Medical Teacher

ISSN: 0142-159X (Print) 1466-187X (Online) Journal homepage: https://www.tandfonline.com/loi/imte20

# Twelve TipsBecoming a student in a PBL course: twelve tips for successful group discussion

Samy A. Azer

**To cite this article:** Samy A. Azer (2004) Twelve TipsBecoming a student in a PBL course: twelve tips for successful group discussion, Medical Teacher, 26:1, 12-15, DOI: 10.1080/0142159032000156533

**To link to this article:** https://doi.org/10.1080/0142159032000156533

*Medical Teacher, Vol. 26, No. 1, 2004, pp. 12–15*

Taylor & Francis healthsciences

TWELVE TIPS

# Becoming a student in a PBL course: twelve tips for successful group discussion

SAMY A. AZER

*Faculty Education Unit, Faculty of Medicine, Dentistry and Health Sciences, University of Melbourne, Victoria, Australia*

SUMMARY *Problem-based learning (PBL) serves as an educational method to foster self-directed learning, integration across disciplines, small-group learning and decision-making strategies. The approach is student centred. During the discussion of a PBL case there are a number of important issues to be considered by students, such as keeping ground rules, knowing their roles, keeping group dynamics, becoming a purposeful learner, planning how to use tutors' feedback to enhance group discussion and boost student's learning skills, as well as striving to become a winning team. This paper provides 12 practical tips to PBL students to enhance their skills in discussing a case in their group.*

## Introduction

Problem-based learning (PBL) is currently used in medical schools worldwide and also in schools of physiotherapy, nursing, pharmacy, optometry, occupational therapy and speech pathology (Davis & Harden, 1998). The approach used in PBL is student centred (Norman & Schmidt, 1992), and aims at the following educational objectives (Barrows & Tamblyn, 1980):

- Enhance students' skills to acquire principles and key concepts that should be better retained by the learners and allow them to use information learnt in other similar situations.
- Develop students' clinical reasoning skills, critical thinking and decision-making strategies.
- Develop students' skills in integrating knowledge across disciplines and better understanding of the role of a humanistic attitude towards professional performance.
- Prepare students to pursue lifelong learning.
- Promote small-group learning, the need for effective teamwork and collaborative learning.

To achieve these objectives, problem-based learning requires that students work in small groups of 8–10 students with the help of a tutor (Ledingham & Crosby, 2001). The roles of PBL tutors are to facilitate group discussion, create a healthy environment that allows all members to contribute to discussion, provide formative feedback whenever necessary and monitor group progress (Maudsley, 1999). Although successful discussion of a PBL case in a tutorial has been attributed to several factors, including authenticity of the case, flow and design of the case and PBL tutor skills, the key for successful PBL discussion remains in the hands of the students (Allen *et al.*, 1996; Engel, 1992). Students should be oriented to the philosophy of problem-based learning, the rationale for its use and their role in a tutorial. Here are 12 practical tips to be used by PBL students while discussing a case in a tutorial.

### Tip 1

*Keep ground rules*

- Setting group norms (ground rules) early in a group's existence prevents crises from occurring in the group and allows better function.
- The tutor should discuss with the group his/her role.
- Ground rules are agreed on by group members.
- They should reflect the group's needs and principles.
- Groups should operate in keeping with the rules.

Example of ground rules agreed by a PBL group:

- Everyone has the right to express his/her views.
- We should debate issues rather than argue them.
- We should not spend too much time on one issue.
- We should respect each other and avoid personal comments.
- We need one scribe at time—2 scribes per tutorial.
- We need a recorder for each tutorial.
- We need to focus on the discussion of the case and avoid sidetracked discussion.

Some of the ground rules are non-negotiable and will be explained by your tutor, as they are important for group function:

- Attendance and punctuality are mandatory.
- All mobile phones must be turned off during the tutorial.
- Groups must use white-board as they discuss the case.
- The case should be discussed in the outlined sequence.
- The group should not take short cuts or skip a step.

### Tip 2

*Know your roles*

- Groups function better when every member is aware of the different roles a group member should undertake.

*Correspondence*: Dr Samy A. Azer, Faculty Education Unit, Faculty of Medicine, Dentistry and Health Sciences, University of Melbourne, Victoria, Parkville 3010, Australia. Tel: +61-3-83448035; fax: +61-3-83440188; email: samy@unimelb.edu.au



ISSN 0142–159X print/ISSN 1466–187X online/03/030012-4 © 2004 Taylor & Francis Ltd
DOI: 10.1080/0142159032000156533

- Roles should be agreed on and organized in the first tutorial of a block/semester.
- The approach is student centred.

What are the different roles available to me in a PBL tutorial? What exactly should I do?

- Be a scribe: a scribe listens to each member's input, records and organizes information discussed by the group on the white board, encourages every member to contribute and knows how to serve the group.
- Be involved in the case discussion: Every member contributes to the discussion in a way that adds new information, deepens group understanding, acknowledges others' input, focuses on the issue and avoids negative arguments.
- Be a group recorder: a group recorder summarizes all the information on the white board and makes a copy available to every member in the group after the tutorial.
- Be a word finder: look up difficult terms in the medical dictionary.
- Be the group's representative: Each semester one member is nominated by the group to represent them at faculty meetings and look after administrative issues in the group.
- Apart from the group's representative, students rotate roles every tutorial. A student may have more than one role in the same tutorial.

**Tip 3**

*Keep group dynamics*

- Ask yourself: What good qualities am I bringing to my group?
- Use individual and cultural differences as a way to empower group dynamics.
- Appreciate the values of teamwork and the need for regular evaluation of the group process.
- The last 10 minutes in tutorial two (as you complete the discussion of a case) are a good opportunity for the group to reflect on members' performance, identify specific goals that the group aims at and plan how to achieve each of these goals. Focus on one goal at a time.

What questions should the group consider as they review and reflect on group performance in the last 10 minutes of tutorial two?

- What did we achieve this week as a group?
- Have we worked effectively together?
- In what areas did we succeed?
- In what areas do we need to improve?
- As a group, what are our goals for next week?
- How can we achieve these goals?

**Tip 4**

*Ask empowering questions*

- Use of good open-ended questions could empower the discussion and keep the group focused on the issue.
- Use of good empowering questions in group discussion is vital for deep understanding and better learning.
- Avoid asking shallow questions that focus on detail.

Examples of open-ended questions that enhance group discussion:

- Normally we do not feel short of breath. What structures and functions do we need so that we breathe normally?
- What could possibly go wrong with each of these structures and cause shortness of breath?
- What are the structures in the chest that could possibly cause chest pain?
- What could possibly go wrong with each of these structures and cause chest pain?

**Tip 5**

*Be a purposeful learner*

- A powerful motivator for adult learning is keeping the learning process purposeful so that it contributes to personal growth and deep understanding.
- Your self-directed learning will be enhanced if you know exactly what questions you are trying to answer in your search.
- Shape your learning to suit the needs of your new learning environment.

A purposeful learner:

- has a continuous desire for learning;
- is focused on his/her goals;
- is a critical thinker;
- is self-motivated;
- is not afraid to ask for help;
- is able to monitor his/her progress;
- has an enquiry plan;
- is able to integrate information learnt;
- has developed reasoning skills;
- plans his/her learning.

**Tip 6**

*Without feedback there would be no champions*

- Learn how to get the best out of your tutors' feedback.
- Plan how to use feedback to enhance your input to the group discussion and boost your learning with your tutor.

How can I benefit most from my tutor's feedback?

- Focus on issues raised in the feedback and don't take it personally.
- Show interest in issues raised and explore them with your tutor.
- Negotiate an approach with your tutor to enhance your input to the group.
- Work on one issue at a time and meet with your tutor in a fortnight to further discuss your progress.
- Think about ways to keep you motivated and improve yourself.
- Keep monitoring yourself and focus on your goals.
- Record your daily progress in a journal.
- Once you have accomplished a particular skill, move on to the next area in need of improvement.
- Celebrate your successes.

**Tip 7**

*Monitor your own progress*

- One of the key elements of success is self-evaluation and motivation.
- Keep focused on your goals as you progress.
- Keep a progress journal to monitor your progress.

What issues should I address in my progress journal?

- What are my areas of strength?
- What are the areas I am still developing?
- What are the areas I need to improve?
- How can I improve myself in each of these areas?

**Tip 8**

*Strive to be a winning team*

- Effective interactions fuel the right actions.
- Focus on the issue rather than personal interest.
- Group success is the outcome of every member's contribution (Table 1).

Characteristics of winning teams:

- They define their priorities more than others do.
- They give up their personal plans more than others do.
- They appreciate the process of developing people more than others do.
- They communicate more effectively than others do.
- They encourage team members more than others do.
- They establish their common goals more than others do.
- They are committed more than others are.

**Tip 9**

*Be a critical thinker*

- Debate rather than argue an issue.
- Before making decisions, weigh evidence for and against a hypothesis.

Characteristics of critical thinkers—they:

- use their thinking abilities to the fullest extent;
- carefully analyse complex issues;
- develop a thoughtful and well-structured approach to guide their choices;
- look for supportive evidence for each of their hypotheses;
- evaluate data, synthesize information, establish links and identify areas that need further research;
- are able to discuss issues in an organized fashion;
- evaluate accuracy of their beliefs;
- have a passion for understanding and are always striving to solve problems;
- explore different aspects of an issue, e.g. scientific basis, ethical and moral issues, background and contributing factors.

**Tip 10**

*Know the roles of your tutor*

- The approach in PBL is student centred.
- Your tutor will not be the information provider.
- He/she would rather facilitate learning and put the discussion on the right track when needed.
- During one-on-one sessions, your tutor will provide you with feedback on your contribution to group discussion.
- Your group will have an opportunity to discuss ways of improving group dynamics with your tutor as you finish discussion of each problem (Maudsley, 1999).

**Tip 11**

*Turn to the winning attitude*

- Develop good habits.
- Select a model to follow.
- See opportunities for success in challenges.
- Focus on solutions.
- Have a desire to give and share resources.
- Be persistent.
- Find ways to relieve stress.
- Don't take yourself too seriously.
- Take actions to change your attitude.

**Tip 12**

*Be a collaborative learner*

- Collaboration is the critical competence for achieving and improving group performance (David *et al.*, 1999).
- To foster collaboration in the group members need to create a climate of trust.
- Ask others for help and assistance when needed.
- Listen attentively to the views of other members.
- Interact with each other on a regular basis.
- Share information and resources.
- Provide descriptive rather than evaluative or judgmental comments.
- Ask questions for clarification.
- Always say 'we'.

**Conclusions**

Students in a PBL course should be introduced to the educational objectives of PBL, the rationales for using PBL and the keys for successful discussion of a case. The use of

**Table 1.** Main differences between effective and dysfunctional groups.

| Effective groups | Dysfunctional groups |
|---|---|
| • Keep their ground rules | • Failed to identify ground rules |
| • Members focus on group's goals | • Members do not have common goals |
| • Care about team achievements | • Care about personal gains |
| • Work in a supportive environment | • Tutor-centred or managed by a dominant student |
| • Continuous group monitoring | • Ignore feedback |

the 12 tips provided in this paper will provide students with a clear idea of their roles in a PBL tutorial and how to make the most out of it.

**Acknowledgements**

The author would like to thank the students and PBL tutors who kept him engaged with research in problem-based learning.

**Notes on contributors**

Samy A. Azer, MB BCh Msc MEd PhD (Syd) MEd (NSW) FACG FRSM, is a Senior Lecturer in Medical Education at the Faculty of Medicine, Dentistry and Health Sciences at the University of Melbourne. He plays a major role in problem-based learning, creating cases for semesters 1 to 5, and he is the director of the PBL tutor training. His research focuses on curriculum structure and design, innovation in education, problem-based learning and the use of tools that test cognitive skills in assessment.

**References**

Allen, D.E., Duch, B.J. & Groh, S.E. (1996) The power of problem-based learning in teaching introductory science courses, in: L. Wilkerson & W.H. Gijselaers (Eds) *Bringing Problem-based Learning to Higher Education: Theory and Practice*, pp. 43–52 (San Francisco, Jossey-Bass).

Barrows, H. & Tamblyn, R. (1980) *Problem-based Learning: An Approach to Medical Education* (New York, Springer).

David, T., Patel, L., Burdett, K. & Rangachari, P. (1999) *Problem-based Learning in Medicine* (London, Royal Society of Medicine Press).

Davis, M.H. & Harden, R.M. (1998) AMEE Medical Education Guide No. 15: Problem-based learning: a practical guide, *Medical Teacher*, 21, pp. 130–140.

Engel, C.E. (1992) Problem-based learning, *British Journal of Hospital Medicine*, 48, pp. 325–329.

Ledingham, McA.I. & Crosby, J.R. (2001) Small group sessions, in: J.A. Dent & R.M. Harden (Eds) *A Practical Guide for Medical Teachers*, pp. 74–85 (London, Churchill Livingstone).

Maudsley, G. (1999) Roles and responsibilities of the problem based learning tutor in the undergraduate medical curriculum, *British Medical Journal*, 318, pp. 657–661.

Norman, G.R. & Schmidt, H.G. (1992) The psychological basis of problem-based learning: a review of evidence, *Academic Medicine*, 67, pp. 557–565.