

Chanya Uthit 2014: Effects of Organizing Learning Activities on “Linear Programming” Supplementing Mathematical Skills and Processes by Using The GeoGebra for Mathayomsuksa Six Students at Samutsakhonburana School, Changwat Samut Sakhon. Master of Education (Teaching Mathematics), Major Field: Teaching Mathematics, Department of Education. Thesis Advisor: Assistant Professor Chanisavara Lertamornpong, Ph.D. 143 pages.

The purposes of this research were 1) to study students’ mathematics learning achievement on “Linear Programming” by using learning activity supplementing mathematical skills and processes and using The GeoGebra, 2) to study students’ behavior on mathematical skills and processes, and 3) to study students’ opinion related to learning activities on the “Linear Programming” by using activity supplementing mathematical skills and processes and using The GeoGebra for mathayomsuksa six students at Samutsakhonburana School, Changwat Samut Sakhon.

The sample was 48 mathayomsuksa six students in the second semester of the academic year 2013 at Samutsakhonburana School, Changwat Samut Sakhon. This sample was selected by cluster random sampling from ten classrooms. The research instruments were 10 lesson plans, the 17 items of mathematics learning achievement test, students’ observation scale for behavior reflecting mathematical skills and processes, and students’ questionnaire toward learning activities on the “Linear Programming” supplementing mathematical skills and processes and using The GeoGebra. The data were analyzed by the percentage, mean, standard deviation, and t-test.

The research finding revealed that 1) mathematics learning achievement of mathayomsuksa six students on “Linear Programming” by using learning activity supplementing mathematical skills and processes and using The GeoGebra after learning was higher than before learning and was higher than 60% at .01 level of significance, 2) students had the ability on problem solving, reasoning, communication presentation of mathematical concepts, linking various bodies of mathematical knowledge and linking mathematics with other disciplines, and 3) almost students agreed that the learning activities on the “Linear Programming” by using activity supplementing mathematical skills and processes and using The GeoGebra were appropriate.

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Student’s signature

Thesis Advisor’s signature