

## Student perspectives regarding the process of problem based learning at Melaka Manipal Medical College, India

Maya Roche<sup>1</sup>, Reem Rachel Abraham<sup>2</sup>

### Background

Melaka Manipal Medical College (MMMC) (Manipal Campus), Manipal University, India offers the Bachelor of Medicine and Bachelor of Surgery (MBBS) programme, which is of five years duration. The first two and a half years are spent in Manipal, India and the remaining in Melaka, Malaysia. There are two admission intakes per year; one in March and another in September. Problem Based Learning (PBL) is recognized as a strategy to promote integration of knowledge and to foster a deep approach to learning.

PBL has not been widely implemented in Indian universities, particularly at first year level where it is perceived to be too challenging for students (Teakle, 2008). PBL was incorporated at MMMC in the MBBS curriculum in September 2006 for students of the first year.

### Need for the study

The faculty at MMMC believes that students' perspectives are important as far as curricular reforms are concerned. Additionally, we also felt that students play a pivotal role in identifying the pitfalls in the new teaching/assessment strategies introduced in the curriculum.

### Objectives

The present study explored student perspectives regarding the process of PBL at MMMC.

### Methodology

The present study was undertaken in a biochemistry PBL session in 2008. PBL was implemented in the traditional pattern consisting of brainstorming and presentation sessions. During the brainstorming session, students (n=124) were divided into 12 groups, each group consisting of 12 students with one facilitator for each group. In the brainstorming session, students were presented with paper based case scenarios and were asked to identify the unfamiliar terms, issues, hypotheses and learning objectives. Students were given six weeks of preparation time for the presentation during which they presented the learning objectives in detail. After an extensive literature review, a questionnaire consisting of 20 items pertaining to the process of PBL was designed (Table 1).

The items were categorized under three scales namely; learning (11 items), content (3 items) and concerns/suggestions (6 items). Face validity of the questionnaire was determined by consulting other faculty in the institution. The questionnaire was administered to the students after a regular PBL presentation session. They were asked to respond to each item ('Yes'/'No') based on their experience in PBL, and the data was analysed.

### Results

Students' response to the questionnaire is indicated in Table 1. More than 80% of students felt that PBL problems were well designed and helped to recall and reinforce prior knowledge of the topic. They also felt that PBL facilitated team-learning (83.9%) and boosted their self-confidence (83.9%). 74.1% of students opined that marks allotted to PBL contributed adequately to internal assessment. Some students (53.8%) felt that learning in PBL was not as good as that in a lecture class and 80.6% found preparing for PBL time consuming. Only 16.7% voted for more PBL sessions.

<sup>1</sup>Department of Biochemistry,

<sup>2</sup>Department of Physiology  
Melaka Manipal Medical College (MMMC),  
Manipal Campus, India.

Corresponding author:

Dr. Reem Rachel Abraham, Department of Physiology,  
Melaka Manipal Medical College (Manipal Campus),  
Manipal University, Manipal- 576104 Karnataka state,  
India.

Phone: 91-820-2571201 ext-22649

Fax: 91-820-2571905

*Table 1: Students' (n=124) response to the questionnaire*

Items	Percentage of student with 'Yes' response
<b>Learning</b>	
1. PBL sessions are student – centered ( it is the students who pose the questions and find out the answers )	92.7
2. PBL sessions help me recall prior knowledge about the topic	94.3
3. Presentation sessions demand proper understanding of the topic	96.7
4. PBL sessions help in accumulating new knowledge	94.3
5. Presentation sessions reinforce my understanding of the subject	92.7
6. PBL sessions motivate me to learn	79
7. PBL facilitates team – learning	83.9
8. PBL boosts my self-confidence to present a topic to an audience	83.9
9. PBL trains me to gather and organize information from various sources	85.5
10. PBL promotes self-directed learning	97.5
11. PBL promotes my analytical thinking skills	88
<b>Content</b>	
12. PBL cases are well constructed	84.6
13. PBL marks contribute adequately to block examination marks	74.1
14. PBL topics are given equal importance in block examination	83
<b>Concerns/Suggestions</b>	
15. I require more number of PBL sessions	97.5
16. Learning in a PBL session is as good as that of a lecture class	86.7
17. I would prefer it if the facilitator explains any confusing points at the end of the presentation session	94.3
18. I would like to have feedback from the facilitator on the performance of the <b>group</b> at the end of presentation session.	53.8
19. I would like to have feedback from the facilitator on <b>my</b> performance at the end of presentation session.	80.6
20. Preparing for PBL is time consuming	16.7

## Conclusion

Responses from the students indicated that students at MMMC appreciated the facilitating attributes of PBL. It was encouraging to find that students could appreciate the **learning** which takes place through PBL. Though having limited knowledge in the first year, it was encouraging to observe that students had risen to the challenge. They exhibited a greater desire for student-facilitator interaction. They were also found to be undecided whether lecture or PBL is a better mode of learning. However, in an institution with a packed curriculum, such as MMMC,

introducing more PBL sessions was not recommended.

## References

Teakle, N. (2008) Problem based learning for first year students: Perspectives from students and laboratory demonstrators, In *Preparing for the graduate of 2015*, Proceedings of the 17th Annual Teaching Learning Forum, 30-31 January 2008. Perth: Curtin University of Technology. Available at <http://otl.curtin.edu.au/tlf/tlf2008/refereed/teakle.html>