## **Evaluation of Problem-based Learning: Straight from the horse's mouth**

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## **Abstract:**

Problem-based learning (PBL) was adopted as an educational approach in the undergraduate medical curriculum of Melaka Manipal Medical College (MMMC), Manipal University, India in the year 2006. Evaluating the effectiveness of a complex educational process like PBL would require prudent techniques that elicit honest and unbiased feedback from leaners. The main objective of this study was to use student debates to gather responses from principal stakeholders that would have ramifications in the future design and implementation of PBL.

Keywords: PBL, Evaluation, student's debate

Problem-based learning (PBL) was adopted as an educational approach in the undergraduate medical curriculum of Melaka Manipal Medical College (MMMC), Manipal University, India in the year 2006. Evaluating the effectiveness of a complex educational process like PBL would require prudent techniques that elicit honest and unbiased feedback from leaners. The main objective of this study was to use student debates to gather responses from principal stakeholders that would have ramifications in the future design and implementation of PBL. As a part of the annual cultural competitions, an inter-batch debate competition was organized with the topic "PBL promotes learning in our medical school". The idea was to make a platform available for students from all the five batches across the medical school to collate their opinions and stories on the influence of PBL on student learning. A strategy of this sort was adopted to provide a safe environment for students to express themselves about their perceptions on PBL process and its effect on student learning. This would help faculty generate meaningful data that could be analyzed to evaluate the process of PBL for subsequent refinement and revisions at our institute. Students were given one day in order to brainstorm and generate ideas within their batches. Two members from each batch were nominated by their batch mates who represented the respective batches in the debate. One member had to speak for the theme specified while the other member had to speak against the theme. The student representatives presented their views in an open forum which was assessed by a panel of three judges. The entire process was documented.

Students who defended PBL as an effective learning strategy claimed that the approach enhanced

learning by enabling them think critically. By listening to and respecting others' ideas, the approach had provided ample scope for teamwork and improved their affective and leadership skills. The "problems" prompted them go to the library and do self-study which improved their readiness to carry out self-directed learning. The cases also provided them with necessary clinical orientation and made learning relevant and contextual. On the other hand students who spoke against PBL cited that brainstorming sessions were extremely stressful for students who were introverts and with poor communication skills. Too many resources to refer was considered a hindrance to learning by some whereas insufficient preparation time was an issue for others. A participant commented that the sessions did not give enough time for inquisitive minds to ask challenging questions. It was also opined that when regurgitated students memorized and recommended books, it simply promoted rote learning.

## **Conclusion:**

For students, the debates provided an opportunity to reflect on the PBL process and forced them think critically and share their perceptions without any inhibition, which they would have never done otherwise. For faculty and administrators involved, this was an unconventional yet reliable way of obtaining feedback that would help them refine the approach to derive desirable outcomes.

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