

VAREE SRIPUENG : A COMPARISON OF THE ABILITY TO SOLVE EQUATION PROBLEMS OF MATHAYOM SUKSA THREE STUDENTS BETWEEN GROUPS BELIEVING IN INTERNAL AND EXTERNAL CONTROL : ASST. PROF. SUWATTANA UTAIRAT, Ph.D. 152 PP. ISBN 974-578-948-8

The purposes of this research were to study the ability to solve equation problems in each step and compare the ability to solve equation problems of mathayom suksa three students between groups believing in internal and external control. The subjects were 434 mathayom suksa three students of the 1990 academic year, General Education Department, Bangkok Metropolis, they were multi-stage stratified random sampled. They were divided into two groups : 252 students believing in internal control and 182 students believing in external control.

They were two research instruments. One was the internal-external control questionnaire which adapted by the researcher from the Intellectual Achievement Responsibility which had the reliability of 0.85. The other was the equation problem-solving ability test which was divided into four steps : understanding problems, using variable to represent the unknown, writing equation to show the relationship as given in the problems and solving equation to find correct answers from problems. The multiple choice test which had the reliability of 0.76 was constructed by the researcher. The researcher administered the questionnaires and the tests to the samples. The obtained data were analysed by means of percentage of the scores of equation problem-solving ability between groups believing internal and external control in each step. Then the mean scores of equation problem-solving ability of students who believed in internal and external control were compared by t-test.

The findings of this research were as follows :

1. The equation problem-solving ability of believing in internal control students were higher than believing in external control students in every step. The two groups had the ability in understanding problems, writing equation, solving equation to find correct answers from problems and using variable to represent the unknown respectively.

2. The scores of the ability to solve equation problems of students who believed in internal and external control were not different at the 0.05 level of significance.