

Sarinya Phooban 2010: A Study of Mathematics Learning Achievement on “Applications of Linear Equations with One Variable” by Using Mathematics Problem Solving and Problem Posing of Mathayomsuksa Two Students at Benjarachanusorn School, Changwat Nonthaburi. Master of Education (Teaching Mathematics), Major Field: Teaching Mathematics, Department of Education. Thesis Advisor: Associate Professor Siriporn Thipkong, Ed.D. 174 pages.

The purposes of this research were 1) to study students’ mathematics learning achievement on “Applications of Linear Equations with One Variable”, 2) to study students’ ability in solving mathematics problems on “Applications of Linear Equations with One Variable”, and 3) to study students’ ability in posing mathematics problems on “Applications of Linear Equations with One Variable” of mathayomsuksa two students at Benjarachanusorn School, Changwat Nonthaburi.

The population was 544 mathayomsuksa two students of 12 classrooms at Benjarachanusorn School in the second semester of the academic year 2009. The sample group was 46 mathayomsuksa two students of one classroom at Benjarachanusorn School in the second semester of the academic year 2009 that was selected by cluster random sampling from 12 classrooms. The instruments in data collection consisted of 12 lesson plans on “Applications of Linear Equations with One Variable”, mathematics learning achievement test, and the ability test on solving and posing mathematical problems. Percentage, mean, standard deviation, t-test were used for analyzing data and presented by tables and charts with their corresponding descriptions.

The research findings revealed that 1) the mathematics learning achievement after learning was higher than before learning at the .05 level of significance, 2) the mathematics learning achievement after learning was higher than 60% at the .05 level of significance, and 3) the students had the solving problem abilities in all 4 ways: understanding the problems, devising a plan, carrying out the plan, and looking back with the total average of the “moderate” level and the students had the posing problem abilities with the total average of the “fair” level.

---

Student’s signature

---

Thesis Advisor’s signature