

3 How to run a discussion group

—Roger KJ Simmermacher, John R Kues

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4 How to run a practical

—Piet G de Boer, Linda Casebeer

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3 How to run a discussion group

1 Introduction

Talking about cases is an important part of AO courses. Course faculty and course participants have always felt free to bring x-rays of their own patients to share and discuss together. Initially, these talks were conversation-based on the assumption that people accept statements on trust and mutual respect. However, to be of educational value, discussions must rely on the provision of arguments supported by evidence and proven criteria. Case discussions are useful for supporting one's preformed opinions and can elicit new thoughts on a difficult clinical case. Discussions also allow course participants to test their new knowledge gained at lectures and the opportunity for additional clarification on learning points from the faculty.

- ■ **Discussion groups are cornerstones in AO teaching. Evidence-based case discussions are key to apply the learning outcome in daily practice.**

Several years ago, planned “fire-side” discussions were introduced into the official program of some courses in order to discuss the principles of fracture management in small groups using cases delivered by an appointed discussion leader. These sessions did not attain their intended goals due to a lack of structure and inadequate planning by the faculty. It was decided, however, that this method of learning was very valuable and needed to be permanently integrated into AO courses.

This chapter provides the reader with some guidelines to help optimize the learning potential of discussion groups and to improve the satisfaction of both course participants and faculty. We recognize that each learn-

ing situation is unique, and the suggestions in this chapter will need to be adapted to fit different venues, group sizes, and socio-demographic compositions.

- ■ **By the end of this chapter the reader should be able to:**

- **Organize a small discussion group meeting.**
- **Realize that the discussion leader is more moderator than lecturer.**
- **Realize that preparation is of importance.**
- **Realize that there are some pitfalls.**

1.1 Goal of a discussion within the course

In the context of courses, discussions are faculty-led exchanges among a group of participants. The exchanges are focused on clinical cases and are meant to reinforce information that is covered in the course lectures and practical exercises (practicals). From the point of view of an outside observer or course participant, discussion sessions may appear to be a free exchange of opinion and information. However, although discussion groups may appear to be loose and informal, there is a great deal of organization and preparation necessary to ensure that they achieve their objectives. To be successful, discussions should promote the open exchange of thoughts and ideas about the case being presented [1].

Depending on the type of course (principles, advances, or masters) the goal of a small discussion group varies. Most of the course participants in an AO Principles Course are junior or senior surgical trainees. They have limited experience, and this course is providing them with some basic theoretical background. Trainees at this

type of course tend to be young, and many of them may have limited knowledge of the language in which the course is being taught. As a result, active participation in a small group discussion may be difficult and they may be hesitant to share their thoughts and questions. There are two important goals for discussion groups in the AO Principles Courses. The first goal is to develop a stronger sense of understanding with regard to the diagnosis and treatment techniques covered by the course. Course participants should feel confident in their knowledge and ability to discuss cases with colleagues and faculty. The second goal is to be able to apply theories presented during lectures and practicals in discussions about real clinical cases. A successful discussion group at a AO Principles Course results in participants that can organize their thoughts and can step through decision-making exercises with a group of comparable colleagues while trying to solve clinical problems.

- ■ **The discussion leader of an AO Principles Course in these groups should be aware of the fact that, at this level, the participants still expect some expert information from them. It is important that leaders skillfully guide the discussion without lecturing to the participants.**

Many of the same principles apply for small discussion groups held during AO Advances Courses. They are also intended to create an atmosphere in which course participants can initiate case discussions based on their own experience and new information from the course lectures. Participants normally are at least senior surgical

trainees, but mostly (young) consultants and experienced at presenting their own ideas.

Discussion groups held during experts' meetings essentially should be what the ancient Greeks called a "symposium". All participants are at the same level and thesis and antithesis should finally end in synthesis based upon respect and appreciation of others' ideas and rationales developed according to a specific case. AO discussion groups—unlike Greek symposia—usually do not involve alcohol. However, as previously stated, the attitude demonstrated by the discussion leaders should always be one of creating an atmosphere of mutual respect for the thoughts presented. Irrespective of the level of the participants, the group leaders' style is crucial for the success of the meeting [2–4]. This means that sometimes the choice between a more controlled discussion, intended to solve a problem, and a more open discussion, which is more reflective and leads to new ideas, has to be made as the leader watches the group dynamics unfold during the session [3].

- ■ **A discussion group creates an atmosphere wherein:**
 - **There is mutual respect for thoughts presented.**
 - **Participants develop a sense of self-efficacy with regard to their own possibilities to interpret cases.**
 - **Participants learn to apply theoretical knowledge presented in the lectures on cases.**

2 A discussion in a small group

The leader of the discussion group should preferably be an active consultant with some years of experience, although this might depend on the type of course. The more experienced the group of course participants is, the more the role of the discussion leader changes from director to moderator. With younger participants the discussion leader needs to direct a discussion among the course participants and to involve them in it. In this environment, the role of the discussion leader is primarily to help them organize their own thoughts and link them to thoughts expressed by others. This process is more critical and time-consuming in groups of inexperienced course participants than in more advanced groups. The difference in experience between the discussion leader and course participants allows the leader to have more control and makes it somewhat easier to be more directive in facilitating discussions. In more experienced groups, however, the discussion is likely to be more spontaneous. The challenge for the leader in these groups is to keep the discussion focused on the issues of the specific case at hand. Redirecting unrelated discussions—while allowing relevant issues to emerge—requires skillful facilitation so as not to dominate the group. Finally, the discussion leader(s) should be thoroughly familiar with the issues of the case so that they can adapt to any direction the course participants take the discussion.

The discussion group leader generally should be aware of the basic principles of adult learning as pointed out in other chapters of this book (eg, 2 How to be a course chairman and 6 How to give a lecture) and at least adhere to the principle of set, dialogue, and closure. Ability to

listen to the course participants and to reformulate their remarks into either open- or closed-ended questions will improve the likelihood of involving more people in an active discussion [1–5].

■ ■ **It is also very important for the discussion leaders to avoid presenting their own successes in difficult cases and to restrain from dogmatic statements based solely on their own experience.**

As the accepted expert, these kinds of assertions are likely to eliminate other opinions or solutions and can stifle discussion [4].

Generally, 45–60 minutes appear to be the maximum length of most discussion groups. Although the level of concentration of all participants is influenced by the time of the day, it is hard to imagine that more than three cases can be thoroughly discussed in a single session. This means that the targeted time for completing a discussion of a case should be approximately 15 minutes.

2.1 Before the course

It is always much easier to prepare for a discussion group if the cases are chosen beforehand. The cases for discussion should closely parallel the information presented in the lectures. Typically, four to six cases should be selected for discussion sessions that are scheduled for 45–60 minutes. That number allows for one or two extra cases in the event that a case does not work well or if the group moves rapidly through each case. In order to have all course participants discussing the same cases, not necessarily in the same order, the organizing committee of a course should select appropriate cases with

the information necessary and send them to the discussion leaders in advance of the course. The cases chosen should be consistent with the new theoretical knowledge and should not show significant deviations or curious solutions. In expert groups it may be possible to allow the introduction of participants' own cases. Participant-selected cases may widen the range of discussion but it also requires the discussion leader to be especially attentive to the overall objectives of the discussion session. Using preselected cases has the advantage of allowing the discussion leader to stratify the discussion according to the themes of the day (such material can be obtained on CD-ROM through AO International). Each case should contain a general description of the patient and the circumstances of the injury. X-rays should be presented whenever possible. In most cases, multiple x-rays are desirable. When cases are constructed it may be useful to provide the discussion group leaders with complete information and an abbreviated presentation of the case may be prepared for presentation in the discussion group.

Ideally, each small discussion group should have two facilitators. One faculty member should take responsibility for facilitating the discussion while the other plays a supportive role. The faculty member in the supportive role can operate the audiovisual (AV) equipment, pass out any handout materials, operate x-ray view boxes or models, and provide an additional expert opinion. This frees the other faculty member to describe the case, prompt the group with questions, and keep the discussion focused. Faculty members should agree on their roles prior to the beginning of the discussion session. Faculty members may switch roles between cases to allow each the opportunity to play both roles. Faculty members may negotiate different roles from those depicted above but the roles should be clear and have mini-

mal overlap. The role of each faculty member should also be described to the course participants so there is no confusion. Generally both faculty members should be facilitating and not dominating.

■ ■ **Roles of the two faculty members for small discussion groups:**

Role 1—facilitator, ie, case presenter, discussion moderator.

Role 2—supporter, eg, operating AV, distribute handouts, etc.

The venue of a small discussion group might be most variable and largely depends on the location of the course. The ideal number of participants is between six and eight and the room should accommodate the maximum number of participants comfortably. Distractions like the noise of a neighboring discussion group or trespassing staff members should be kept to a minimum. The configuration of the seating should allow easy eye contact among all the participants. A circular arrangement is optimal, however, since x-rays or slides will typically be presented a horseshoe configuration of the chairs might be more practical [3, 4] (**Fig 3-1**). In this case the faculty facilitator should be located at the open end of the horseshoe with their back facing the screen. When discussing a slide or x-ray the discussion leader should stand to the side so that all course participants can see the screen.

It's always advisable to test the AV tools prior to the beginning of the discussion session. All of the x-rays and other slides should be readily available to make it easy to move from one presentation to the next. If a computerized slide show is used for presenting case materials, all case materials should be preloaded onto the computer where they are easily identified and can be quickly



Fig 3-1a–b A classical horseshoe-like configuration and equipment for a discussion group of about 10–12 participants.

accessed. If a flipchart is available, this might be quite helpful to explain more abstract issues with the help of a drawing. If a flipchart will be used heavily, it is useful to have a role of tape available so that pages can be torn from the chart pad and taped on a nearby wall, or other structure, so that multiple pages can be viewed simultaneously. Room lighting can become a difficult issue when using x-rays and slides. In order to properly view many visual aids the lights need to be lowered. However, discussions are difficult to conduct when participants cannot easily see each other. A room should be selected in which it is possible to adjust the lighting. The ideal lighting situation is one in which lights near the screen or x-ray box can be turned down or off while leaving the rest of the room reasonably well lit. If such an arrangement is not available, the most viable alternative is a room with lights that can be dimmed. The most difficult room situation is one in which the lights

can only be turned completely off or on. In this type of room it may be necessary to turn off the lights to view specific slides and then turn them back on to continue discussion. Having slides that are relatively easy to read in fully lighted rooms is the best way to reduce problems due to lighting. High-contrast slides (very dark background and white print or white background and very dark print) work best in this situation. Of equal concern, but more difficult to control, is the temperature of the room. Arriving to a room early may give you enough time to have the temperature adjusted in time for the discussion session. Finally, your mobile telephone and those of the course participants should be switched off.

A laptop computer with a projector and a screen is ideal but might not be possible. X-ray view boxes to present x-rays are an alternative but may create problems due to limited visibility. Lengthy, detailed PowerPoint presen-

tations should be avoided since they can rapidly become a lecture. Instead, simple but clear illustration of the problem to be discussed should be used. Essential information should be given at an early stage either orally or with some key words on the slide to easily start a discussion. If it is practical, physical models may be used. They have the advantage of being “low tech” and can allow the kind of 3-D views that are not typically available on x-rays. They also eliminate all of the problems that were previously described with room lighting.

2.2 At the precourse

It is vital that the information to be presented in the discussion groups is made available to the discussion group leaders before the course. Ideally, this can be sent to them as a CD-ROM before the precourse. The material on the CD-ROM would be the images to be shown to the course participants and an information sheet showing the learning aims and objectives of each presentation.

- ■ **Cases to be presented together with individual learning aims and objectives are submitted to the discussion group leaders well in advance so that they can be discussed at the precourse.**

The material needs to be discussed at the precourse to make sure that all the discussion group leaders agree that the material to be presented is suitable. The precourse is also the opportunity for the discussion group leaders to openly debate any areas of disagreement that they may have about the treatment options that are being shown to the course participants. It is much better if a single-agreed policy can be settled at this time. Overt or covert disagreements that become public during the course undermine the credibility of the faculty members and confuse the course participants.

2.3 During the course

The meeting should begin with the introduction of the two discussion leaders. A brief biographical presentation that includes current titles and position along with a brief background is sufficient for this purpose. If the group is small (six to eight course participants) you may ask participants to introduce themselves and where they are from. One of the discussion leaders should explain the overall purpose of the discussion group. This should include the role of the group leaders and any ground rules for discussions [2, 4].

■ ■ Ground rules:

- **Establish roles of faculty members.**
- **Establish roles for course participants: participation is essential, there are no bad questions, discourage early closure on discussion items.**
- **Prevent faculty from answering the questions before course participants do.**
- **Faculty person to provide summary and synthesis at the end of each case.**

For example, you might tell the participants that cases will be briefly described and then an open discussion, with questions and comments, will proceed for approximately 15 minutes; then the discussion leader will bring the case discussion to a close with a summary of the learning points. Each case should be presented with a brief introduction that includes a description of the patient and the circumstances of the injury. This information can be summarized in one or two slides or in a brief handout. X-rays, photographs, and other audiovisuals should be briefly presented and described. It can be helpful, especially in groups with younger, less experienced

participants, to present two or three succinct questions in order to help focus the discussion. Each case should be a complete and independent learning experience. This format prevents unforeseen interruptions or cases that extend well beyond their allotted time from compromising the setting of the whole meeting. The set-dialogue-closure model should be consistently used for all cases in order to maintain some consistency in the overall session.

It is important to get the course participants actively engaged as early as possible in the discussion session. If the group is small, the leader can facilitate this by learning the names of the participants and asking their opinion or comment on an early discussion question [3, 5]. With larger groups you can engage the course participants early by asking them to respond to a question by raising their hands or verbally agreeing or disagreeing.

- ■ **Questions like “How many of you have seen a case like this?” or “How many of you would use technique A? and How many would use technique B?”, etc can be used to engage the participants.**

Discussion can be greatly enhanced if you can encourage participants to direct questions to the group instead of to the discussion leader [3].

- ■ **The faculty member can model this behavior by turning questions back to the group with comments like, “What do the rest of you think about this?” or “How have the rest of you dealt with this issue in your practice?”**

Obviously, this technique works better in discussion groups with more experienced participants. Faculty members should be careful not to allow discussions among course participants to become too unrelated to the case or the learning goals.

In small groups, eye contact with the participants can be very important to facilitating discussion by everyone. Even somewhat shy participants will feel motivated to say something if the discussion leader continues to look directly at them. Many participants who are shy or have difficulty speaking the language of the meeting may show that they are learning by nonverbal cues. For example, they may nod their head to signal that they agree with a point or that they understand something that was said. It may be possible to increase their participation by asking them a direct question or by inviting everyone to respond to a particular question. For example, after a statement is made the discussion leader may ask everyone to indicate their agreement or disagreement with what was said. If the group is small, the discussion leader may ask everyone to comment on their vote. However, it is not critical that the faculty member get everyone to actively participate in the discussion. Quite early it will be apparent whether the discussion needs to be fueled by the faculty member or whether the participants themselves will assure discussion. Typically, faculty members will notice that there are “talkers” (extroverts) and “listeners” (introverts) in the group. Extroverts tend to think and learn as they are speaking. Introverts, on the other hand, learn best by taking time to reflect on what was said [1]. Short discussions of 10–15 minutes may be sufficient time to allow introverts

to reflect on early points that were made and to participate toward the end of the case. If several cases focus on one general theme you are more likely to have active participation by the introverts in the group.

- ■ **Extroverts tend to think and learn while they are speaking—introverts learn by reflecting on what was said.**

The faculty member should be careful not to allow the discussion to be dominated by one or two course participants. There are several ways in which this might happen. A particularly eager learner may ask repeated questions that require detailed answers. If the faculty member can acknowledge that these are good questions and ask the other participants to offer answers, the dominant participant can be turned into an asset for group discussion. A second scenario is one in which the course participants see themselves as experts and attempt to provide definitive answers to all questions. The discussion leader can acknowledge that the answer is a good one but that there are other answers or solutions that are also possible. The discussion leader can then ask other members of the group to suggest alternatives. If a course participant attempts to dominate the group discussion by repeatedly engaging the discussion leader in a one-on-one conversation, the faculty member might suggest that this issue requires more time than has been allotted for the case under discussion and that the leader would be happy to continue the discussion with that group member at a later time in order to stay on time [4].

If the seating arrangement in the discussion group is an open horseshoe with the discussion group leader at one end of it, the person who has the most eye contact with the discussion group leader is the participant in the center of the horseshoe. This is the so-called “position of influence”, the seat next to the group discussion group leader has no eye contact with the discussion group leader and the participant in that seat is the one least likely to participate in the discussion. Placing a course participant who is attempting to dominate the group into the seat next to the discussion group leader is a strategy worth considering. Placing a course participant who is reluctant to get involved in the seat of influence may also facilitate more discussion.

- ■ **The leader should take the last minute or two of each case discussion to summarize the key learning points that were made. These should be closely linked to the initial learning objectives for the case and should be consistent with the general learning points that have been made in lectures and practicals.**

2.3.1 Dangers and problems

There are many potential problem issues that may occur during small group discussion sessions. Some of these have been discussed in other chapters and most of them can be overcome if the discussion leaders are prepared and recognize the problems early. A lack of preparation creates the largest risk for problems in any educational situation. Discussion group sessions are particularly susceptible to problems because they are open and lack the structure that exists in lectures and other educational formats [3].

■ ■ **Knowing the learning objectives and having a thorough familiarity with the cases are probably the two most critical areas of preparation.**

If a discussion leader can master these two areas of preparation they should have no difficulty providing a good educational experience for the course participants.

Facilitation skills are probably the next most important factor for success and avoiding problems. While many of the points made in this chapter can be very helpful in addressing problems that arise, experience over time will improve overall facilitation skills. The main purpose of discussion groups is to allow participants to test their knowledge and to clarify points that have been made in the lectures and practicals. The use of real cases as focal points for discussion is a very powerful learning tool if the participants are actively engaged. These groups are not designed as a forum for leaders to demonstrate their expertise or to attempt to change the attitudes of the participants. The leader's role is to promote discussion in a safe, respectful, and enthusiastic environment [5]. As ambassadors for AO, the discussion leader should be professional and respectful of all participants. Demeaning comments, inappropriate jokes, and statements that could be interpreted as sexual or racial harassment should never be used or tolerated in the group.

Techniques that work in one group may not work in another group. Group size, the level of expertise, and the personalities of the participants can determine which facilitation techniques work best. In small groups (less than eight people) it is usually easier to get all participants to become actively engaged in discussion [3, 4].

Since non-participation is very conspicuous in groups of this size, there is a great deal of pressure on each individual to comment or ask a question. In larger groups, discussion leaders may notice that up to 25% of the group may not actively participate. It is more difficult to identify each individual and to use techniques like eye contact to encourage them to participate. In addition, the relatively short amount of time devoted to each case makes it more difficult to maintain discussions long enough to allow everyone to ask a question or make a comment.

Larger groups are more susceptible to multiple simultaneous discussions. "Buzz" groups are smaller, two-to-four-person groups, that begin a conversation among themselves while the remaining members of the group continue their general discussion [1, 2, 4]. Sometimes it is possible to bring the buzz-group discussion into the larger group while waiting 5–10 seconds before continuing the larger group discussion. If that is unsuccessful you might acknowledge the buzz-group discussion and ask them to continue their conversation at a later time in order for the large group discussion to stay on time.

In case of language problems, especially if native and nonnative speakers are in one group, it is difficult to keep the pace of discussion. There are certainly people who will not get any message due to a near complete lack of the language spoken but intense observation will identify those who might be involved in the discussion if the pace is slowed. Furthermore, repetition of the key words of a message will help to make opinions more understandable. This technique should be used as early as possible so as not to lose the course participants who

are struggling to understand the discussion. Sometimes it is helpful to ask at the beginning who is a native speaker and who is not. Other members of the group may speak slower or use simpler words and phrases to help the nonnative speakers. Leaders should watch the nonnative speakers more carefully in order to detect signs that they may not be following the discussion.

■ ■ **Repetition of the key words of a message help to make opinions understandable.**

Another strategy worth trying is to split the group into smaller groups according to their native language. Each group can be allocated a case to discuss and after 10 minutes or so, the participant with the best linguistic skills can be asked to present their groups conclusions. The discussion group leader will usually find that there is at least one member of each language group who has reasonable linguistic skills.

2.4 After the course

Formal evaluation of discussion groups with forms is usually unhelpful. Therefore, personal contact with the participants directly after the meeting or during the tea/coffee breaks will help to identify how the discussion group could have been better. One should not expect too much feedback from this technique but it will tell whether certain goals were met. One very useful mechanism of evaluation is a discussion between the two discussion group leaders. Identifying which tech-

niques were successful and which were not can help the leaders make adjustments for the future. Additionally, senior discussion leaders should take time with junior leaders to critique their performance and offer suggestions. During analysis one should clarify whether the learning objectives were well explained and met, whether the set-dialogue-closure scheme was followed and whether measures have to be taken to address problems that occurred (eg, repositioning several discussants or even taking somebody aside if his behavior was disruptive for the rest of the group). Finally, sometimes, fellow faculty members who observed the meeting are a valuable source of additional information [2].

■ ■ **A small AO discussion group should:**

- **Be well prepared concerning case selection, timing, and venue.**
- **Follow the set-dialogue-closure layout format.**
- **Seek to actively engage the participants.**
- **Be moderated, not presented.**
- **Reinforce the basic educational messages of the overall course.**

3 A discussion in a large group

Discussion groups of 40 or more participants are almost an oxymoron since the large numbers make it virtually impossible to conduct a discussion among all the attendees. However, it is possible to apply many of the principles described earlier in this chapter to facilitate good interaction among participants and the group leaders. Many of the rules in the chapter on presenting a lecture (see 6 How to give a lecture; 3 During the course) are useful, especially the ones concerning eye contact and body language. If the large discussion group is primarily intended as an informal way to summarize the main learning objectives of the entire course it is helpful to have a team of three faculty members leading the discussion. It will then be a presentation of that group of faculty that actively tries to get at least part of the course participants to make comments and ask questions. Cases representing the main issues of the course should be carefully selected prior to the discussion. Each of the two or more faculty members/discussion group leaders should present one case. A clear delineation of roles for each of the faculty members should be planned just as it would be done for a small group discussion.

■ ■ **In the large group, unlike the small group, it requires at least three faculty members to maintain good eye contact and to observe body language across the entire group of course participants.**

The educational experience of the discussion leaders is much less critical for large group discussions than it is for a small group discussion. The educational experience level of almost any faculty member at an AO course should be sufficient to direct a large group discussion.

Faculty members must however be sufficiently clinically experienced to answer any questions. Prior experience as a lecturer is an advantage when facilitating a large group discussion since they will have some familiarity with the skills necessary to keep the attention of a large audience. In general, only faculty who have experience in giving lectures and facilitating large group discussions are likely to volunteer for this kind of assignment (**Fig 3-2**). It is not advisable to appoint inexperienced or unwilling faculty to this duty. New faculty members who want to gain experience can be given responsibilities as support faculty member and may serve as co-leader to a large group discussion session with a more experienced faculty member.

It is more difficult to hold the attention of a large group for long periods of time. For that reason it is advisable that large group discussion sessions be scheduled for shorter amounts of time than small group discussions. Typically, 45 minutes is the maximum time for which a large group discussion should be scheduled. As with small group discussions, each case should be presented, discussed, and summarized in 12–15 minutes. This can present a challenge to the discussion leader(s) since the larger number of course participants often means that there are more questions and opinions.

Faculty members have a choice as to the opinions they express with regard to the treatment of the cases that are presented. Faculty members can agree in advance to take a particular line regardless of how they feel about the management of a given case. Such a policy leads to a lively debate but from the participants point of view it is probably best to allow faculty members to express their true clinical opinion.



Fig 3-2a–b A large discussion group with faculty and facilitator.

3.1 Before the course (short-term and long-term)

Appropriate case selection is very important. All members of the leading group should see and discuss the cases to be presented prior to the meeting and specific learning objectives should be agreed upon for each case. The leader of the group will determine the order of presentation. The presentation order and learning objectives should closely parallel those of the entire course. The cases should be especially clear and learning objectives should be focused in order to keep the discussion from becoming too broad. The background information presented to the audience should be brief and specific. It is often helpful to have discussion leaders prepared to discuss alternative points of view in case the audience is reluctant to participate by asking questions or giving opinions.

As stated before, the group should agree upon everyone's role. One faculty member should take the lead in presenting each case. The case leader should develop a brief presentation that includes the background of the case and the issues for discussion (preferably stated in the form of one or more questions). X-rays, slides, or other relevant visuals should be prepared (or made available in print). In preparation of the case materials consideration should be given to skill level of the course participants as well as their knowledge of the leading language.

In contrast to small discussion groups there are not many possibilities to change the layout of the lecture hall, so you have to adjust to the possibilities given. However, you should inspect the room as you would

before giving a lecture, which includes lighting and AV setup. Specifically, you should know where the lighting controls are located (and how to operate them) and you should verify that the correct AV equipment is in the room and in working order. Projecting a test slide will verify that the equipment is in working order and will allow you to determine whether you will need to adjust the lighting in order for slides to be visible to the audience.

Slides or PowerPoint presentations including all the cases should be burned to disk, on CD-ROM, or memory sticks and delivered to the AV technician in advance of the session. If an audience response system (ARS) is being used, someone should be stationed at the door to distribute them or they should be preplaced on each seat. Multiple wireless microphones should be available in order to make free movement of the leading group possible.

3.2 At the precourse

The material to be used in the large discussion group needs to be shown to all the faculty members at the precourse. This will allow the faculty to discuss what the learning objectives should be for any given case. It also allows the opportunity for individual faculty members to raise concerns about the suitability of the material or the correctness of the treatment modalities shown.

Since the material shown in the large discussion groups is frequently talked about by the participants during breaks, all faculty should be familiar with the material to allow them to contribute to these vital informal learning sessions (**Fig 3-3**).



Fig 3-3 Course participants and faculty members exchanging information during informal discussions.

3.3 During the course

Like other types of presentations, a set-dialogue-closure format should be followed. The senior faculty member of the leading group should briefly introduce all members of the leading group as well as their function during this discussion group session and explain the objectives of the session and the format that will be used. The easiest way is to then let the moderator start with the first case and present the essential information for starting the discussion. Again it is important to get early participation by the course participants. There are several ways to do this. Questions, posed to the entire audience, are quick and easy ways to get the audience thinking about the case and engaged in learning. An ARS (see 1 AO

education—introduction; 3 Audience response system) can be very useful in this situation because participants can respond anonymously and they can see how their responses compare to those of the rest of the group. However, use of an ARS requires preparation and a little bit of practice. Alternatives to an ARS include asking the audience to signal responses with a show of hands or to hold up colored cards indicating agreement or disagreement with a statement. Short, clear questions integrated in the slides of the case will facilitate participation of the course participants. The audience responses to questions should help the leader to determine the direction of the discussion. After some initial participation by the entire audience, the lead faculty member may ask the other faculty to make brief comments based on the responses of the audience [1].

Before asking for individual comments or questions from the audience, the other faculty should position themselves in strategic locations around the room. As the lead speaker calls on individuals, one of the faculty members should take a microphone to that individual so that the question or comment can be clearly heard by the entire audience. If wireless microphones are not available it may be possible to place one or two fixed microphones in the aisles and ask participants to come to the microphones. This method often results in a queue of several people and can help the leader judge how much time to take with each individual. Another model for eliciting participation is to allow the other faculty to move throughout the room and to choose from participants who indicate that they have a question or comment. If that method is chosen the faculty will have to move to different parts of the room to ensure wide

participation. Finally, if only one microphone is available to the lead faculty it may be necessary to require participants to shout out their question or comment to the leader. In this case the leader should remember to always repeat the question or comment to the audience before answering. It is very important that the case leader be very aware of the time.

■ ■ **Discussion and comments should be ended after 12–15 minutes so that the main discussion leader has time to summarize the learning points of the case.**

Finally, the discussion session should end with a formal closure summing up the goals of this discussion by the lead faculty member.

3.3.1 Dangers and problems

Possible dangers during this session are comparable to those of the smaller discussion groups. It is not possible to have everybody make an individual comment or ask a question in a large group.

Randomly selecting members of the audience to speak can create problems by moving the discussion off target. Identifying members of the audience who are likely to have particularly useful comments or questions can be a critical variable in keeping the discussion focused on the learning objectives. Too much inconsistency or divergent opinions among the discussion leaders, although partially intended, should not turn into open controversy. Depending on the cultural backgrounds and knowledge of the leading language, the pace of the discussion may need to be adjusted.

3.4 After the course

A debriefing session among the faculty can be very useful for improving future discussions. Meeting informally, immediately or soon after the session, will promote a more useful discussion since the details of the session are still fresh in everyone's minds. If this is not possible, discussion leaders may agree to make evaluation notes of the session for a later discussion. The major focus of the evaluation should be on the utility of the cases selected, the ability to reach the stated learning objectives, the coordination among the faculty members, the ability to stimulate useful discussion, and the degree to which the course participants seemed to be interested and attentive to the material discussed. It is very difficult to determine the opinions of the course participants without directly asking them. If a written evaluation of the session is solicited or if other evaluation tools are used, the data should be summarized and sent to all faculty members for later discussion. If other course faculty members attended the session, it may be possible to get direct feedback and suggestions from them after the session or at a later time. Finally, any technical, environmental, or organizational issues should be discussed among the faculty.

■ ■ Large AO discussion groups:

- Are an excellent way to summarize the whole course program.
- Should be guided by at least three discussion group leaders.
- Need preparation in case selection and roles within leading group.
- Should be presented in the set-discussion-closure format.

4 Conclusion

Given the fact that the teaching/learning effects of a discussion are generally much higher than a lecture, good preparation before—and highest concentration during—these meetings are cornerstones of a successful presentation and an effective teaching moment. Faculty who show enthusiasm for teaching, an in-depth knowledge of their subject, and interest in the course participants will always have the best results in any educational setting. These characteristics create an excitement for learning that is contagious in both small and large groups.

■ ■ **The best teachers are those who are always learning their craft and are always looking for ways to improve. The suggestions described in this chapter have been shown to be successful, but all teachers must find techniques that fit their personality and style.**

5 Anecdote



Some years ago, I had to moderate a rather large (30) “small discussion group” during a Principles Course. Due to a very limited time frame the introduction of the moderators was rather short, and the participants did not introduce themselves. Basic principles of fracture treatment were discussed using a case of a simple closed transverse femoral midshaft fracture in a 40-year-old farmer after being hit by a bull. The discussion was lively and many participants were involved. One participant seemed to be very interested in the case but, despite different questions, the only answers he gave were: “thank you” or “yes”. After the session he unexpectedly came forward and greeted me, while asking: “what animal”. I did not really understand his question and replied: “a bull, male cow”. He looked amazed at me and asked: “your country?” I told him that this type of accident happens in our country and again he smiled at me and said: “Funny, we shoot them”. While thinking about that answer, I was looking at his badge which clearly indicated: “Veterinary Course”.

Afterwards, I learned that he indeed was a vet who had lost his group and by accident joined my small discussion group and thought that we had talked about the treatment of femoral fractures in cows.

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6 Bibliography

1. **Grasha A** (1996) *Teaching with style: A practical guide to enhancing learning by understanding learning and teaching styles*. New York: Alliance Publishers.
2. **Crosby JR, Hesketh EA** (2004) Developing the teaching instinct: Small group learning. *Medical Teacher*; 26:16–19.
3. **Walton H** (1997) Small group methods in medical teaching. *Med Ed*; 31:459–464.
4. **Jaques D** (2003) ABC of learning and teaching in medicine: Teaching small groups. *BMJ*; 326:492–494.
5. **Steinert Y** (1996) Twelve tips for effective small-group teaching in the health professions. *Medical Teacher*; 18:203–207.