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A Qualitative Study on Metacognitive Patterns among High and Low Performance Problem Based on Learning Groups

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Abstract : Metacognitive has been empirically evidenced to be one important element influencing learning outcomes. Expert learners engage in metacognition by monitoring and controlling their thinking, and listing, considering and selecting the best strategies to achieve desired goals. Studies also found that good critical thinkers engage in more metacognition and people tend to activate more metacognition when solving complex problems. This study extends past studies by performing a qualitative analysis to understand metacognitive patterns among two high and two low performing groups by carefully examining video and audio records taken during Problem-based learning activities. High performing groups are groups with majority members scored well in Watson Glaser II Critical Thinking Appraisal (WGCTA II) and academic achievement tests. Low performing groups are groups with majority members fail to perform in the two tests. Audio records are transcribed and analyzed using schemas adopted from past studies. Metacognitive statements are analyzed using three stages model and patterns of metacognitive are described by contexts, components, and levels for each high and low performing groups.

Keywords: academic achievement, critical thinking, metacognitive, problem-based learning

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