Introduction to PBL at Hull York Medical School - Transcript

Intro headshots of people giving opinions of PBL

Person 1 (Staff): “PBL is just an excuse for lecturers to not prepare anything.”

Person 2 (Student): “PBL really makes students learn to find out things for themselves. But how do I know how much to learn?”

Person 3 (Staff): “Isn’t Problem-based learning students deciding on whatever topics to read about that interest them. They may end up not knowing any of the basics.”

What is PBL at HYMS really like?

There are many opinions about Problem-Based Learning. In this short presentation, we present the model of PBL from Hull York Medical School and explain what happens throughout the process.

Problem-Based Learning starts with a group of students and a PBL facilitator.

The Facilitator

In HYMS, all the PBL facilitators are clinicians. However, the facilitator is not there as a ‘teacher’, but to promote group discussion, create a healthy environment that allows all members to contribute, provide feedback and monitor the group’s progress. The facilitators are also important role models and can contribute personal clinical experiences to motivate students and to help them understand the relevance of what they are learning. In addition the HYMS PBL tutors are clinical skills tutors and personal supervisors for the students in their PBL group. Each group works with the same PBL and clinical skills tutor for a whole academic year.

The Chair

The other roles in the PBL group are taken by the students, in rotation through the term.

The Chair is responsible for agreeing group processes, introducing the case to the group, inviting participation and ensuring all members are contributing. They also ensure that all areas are covered and oversee timekeeping.

In addition it is their role to monitor and comment on performance at the end of the session and promote discussion regarding any problems.

The Scribe

The scribe is responsible for recording an account of the group discussion while also participating. It is an important skill to develop as it requires recording ideas as accurately as possible, organising emerging information, and summarising learning outcomes at the end of the session. The chair must help maintain the pace of discussion at a rate that allows the scribe to capture the main points accurately.
The Other members

The other group members are all responsible for the success of the group, respecting the roles of the others and contributing ideas. Teamwork and conflict resolution are important skills that are developed among the whole group.

So – now that the roles of the PBL group are decided, what does the process of PBL look like?

There are seven stages in the HYMS PBL process. The first five stages occur in the same session.

Stage 1: Read the case and identify key words

In this first stage, the students read the case through carefully, identifying key words and clarifying unfamiliar terms. This helps to engage all members of the group and to focus them on the task, starting the learning process and encouraging clarity in the use of language.

[Student reads problem out...]

The scribe records the key words and the group then moves on to Stage 2, defining the problem.

Stage 2: Define the Problem

A problem in this sense is anything relevant to the care of the patient. This will include social or psychological issues as much as biomedical ones. The group defines the problems, including any topic that could be an issue, whether physiological, psychological or social. This serves to define the task ahead, to encourage deeper thought and to provide a framework for the rest of the discussion. The scribe records these topics and the group moves on to Stage 3:

Stage 3: Brainstorm possible explanations

In Stage 3, brainstorming possible explanations, the goal is not to ‘solve’ the case. Rather, the members share their existing knowledge and identify areas needing further exploration. The goal is to understand the basic sciences and other key issues raised by this particular case. All members of the group should contribute what they already know in some detail. Often, groups will draw a ‘mind map’ or ‘spider diagram’ at this point.

This sharing is a vital part of the PBL process and aims to encourage deeper learning by building on previous knowledge.

Once the group has shared what they know about the topics, they return to the case and compare their explanations to see if they match the problem and whether the group has missed any key issues.

Stage 4: Arrange into possible solutions

In Stage 4, the students work together to arrange their explanations into possible solutions. Here the students identify areas that they think are relevant to this case and derive preliminary hypotheses to
explain the material they have been presented with. The scribe reflects this in the development of the mind map.

Stage 5: Defining the Learning Objectives
The group agrees on a set of focussed learning objectives for the coming week. This is where the facilitator may need to steer groups to define specific outcomes, making sure they are not too broad to be achieved. The learning objectives cover both knowledge and skills that students will work on during the week. This is also a time to identify key resources for self-directed learning.

Some learning objectives that the students come up with may be peripheral or too advanced for their current level. The facilitator can help them to identify ‘secondary’ outcomes which can be explored by those who are interested, and ‘deferred’ outcomes that can be put off for the time being.

At this point, the first PBL session is almost complete. The Chair summarises the session and makes sure there are no questions. In addition, the chair should invite comment on the group process and encourage the members of the group to explore any areas of concern. Then the group is finished for the day!

Stage 6: Self-directed learning
Now the hard work begins! Stage 6, self-directed learning, is aimed at covering the learning objectives and all students must study all of the outcomes. This does not mean that the students are sent off alone.

HYMS provides extensive resources and activities to help students in achieving the learning outcomes. These include plenaries, biopracticals, and library and computer based resources.

Also, each week, students have clinical skills linked to the PBL cases and, in the final session of the week they see real patients, drawing together all of the learning from the week.

Stage 7: Sharing learning
At the end of the week, having used all the resources for learning, the PBL group reconvenes. This final session brings us to the last stage of the PBL process.
Stage 7 – Sharing the results of the learning that has gone on during the week. This is a very important session and serves several purposes. Individual knowledge is consolidated by articulating it to others. Group members assist each other in elaborating important concepts by hearing several perspectives on the same topic. Misconceptions are discussed and corrected and new questions may occur that require further learning. Students use many different approaches in these sessions, drawing diagrams, discussing difficult areas and using models and other resources to explain what they have learned.

[Converging montage of students and resources]

This completes one cycle of Problem-based learning. As we have seen, Problem-Based Learning at Hull York Medical School is one important part of a larger, complex learning environment. Because the curriculum is designed as a whole, all the activities undertaken by the students reinforce the learning objectives generated through PBL. In this way, HYMS ensures that students are well-prepared with the knowledge and skills needed to progress to the clinical environments in Year 3.

Outro headshots of people giving opinions of PBL

Person 1 (Staff): “PBL requires a great deal of input from the staff to design a coherent experience. Students have to work hard, but they know that they are accomplishing what is expected.”

Person 2 (Student): “PBL encourages students to take responsibility for their learning, but with a lot of well-thought out support and resources provided by HYMS.”

Person 3 (Staff): “PBL integrates the basic science with the context of why it is important in medicine. This gives the students something to hang the science on and really make it relevant.”

Credits roll