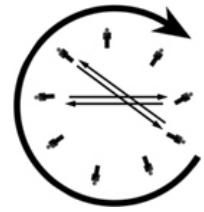
3. Snowball groups: Snowball groups are an extension of buzz groups. Pairs join up to form fours, then fours to eights. These groups of eight report back to the whole group. This developing pattern of group interaction can ensure comprehensive participation, especially when it starts with individuals writing down their ideas before sharing them[8]. As the groups get larger, increasingly sophisticated tasks should be used to avoid repeated discussion of the same points.

4 Fishbowls: The usual fishbowl configuration has an inner group discussing an issue or topic while the outer group listens, looking for themes, patterns, or soundness of argument or uses a group behavior checklist to give feedback to the group on its functioning [8].

5. Crossover groups: Students are divided into subgroups that are subsequently split up to form new groups in such a way as to maximize the crossing over of information[8]. Number /Colour coding in the first groupings enables a simple relocation, for example,three groups of four students to four groups of three, with each group in the second configuration having one from each of the first.

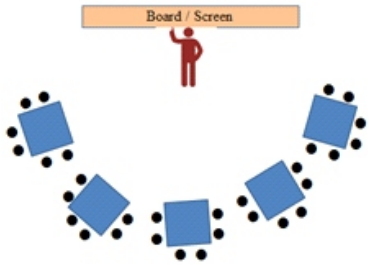


6. Circular questioning: In circular questioning, each member of the group asks a question in turn, i.e., one group member formulates a question relevant to the theme or problem and puts it to the person opposite, who has a specified time (1-2 minutes) to answer it. The questioning and answering continues clockwise round the group until everyone has contributed, at which time a review of questions and answers can take place. The teacher can also take answers which others would like to have given during the discussion session. Alternatively, the teacher or the students can prepare the questions on cards and discuss which would save time.



7. Horseshoe groups: This method allows the lecturer to alternate between the lecture and discussion formats. Groups are arranged around tables, with each group in a horseshoe formation with the open end facing the front. The teacher can thus talk formally from the board for a time before switching to presenting a group task[8]. To avoid boredom induced by subsequent reporting from each group, the teacher can circulate written reports for comments; get groups to interview each other; ask groups to prepare and display posters; ask the reporters from each group to form an inner group in a fishbowl formation; or use the crossover

method to discuss.



Above mentioned are the few small group teaching learning methods that can be used for better understanding of medical subjects especially in the first year. All these teaching strategies require active participation and the ready expression of ideas from the students. Many a time, it may not work out well, if the teachers fall back on their reserve role of being an authoritarian, expert and a prime talker[9]. For effective facilitation in group discussion:

Group members should have an agreed set of ground rules

Students should be clear about the tasks to be carried out

The teacher should not answer the question or try to reformulate it

When either the teacher/student is speaking, the teacher should look round the group. That way the students will quickly recognize that they are addressing the group rather than just the teacher. This will allow picking up cues from those who want to speak but are either a bit slow or inhibited.

Conclusion:

As William Osler has rightly said "The successful teacher is no longer on a height, pumping knowledge at high pressure into passive receptacles. He is a senior student anxious to help his juniors"; this article emphasizes the few choices available to the teacher in working with students, making teaching interactive and interesting with active student involvement in various groups. Such change in teaching strategies involving small groups of students helps to overcome the stress and concentrate on studies with better understanding of the subject, build confidence and team work, which are very much necessary in their medical career. At its best, small group teaching is very much rewarding; both for the teacher and the taught. Well organized and purposeful group discussion can create a firm foundation for qualities such as openness and proactive communication, which definitely help the medical students not only in their first year but also in every phase of medical learning.

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