

Malai Kuakit 2009: The Construction of Promotion Skill Exercise Processes of Polya for Developing of Achievement Mathematics on Problem Solving Skills of Students in Prathom Suksa 3. Master of Education (Educational Research and Evaluation), Major Field: Educational Research and Evaluation, Department of Education. Thesis Advisor: Mrs. Suntara Tobua, Ed.D. 217 pages.

The objectives of this research were to construct of promotion skill exercise processes of Polya for Prathom Suksa 3 students at Peiing School and study student achievement on problem solving skills. The research design was quasi experimental study which one group pretest posttest design. The subjects were 30 Prathom Suksa Primary School students in the second semester, academic year 2009 at Peiing School, Sampantawong District, Bangkok Metropolis. The experiment was done during enrichment hour of the day within 2 weeks, with 8 teaching periods of 50 minutes each. The research instruments were exercise processes of Polya and a set of achievement tests on problem solving skills of mathematics. Percentage, mean, standard deviation and t-test for paired-samples test were used in data analysis and hypothesis testing.

The results of this study revealed the following. (1) The efficiency of exercise processes of Polya was 85.08/ 87.43 which was higher than the hypothetical criteria of 80/80. (2) The effectiveness index of exercise processes of Polya was 0.75 (3) The ability in problem solving skills after practicing was significantly higher than that of the students before practicing at the statistical level of .01

---

Student's signature

---

Thesis Advisor's signature

\_\_\_ / \_\_\_ / \_\_\_