

ผลการวิจัยพบว่า กิจกรรมการเรียนรู้แบบร่วมมือโดยใช้แบบฝึกเสริมทักษะ
คณิตศาสตร์ เรื่อง เศษส่วนและ โจทย์ปัญหาเศษส่วน ชั้นประถมศึกษาปีที่ 6 ที่พัฒนาขึ้นมี
ประสิทธิภาพเท่ากับ 85.42/84.17 ซึ่งสูงกว่าเกณฑ์ที่ตั้งไว้ มีค่าดัชนีประสิทธิผลเท่ากับ 0.70
แสดงว่านักเรียนมีความรู้เพิ่มขึ้นจากก่อนเรียน ร้อยละ 70 และนักเรียนมีความพึงพอใจใน
กิจกรรมการเรียนรู้แบบร่วมมือโดยใช้แบบฝึกทักษะคณิตศาสตร์ เรื่อง เศษส่วนและ โจทย์
ปัญหาเศษส่วน อยู่ในระดับมาก ($\bar{X} = 3.88$)



มหาวิทยาลัยราชภัฏมหาสารคาม
RAJABHAT MAHASARAKHAM UNIVERSITY

Title : The Outcomes of Organization of Collaborative Learning Activities by Using Mathematics Skill Development Exercises Entitled Fractions and Fraction Problems for Prathomsueksa 6

Author : Ployrawee Anusorn **Degree :** M.Ed. (Mathematics Education)

Advisors : Asst. Prof. Acting Sub-lt. Dr.Arun Suikraduang Chairman
Assoc. Prof. Dr.Somsong Suwapanich Committee

Rajabhat Maha Sarakham University, 2010

Abstract

This study aimed to construct and find out an efficiency of collaborative learning activities by using mathematics skill development exercises entitled Fractions and Fraction Problems for Prathomsueksa (grade) 6 to have an efficiency of 80/80, to find out an effectiveness index of the collaborative learning activities by using mathematics skill development exercises entitled Fractions and Fraction Problems for Prathomsueksa 6, and to examine Prathomsueksa 6 students satisfaction with the collaborative learning activities by using mathematics skill development exercises entitled Fractions and Fraction Problems. The sample used in the study consisted of 12 Prathomsueksa 6 students at Kamkhamwittaya School, Amphoe Nongkungsri, under the Office of Kalasin Educational Service Area Zone 2 in the second semester of the academic year 2009. The experiment duration was 22 days, 1 hour each. The instruments used in the study were : plans for organization of collaborative learning activities by using mathematics skill development exercises entitled Fractions and Fraction Problems; 4 sets of quizzes while learning, 10 items each, with a total of 40 items entitled Fractions and Fraction Problems for test after learning each content and they were 4 choice quizzes; a 30-item, 4 choice achievement test with discriminating power ranging from 0.22 – 0.78 an a reliability of 0.87; and a questionnaire on student's satisfaction with collaborative learning activities by using mathematics skill

development exercises. The statistics used for analyzing the collected data were percentage, mean, standard deviation and comparing value with the established requirements.

The results of the study revealed that the developed collaborative learning activities by using mathematics skill development exercises entitled Fractions and Fraction Problems for Prathomsueksa 6 had an efficiency of 85.42/84.17 which was higher than the established requirement, had an effectiveness index of 0.70, showing that the students increased their knowledge from before learning at 70 ; and the students showed their satisfaction with the collaborative learning activities by using mathematics skill development exercises entitled Fractions and Fraction Problems at a high level ($\bar{X} = 3.88$).



มหาวิทยาลัยราชภัฏมหาสารคาม
RAJABHAT MAHASARAKHAM UNIVERSITY