Facilitating small groups: how to encourage student learning

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SUMMARY

Background: Many clinicians are involved in medical education, with small group teaching (SGT) forming a significant part of their work. Most facilitate these sessions by experience and common sense: less than one-third of them have received formal training in SGT.

Context: Evidence suggests small group productivity depends on good facilitation rather than on topic knowledge. Applying the fundamental concepts of SGT will lead to improvements in the quality of clinicians' teaching and in student learning. Good SGT creates the perfect environment for learning and discussion, without the need for didactic teaching. SGT emphasises the role of students in sharing and discussing their ideas in a safe learning environment, without domination by the tutor.

Innovation: This article provides clinicians with basic requirements for effective session design and planning, explains how to encourage student participation, how to manage students as a group, how to manage student learning, and how to recognise and deal with problems.

Implications: Active facilitation and group management is the key to success in SGT, and consequently better learning outcomes. Improving the facilitation skills of clinical teachers makes teaching more effective, stimulating, and enjoyable for both tutors and students.

Small group productivity depends on good facilitation rather than on topic knowledge

INTRODUCTION

Many clinicians are involved in undergraduate or post-graduate medical education. Although some teaching is opportunistic, structured small groups are common. Most clinicians use experience and common sense to facilitate these sessions: less than one-third have received formal training in small group teaching.[1] Evidence indicates that small group productivity depends on good facilitation, rather than on topic knowledge.[2] Many clinicians could improve their teaching quality, and consequently student learning, by recognising and applying the fundamental concepts of small group teaching (SGT). This article is a brief guide for clinicians on facilitation, emphasising techniques that encourage student participation and learning.

Small group teaching (SGT) describes an educational session with a tutor as a learning facilitator for a small group of students. Well established in higher education, it features in undergraduate medical curricula.[3] It is characterised by student participation, interaction and sharing of ideas.

It is found that SGT supports understanding and the long-term retention of information, problem-solving skills, critical thinking and the development of positive attitudes, and improves reflective practice.[4] Students enjoy SGT, thereby improving rates of satisfaction, retention of knowledge and active participation.[5] Group atmosphere, clinical relevance and problem solving are highly regarded by students,[6] characteristics seldom found together in other educational strategies (Table 1).[7,8]

EFFECTIVE FACILITATION

Facilitation encompasses planning and design before, managing learning during, and feedback and reflection after each session. Experience is crucial for successful SGT;[2] therefore, an inexperienced tutor should observe small groups, learn from more experienced tutors and attend staff training sessions, where available.

Stimulus material

Stimulus material should be prepared by the tutor or faculty staff, and may include problem-based scenarios, videos, key literature and patient cases. Stimulus material is designed to encourage learning and information seeking, stimulate discussion and provide material that students might not otherwise consider, e.g. specific viewpoints or clinical cases.

Other resources

Other resources, such as visual aids or computer equipment, must be available and working. The tutor must recognise his or her own knowledge limits, and know where answers can be found if he or she can't give an answer.

Learning outcomes

Learning outcomes must be considered in relation to the student curriculum. Meeting students before each session can identify learning needs to be addressed. Content, setting and assessment of outcomes can also be discussed.[9] Acting upon the needs of the students makes the session more relevant, motivating and enjoyable.

The first group meeting

The first group meeting can be daunting for tutor and students alike. Equality in arranging the

Table 1. Selected advantages of small group teaching.[3,4,7,8]

Benefit	Description
Promotes 'deep' learning	More than just knowing facts; suggests deeper understanding. Encourages deep learning and higher order cognitive activities, such as analysis, evaluation and synthesis.
Promotes discussion and communication skills	Environment conducive to discussion. The students do not feel exposed or hidden, but feel comfortable. Each student is encouraged to actively participate.
Active and adult learning	Small groups are perfect to identify what a student does not understand. Group discussion aids understanding by activating previously acquired knowledge.
Self motivation	Encourages involvement in the learning process, increasing motivation and learning, especially when the process is enjoyable.
Develops transferrable skills	Skills necessary for clinical practice, e.g. leadership, teamwork, organisation, prioritisation, providing support and encouragement for colleagues, problem solving and time management, are practised and enhanced through group work.
Application and development of ideas	Yields opportunities to apply ideas and consider potential outcomes. Making connections during group discussion enhances student understanding.
Tutor as a role model	A logical and systematic tutor approach demonstrating 'transferrable' skills motivates student learning and development.

group, e.g. with circular seating, ensures equal participation, and prevents students from hiding or blocking others from discussion.

Introductions

Introductions are essential. The tutor must briefly introduce him or herself, and describe his or her experience and role as facilitator. The tutor should be welcoming and friendly, making efforts to learn student names. If the group is new or relatively large, use name badges. If the students are unfamiliar with each other use 'icebreakers': activities designed to provide a relaxed and non-threatening start to the session.[3,10] A common 'icebreaker' involves pairing students together, with each ascertaining basic information and some interesting facts about their partner. The group reconvenes and each student 'presents' their partner to the group. Students introducing each other tend to be less embarrassed and more willing to share information with the group.

Ground rules

Ground rules provide transparency on acceptable behaviours and attitudes during the session. They may be determined by the tutor alone or in negotiation with the students. Appropriate ground rules make students feel 'safer' in sharing and expressing their views. Typical examples include: maintaining confidentiality; respecting all contributions; not ridiculing or humiliating any group member, regardless of comments; one group member speaking at any one time and without interruption; all members contributing; and students addressing the group, not the facilitator. Ground rules should reflect group needs and objectives, and should be displayed during the session to remind the group.[11,12]

Student roles

Student roles must be made clear for the SGT to function properly. Students should be motivated and encouraged to participate in and lead group discussion. Students should be encouraged to ask questions and seek answers as a group. They should take responsibility for their own learning, encourage and support each other, teach each other, and reflect on their learning.[13]

The role of the tutor

The tutor's role is to prepare the session, describe learning objectives, outline expectations of the students, create a productive learning environment, facilitate participation and discussion and set ground rules.[14] The facilitator must manage the group, the activities and the learning, but not dominate the group.

Methods of encouraging participation

Methods of encouraging participation vary, depending on the number of students, the topic, the facilitator's experience and the learning needs of the students. A selection of the many methods is described below.

Role play is simulated practice. Students assume roles relevant to the topic, such as a patient, relative or clinician, or the student can represent a specific belief or viewpoint. Role play encompasses the discussion of opinions, counselling or consulting in the role, acting out a role and simulated clinical practice ('role rehearsal'). Role-playing encourages students to rehearse their ultimate roles: i.e. that of a clinician. This provides an opportunity to practise skills in a simulated and 'safe' environment in preparation for future clinical work.[11] Role play is particularly effective for teaching interpersonal

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and communication skills, especially in emotive or ethical areas. Not all students need take on a role, as it is often productive to have students observing and offering feedback to other students.

Facilitating role play requires an explanation of the content and purpose, defining the setting and situation, selecting student roles and providing role players with a description of their role. Students must be given time to prepare for their role. After the exercise, student feedback should be discussed and explored.[12,13]

Free discussion describes a dynamic process of open discussion and group interaction, using stimulus material, which can be introduced in 'pre-course material' or during the session. Free discussion explores the more emotive aspects of concepts, with students encouraged to air opinions and feelings. The facilitator must encourage student involvement and discussion without dominating the discussion. Learning takes place during discussion, and thus an end point or consensus is not needed, although a discussion summary is beneficial for student learning.[3,11,12]

Snowballing is especially useful to determine the level of the students' development and understanding. The group divides into pairs, each pair being given the same stimulus material on the topic. The pairs discuss this topic then join with another pair to compare and contrast differences in their understanding. The initial, non-threatening interaction between two students imparts the confidence to discuss with another pair. The groups combine again to repeat the compare–contrast process. This culminates in the entire group, facilitated by the tutor, sharing and discussing their understanding. Discussing the topic with other members of

the group allows for the recognition of new ideas or views from other students.[7,10,12] Snowballing generates well-integrated ideas, and should produce a productive final group discussion.

The facilitator should encourage students to lead discussions and encourage active participation of the group, but must realise when guidance or engaging students is necessary.[15]

The tutor role and style will change dynamically during each session, through recognised 'roles' such as commentator, consultant or instructor.[16] The author favours use of the 'neutral chair', which describes the facilitator encouraging and chairing discussion, but not influencing the discussion by expressing opinions. The tutor should try not to actively participate in the group discussion, allowing time to observe, reflect and provide feedback on the students' progress. It can also give the tutor more time to recognise problem behaviours or divergence from the topic.

If encouraging the discussion is needed, questioning may be appropriate. Questioning strategies determine student knowledge and understanding, and provoke a response to initiate debate. Asking the student to explain a comment tests understanding, requesting for evidence behind a comment tests knowledge and asking hypothetical questions assesses higher cognition. To encourage discussion and learning it is useful to challenge the group with questions aimed at linking concepts or establishing cause and effect.

Managing the group

Managing the group once discussion has started requires enthusiasm, adequate 'feeling' and conceptual or contextual understanding of the topic, empathy with the students and an understanding of learning needs. The

tutor must have or develop skills in questioning, listening, reinforcing and summarising.[15,16]

Tutors must be encouraging through both body and spoken language, and acknowledge all contributions of group members. The tutor should mediate differences of opinion, drawing the group together to make its own conclusions and compromises. The tutor might need to facilitate tension relief if the group are not comfortable with each other or the topic. In these instances, the tutor could introduce stimulus material or offer an opening statement for students to comment on. If the discussion stagnates and cannot be refocused, the tutor can call a 'time out' for fresh air or drinks, and then students will re-enter the group discussion refreshed.

Managing the learning

Managing the learning is as important as facilitating group interactions and encouraging participation. The tutor should contribute only when necessary, allowing the students to manage their own learning. If it is necessary to prompt or guide, the tutor may employ several methods.

- Initiating new ideas or directions for the group to approach a problem. This could help focus a group who are diverging from the intended learning pathway. The facilitator could provide facts or cite personal experience to begin a discussion, or elaborate on previous comments.

- Opinion seeking by the tutor acts to engage all students, and builds confidence as the students express opinions rather than knowing and understanding facts. Airing opinions should prompt the group to explore and comment on each other's beliefs.

- Testing of student understanding and group

conclusions or decisions helps to define an end point to topic discussion, and may help the group to summarise their discussion and move on to the next issue.

The tutor should keep a learning and discussion point record, which is summarised at the end of the discussion. This reinforces learning that has taken place and guides reflective processes.

Dealing with problems

Dealing with problems is challenging, and where possible it is better to allow the group to sort out its own difficulties, especially if they are together for a long period.[16] If the group is new or tackling complex problems the facilitator may intervene, focusing the task and the group. Common communication issues that need to be actively managed include students talking too much, not enough, inappropriately or disruptively.

Talking too much may represent nervousness or enthusiasm for the topic, but a student monopolising discussion blocks other students from participating. The tutor must therefore provide equal opportunities for sharing ideas and discussion. Interrupting or indicating time limits is one approach, but this may harm tutor–student relationships. The facilitator should actively engage other group members using points the dominant student has made. This ensures the involvement of all, but reinforces the ground rule that all students' views are to be acknowledged. If unsuccessful, a specific task could be given to distract the student, such as becoming scribe for the group or distributing stimulus material.

Talking too little may again reflect nervousness, or a difficulty in communicating. The facilitator can help by allowing more time for answers to be

thought out and communicated, or by asking 'easy' questions to build confidence. Another method is to directly invite comment after other group members have spoken, enabling a quiet student to expand on the ideas of others rather than formulate their own. The facilitator can draw the quiet student into the conversation by addressing them by name and inviting comment, especially focusing on topics that they are enthusiastic about. If the student does not respond to these techniques, then employing 'snowballing' may build their confidence sufficiently to participate.

Unproductive attitudes can surface during SGT, which negatively impacts on others. Some students may act as if they know everything. Such behaviour is detrimental to the group who may defer questions to this student and not share ideas for fear of ridicule by the student. Their contributions should be acknowledged and respected, but the facilitator must reiterate that more will be achieved if all students share their ideas, experience and knowledge.

Students may become preoccupied with complaining, perhaps about content, comments from others or with the way the group is being facilitated. It is essential that the facilitator seeks

to uncover the specific problem the student has, and invite the whole group to work through the problem, suggesting appropriate solutions.

Some students use humour or sarcasm to hide poor understanding or knowledge, which distracts from the group task. The facilitator must reinforce positive contributions and ignore irritating comments or inappropriate jokes. If the student's comments cannot be ignored, the tutor should remind the group of the ground rules and the importance of attaining the learning objectives.

Some students appear hostile and aggressive for an unknown reason. The tutor must try to determine why, and ask the group to resolve the issue. The ground rules should be reiterated, and if necessary the tutor can suggest that the student discusses the problem issues after the group finishes. If the student becomes increasingly hostile or antagonistic it may be necessary for them to leave the group.

Another problem is the 'blocking' of others or interfering with the discussion and progress of other students, by interrupting, digressing from the topic, arguing with the consensus opinion or rejecting the ideas of others without consideration. The tutor should directly engage other

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Feedback and reflection are mandatory at the end of each session

group members, refer to the ground rules on respecting comments, and positively reinforce any constructive comments made.

Assessment

Assessment is not as important as the outcome and productivity of the small group discussion.[3,8,10] Assessment of small group learning is more common if the sessions are part of a course with multiple learning objectives and outcomes, such as those delivered in higher education institutions.

Feedback and reflection

Feedback and reflection are mandatory at the end of each session, for the group and for individuals. This informs the student of their strengths and addresses their weaknesses. Asking students to feedback on each other augments the learning experience and improves their critiquing ability. Reflection is key to all levels of medical education, and follows General Medical Council (UK) guidance on best practice. Reflection involves deeper thinking and evaluation of a learning experience, and is a process in which critical analyses of knowledge and competencies takes place. Reflection empowers students to understand what is already known, identify what knowledge is needed to advance their understanding of the subject, make sense of new information and guide choices for further learning.[12,15]

CONCLUSION

Small group teaching (SGT) is an invaluable educational strategy that encourages students to practise and develop key skills needed in clinical settings. If organised and implemented correctly, SGT can create the perfect environment for learning and discussion, without the need for didactic teaching. SGT emphasises students sharing and discussing their ideas in a safe learning environment, without domination by the tutor. Active facilitation and group management is key to the success of clinicians in SGT.

REFERENCES

1. Preston-Whyte M, Clark R, Fraser R. The views of academic and clinical teachers in Leicester Medical School on criteria to assess teaching competence in the small group setting. *Med Teach* 1999;**21**:500–505.

2. Silver M, Wilkerson L. Effects of tutors with subject expertise on the problem-based tutorial process. *Acad Med* 1991;**66**:298–300.

3. Crosby J. Learning in small groups. *Med Teach* 1996;**18**:189–202.

4. McKeachie W. *Teaching Tips: Strategies, Research and Theory for College and University Teachers*. 9th ed. Lexington: D.C. Heath and Co.; 1994.

5. de Jong Z, van Nies J, Peters SWM, Vink S, Dekker FW, Scherpbier A. Interactive seminars or small group tutorials in preclinical medical education: results of a randomized controlled trial. *BMC Med Educ* 2010;**10**:79.

6. Steinert Y. Student Perspectives of effective Small Group Teaching. *Med Educ* 2004;**38**:286–293.

7. Entwhistle N, Thompson S, Tait H. *Guidelines for Promoting Effective Learning in Higher Education*. Edinburgh: Centre for Research on Learning and Instruction; 1992.

8. Walton H. *Small Group Methods in Medical Teaching*. 5th ed. ASME Medical Education Booklet No. 1. Dundee: Association for the Study of Medical Education; 1983.

9. Harden RM. Ten questions to ask when planning a course or curriculum. *Med Educ* 1986;**20**:356–365.

10. Jones RW. Learning and teaching in small groups: characteristics, benefits, problems and approaches. *Anaesthesia and Intensive Care* 2007;**35**:587–592.

11. Jacques D. *Learning in groups: A handbook for Improving Group Work*. 3rd ed. London: Kogan Page; 2000.

12. Exley K, Dennick R. *Small Group Teaching: Tutorials, Seminars and Beyond*. 1st ed. London: Routledge; 2004.

13. Joyner B, Young L. Teaching medical students using role-play: twelve tips for sucessful role-plays. *Med Teach* 2006;**28**:225–229.

14. Curzan A, Damour L. *First day to final grade: a graduate students guide to teaching*. 2nd ed. Ann Arbor: University of Michigan Press; 2006.

15. Light G, Cox R, Calkins S. *Learning and Teaching in Higher Education, the Reflective Professional*. 2nd ed. London: Sage Publications; 2009.

16. McCrorie P. *Teaching and Leading Small Groups*. Edinburgh: Association for the Study of Medical Education; 2006.

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