

## AN INTRODUCTION OF PROBLEM BASED LEARNING IN IMS, BHU

U. PANDEY<sup>1</sup>, T. M. MAHAPATRA<sup>2</sup>

<sup>1</sup>Department of Obstetrics and Gynaecology, <sup>2</sup>Director, Institute of Medical Sciences, BHU.

Received: 8 January 2014, Revised and Accepted: 18 February 2014

### ABSTRACT

**Aim:** To find out the interest generated among medical students for problem based learning (PBL).

**Methods:** Questionnaires were distributed to a batch of medical students (final year). Problem based learning was explained to them by power point presentation by the first author before the questionnaires were distributed. Then the students were asked to fill the questionnaires which were collected within ten minutes.

**Results:** Thirty two students answered that PBL has '*generated interest*' in them as student while one student answered 'definitely yes'.

Students were asked '*do they think it is a better way of teaching/learning?*' Twenty nine students answered yes, three answered definitely yes and one answered may be.

Students gave variety of replies to the question '*why they thought it was better?*' Majority of students wrote that active participation brings responsibility, enhances learning and retention. PBL will be a realistic way of teaching. Students also felt that PBL is active form of learning and it is deep learning, it will boost student confidence and strengthens students' teacher relationship. They also felt that it will be interesting and practical.

**Conclusions:** The questionnaire survey among the final year MBBS professional students revealed their interest in PBL. The reason we would prefer PBL to be introduced in the IMS, BHU is because it is a self-learning method which is the deepest form of learning. It is well known that we will need more resources and also more staffing to continue doing PBL but it will be worth the effort for our students.

**Keywords:** Students, Pbl, Medcal, teaching.

### INTRODUCTION

**Background:** PBL is a student-centred teaching in which students learn about a subject in the context of complex, multifaceted and realistic problems.

PBL was pioneered in the health sciences at McMaster University in the late 1960's and subsequently it has been adopted by other medical school programs<sup>1</sup>. It was started due to recognition of the failures of traditional teaching and the emergence of deeper understanding of how people learn.

A systematic review of the effects of PBL in medical schools on the performance of doctors showed clear positive effects on physician competence. More than 80% of Schools in the USA now have some form of PBL. PBL is also used in many medical schools in the UK<sup>2</sup>.

**Aim:** To find out the interest generated among medical students for problem based learning (PBL).

**Methods:** Questionnaires were distributed to a batch of medical students (final year). Problem based learning was explained to them by power point presentation by the first author before the questionnaires were distributed. Then the students were asked to fill the questionnaires which were collected within ten minutes.

The questions which were asked are as follows:

year, age, sex, what is PBL, did it generate any interest in you, can it be introduced to IMS, their suggestions about how it can be introduced in the IMS, would they like to participate in it, should we introduce it to the junior or senior section, should we introduce it just for one subject or more, any comments (Please see the questionnaire attached).

**Results:** There were 4 female final year MBBS professional students and 29 male final year MBBS professional students in this survey. Their age group ranged between 20-30 years.

Information about PBL was given to them with the help of power point presentation. Students were then asked '*whether they know PBL?*' Only one participant answered that he does not know, rest answered that they do.

Thirty two students answered that PBL has '*generated interest*' in them as student while one student answered 'definitely yes'.

Students were asked '*do they think it is a better way of teaching/learning?*' Twenty nine students answered yes, three answered definitely yes and one answered may be.

Students gave variety of replies to the question '*why they thought it was better?*' Majority of students wrote that active participation brings responsibility, enhances learning and retention. PBL will be a realistic way of teaching, there will be better learning skill and teaching. Students also felt that PBL is active form of learning and it is deep learning, it will boost student confidence and strengthens students' teacher relationship. They also felt that it will be interesting and practical. There will also be self learning which the best form learning.

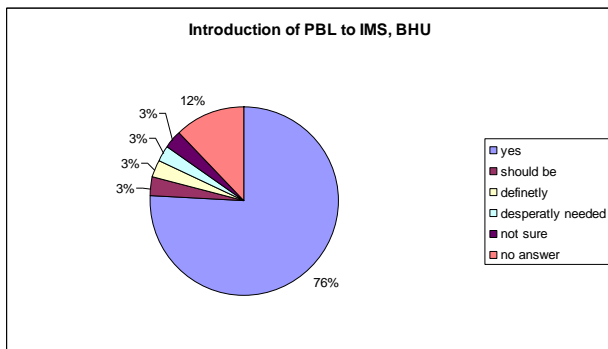
Another group of students felt that it will improve their presentation skill, it is two way communication, their will be equal participation, it will give idea about the real situation, students will be better prepared, there will be push to students, it is a more scientific approach, there will be a sense of responsibility and achievement, increase learning in short space of time, one student felt 'I too want to teach'.

One participant wrote 'try and see if beneficial'. Two participants did not write anything.

**'Can it be introduced to the IMS, BHU?'** Twenty five students wrote yes, while one student wrote desperately needed, another definitely and another should be. Four students did not answer anything, while one student wrote that he was not sure.

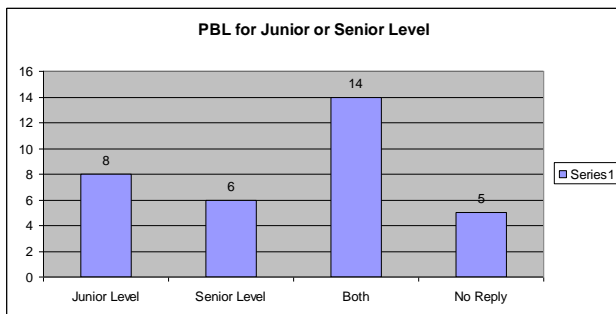
**'How it can be introduced to the IMS?'** Majority of students felt that it should be introduced in phasic manner, step wise during the clinical postings in clinical subjects. Others felt that it should be introduced in small groups/individual classes, in revision courses or by organising seminars or by interactive sessions. Some of them also felt that there should be formation of teams with Professors and Assistant Professors along with Junior Residents to form a team for PBL.

Others felt it should be introduced in the IMS as soon as possible. Some felt that it will need reprogramming of schedule, while one participant felt that it should be introduced on a trail basis.



All the participants were prepared to '*participate in PBL*' except one student who did not reply.

Fourteen students wrote that it should be introduced to '*both junior and senior level*', while eight students felt that it should be introduced to junior level (first and second year medical students), 6 students felt senior level (third, fourth and fifth year students ) and five students did not reply anything.



Only two students felt that PBL should be introduced to one subject first while 22 felt that it should be '*introduced to more subjects*', five participants felt that PBL should be introduced in all subjects. One student felt it should be introduced to difficult and important topics.

Students were asked to write their '*comments*' in the free space provided on the questionnaire paper, some of them are like:

'thank you ma'm for this great effort', continue effectively, nice step, may prove good, best of luck, stop the lectures, please replace current lecture strategy, it will improve learning, teaching will be based on clinical problem, could be more beneficial, prefer to have PBL, more confidence to students, good for better understanding, for better development of us as a doctor, we will start discovering and inventing, more useful than regular teaching.

Other interesting things which students wrote were

'Yes but examiners here are concerned with book-based learning and we have to remember facts rather than learning them to pass the exam. It will be a better way of teaching only when the whole way of evaluation is changed accordingly'. 'PBL analyses weaknesses, promotes co-ordination, teaches utilizing resources', PBL must be accompanied by case discussion.

'It will improve communication skills, but it should be made voluntary rather than compulsory'.

'Difficult to start anything new, but best of luck.

**Discussion & Conclusions:** The questionnaire survey among the final year MBBS professional students reveal their interest in PBL. Majority of students were not aware of the terminology PBL but they had some idea about this method of teaching which they wanted anyway.

The reason why we would prefer PBL to be introduced in the IMS, BHU is because of it's self learning which is always the deep learning [3]. It is well known that we will need more resources and also more staffing to continue doing PBL but it will be worth the effort.

Students are considered to be active agents who engage in social knowledge construction. PBL encourages learners to take a place in the academic world through inquiring and discovery <sup>4</sup>.

Learning is driven by challenging, open-ended, ill defined and ill-structured problems, group dynamics are essential component of PBL. Students generally work in collaborative groups; teachers take on the role as 'facilitators' of learning.

## Questionnaire

### Introduction of Problem Based Learning to IMS BHU: A Questionnaire Survey

- Which year student you are/ which subject teacher are you?
- Age group
  - 20-30
  - 30-40
  - 40-50
  - 50-60
- Sex:
  - Male
  - Female
- Do you know what PBL is?
- If yes then what is PBL?
- If no, then please read the article attached with this questionnaire.
- Did it generate any interest in you as a Student/Teacher?
- Do you think it is a better way of teaching/learning?
- If yes then why?
- Can it be introduced to our Institute of Medical Sciences, BHU?
- If yes then how?
- Would you like to participate in it (as a Teacher/Student)?
- Should we introduce it to the junior section or senior section?
- Should we introduce it for just one subject or more?
- Description of problem based learning: Please read the attached article.
- Any Comments:

## REFERENCES

1. Boud D, Feletti GI, *The Challenge of Problem-Based Learning*, 2<sup>nd</sup> Ed. London: Kogan Page Ltd., 1997.
2. Koh GC, Khoo HE, Wong ML, The Effects of Problem-based learning during medical school on physician competency: a systemic review. *CMAJ* 2008; 178(1):34-41.
3. Loyens S, Magda J, Rikers R, (2008). Self -directed learning in Problem based learning and its relationships with self regulated learning. *Educational psychological review*, 20 (4), 411-427.
4. Severiens S, Schmidt H (2009), Academic and social integration and study progress in problem based learning. *Higher Education*, 58 (1), 59-69.