

Orkaew Duanupara 2012: Problem-Based Learning Approach to the Critical Thinking for Grade 8 Students. Master of Education (Science Education), Major Field: Science Education, Department of Education. Thesis Advisor: Assistant Professor Sumalee Kanjanachatrie, Ed.D. 131 pages.

The purpose of this research were to study the critical thinking ability of grade 8 students before and after learning with the problem based learning approach and to study the technique of problem based learning approach to enhance the critical thinking ability of grade 8 students. This research was the case study method. The subjects were a group of 28 students in the first semester of academic year 2011 in the small school under Office of the secondary school of the 25 area, were taught by the problem based learning approach on body system which consists of 4 steps: The planning, The examining, The presentation and the conclusion and The conclusion and the evaluation. The research instruments were: critical thinking ability test, teacher's note, worksheets and student's journal. The data on the critical thinking were analyzed by content analysis and grouped the answer into 4 groups; 1) relevant to the answer 2) irrelevant to the answer 3) copying some parts from the giving situation and 4) relevant to the answer but no extending the contents. The answer of each group both before and after learning with the problem based learning approach were calculated in frequency and percentage. The data on problem based learning technique were analyzed by content analysis form the student's journal and teacher's note.

The results indicated that : 1) The learning activities with the problem based learning approach successfully develop the critical thinking ability of the students. It was found that before learning with the problem based learning approach, most of the students were in group of relevant to the answer on the problem definition, the assumption and the evaluation. The data on the information gathering and the conclusion It was found that most of the students were in group of irrelevant to the answer. On the other hand, after learning with problem based learning approach, it was found that most of the students reached higher in critical thinking ability and were in the group of relevant to the answer in all indicators of critical thinking abilities. 2) The two techniques on four steps in the problem based learning approach : 1) Let the students brainstorm and share ideas 2) Let the students answer questions. For The planning, The examining and The conclusion and the evaluation making inquiries planning is another technique to be added for the students.

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Student's signature

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Thesis Advisor's signature