

So you want to be a Case Based Learning Facilitator

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Accepted

What is Case Based Learning (CBL)?

At its heart, CBL is simply the use of clinical cases to aid teaching¹. The familiar words of Sir William Osler remind us that “medicine is learned by the bedside and not in the classroom”² and most readers will recall with clarity some of the memorable lessons they learned as a medical student by being directly involved in a real patient’s case, often years after the learning event took place.

Undergraduate medical curricula were traditionally designed using models that saw students study topics related to medicine in their ‘pre-clinical’ years, prior to being exposed to patients in the latter years of the course. The concept sought to teach students how the healthy body worked before moving on to look at disease. In the late 1990s, many medical schools moved towards newer models which sought to expose students to patients earlier in their studies³. In many institutions however, there remained a disconnect between classroom-based learning of basic sciences and related disciplines, and clinical teaching. Using clinical cases to help students learn this ‘pre-clinical’ information was often done in an ad hoc manner with occasional tutorials being used to highlight the real-world applicability of what had been taught.

Problem-based learning (PBL) has been used as a teaching tool in many medical schools. PBL exposes students to ‘problems’ which they attempt to solve by exploring a topic in depth. Studies have shown that graduates from PBL courses may develop enhanced skills in problem solving, self-directed learning and other skills that will serve them well in their careers⁴. In PBL, students generally tackle issues in groups and explore topics of their choosing as they see fit, but they can waste time ‘going off on a tangent’ and may fail to maximise on the learning available⁵.

CBL utilises a guided inquiry method to help students get the most from their learning experiences⁵. Groups of students are joined by a facilitator during CBL sessions. The main role of the facilitator is to monitor discussions and keep the students on-track, ensuring that they consider the key topics during their discussions. CBL employs discrete learning outcomes to focus study and enhance learning¹.

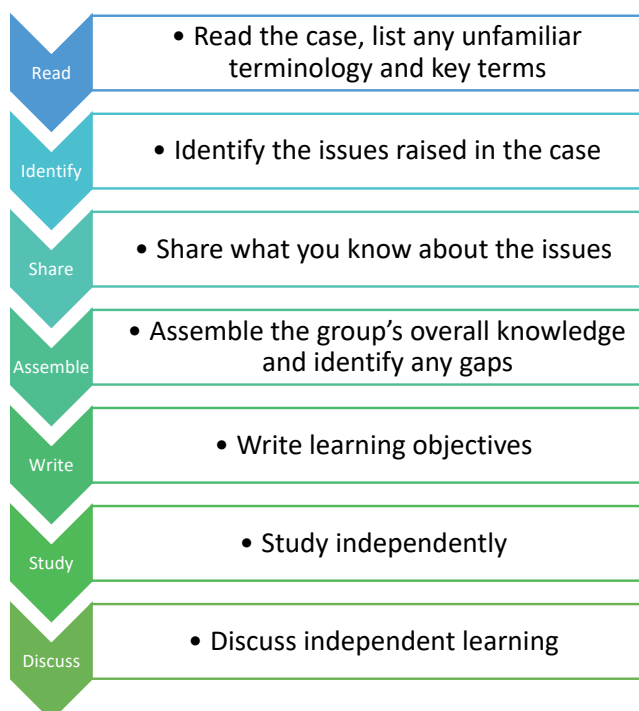
CBL at Queen’s University Belfast

A completely new undergraduate medical curriculum began in Queen’s University Belfast in September 2020. CBL forms the framework for the first two years of the course (the focus of this article) but will also be used extensively in later years also. During their first two years of study, students spend two weeks on each of 23 cases. These cases have been carefully crafted to expose students to a range of simulated patients all of whom have a range of issues. Cases have been written to help students contextualise their learning, to aid recall, and to improve the integration of the curriculum.

When it comes to the time when students study the cardiovascular system, for example, they study two cases sequentially. The characters in these cases have problems relating to this body system and, as the students listen to lectures, participate in tutorials and practical classes, and learn clinical skills, they should consider how what they are studying applies to the case in question. The cases therefore act as the curricular ‘skeleton’ off which all other learning opportunities hang. They bring a patient, albeit a virtual one, to the centre of the students’ learning.

How does it all work?

Each case runs over a two-week period and students meet with their facilitator three times for a two hour session. COVID-19 restrictions mean that CBL is currently being delivered remotely, but this is likely to change in the future. The ‘story’ of the case unfolds over the first two sessions and students approach these sessions in a structured way as shown in the figure below.



What learning do students get from CBL?

In addition to learning topics that come readily to mind when thinking about an early stage medical student (e.g. anatomy and physiology), cases are designed to be rich learning opportunities pulling in a range of topics for consideration. The characters are from diverse backgrounds, different social classes and with psychological and behavioural issues to consider as well as physical. Cases afford students the opportunity to consider several ethical dilemmas and matters of professionalism. 'Skill builders' are integrated into cases to develop competency in radiological and laboratory results interpretation, physiological test result interpretation e.g. electrocardiograms, and prescribing.

Furthermore, students learn how to work in teams, how to chair meetings, how to allocate tasks and form group contracts. They discover how to identify gaps in their knowledge, how to ask good questions and how to interrogate the literature to answer those questions. CBL sets students up for professional focused inquiry as they begin their journey of lifelong learning.

How has CBL been received?

CBL is now into its second year and feedback to date has been very pleasing. Students seem to enjoy it as do facilitators. New facilitators are generally struck at how well students cope with the cases, how autonomous the groups become and how little input from the facilitator is generally required.

How can I get involved?

If you are interested in hearing more about becoming a facilitator, please contact the author of this article. CBL requires a large number of enthusiastic facilitators to run successfully. Students work in groups of up to ten persons, so 32 facilitators are required for each case. Generic training will be provided, followed by case-specific training. Each case is supported by a detailed handbook for facilitators as well as a brief and debrief session. You do not need to be an expert on the topics that a particular case covers – in fact this may be a disadvantage. You are not there to teach, but rather to guide the students as they explore the material.

Final thought

One wonders what Sir William would make of CBL. He likened studying medicine without seeing patients to a sailor not taking to the sea. Hopefully he would have viewed CBL as a way of training future doctors to sail in safe, calm waters before being released into the ocean.

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