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**Clinical review**

*ABC of learning and teaching in medicine*

**Teaching small groups**

**David Jaques**.

Group discussion plays a valuable role in the all-round education of students, whether in problem based learning and teamprojects or in the more traditional academic scenario of the tutorialor seminar. When it works well, discussion can allow studentsto negotiate meanings, express themselves in the language of thesubject, and establish closer contact with academic staff thanmore formal methods permit. Discussion can also develop the moreinstrumental skills of listening, presenting ideas, persuading,and working as part of a team. But perhaps most importantly, discussionin small groups can or should give students the chance to monitortheir own learning and thus gain a degree of self direction andindependence in their studies.

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| **"By separating teaching from learning, we have teachers who do not listen and students who do not talk"Based on Palmer P (*The Courage to Teach*. Jossey Bass, 1998)** |

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| **Problems associated with leading effective small groups** * The teacher gives a lecture rather than conducting a dialogue
* The teacher talks too much
* Students cannot be encouraged to talk except with difficulty; they will not talk to each other, but will only respond to questions from the tutor
* Students do not prepare for the sessions
* One student dominates or blocks the discussion
* The students want to be given the solutions to problems rather than discuss them
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All these worthy aims require active participation and the ready expression of ideas. Yet it frequently doesn't work out thisway. Indeed many tutors too readily fall back on their reservepositions of authority, expert, and prime talker. Many of theproblems associated with leading small groups effectively arelikely to be exacerbated with larger groups. So how can we avoidthe commontraps?

If you are leading a group discussion you will need to consider both the configuration of the group and your own behaviour.Groups often communicate poorly because the physical conditionsmake it difficult to communicate. For example, in a group of 10students seated round a rectangular table, at least four studentson either side of the table have no eye contact with each other,thus reducing participation. If you ask and answer questions allthe time, even less interaction is likely.

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| **Your own behaviour can have an enormous effect on how the group functions** |

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| **Techniques for effective facilitation in group discussion** * Ensure that group members have an agreed set of ground rules---for example, not talking at the same time as another group member
* Ensure that the students are clear about the tasks to be carried out
* When you present a question don't answer it yourself or try to reformulate it---count to 10 silently before speaking again
* When you have something you *could* say (which could be most of the time), count to 10 again
* Look round the group both when you are speaking and when a student is speaking. That way the students will quickly recognise that they are addressing the group rather than just you. It will allow you to pick up cues from those who want to speak but are either a bit slow or inhibited
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If a group sits in a circle without a table, communication is likely to be easier. When the discussion has started, it isyour responsibility as discussion leader to listen to and respondto the whole group. Listening becomes a problem when the studentsregard you as an expert or you engage with one or two of the morevocal students rather than the wholegroup.

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|  http://www.bmj.com/icons/toc/rarrow.gif | **More structure, less intervention** |

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Being a democratic discussion leader involves making the right sort of nudges and interventions. The role can be made a lotless demanding by using more structure and less intervention inthe group process. The rest of this article shows how clear andpurposeful group structures can help to bypass many of the problemsoutlined above, by delegating responsibility for group interaction(and therefore for learning) to the students.

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|  http://www.bmj.com/icons/toc/rarrow.gif | **Group structures and processes** |

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You can minimise your internal involvement in the group process by organising or structuring groups into smaller units, especiallywhen the group process is likely to be problematical. This isparticularly so when you wish to mobilise a sense of coherenceand full participation among a largish group of students. A sequenceof tasks might then be set. For example:

Students work individually for five minutes drawing up a list

They share their ideas in pairs for 10 minutes

In groups of four to six, students write up categories on a large sheet of paper

This is followed by 25 minutes of open discussion among the groups.

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| **To encourage group interaction consider breaking a larger group into smaller groups of five or six students; organise membership on a heterogeneous or random basis to prevent cliques forming** |

Your role in this kind of situation may be to move round checking that everyone understands and accepts the task and is doingit in an appropriate way and to encourage completion as the endpoint approaches. You could leave the room for a while and letthe groups work withoutsupervision.

The following group structures require some assertive leadership to set up but allow you to take a back seat as the processitself takes over the direction ofevents.

**Group round**
Each person has a brief timesay, 20 secondsor one minuteto say something in turn round the group. The directionround the group can be decided by the first contributor, or memberscan speak in a random order. More interest and energy is usuallygenerated, however, if the first person chooses who should gosecond, the second who should go third, and so on.

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| **Group rounds are particularly useful at the beginning of any meeting so that everyone is involved from the start and, depending on what the group is asked to speak about, as a way of checking on learning issues** |

**Buzz groups**
With larger groups a break is often needed:

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To provide a stimulating change in the locus of attention

For you to gain some idea of what the students know

For the students to check their ownunderstanding.

During a discussion students could be asked to turn to their neighbour to discuss for a few minutes any difficulties in understanding,to answer a prepared question, or to speculate on what they thinkwill happen next in the proceedings. This will bring a sense ofparticipation and some lively feedback. Buzz groups enable studentsto express difficulties they would have been unwilling to revealto the whole class. (A variation is to allocate three or fiveminutes each way to the pairseach phase is for one-way communication.)

**Snowball groups**
Snowball groups (or pyramids) are an extensionof buzz groups. Pairs join up to form fours, then fours to eights.These groups of eight report back to the whole group. This developingpattern of group interaction can ensure comprehensive participation,especially when it starts with individuals writing down theirideas before sharing them. To avoid students becoming bored withrepeated discussion of the same points, it is a good idea to useincreasingly sophisticated tasks as the groups gets larger.

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**Fishbowls**
The usual fishbowl configuration has an innergroup discussing an issue or topic while the outer group listens,looking for themes, patterns, or soundness of argument or usesa group behaviour checklist to give feedback to the group on itsfunctioning. The roles may then bereversed.

**Crossover groups**
Students are divided into subgroups that aresubsequently split up to form new groups in such a way as to maximisethe crossing over of information. A colour or number coding inthe first groupings enables a simple relocationfrom, for example,three groups of four students to four groups of three, with eachgroup in the second configuration having one from each of thefirst.

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**Circular questioning**
In circular questioning each member of thegroup asks a question in turn. In its simplest version, one groupmember formulates a question relevant to the theme or problemand puts it to the person opposite, who has a specified time (say,one or two minutes) to answer it. Follow up questions can be askedif time permits. The questioning and answering continues clockwiseround the group until everyone has contributed, at which timea review of questions and answers can take place. This could alsoinclude answers that others would like to have given. Alternatively,you or the students could prepare the questions on cards. Youcould also mix the best of the students' questions with some ofyour own.

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**Horseshoe groups**
This method allows you to alternate betweenthe lecture and discussion formats, a common practice in workshops.Groups are arranged around tables, with each group in a horseshoeformation with the open end facing the front. You can thus talkformally from the board for a time before switching to presentinga group task. Subsequent reporting from each group can induceboredom. To avoid this danger, the tutor can circulate writtenreports for comment; get groups to interview each other publiclyor get one member of each group to circulate; ask groups to produceand display posters; ask the reporters from each group to forman inner group in a fishbowl formation; or use the crossover methodto move students around.

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| **Recommended reading** * Brookfield S, Preskill S. *Discussion as a way of teaching---tools and techniques for university teachers.* Buckingham: Open University Press, 1999.
* Forster F, Hounsell D, Thompson S. *Tutoring and demonstrating---a handbook.* Sheffield: Universities' and Colleges' Staff Development Agency, 1995.
* Habeshaw T, Habeshaw S, Gibbs G. *53 interesting things to do in your seminars and tutorials*. Bristol: Technical and Educational Services, 1992.
* Jaques D. *Learning in groups*. 3rd ed. London: Kogan Page, 2000.
* Tiberius R. *Small group teaching: a trouble-shooting guide*. London: Kogan Page, 1999.
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| **The group structures described require an explicit task and topic, and they are possible only if the furniture is movable. Tutors could also consider experimenting with furniture to see if other group structures work. The physical configuration is a strong determinant of social (and hence learning) processes, as is the sequence of activities** |

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|  http://www.bmj.com/icons/toc/rarrow.gif | **Conclusion** |

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This article has emphasised the choices available to you in working with groups. Some of these involve more skilled and sensitivehandling of group process from within the group; others requireimaginative management in the setting of tasks and the organisingof purposeful activities for subgroups. Well organised and purposefulgroup discussion can create a firm foundation for qualities suchas openness, networking, and proactive communicationimportantingredients in the process of personal and organisational change.The value of effective group management in professional developmentand lifelong learning cannot beunderestimated.

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|  http://www.bmj.com/icons/toc/rarrow.gif | **Footnotes** |

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The ABC of learning and teaching in medicine is edited by Peter Cantillon, senior lecturer in medical informatics and medicaleducation, National University of Ireland, Galway, Republic ofIreland; Linda Hutchinson, director of education and workforcedevelopment and consultant paediatrician, University HospitalLewisham; and Diana F Wood, deputy dean for education and consultantendocrinologist, Barts and the London, Queen Mary's School ofMedicine and Dentistry, Queen Mary, University of London. Theseries will be published as a book in latespring.

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