

Article

# Analysis of patient information and differential diagnosis with clinical reasoning in pre-clinical medical students

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## Supplementary file

Table S1. Learning organization and data collection in the short interactive workshop

Step	Mini-lecture topics	Small-group learning	Assessment
Day1			
1			Pre-intervention assessment: <ul style="list-style-type: none"> <li>• A one-vignette test</li> <li>• A survey on self-evaluated CR skills</li> </ul>
2	The process of clinical reasoning using dual-process theory	Participants summarized what they had learned in the given papers. And they presented it in front of the class.	
3	The methods of analyzing patients' information, generating illness scripts, and defining a problem list	Each group received two clinical scenarios and was instructed to: <ul style="list-style-type: none"> <li>• Summarize pertinent subjective and objective data</li> <li>• Generate illness scripts</li> <li>• Define a problem list</li> </ul> Following this, the instructor provided constructive feedback.	
4	The construction of a differential diagnosis using diagnostic frameworks	Participants were tasked with creating a differential diagnosis based on provided scenarios, after which the instructor offered constructive feedback.	
5	Contrasting competing illness scripts and a contrastive learning strategy to establish the most likely diagnosis	After selecting four potential diseases to explain the clinical manifestations, the participants filled out a table comparing variables such as epidemiology, time course, syndrome statement, mechanism, and investigation. This exercise helped them distinguish between diseases and identify key features. Using a contrastive	

		learning strategy, they then determined the most likely diagnosis and presented their findings to the class, followed by constructive feedback from the instructor.	
<b>Day2</b>			
6	How to apply CR in PBL?	Participants suggested methods for applying CR in PBL and presented their ideas to the class.	
7	How can we effectively raise background and foreground questions during the PBL process?	Each group was given three scenarios and instructed to formulate questions based on them. They then presented their questions to the class, after which the instructor provided constructive feedback.	
8			Post-intervention assessment: <ul style="list-style-type: none"> <li>• A one-vignette test</li> <li>• A survey on self-evaluated CR skills</li> <li>• A survey on perspectives on CR</li> </ul>

Note. CR, clinical reasoning; PBL, problem-based learning