

Differences between Lecture-, Case-, and Problem- Based learning methods

	LECTURE-BASED	CASE-BASED	PROBLEM-BASED
"The tool"	Instructive	Guided Inquiry	Open Inquiry
Curriculum	Teacher based	Teacher and Learner based	Learner based
"The focus"	Teacher's knowledge	The "case"	The "problem"
The "learning"	Passive (active components can be included)	Active	Active
Control of learning	Teacher	Shared between teacher and learner	Learner (teacher provides no direction)
Advanced preparation	Yes –Teacher No - Learner	Yes – Teacher Yes - Learner	Yes – Teacher No - Learner
Content disclosed	Yes –Teacher Yes – Learner (general)	Yes – Teacher (detailed) Yes – Learner (general)	Yes – Teacher (detailed) No – Learner
Data seeking	Yes- Teacher No – Learner	Yes – Teacher Yes - Learner	No –Teacher Yes – Learner
Structured	Structured	Semi-structured	No structure (open ended)
Feedback to learner	No	Yes	No
Key points	Teacher driven learning	Shared responsibility of teacher and learner for coming to closure on important learning points Learners apply new learning to a case after previous knowledge acquisition	Focuses on the process of discovery by learners, facilitators play minimal role even when learners explore tangents Learner identifies and pursues own learning needs and then reapplies what they have learned to the problem
Advantages	<ul style="list-style-type: none"> • Efficient • Can provide large volume of information 	<ul style="list-style-type: none"> • Efficient • More practical with busy schedule • Promotes higher order thinking with advanced preparation and guidance • Less aggressive learners get more involved • Encourages teamwork 	<ul style="list-style-type: none"> • Promotes lifelong learning (i.e. self directed learning, metacognitive skills) • Explores tangents (i.e. social and humanism issues) • Encourages scientific curiosity • Encourages teamwork
Disadvantages	<ul style="list-style-type: none"> • Learner interaction more difficult • More difficult to encourage higher order thinking • Stifles curiosity 	<ul style="list-style-type: none"> • Less exploration of tangents and scientific curiosity 	<ul style="list-style-type: none"> • Less Efficient – data seeking required during/after session • Tangents may seem like "busy work" to learners • Aggressive learners dominate

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References:

Shreeve MW. Beyond the Didactic Classroom: Educational Models to Encourage Active Student Involvement in Learning. J Chiropr Educ 2008; 22(1):23–28.

Srinivasan M, Wilkes M, Stevenson F, Nguyen T, & Slavin S. Comparing Problem-Based Learning with Case-Based Learning: Effects of a Major Curricular Shift at Two Institutions. Acad Med. 2007; 82:74–82.