

Twelve tips for effective small-group teaching in the health professions

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Small-group tutorials and discussion groups are commonly used teaching method in the health professions (Barrows, 1988; DeVaul *et al.*, 1994; Kaufman, 1985; Kendrick & Freeling, 1993; Self *et al.*, 1993; Thomas, 1990). Small-group teaching offers students [1] an opportunity to discuss and refine their understanding of complex issues, to problem solve and apply their knowledge to new situations, and to reflect on their attitudes and feelings.

However, although small-group teaching offers many advantages, it also poses certain limitations. Teaching in small groups can be more costly because it requires a higher teacher-student ratio; small groups can easily be misused and can, therefore, become inappropriate; and some teachers find small-group teaching difficult—if not alien to them. As Jason & Westberg (1982) have said, small-group meetings can be lively, constructive interactions among students and teachers; however, in the hands of teachers who see themselves as purveyors of information—and not group facilitators—small group sessions can become one-way, didactic, lecture-like events.

The goal of this article is to outline ways in which small-group teaching can become more effective and more enjoyable, and to recommend strategies for enhancing small-group teaching, whether you are working with the same group over time or whether you are meeting with a particular group only once (see Table 1).

Tip 1: Plan ahead

Although much of small-group teaching occurs spontaneously, it is important to plan ahead. As Rotem & Manzie (1980) have stated, careful planning is needed so that small-group teaching sessions do not become open-ended, unintentional interactions. Small-group leaders need to consider the many uses of small groups, formulate clear objectives and teaching methods, and determine the appropriate group size and physical setting.

Consider the many uses of small groups

The overriding goals of small-group teaching are to promote understanding, critical thinking and problem solving,

to enhance communication skills and to foster self-directed learning. Make sure that your teaching method matches your goals and objectives. For example, if your goal is to transmit new information, small-group teaching may not be your method of choice. If, on the other hand, you wish to promote comprehension or application of previously acquired information, it will be. In planning ahead, consider the many uses of small groups, and remember that the goals of small-group teaching are both educational and social (Newble & Cannon, 1983).

Table 1. Outline of the 12 tips.

1. Plan ahead:
 - consider the many uses of small groups
 - formulate clear objectives and a possible 'map' for the teaching session
 - determine group size and arrange the physical facilities
2. Convene the group and develop a mutually acceptable agenda:
 - introduce group members to each other
 - assess student needs and expectations
 - develop a group agenda
3. Create a positive atmosphere for learning
4. Focus the group on the task at hand
5. Promote individual involvement and active participation:
 - question effectively
 - listen attentively
 - reinforce student contributions
6. Vary the teaching methods
7. Provide relevant information and respond appropriately
8. Observe and clarify group process
9. Work to overcome commonly encountered problems
10. Synthesize and summarize the group discussion
11. Evaluate the session and plan for follow-up
12. Enjoy yourself and have fun!

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A number of studies have compared small-group teaching with more traditional large-group lectures. The majority of these studies have shown that small groups are not considered more effective on measures of information recall (Cox & Jaques, 1976). They do, however, promote more favorable attitudes toward learning (Walton, 1968), increase comprehension, problem solving and the transfer of knowledge to new situations (McKeachie, 1986) and allow for working on non-cognitive issues (Schwenk & Whitman, 1987).

Formulate clear objectives and a possible 'map' for the teaching session

Once you have decided that small groups are your 'method of choice', try to determine the students' needs and expectations as well as previous learning experiences so that you can target your teaching material appropriately. Formulate your objectives and teaching strategies based on your knowledge of the students and the content to be taught. Try to make your session stimulating, interesting and informative.

Determine group size and arrange the physical facilities

Whenever possible, consider group size. A group of 20 is not a small group. Most educators settle on an optimal size of six to 10 members (Rotem & Manzie, 1980), though a group of 10 or 12 may work, depending on the task at hand.

Another important, but often ignored, consideration in planning ahead is the physical setting where the teaching will occur. What type of room will best suit your discussion group? Choose a meeting place that will facilitate student interaction and that will allow for an active exchange of information. An amphitheatre designed for 200 students is clearly not appropriate. In addition to choosing the right room, it is also important to arrange the facilities beforehand. I do not believe that I have ever conducted a small-group teaching session without moving the furniture around!

Tip 2: Convene the group and develop a mutually acceptable agenda

To start the session, it is important to introduce yourself and the group members to each other, and to assess their goals and expectations. Although this step is often taken for granted, it is essential for promoting group cohesion and for accomplishing the task at hand. In many ways, the first 10 minutes of a small-group teaching session are the most critical to success; they set the stage for the work to be done.

In convening the group, it is also important to outline the task at hand, the available time for discussion, and proposed ways of achieving the group's goals. Whenever possible, try to incorporate the students' goals and expectations into the plan for the teaching session, and develop a *group* agenda. One of the most common reasons for failure in small-group settings is the lack of clear goals and objectives (Mayo *et al.*, 1993). Make sure that you do not omit this very important first step.

Tip 3: Create a positive atmosphere for learning

One of the strengths of small-group teaching is the opportunity for information exchange and group problem-solving. To accomplish this objective, students must feel comfortable enough to take risks, to expose their areas of weakness, and to share their areas of expertise. For this to happen, an atmosphere of mutual trust, respect and support among the group members is essential.

Try, therefore, to establish a non-threatening, relaxed environment orientated towards learning. Demonstrate respect for the group members, support individual contributions, and emphasize group cooperation and teamwork.

Tip 4: Focus the group on the task at hand

As has been previously stated, one of the most common problems in small-group teaching sessions is a lack of clear goals and a lack of progress towards these goals. Throughout your session, make sure that the group's aims are explicit and that the issues under consideration are clear. Carefully direct the discussion toward the intended goal, recognize irrelevant exchanges, and cut off longwinded and inappropriate contributions. For many health care professionals, this is one of the most difficult tasks in a small group. Accustomed to listening to patients, it is often difficult to 'cut people off'.

It is also important to help the group to identify the main issues under discussion and to formulate key areas for further study. Encourage the group to analyze the particular topic or problem at hand, to suggest possible explanations and hypotheses, to seek relevant data, to evaluate alternative solutions and strategies, and to synthesize the available information.

Finally, remember that the group leader's main role is to stimulate and guide discussion. Throughout your discussion, remind the group of what remains to be done in the available time and help group members to pace themselves and to stay 'on track'. Moreover, whenever possible, try to share responsibility for the success of the group discussion with the students.

Tip 5: Promote individual involvement and active participation

One of the strengths of small-group teaching is the opportunity for students to become actively involved in the process of learning. Teachers can consider a number of strategies to promote individual involvement and active participation. These include: effective questioning, active listening and the reinforcement of individual contributions.

Question effectively

To involve the group participants, request relevant facts, information and opinions. Question effectively to promote critical thinking, problem solving and active participation (Foley & Smilansky, 1980; McKeachie, 1986; Schwenk & Whitman, 1987). Clarify ideas to ensure that they are understood by the group and pose questions which are probing, prompting, analytic and stimulating. Avoid lecturing or telling students what they should think. Redirect

questions from yourself to the group. Remember that the definition of small group teaching is *not* a lecture in a small group.

Listen attentively

At the same time, listen attentively. One of the most commonly observed problems in small groups is the teacher's tendency to talk too much. Encourage group members to talk to each other rather than to you, the group leader, and allow participants to state their own opinions, thoughts and suggestions.

Reinforce student contributions

Recognize individual contributions and reinforce appropriately. Provide feedback to students and encourage constructive feedback among the group members. The provision of feedback has been identified by students as one of the most important characteristics of effective tutors (Mayo *et al.*, 1993) and yet it is often omitted in the teaching process. Provide relevant and accurate feedback whenever possible.

To promote individual learning, make sure that all students participate in the discussion. Do not focus on one particular student or allow one student to monopolize the discussion. Try to overcome 'uneven' participation by drawing out the shy or reluctant student. At the same time, make sure that you do not become the center of attention for the students. Encourage students to talk to each other and to share responsibility for the success of the group.

Teachers often look at the level of participation among the students as *the* measure of success. Remember that this is only one criterion. Groups must also accomplish the task at hand in order to be considered successful.

Tip 6: Vary the teaching methods

Students' attention frequently wanders; they present with different learning styles; and they need to be interested in order to be involved. The same applies to teachers. Whenever possible, try to vary your teaching methods and consider different options to keep students interested and involved (see Habeshaw, *et al.*, 1984; Handfield-Jones *et al.*, 1993). The small-group setting allows for the use of a variety of teaching methods and activities, the most common of which include the following.

Clinical cases

The use of clinical cases has long been a hallmark in small-group teaching, and they can be used in a variety of ways: to illustrate a particular problem; to encourage students to work independently; to promote problem solving; and to demonstrate the clinical practice of medicine.

Student presentations

Student presentations may be used creatively to encourage self-directed learning. However, to avoid students giving lectures, they, too, must be told what is expected of them. Help students to become effective communicators, to be

organized in their presentations, to speak clearly and to use appropriate audiovisual materials. Developing written guidelines for expected student behaviour may also be helpful in this context.

Role plays and simulations

Role plays and simulations can also be used effectively in small groups to promote skill acquisition and to help students develop solutions to a problem, try out new behaviours and receive feedback (Simpson, 1985). Because role plays generally provoke less anxiety than real-life situations, students may be able to use newly acquired skills more easily and attend to what is going on with fewer distractions and concerns (see Steinert, 1993a).

Films and videotapes

Films and videotapes are excellent triggers for discussion and can serve to stimulate interest in a particular topic or provide examples for further reflection. Videotapes can also be used to facilitate self-assessment, skill acquisition and increased understanding and empathy (see Steinert, 1993b).

Study guides and handouts

Although infrequently used for this purpose, study guides and handouts can help to encourage independent learning and problem solving. They can also be used to supplement the course content (Laidlaw & Harden, 1990; Kroenke, 1991) and can, therefore, allow for increased discussion and debate.

Short quizzes

Short quizzes can provide feedback on knowledge acquisition and understanding of the material learned. They can also help to provide a sense of 'rigor' to an otherwise free-floating or unstructured discussion. Conducting a short quiz at the beginning of a small-group teaching session has also been known to prevent late arrivals!

Tip 7: Provide relevant information and respond appropriately

Although students should learn from each other, they also want to learn from the small-group facilitator. Share your personal experiences with the students and provide limited but relevant information. Build on the students' responses and add your own insights and knowledge. Ensure that all basic material is covered and fill in any omissions. Clarify confusing issues and explain controversies. When appropriate, provide clinical input or personal anecdotes to heighten the relevance of the topic under discussion.

Tip 8: Observe and clarify group process

Groups are made up of individuals who interact with one another. As a result, the dynamics of the group cannot be understood by merely adding up the qualities of individual

members (Rotem & Manzie, 1980). This is one of the reasons why small-group teaching is so challenging!

Encouraging and maintaining effective interaction is also one of the most difficult tasks facing group leaders. Group leaders must, at times, turn apathy and indifference into involvement, use conflict constructively, prompt silent members into action and silence manipulative members. The skills to accomplish these objectives are complex.

To promote group functioning, recognize the group members' interactions, communication patterns and non-verbal behaviours. Identify shifts in mood, attitudes and participation. Observe signs of interest, disagreement and willingness to contribute. Do not overlook cues indicating restlessness or boredom such as wiggling in seats, tapping feet and clenched hands, and use these signs to guide the teaching session. If everyone in your group is falling asleep, it may be time to end the discussion.

Group members also play different roles (e.g. the *task master*, the *peace-keeper*, the *group clown*). The nature of these roles and the identity of those who accept particular roles are affected by the group's process, goals and activities, and external conditions (Hansen, 1972). Try to acknowledge the roles that group members have adopted and use this information to help the group accomplish the task at hand. For example, you might want to identify the individual with the most 'influence' if the group needs to make a difficult decision, or call upon the one who typically helps the group 'deal with feelings' when you have to focus on a difficult task. An awareness of individual roles in the group is important for both group harmony and task accomplishment.

Although it is always important to observe group process, teachers may not always want to intervene. Frequently, however, it is helpful to identify what is happening in the group, to assist group members in becoming aware of their own group dynamics and to alter particular patterns of behaviour. Whenever possible, enlist group members in your perceptions of the group's process and help them to understand the importance of monitoring this dimension of group functioning. Remember that group members need a sanction to address group issues and problems. At the same time, help the group to deal with tension and conflict, and work on improving group members' relationships with each other. Groups have to fulfill two major functions: task accomplishment and group harmony. The first cannot be achieved without attention to the second.

Tip 9: Work to overcome commonly encountered problems

Small-group teachers face a number of common problems: how to start the discussion, how to deal with non-participation, how to make progress towards the course objectives, how to work with 'difficult' members and how to handle group conflict (McKeachie, 1986). Although specific strategies for intervention cannot be outlined here (see Tiberius, 1990), some general principles apply in most situations. Ask yourself why the particular problem is occurring, what you can do differently to overcome the problem, and how responsibility for success can be shared with the students. Group problems usually stem from three

sources: unclear or unattainable goals; a lack of group interaction, either because the teacher is dominating or because of unequal participation by the members; or poor group motivation (Tiberius, 1990). Quickly identify the problem and adopt strategies to either circumvent the problem or deal with it appropriately. At times, labelling the problem and sharing your perceptions may be sufficient; at other times specific interventions are indicated (e.g. changing the physical space; addressing group conflict; talking to a particular group member about his or her behaviour after the meeting).

Tip 10: Synthesize and summarize the group discussion

Throughout the session, pull together main issues, themes or points made. Highlight the links within the discussion and between the topics discussed and other topics. Synthesize what has been said, putting together the group members' contributions and moving the group ahead. At times, it may also be helpful to repeat statements made and paraphrase individual contributions, to build on the discussion and to move on. Evaluate the students' ideas, identifying possible flaws and problems which may arise from them.

A final summary is critical for closure. This summary should include the issues discussed, the problems identified and areas for further study. At times, the group leader may wish to summarize the key points made for the group. At other times, it is helpful to go around the room asking the students to summarize what they remember from the discussion. A flip chart can be used effectively for this purpose—and can leave students with a clear list of what has been discussed. Asking students to summarize the discussion also helps the teacher to evaluate the success of the session. Make sure to leave adequate time for this important, but often overlooked, step, as it is essential in providing a sense of accomplishment.

Tip 11: Evaluate the session and plan for follow-up

Throughout the discussion, try to monitor student progress and encourage constructive feedback within the group. In addition, evaluate the group discussion and task accomplishment, together with the group and on your own. Try to foster dialogue about group functioning and task accomplishment, and solicit feedback on your own performance. Pre-existing tutor evaluation forms (Dolmans *et al.*, 1994; Mayo *et al.*, 1993; Thompson, 1985) may also be used to structure student feedback on teacher performance and to highlight areas for improvement. Finally, do not forget 'housekeeping chores' (e.g. attendance; course deadlines), and plan for the next meeting.

Tip 12: Enjoy yourself and have fun

Small groups afford an excellent opportunity for role modelling and increasing motivation for learning. Students quickly pick up on the teacher's enthusiasm and interest. If you do not enjoy working in small groups, your chances of success with this teaching format will be severely limited. Show your enthusiasm and your interest. As McKeachie

(1986) has stated, if an instructor is enthusiastic, friendly and obviously interested in the subject, the students will generally follow suit.

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Note

[1] Please note that the word student will be used throughout this discussion to denote a student at any level of the educational system in the health professions, be it an undergraduate medical or nursing student, a resident or member of housestaff, a CME participant or any other adult learner.

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