

Jiranan Puengklan 2012: Effects of Problem Based Learning Activities on Ability in Solving Mathematical Problems of Mathayomsuksa Three Students at Bankhai School, Changwat Rayong. Master of Education (Teaching Mathematics), Major Field: Teaching Mathematics, Department of Education. Thesis Advisor: Assistant Professor Chanon Chuntra, Ph.D. 184 pages.

The purposes of this research were 1) to study effects of problem based learning activities occurred to mathayomsuksa three students' ability in solving mathematical problems and team - working skills and 2) to study mathayomsuksa three students' opinion related to problem based learning activities.

The sample group was 50 mathayomsuksa three students of one classroom at Bankhai School, Changwat Rayong in the second semester of the academic year 2011 that was selected by cluster random sampling from 8 classrooms. The instruments in data collection consisted of 5 lesson plans by using problem based learning, the ability in solving mathematical problems tests, the evaluation forms of team - working skills, an evaluation forms of the appropriateness of problems used in learning activities, and students' opinion questionnaire toward problem based learning activities. Percentage, mean, standard deviation, and t-test were used for analyzing data.

The research findings revealed that the ability in solving mathematical problems of mathayomsuksa three students that learnt by using problem based learning activities after learning was higher than before learning and was higher than 60% at the .05 level of significance. The students had team - working skills at the moderate level and almost all students agreed that the problem based learning activities were appropriate.

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Student's signature

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Thesis Advisor's signature